

ABSTRACT

Currently, all companies' vision is to maximize the profit by gaining the customer satisfaction and customer loyalty. Using CRM Tracking System in Database and Web, the company can easily retrieve useful and necessary information. This project aims to track and update the business performance of customer, from that continuously push and manage their business with the company. Moreover, the system can evaluate how close relationship with customer is, so that the company can design more suitable strategy and program for different customer group. And CRM Tracking System in Database and Web also aims to consolidate customer information from various sources, for example, sales department, marketing department, business partner department, etc...

For the time being, it causes a lot of troubles if a person wants to know about those information; for example, they do not know the full contact information of customer, how active the relationship with the customer is, which wastes time and effort. With the help from technology, CRM Tracking System in Database and Web is a useful tool to tackle that problem. Using its search engine, a user can find any information regarding the categories such as active customer, inactive customer, event, interest sector and certificate. Within the scope of this project, the system is developed focusing on Sales Department at IBM Vietnam.

In general, to develop the system, a methodology of prototyping is chosen. This methodology will perform the analysis, design, and implementation phase concurrently, and all three phases are performed repeatedly in a cycle until the system is completed. Other tools and mechanisms for researching and gathering information as well as developing the system will be used such as: questionnaires, programming languages and open source code

CERTIFICATION OF APPROVAL

CRM Tracking System in Database and Web

By

LE THI THUY

A project dissertation submitted to the

Computer and Information Science Programme

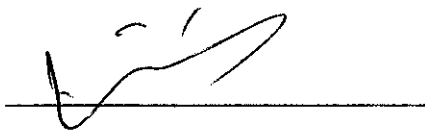
Universiti Teknologi PETRONAS

in partial fulfillment of the requirement for the

BACHELOR OF TECHNOLOGY (Hons)

(BUSINESS AND INFORMATION SYSTEMS)

Approved by,



(Assoc. Prof. Dr. P.D.D Dominic)

DR. P. D. D. DOMINIC
Associate Professor
Computer & Information Sciences Department
Universiti Teknologi PETRONAS
Bandar Seri Iskandar, 31750 Tronoh
Perak Darul Ridzuan, MALAYSIA

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Perak Darul Ridzuan, MALAYSIA

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CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.



LE THI THUY

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CHAPTER 1

INTRODUCTION

In this chapter, the situation where a gap exists between the actual and the desired ideal state occurring in the Sales department at IBM Vietnam is discussed. From that the new system with necessary functions as well as scope and limitation of this project are proposed.

1.1 Problem Statement

Customer Relationship Management (CRM) is implemented in a wide variety of commercial context, which helps organization to grow revenue, increase customer satisfaction and cut cost by improving the sales process. Kenneth C.Laudon and Jane P.Laudon in their book *Management Information Systems*, 2009 showed the close relationship between marketing, sales and service function in sharing customer data in the following figure.

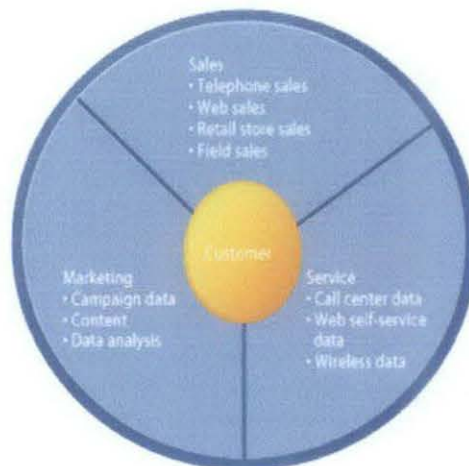


Figure 1: Collaboration between Sales, Marketing and Service

In order to make use of the customer data in the organization, experts are working to analyse the CRM. Tracking CRM has been recognized as an essential component of

a proactively managed organization. Analysing CRM can help the organization in designing different selling strategies and program for different customer level. Take an instance, low value customer can be touched by email, telesales and potential customer is touched by face-to-face visiting. Thus, CRM tracking can increase customer satisfaction and offer more effective selling program to enhance both the organization and customer value.

Obviously, the most ideal for practising CRM is in the organization where all customer-related data is stored, shared and applied. However, currently there are not many CRM Tracking systems which are widely used and useful for the organization employee. So this project will aim to develop a CRM application system to be used by organization which is CRM Tracking System in Web and Database.

1.2 Objective

- To consolidate customer data from many sources
- To track and update the business performance of customers to continuously push and manage their business with the company
- To evaluate the relationship of customer with the company, therefore company can design different program for different group of customer
- To provide a search engine so that the people in need can search customer information easily based on different categories.
- To enable the marketing, sales and service functions to be automated and integrated

1.3 Scope of Study

Within the boundary of this project, the system provides a database for the organization, which focuses in Sales Department at IBM Vietnam. In order to implement the system, the first thing is to collect the information about customer and conduct interview to see whether the system is useful for them. The first part of the project will be finished in 4 months, including identifying all the methodologies as well as tools to be used. The interface will also be designed. The second part focuses on implementing and testing the system until it is completed. It takes around 8

months to complete the project. Due to the limit of financial support, I will make use of free sources on Internet so that the cost occurred can be minimized.

1.4 Limitation of This Research

Due to time constraints, the project has some following limitations:

- Only some sectors of CRM are covered: sales, event and certificate.

For the future plan, other functions can be added: graph generation, service, customer issues, feedback and portfolio.

- Both web server and database server are locally hosted

1.5 Scope of Second Semester

The second semester is to design a fully functioning application and testing. An interview will be conducted to assess whether the system is good, normal or bad in terms of interfaces, content, list of categories, list of personal information and system functions.

Moreover it is important to compare other available system with to-be-system (CRM Tracking system in Web and Database) to see what the system needs to be improved.

CHAPTER 2

LITERATURE REVIEW

This project's main function is to track the customer data within the boundary of an organization, in specifically Sales Department. Using the system, the users (manager, staff in the department and other department in charge of) can find necessary customer information. For example, a manager wants to analyse a potential customer, he can search on the system to see how activeness the customer is based on sales report, hot lead, event attendance, etc. Or staffs can rank the customer by searching in the system in order to design different program for different customer group.

2.1 Customer Services

Nowadays with the changing business environment, the company needs to adapt quickly in the competition to get more revenue and one more important thing which is customer loyalty. In his research, Paul Greenberg emphasized that "the customer is king" since the beginning of time, thus the company usually gathers information about customer to predict customer behaviour and gain customer's satisfaction.

Each type of customer prefers different touch points, for example, some customer appreciate flyers while others want to update information via fax and email. In order for company provide customer services effectively, it's necessary to know as much relevant information about customer as possible, such as name, address, email, phone, interest sector, etc. This detailed information will be valuable in contacting customer to support them and build better company's image in the customer's mind.

Based on customer's data, the company can predict accurately the life's cycle of customer, customer behaviour, and make a decision on how to offer appropriate product and services to existing customer and how to segment them into group of similar behaviour. Moreover, by determine which customer should be treated as first-class service, economy-class service or business-class service, the company can save cost of customer support as well. But saving also comes from the effectiveness of customer services itself since it is the positive element that keep customer loyalty.

Applying to many organizations, there are a lot of research activities that have been done. However, that customer data is still not transparent so that not many people who are in need can find easily. If the customer data is not shared or analysed, it is just expired or out of date. The organization can not make use of these data in tracking and predicting customer trend in the future.

Now let's take a look at the primary purpose of the company which is gaining customer satisfaction. Customer satisfaction is the customer's overall feeling of contentment with a customer interaction. It recognises the difference between customer expectations and customer perceptions, a concept defined by Elaine K. Harris, 2007. In order to cultivate customer satisfaction, the company need to deeply understand who their customer, their needs and wants. A need is something that we cannot survive without them while a want is a something that make the need to be satisfied.

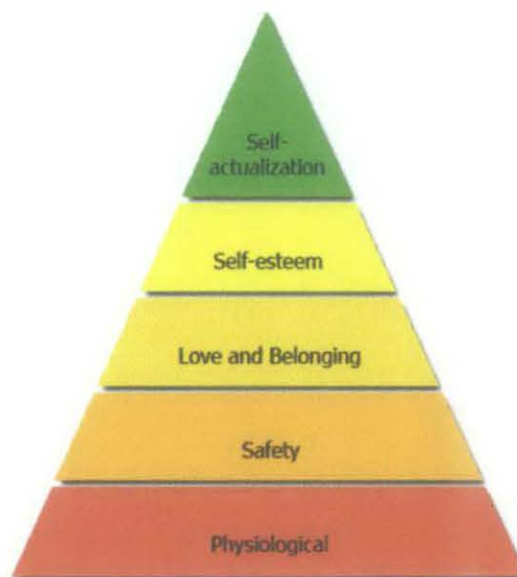


Figure 2: Maslow's hierarchy of needs

Abraham Maslow (1970) believed that needs are in the shape of a pyramid, with the largest and most fundamental needs at the bottom level. The above need is only satisfied when the one below is met.

Maslow emphasised that physiological needs should come first since they are the basic needs that are vital to survival such as the need for breathing, food, water, sleep. Security needs are important but they are not fundamental need for survival. Taking an example of security needs include security of body, of employment, of resource, of morality, of the family, of health or of property. Once a person has met the lower level physiological and safety needs, the higher level is important, which is social needs such as needs for friendship, family, etc. When a person have a feeling of love and belonging, the esteem needs arises. Esteem needs are those related to self-esteem, confidence, achievement, respect of others, and respect by others. Self-actualization is the highest level to reach one's full potential as a person. Self-actualization can be morality, creativity, spontaneity, problem solving, lack of prejudice, acceptance of facts.

Maslow's hierarchy is very useful for understanding customer's motive and their wants so that the company can take actions in the market. If the products meet the customer needs, they will more often choose those products over those of competitors. When the company satisfies the higher level of need as much as possible, customers are getting loyal. Thus, it is essential for the company to know exactly their customer's need and want in order to have strategic plan for building a long-term relationship with them.

Measuring customer level of satisfaction has become an important element in the movement and growth of the company. Bob E.Hayes (1992) shared his opinion that it's needed to accurately assess customer attitudes by developing questionnaire. All data obtained should be reliable and correct so that the result will be valuable to uncover any perceived problem with the company's services.

Sometimes it's impossible to conduct a survey to a large-scale area of customer. In this case, sampling method is a best solution to measure customer's satisfaction because it ensures the result of small number of customer is representative of the larger population of customer. There are three kinds of samplings which are census, judgment and statistical (Bob E. Haves, 1992). Each company will have their own choice of method to measure customer's attitude based on their company's size, industry, structure and available resources.

Mark Hunter classified customer into five types which are loyal customers, discount customers, impulse customers, need-based customers and wandering customers. Among them, loyal customer plays a crucial role in ensuring the survival and in remaining competitive for the organization. It is very difficult to find an organization that could exit without customers (Roger Cartwright, 2000). He also classified loyal customer into six categories as following:

- Current customers who will continue to use product or services
- Current customers who may switch to another brand
- Occasional customers who would increase consumption of the brand if the incentive were right
- Occasional customers who would decrease consumption of the brand if a competitor offered the right incentive
- Non-users who could become customers
- Non-users who will never become customers

It's important to classify customers in respect of loyalty, therefore more and more organizations have invested lots of money in services to customer relationship.

2.2 Customer Relationship Management (CRM)

Most organizations realize that customer is key resource for increased profitability (John Abram and Paul Hawkes), therefore, to gain customer value, many organizations have a critical long-term strategy that can develop and nurture the relationship with customer. Later on, in the business activity, the new acronym-CRM-has been entered in which customer is centre.

CRM is complex term in business which different people may have different thought. It is designed to enable an organization to find, acquire and retain customer. A successful CRM is a combination of people, processes and technology, a concept defined by William Wagner and Michael Zubey. In other words, CRM establishes a close relationship with customer on an individual basis and gathers their information to design different program for each type of customer. It might be the only difference that people can use to distinguish one company from its competitor. It is a trend that products become much the same all over the world, customers are increasingly

making distinction based on how company take care of them other than the product itself.

However CRM is totally different from sales relationship management (SRC). CRM is not part of sales process since sales process cover every prospective of buying process while CRM is concerned with the dynamics of the relationship with customer (Bryan Bergeron, 2002). CRM goals is not only please customer but also foster the repeated purchase of customer

According to Judith W.Kincaid, CRM is made up of four core elements: information, process, technology and people. Information is data related to customer such as marketing data, list data, customer profile data, etc. These data are collected to be processed. Touch point or means by which the company interacts with customer, such as phone, email are examples of process. It is undeniable the significance of technology in producing a better performance in the business process where the organization can reduce the time to search information needed. The shorter time to access data will make faster respond to take action in improving the business and solving the problem incurred. Besides, the technology provides organizations with an opportunity to proactively make changes that will keep them at a competitive edge in their market and bring the great performance in order to be sustainable. Although everyone recognizes the role of technology, the mindset and most important component in CRM is human being. Technology is only powerful tool to organize and disseminate data so that human can make any decision based on it. The decisive factor is human beings because people can identify, create and recommend strategies as well as business domain so that the organization's operation is maintained.

Recently CRM is rapidly growing and applying in every fields, for example banking, marketing, media, transportation, telecommunication as the companies realise that it is essential not only to acquire customer but also to keep them. However, it is very surprising to read statistics from William Wagner and Michael Zubey that "with only 37% of the Fortune 500 firms having either completed or began a CRM project, there is still plenty of room for growth".

2.3 eCRM

eCRM is a new term emerges as a result of fast technology in Information society. According to Bryan Bergeron (2002) eCRM is customer relationship management on the web and eCRM also includes the use of email, e-commerce activity and any other internet-based customer touch point.

Web is useful tool to spread information about CRM to everyone living in any place as long as they connect to the internet. There are some criteria for good eCRM such as availability, degree of integration, enhanced customer data collection, enhanced interactivity, flexibility, high information density, low margin cost and so on.

Although Web brings variety of opportunities, Bryan Bergeron (2002) identified some of its drawbacks as the described following

Challenges	Issues
Bandwidth Limitations	Do customers have sufficient connectivity?
Business Analysis	Investment requirement vs. unknown return
Business Model	New models needed
Computer Penetration	Extent of the computer as a touch point
Customer Preferences	Will they use the PC?
Development	Internal or outsources?
Employee Motivation	May resist automation
Evolving from CRM to eCRM	Cost, time and vision
Evolving Standards	Web is volatile
Hardware Requirement	New call center equipment needed
Identifying Vendors	Most vendors are new to the space
More Data	Larger database, more data with other data?
New Integration Issues	How to integrate e-commerce data with other data
Security and Privacy	The Web is less secure than other touch points?

Table 1: eCRM challenges and issues

2.4 Matrix for Evaluation of CRM Product

As Bryan Bergeron (2002) emphasised the evaluation of CRM solution should focus on product and price, as in table 2

Product
Add-On Availability/ Cost/ Terms
Availability
Benefits
Compatibility with Existing System
Compatibility with Internal processes
Compatibility with Other Systems
Documentation Quality and Availability
Features
Functionality
Growth Path
Installed User Base
Intended Application
Intended Audience
Interface Cost/ Availability
Legacy Data Transfer Utilities
Localization Options
Missing Components
Performance
Performance/ Response Time
Reliability
Specialized or Bundled
Telecom Compatibility
Training Availability/ Cost
User's Group/ Newsletter/ Publications

Price
Cost of Upgrades
License Arrangements
Price/ Volume Discounts

Table 2: Matrix for Evaluation of CRM Product

2.5 CRM Software

So far, based on recent research, there is one similar system to what our system is developed. That system, called Microsoft Dynamics CRM 3.0 has several CRM application systems such as track sales cycles, track customer service issues and results of the marketing campaigns. Microsoft Dynamics CRM 3.0 is one of the applications which seem to be very useful.

Besides Microsoft Dynamics CRM 3.0, there is another system called LEADTRACK, which provides an engine to meet sales lead management that is needed for both client server and hosted platforms. The aim of developing LEADTRACK is to track the status of all sales leads easily. However, the access to this application is not open to the public like Microsoft Dynamics CRM 3.0.

But through the introduction, these systems are to track sales cycle which is only one component of CRM tracking. Judith W.Kincaid shared his opinion that CRM manages the customer's relationship with the company including marketing, sales, services and support. There are things that involve sales management but are not related to CRM such as managing salesman. While sales management primarily concerns sales opportunity, contact management, lead verification, shipping and account management, CRM involves not just sales, but also partnership, marketing and customer services. As a result, in his research, Paul Greenberg strongly concluded that "CRM is not sales management".

2.4 IBM Vietnam

For the time being, the to-be-system will be functioning only in Sales department at IBM Vietnam, but for the future plan, the system will be expanded to other companies as well.

IBM Vietnam Company is a 100 percent foreign-owned subsidiary of the world's largest information technology company with more than 90 years professional experience and more than 380,000 employees all over the world. IBM provides a complete range of products and services in Vietnam. These include computer hardware, computer software, IT services and consulting.

Within the boundary of this project, I only choose one main line of IBM business which is computer hardware to cover. Hardware products are storage and server such as system x, system p, system i, etc



IBM Storage

IBM Server

Figure 3: IBM Vietnam Product

Since IBM Vietnam Company is 100 percent foreign-owned subsidiary, it cannot work directly with the end-users who are tier 2 resellers. Currently IBM has four official distributors in Vietnam which are Digiland Joint-Stock Company, eSys Technologies Joint Stock Company, FPT Distribution, Sunshine Joint-Stock Company

IBM Vietnam - Route to Market

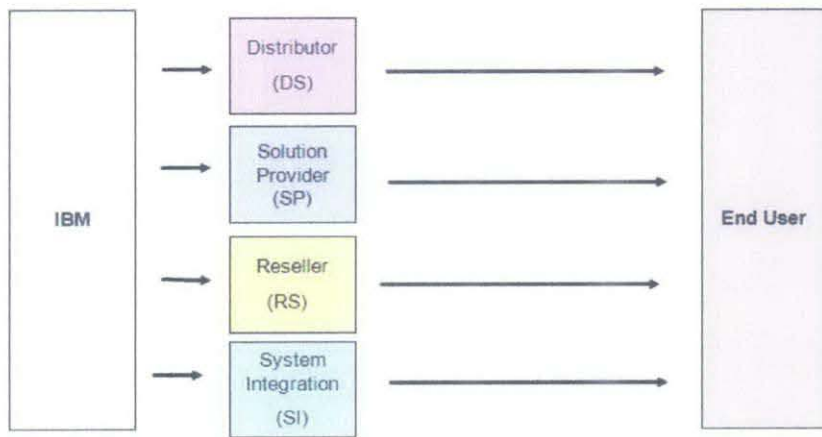


Figure 4: Route to market of IBM Vietnam

CHAPTER 3

METHODOLOGY USED AND PROJECT ACTIVITIES

3.1 Prototyping Methodology

After the project has been approved and the preliminary requirements are defined, which methodology will be most suitable with the project, is discussed. From my research, I then decided to choose the Prototyping –based methodology (under the category of Rapid Application Development-based methodology).

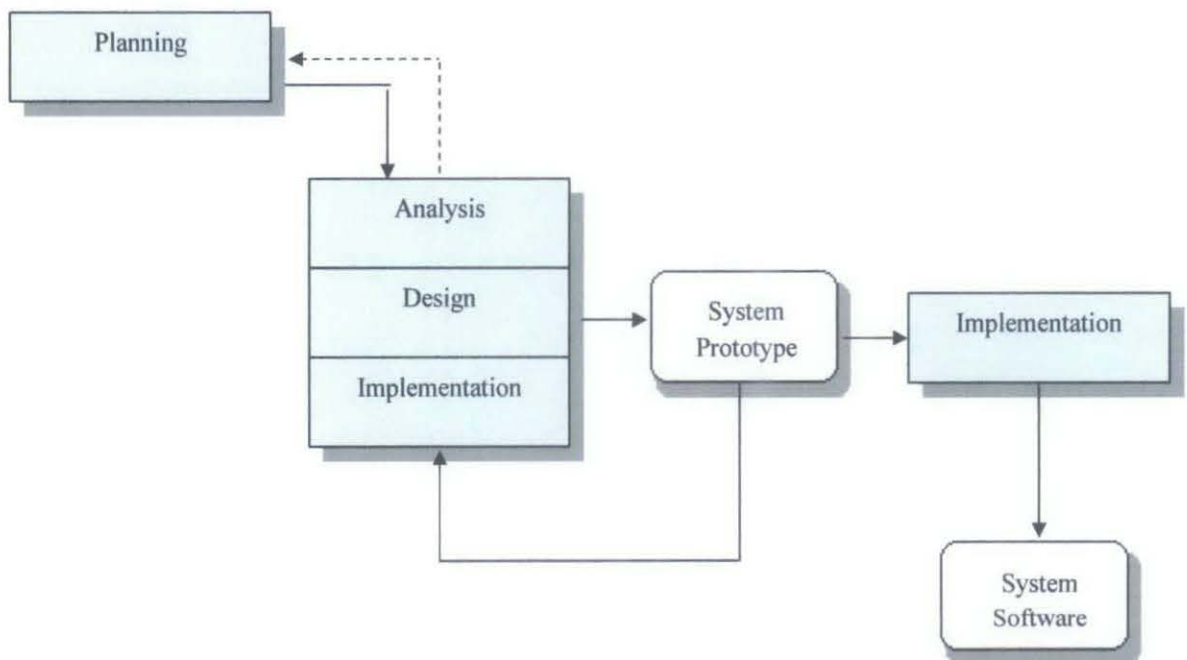


Figure 5: Prototyping Methodology

A prototyping-based methodology ensures smooth communication between user and developer with different backgrounds. In this methodology, once the preliminary requirements are clarified, the next step is to quickly build the layout and prototype

of the system. From then on, it is the continuing evolution of this prototype until it becomes the final product, exact to specifications.

With one significant challenge in this project which is the time constraint, prototyping-based is the methodology that attempts to address it. Further more, in building web-based application; the visibility of the layout is critically important. The prototyping-based methodology allows the system developer to identify major navigation and usability problems before spending a lot of time developing and coding user interfaces. The prototype can help to communicate the details of the interface to the system developer as well as to users. It can also be used as an awareness training tool with users. These are the reasons why I have adapted this methodology to the development process.

3.2 Data Collection Methods

In the first part of the project, researching and gathering information will play a key role. Some research methodologies that will be used are:

3.2.1 *Interview*: conducting interviews to the end users of the system to see whether the system is useful for them as well as how they react when they want to track customer's status.

3.2.2 *Searching on Internet*: Gathering basic information about other existing CRM tracking systems and how to develop CRM system in general by searching on Internet

3.3 Tools, mechanisms and software used

In the second part of the project, a complete system is developed. Some of the tools that are used:

3.3.1 Adobe Photoshop CS3

The Adobe Photoshop CS3 is a graphics editing program. It helps the programmer to design the background, create graphics and effects on the webpage of the system.

3.3.2 *PHP and MySQL*: These programming tools are chosen to develop the database for the system because of the following reasons:

- *Cost*: It costs nothing to use that open-source software.
- *Ease of use*: PHP is easy to learn, compared to the other ways to achieve similar functionality.
- *HTML-embeddedness*: PHP is embedded within HTML.
- *Cross-platform compatibility*: PHP and MySQL run native on every popular flavor of Unix (including Mac OS X) and Windows.
- *Stability*: The server doesn't need to be rebooted often. Moreover, the software doesn't change radically and incompatibly from release to release.
- *Speed*: PHP is pleasingly zippy in its execution, especially when compiled as an Apache module on the Unix side. The MySQL server, once started, executes even very complex queries with huge result sets in record-setting time.
- *Popularity*: PHP is fast becoming one of the most popular choices for so-called two-tier development

3.3.3 *UML diagrams*: Flowchart, Use Case, Entity relationship diagram to describe the functionality of a system and users of the system.

3.4 Planning

An interview was conducted with IBM Vietnam staffs about their opinions on need of CRM tracking system. The interview also hints about the proposed system of how they would respond if CRM tracking system is available.

3.4.1 System Request- CRM Tracking System in Web and Database

- **Project Sponsor**

Ms Nguyen Thi Viet, the North Territory Partner Manager of IBM Vietnam Limited Company (IBM Vietnam)

- **Business Need**

This project has been initiated to develop CRM tracking system to be more efficient by automate it and to provide the better way of CRM evaluation, therefore company can design different program for each level of customer

- **Business Requirement**

The CRM Tracking System in Web and Database will be built in IBM website as a link in the page of Blue page. The system provides real time accessible for the users which are IBM staffs from any office base with an internet connection. The functionalities that the system should have are listed below:

- ✓ Member Registration
- ✓ User log in
- ✓ Show the customer information
- ✓ Track the status of customer based on each categories
- ✓ Store and provide the information for the staff for further use.

- **Business Value**

I expected that with this system, the users/ staff can simply enter IBM website and click Blue page link to track and update the business performance of customers to continuously push and manage their business with the company. Furthermore it is going to be more efficient in order to use the data for statistical purpose because all data

is already available in the database since the users key-in the information.

- **Special Issues or Constraints**

IBM Vietnam needs to promote this link to the staffs when the system has been built.

3.4.2 Feasibility Analysis

- **Technical Feasibility**

The risk of familiarity with the application is low because the users/ staffs are used to the computer system and are IT literate. There will be no need of special course in order to implement the system. The database also will be automatically updated by participating staff without any manual labour, percentage of human error can be avoided.

As for the Administrator, he will only need to update the information in the system which will be stored in database and to retrieve data from the system for the report, thus not much work will be done because he can request the data for weekly, monthly as well.

The new system will be much more reliable with the less human labour involved in keying in manually the data for statistic report. The data of the customer including sales, location, event, certificate and interest sector can be retrieved through the system. This surely will provide the accuracy of the data and minimize human error. The staff will also find it easy to track how activeness each customer is rather than to spend much time looking at many separated files.

The size of project are estimated fairly intermediate. This whole system has to be fully functioning in May 2011. With the two main functionalities promised by the system, this system should be successfully present to everyone.

- **Economic Feasibility**

Basic analysis has been done to investigate the economical feasibilities. The financial analysis reveals that the new system will demonstrate a positive economic feasibility. The cost break even is less concerning as the newly develop system does not need too much cost. Meanwhile in term of software designing and license, IBM Vietnam already has experience with this kind of software and deal superbly with it before.

New system will not need too much extra cost in term of special staff training. This can save a lot of money. Newly develop system normally require special courses for the user but in this case, staff does not really need any courses in using the system. This is good as spending an amount of money in courses will risen the operation cost for quite a time. Plus a friendly interface makes staff more satisfied and work with less stress.

The newly system will benefit the IBM business partner management without any large additional cost. It is expected that cost of implementing the new server will be free and the annual maintenances is very low since server is one of famous IBM products in the market.

The newly system will give more satisfaction as well as reducing the work of the staff. It also gives good image for IBM Vietnam that takes another step to be the most reputable international company in the world.

- **Organizational Feasibility**

Administrator: The Administrator will have easier access of customer data and update it. He can easily print out the weekly and monthly statistical report.

The Staff: The to-be system will ensure the information of the customer will directly send to database. Thus, the staff will have big advantage upon to-be implemented system. They don't need to track the customer's status manually by looking at and comparing many

files. By having a chance to view how active each customer is, the staff will be able to continuously push and manage customer's business with the company.

3.5 Analysis

3.5.1 Non-functional Requirements

- **Operational Requirement**

The system is required to be operated in computer. It has to be able to track the status of customer's sales, event and certificate. Moreover, the system can show the location and interest sector of each customer

- **Performance Requirement**

This system should not take more than 5 second to load information and it should not delay more than 2 second for user respond.

- **Security Requirement**

Not all staff can access the system apart from the staffs that are responsible for customer. And the customer information is confidential.

- **Cultural Requirement**

The users themselves select the categories of customer such as sales, event, location, certificate and interest sector that they would like to track. As likely, there should not have any political or cultural requirement to be considered yet.

3.5.2 Functional Requirements

- Register Member
- Log In
- Search box

Allow user to type the customer's name or part of name. The system will display all information and generate status of customers, whether they are active or not.

- Tracking customer
 - User can track customer's information according to the categories (sales, event and certificate) and in each categories, the customer is already assessed to be active or not.
 - See the location and interest sector of each customer as well as count how many customers in each interest sector and places.
- Load the customer list pop up from the banner
See the loyal, new, premium customer in form of pop-up.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 The Framework of the system

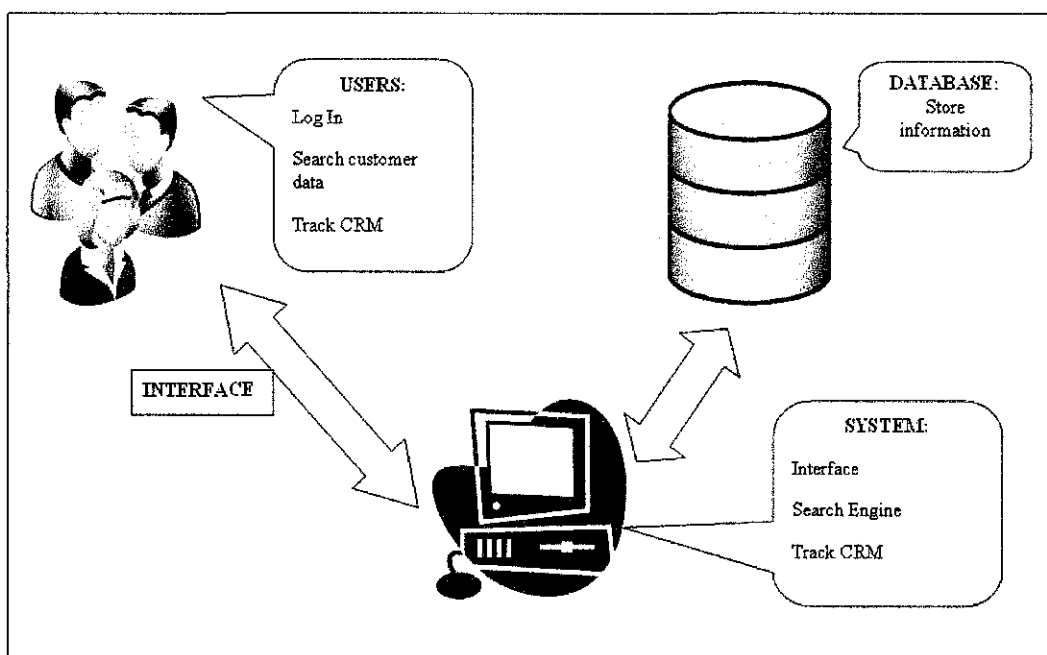


Figure 6: Framework of the system

The users here include:

- Administrators of the system who can log in and modify the categories
- Staff who are responsible for updating information
- Higher level of staffs: manager and director

The system will include:

- A user-friendly interface
- A Search engine to find the customer according to different categories
- A database: to store all the information about the customer

The users will interact with the system through an interface by giving inputs. The requirement then will be processed by the system, if the user wants to search information, the search engine will search in the database then display the result in the interface for the user.

4.2 Functional Model

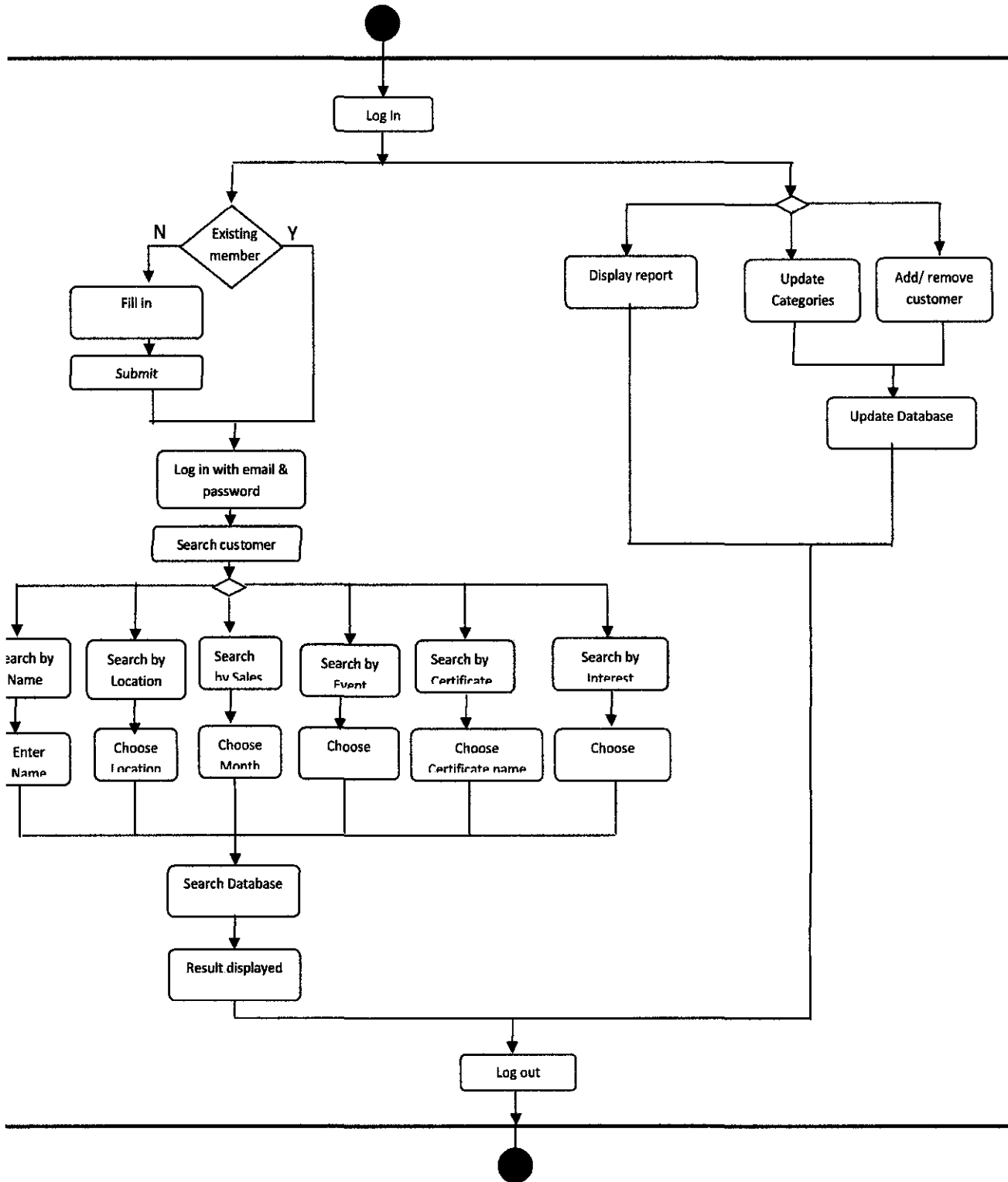


Figure 7: Flowchart of the system

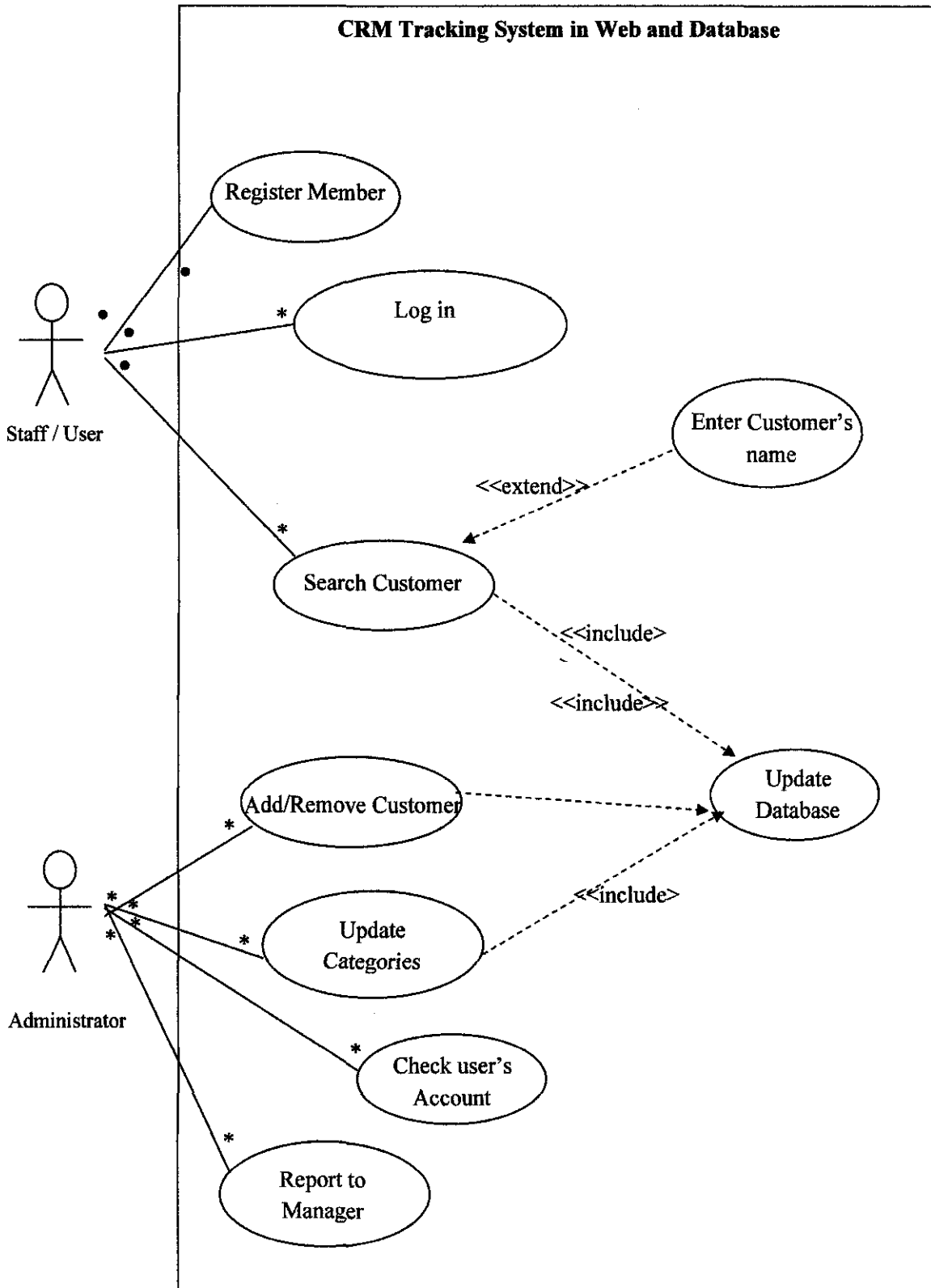


Figure 8: Use Case diagram of the system

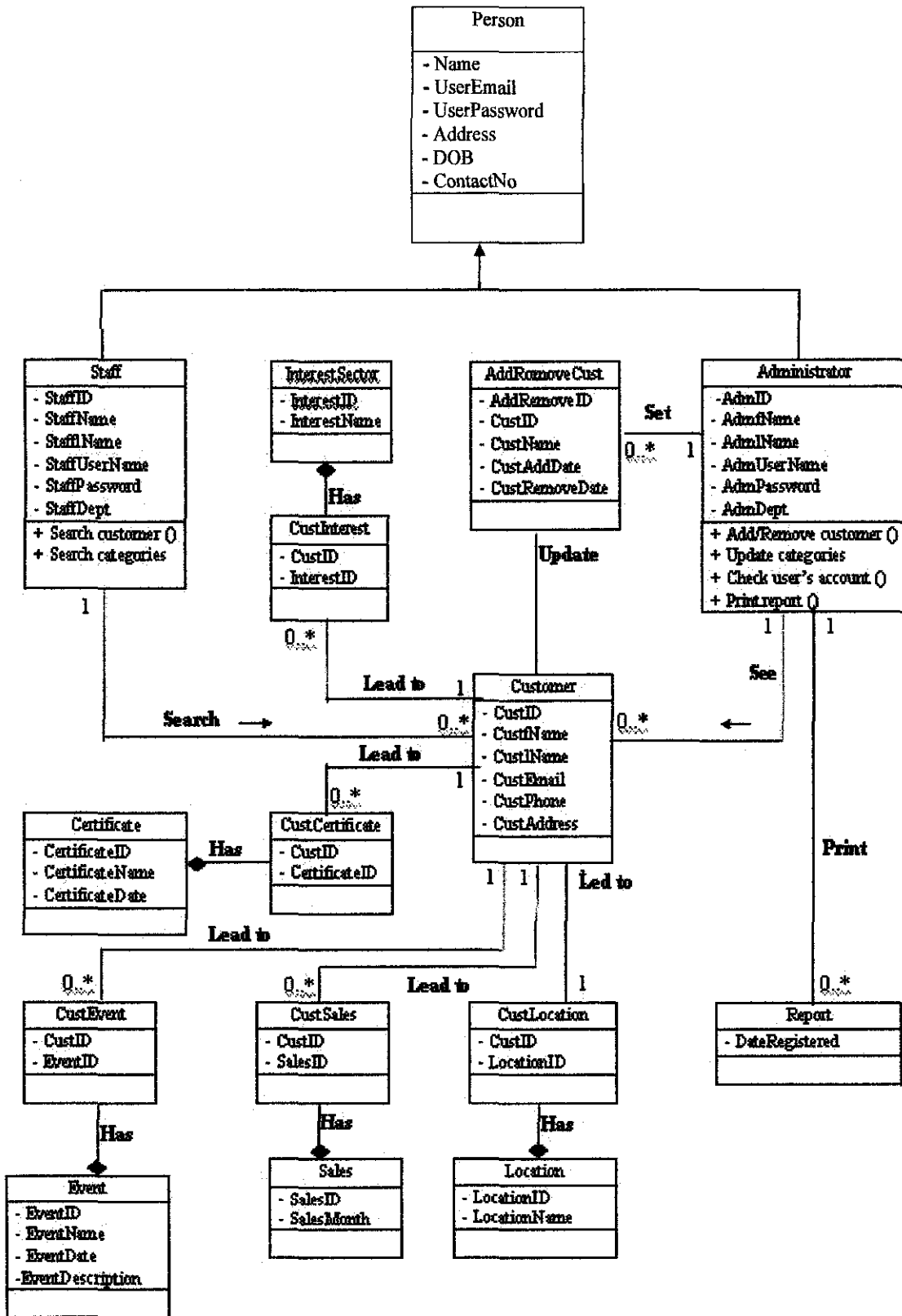


Figure 9: Entity Relationship Diagram (ERD)

4.3 Data Structure

- **User**

User is the internal staff can only search the customer in the desired categories such as sales, event, certificate, etc. They also can update their profile, change password, name, phone, department and their avatar picture as well. There are the following attributes in the table User: *id, email, password, fname1, lname, phone, dept, post* and *picture*

- **Customer**

Id is useful in making each customer different from others. In helping company keep in touch with customer, their detailed contact information are necessary like *name, address, phone, email, product* which they purchase, *certificate* which they have, *revenue, profitability, status* and *interest* sector . The company can update the current promotion or any program to customer by sending email. In case the company wants send invitation customer to event or conference, the company can know the exact address of customer in *address, email* or *phone* detail

- **Certificate**

Sometimes the company organize contest and customer who pass, get certificate. Naming some common certificate are Business Partner World, Golden Parter, Silver Partner, System x Partner...Certificate is very important in helping customer bidding project. Expired date of the certificate is often a factor, make one customer win and one lose because the customer can be Golden Parter in 2009, but not in 2010. Expired date of certificate is identified under attribute *expiredDate*

- **CustCert**

Each customer can has no certificate but some customers get many certificates because they pass all contests which are organized by company.

- **Event**

When new product is launched, the company needs to open a conference to introduce it. The table Event has the following attributes *id*, *name*, *desc*, *date*, *time* and *picture*. Each event will have its name, organized date and description about the event's purpose.

- **Eventattend**

When receiving invitation, customer can decide come or not. Their decisions vary, thus some customer can attend many events, and some do not attend any event at all. *Id*, *custId* and *eventId* are attributes of this table.

- **Sales**

Revenue depends on Sales, therefore customer's sales is the most important factor that company cares. *id* is the primary key of the table. *ProductId*, *InvoiceNo* and *partnumber* help to distinguish the product.

Purchase power of each customer will be different from the others. Even the customer's purchase varies in the year, normally at the beginning of the year the company often sell most.

- **Product**

Each product will have different *Id* to make a difference with other product.

In the table Product, there are the following attributes *id*, *name*, *price*, *picture*, *brand* and *model*.

4.4 Database Description

Table Name	Field	Type
Customer	id	int(255)
	name	varchar(50)
	address	varchar(100)
	phone	varchar(15)
	email	varchar(50)
	product	varchar(50)
	event	varchar(50)
	certificate	varchar(50)
	revenue	decimal(10,2)
	profitability	decimal(10,2)
User	status	varchar(10)
	interest	varchar(50)
	id	int(255)
	email	varchar(50)
	password	varchar(50)
	fname1	varchar(50)
	lname	varchar(50)
phone	varchar(50)	
Certificate	dept	varchar(50)
	post	varchar(50)
	picture	varchar(50)
Custcert	id	int(255)
	name	varchar(50)
	desc	varchar(50)
Certificate	expiredDate	varchar(50)
	picture	varchar(100)
Custcert	id	int(255)
	CustId	Int(255)

	CertId	int(255)
	id	int(255)
	name	varchar(50)
event	desc	varchar(50)
	Date	varchar(50)
	time	varchar(50)
	picture	varchar(100)
	id	int(255)
Eventattend	CustId	int(255)
	EvenId	int(255)
	id	int(255)
	name	varchar(50)
product	price	decimal(10,2)
	picture	varchar(50)
	brand	varchar(50)
	model	varchar(50)
	id	int(255)
	custId	int(255)
	ProductId	int(255)
sales	date	varchar(10)
	quantity	int(255)
	InvoiceNo	varchar(50)
	partnumber	varchar(50)

Table 3: Database Description

4.5 Risk Assessment

4.5.1 Software Risk

- *System risks*: threaten the system plan. The system risks identify potential budgetary, schedule, personnel, resources, customers, requirements problems and their impact on the system.
- *Technical risks*: threaten the quality and timeliness of the software to be produced. Technical risks identify potential design, implementation, interface, verification, and maintenance problems. In addition, ambiguity, technical uncertainty, technical obsolescence, and “leading-edge” technology are also risk factors.
- *Business risks*: threaten the viability of the software to be built.

Top five business risks are:

- Building an excellent product or system that no one really wants (market risk)
- Building a product that no longer fits into the overall business strategy for the company (strategic risk)
- Building a product that the sales force doesn’t understand how to sell
- Losing the support of senior management due to a change in focus or a change in people (management risks)
- Losing budgetary or personnel commitment (budget risks)

4.5.2 Risk Identification

- *System risks*
 - Budgetary: I am facing financial constraint as I have not worked yet and the regular income which I receive every month is PETRONAS allowance.
 - Schedule: Possible slippage in initial operating capability due to time constraint from study commitment and involvement in extracurricular activities.
 - Staff size and experience: The system developer is student having *not much experience and skills*. The *programming skills* gained are limited to the knowledge gained from

Internet Programming, Object Oriented Programming courses and research made on the internet.

- Development environment: MySQL, Dreamweaver, PHP, host, domain.
- Customer characteristics: First, customers have been involved fully in the definition of requirements. Second, *requirements are not understood by the system developer*. Last, system scope is not stable. At the beginning, I want to track CRM by sales, event and certificate. Then I think further about another function of the system which is display loyal, new and premium customers as well.

○ *Technical risks*

- Responsive software support
- Significant degradation to non- achievement of technical performance

○ *Business risks*

- Losing the support of senior management due to a change in focus or a change in people (management risks)
- Management risks: Easy to administrate the system
- Budget risks: It's *non-profit system*, because the user is internal staff. However we can make contracts with IBM Vietnam for selling it.

4.6 Information Analysis

In the first part of the project, an interview was conducted to see whether the system is necessary from the perspectives of staff to come up with all the useful functions, and design the system interface. Please refer to Appendix C for Interview Questionnaire

After conducting interviews, there are 10 managers and staffs in the available list. All users are from and currently reside in Vietnam. All interviewed users are interested in Customer relationship management (CRM) since all of them contact frequently with customer, thus they understand deeply the importance of CRM tracking. Normally they evaluate the activeness of customer every month manually by looking at many separated files and comparing them. Currently there is no any existing system in the company, therefore tracking CRM takes them lot of effort and time.

All users (100%) agree sales is the main criteria to assess the level of customer. 80% of users think that it comes from other factors such as the number of event or conference they attend, number of training they register and number of certificate they have

Furthermore, all users (100%) realize the importance of tracking customer relationship with company.

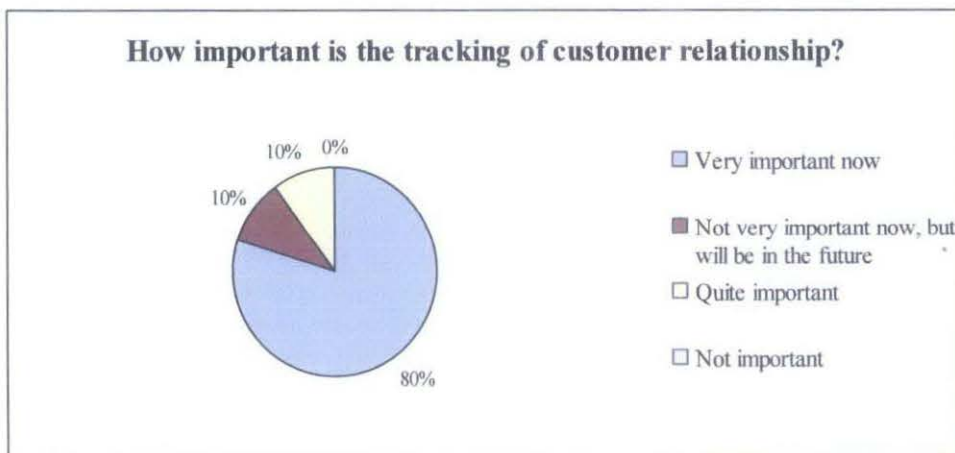


Figure 10: Pie charts illustrating the importance of tracking CRM

Most users (90%) prefer to have a function of historical database retrieval for the system. The system simply provides users with the ease of extracting all historical data depending on their needs.

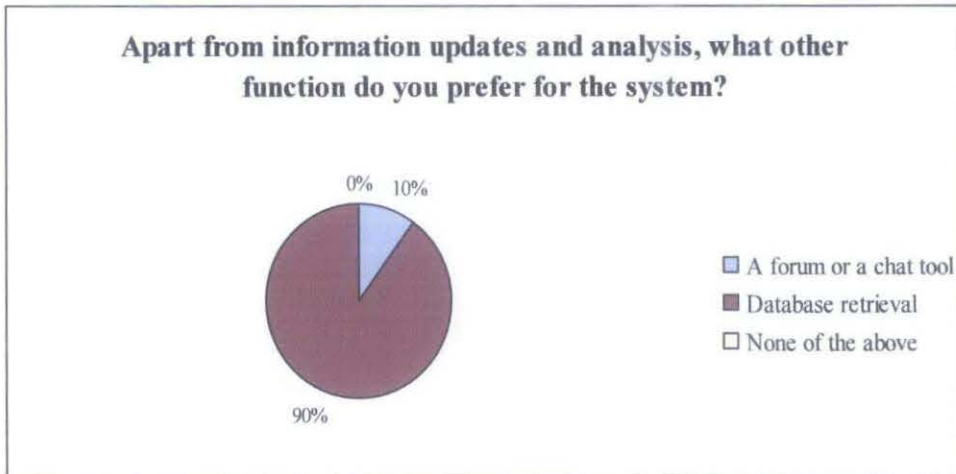


Figure 11: Pie charts illustrating user preference for added functions

4. 7 SWOT analysis

After reviewing similar existing systems, the SWOT analysis is made to identify the advantages of building this system:

<p style="text-align: center;"><u>Strengths</u></p> <ul style="list-style-type: none"> ○ No costly ○ Easy to use, no need special training to user/staff ○ Encourage the interaction between marketing, sales and business partner department ○ The implementation time is not so long ○ Information is updated frequently ○ Help company evaluate exactly the activeness of each customer. 	<p style="text-align: center;"><u>Weaknesses</u></p> <ul style="list-style-type: none"> ○ The effective of the system depends mostly on the collaboration between departments ○ Only some sectors of CRM are covered: sales, event and certificate
<p style="text-align: center;"><u>Opportunities</u></p> <ul style="list-style-type: none"> ○ The system can involve other department as well (customer services department, etc) ○ Other functions can be added: graph generation, customer service, customer issues, feedback and portfolio ○ The system can be expanded to other companies as well 	<p style="text-align: center;"><u>Threaten</u></p> <ul style="list-style-type: none"> ○ Files overload ○ Security threats are increasing with a variety of hacking techniques.

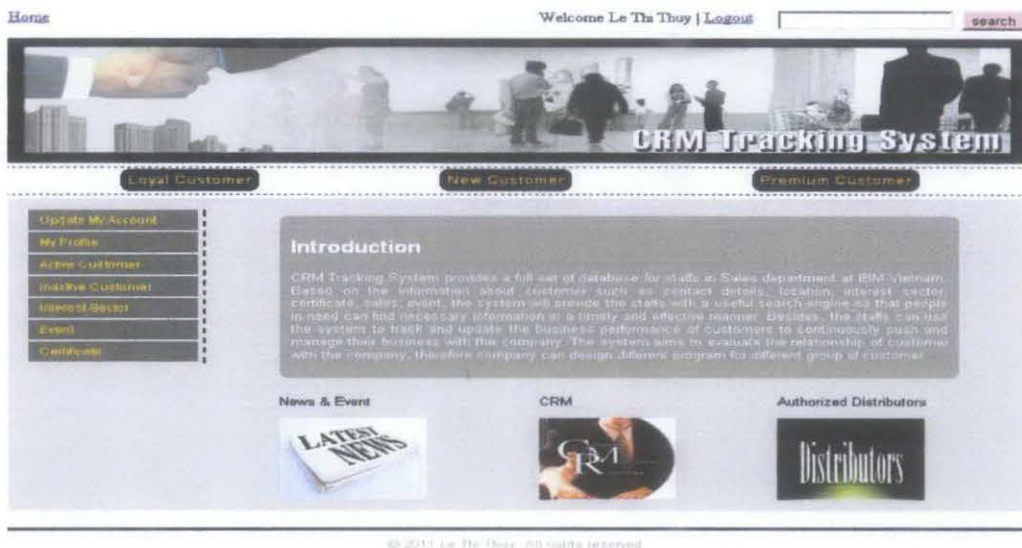
Table 4: SWOT analysis for CRM Tracking System in Database and Web

4.8 System Interface



Figure 12.1: Homepage

This is homepage of the system. The users sign into the system using their email and password. If they do not log in, they can't use the system



After logging in, the users will see the system and all of its function.

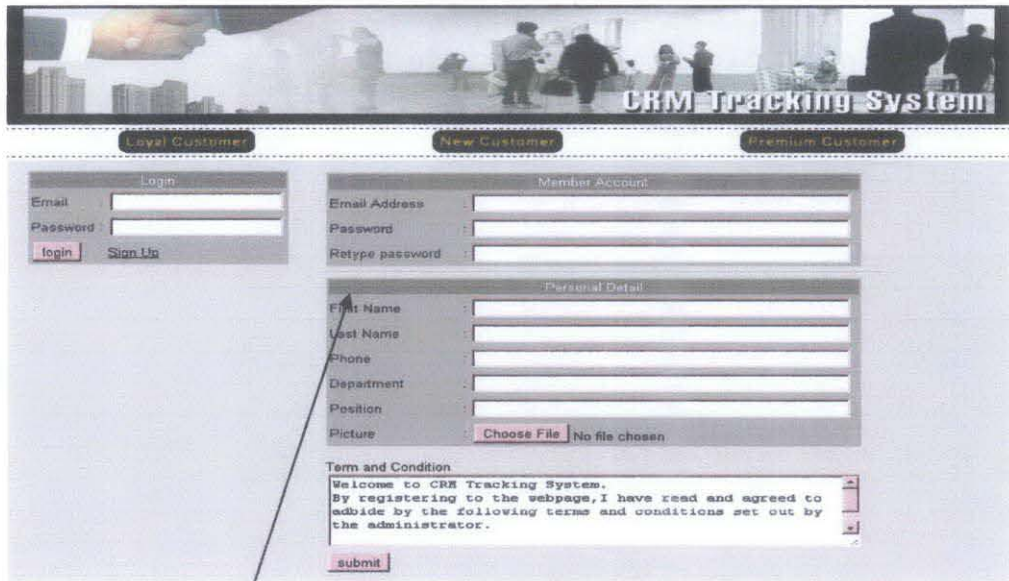


Figure 12.2: Sign up page

This is the sign up page for new users. They must fill in the form with valid information as well as agree with the term and condition. If not, the error checking will detect and user can't register new account



Figure 12.3: My Profile page

The user can see their account profile

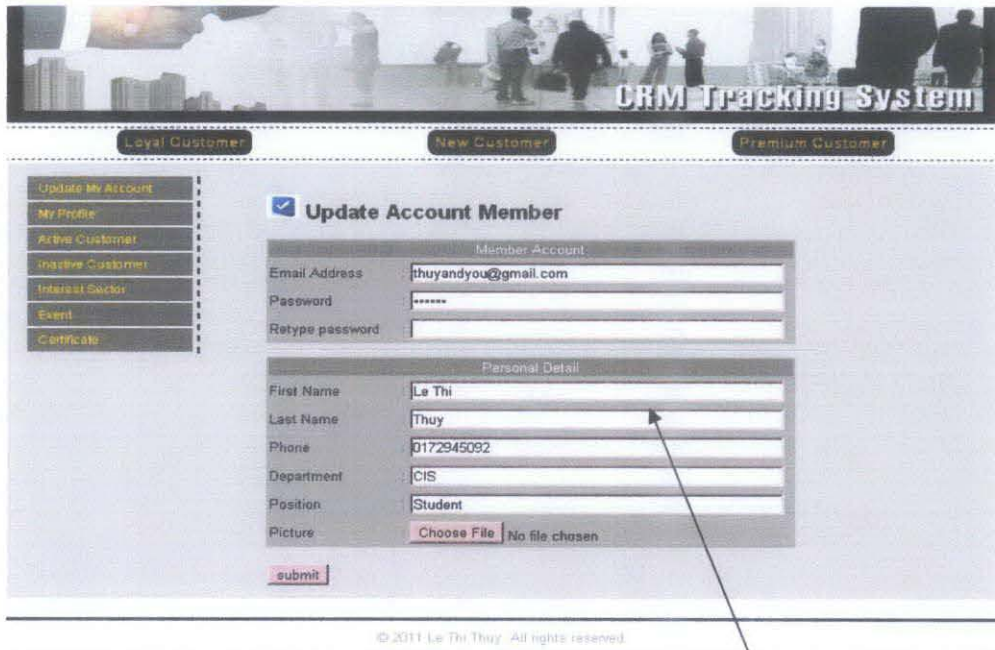


Figure 12.4: Update account page

The user can edit their account. However, the email address cannot be changed because it is provided by system's administrators

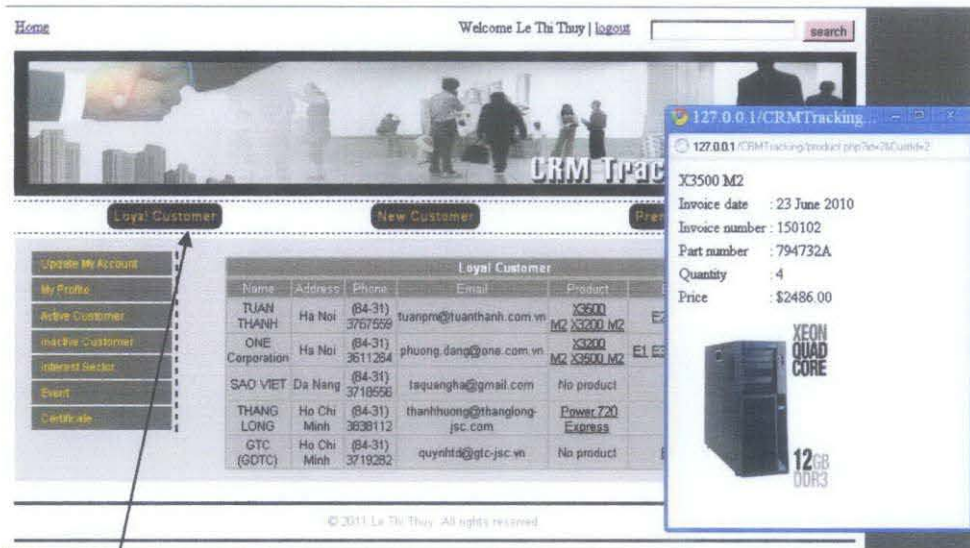


Figure 12.5: Loyal customer page

If clicking to the flash "Loyal customer", five loyal customer lists will be appeared with following information: name, address, phone, email, purchased product, attended event and certificate they have. By clicking to any product, pop-up window will be



Figure12.6: Search page

Users can search customer by clicking the **Search** button on the top right hand side. In the displayed result, if user wants to see any further information, the pop-up window can appear.

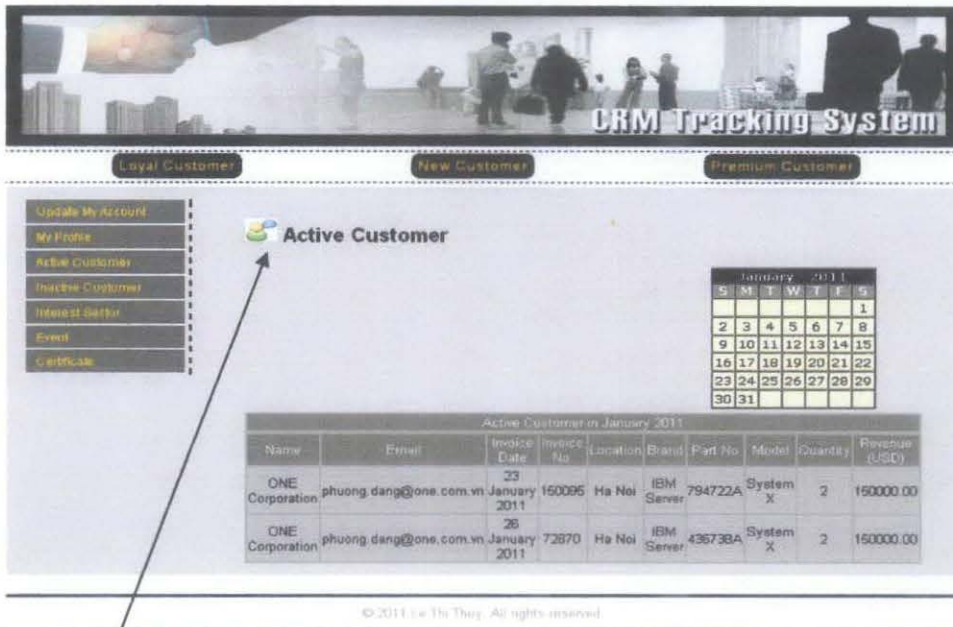


Figure 12.7: Active customer

User can search customer based on categories (**Active or Inactive customer**). Active customer based on sales means they buy at least one product in that month

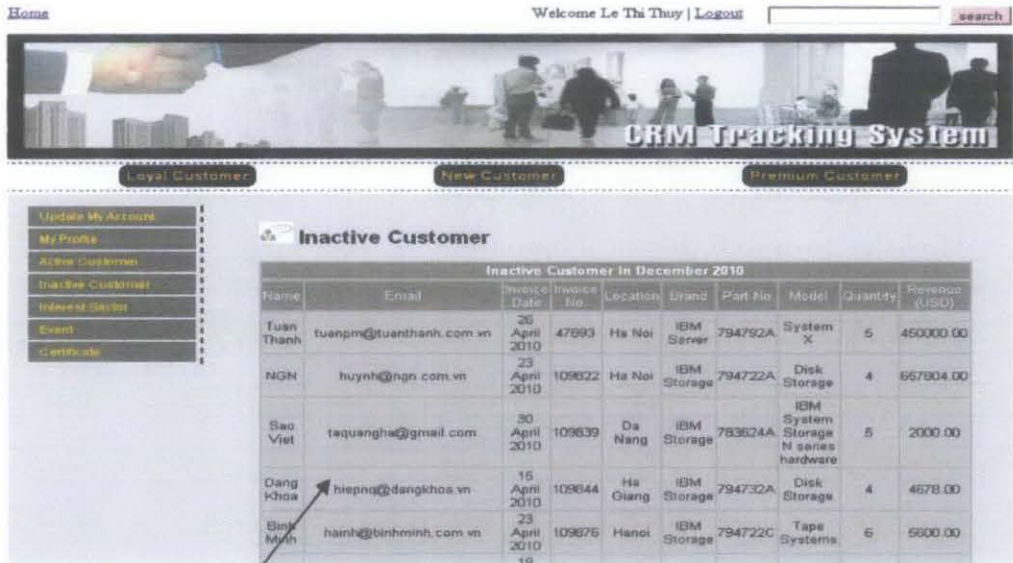


Figure 12.8: Inactive customer

Inactive customer means that they do not buy any product in recent six months. For example, inactive customer in December 2010 is all customers who do not buy any product from the beginning of June 2010 to the end of November 2010



Figure 12.9: Interest Sector page

A list of Interest Sector will be displayed for user to choose after they click to button on the left hand side and customer lists that are expertise in this field will be listed down

Home Welcome Le Thi Thuy | Logout search

Event

Event 1
Purpose: IBM Systems Director 6.2 for System x and Blade
Date: 2 January 2011 Time: 5:00 p.m. - 6:00 p.m.
List of all participant who attend the event:

	Address	Email	Phone	Revenue (USD)
Ha Noi		phuong.dang@one.com.vn	0084313611264	150000.00
Ho Chi Minh		quynhda@gte-jsc.vn	(84-31) 3719262	100.00
Ho Chi Minh		hungdo@ccc.com.vn	(84-31) 3641456	90.00
Con Son		hungpp@conson.com.vn	(84-31) 3641590	90.00
Sao Viet		taquangha@gmail.com	(84-31) 3719566	2000.00
Thang Long		thanhhuong@thanglong-jsc.com	(84-31) 3638112	100.00
Thuong Mai		info@phuchungm.com	(84-33) 3772306	0.00
GEN		joint@ganpacific.com.vn	0084313638112	77527.00
CSE		thuang@cse-tech.net	008443791 4868	2678.00
Minh Phuc		trangnt@caat.com.vn	008408 3836 025	36805.00

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Figure 12.10: Event page

By clicking to Event → Attend, a list of customer who attends the event will be displayed. User also can see list of customer who do not attend that event as well.

Home Welcome Le Thi Thuy | Logout search

Certificate

Certificate 2
Purpose: System x Certificate
Date expired: 31.04.2015

Name	Address	Email	Phone	Revenue (USD)
ONE Corporation	Ha Noi	phuong.dang@one.com.vn	(84-31) 3611264	150000.00
TUAN THANH	Ha Noi	tuanpm@tuanthanh.com.vn	(84-31) 3767559	450000.00

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Figure 12.11: Certificate page

A list of **Certificate** will be displayed for user to choose after they click to button on the left hand side and customer lists that are have certificate will be listed down

4.9 Testing Phase

Results of questionnaires

In order to measure the user acceptance of the system, a set of questionnaires had been prepared and approached to a sample of 10 staffs at IBM Vietnam. The questionnaires focus on how user-friendly is the system to the users and how usable is the system as well as collect their comments on the system to improve its performance. The result of the survey is presented as follow:

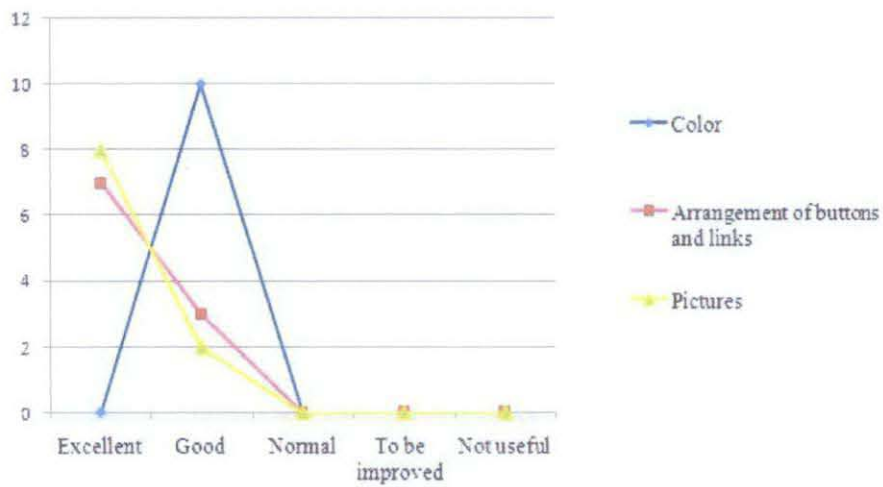


Figure 13: Interface measurement ranking results

The figure shows users are very satisfied with the colour of the system because it follows the corporate colour of IBM Website and logo. The arrangement of buttons and links are also satisfying and easy to understand. The pictures used in the interface are also acceptable because they are IBM pictures.

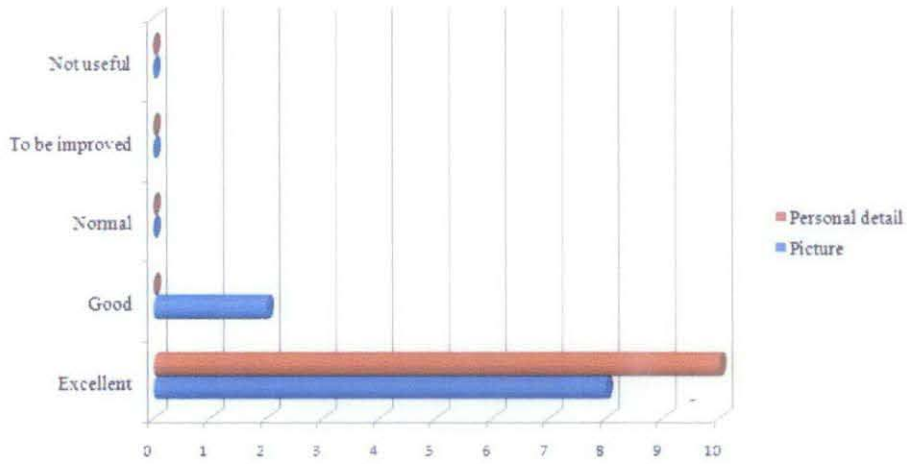


Figure 14: List of personal information measurement ranking results

From the figure, we can see clearly that currently there is no place to display the staffs' information so the users are satisfied with the way the system approach them by email, phone, department, position and pictures, which also are very useful for administrator if they need to contact the specific staffs.

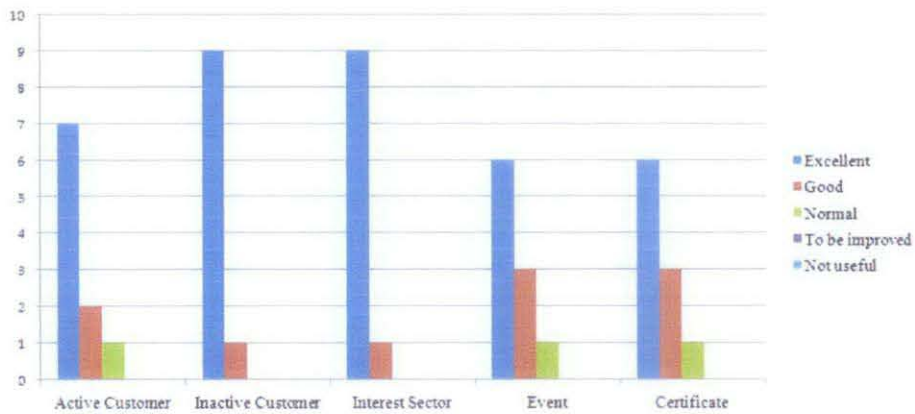


Figure 15: List of categories measurement ranking results

Users showed appreciation for active customer, inactive customer, interest sector, event and certificate categories because they are very necessary but currently there is no system to share customer information.

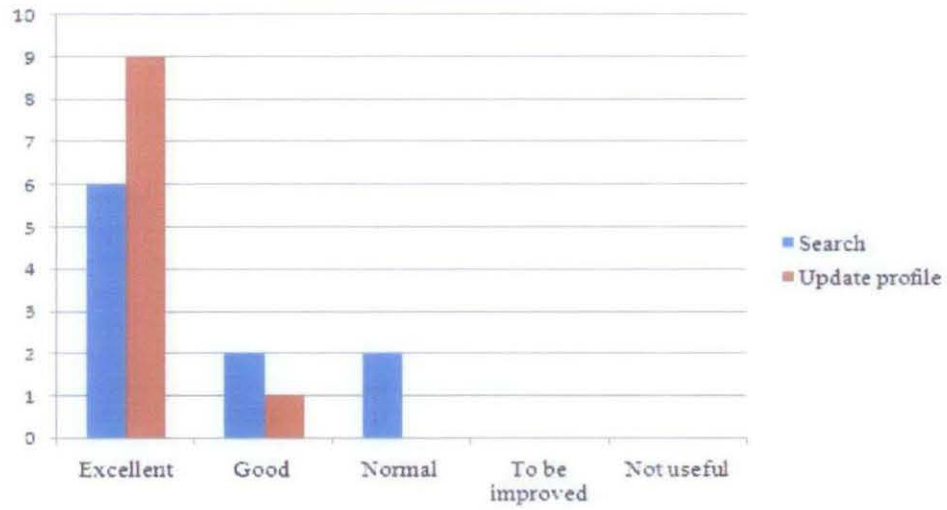


Figure 16: List of search and update profile function measurement ranking results

Users show their high expectation for the search engine of the system, which can reduce their time reasonably when they need to search specific customer, which is currently a work of wasting time and effort. This figure also indicates clearly the satisfaction of users towards update profile function.

CHAPTER 5

CONCLUSION

During the first part of the project, the purpose focuses on information collection and developing methodologies and interface design.

In order to meet the objectives of the project, information about customer has been collected. The users/staffs will interact with the system through an interface by giving inputs. The requirement then will be processed by the system, if the user wants to search customer information by different categories such as: sales, event, interest sector, certificate and location, the search engine will search in the database then display the result in the interface for the user. Moreover users can track how activeness each customer is and update the business performance of customers to continuously push and manage their business with the company as well as design different program for each level of customer.

In the second part, the complete system will be implemented and tested before being used. If the system is proved to be useful, it will give more satisfaction as well as reduce the work of the staff. It also gives good image for IBM Vietnam that takes another step to be the most reputable international company in the world.

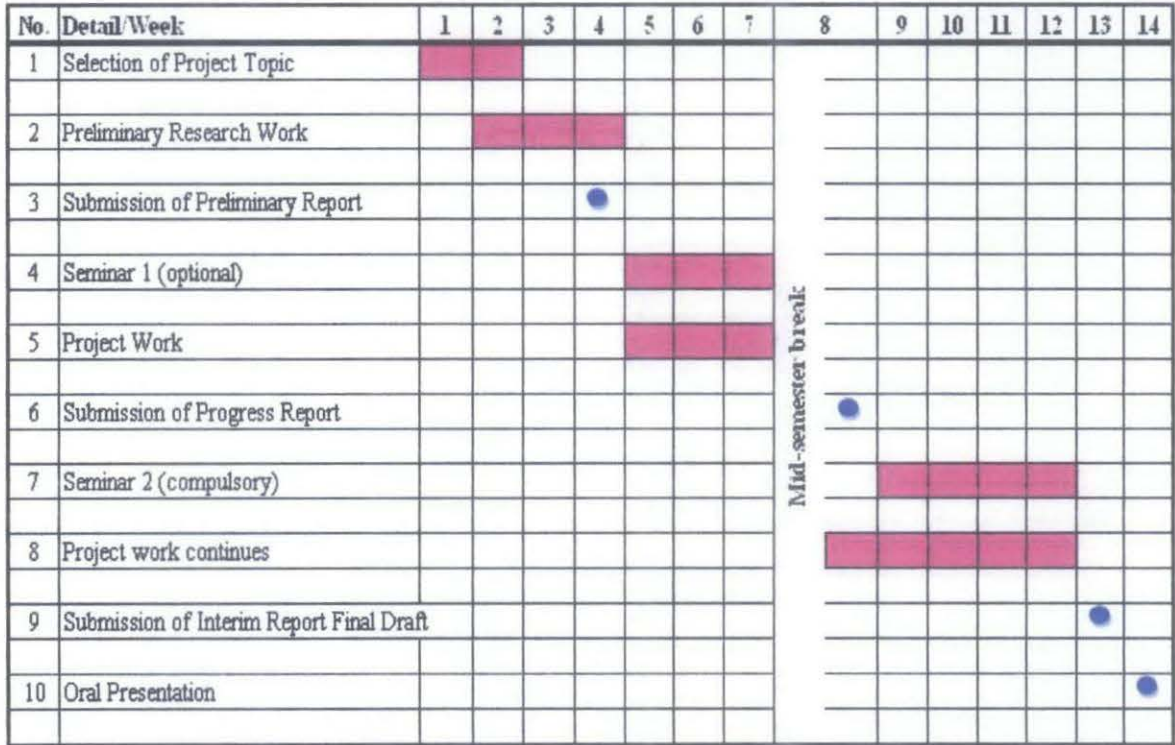
REFERENCES

1. Simple, affordable and proven Sales Lead Tracking and Management Software [Online] Available: <http://www.leadtrack.com/>
2. The 5 Types of Customers [Online] Available: <http://sbinfocanada.about.com/od/customerservice/a/customertypesmh.htm>
3. Bob E. Hayes, *Measuring Customer Satisfaction*, 2nd ed, Wisconsin: ASQC Quality Press, 1997
4. Bryan Bergeron, *Essentials of CRM*, New York: John Wiley & Sons Canada, Inc., 2002
5. Elaine K. Harris, *Customer Service: A practical Approach*, 4th ed, New Jersey: Pearson Education, Inc, 2007
6. Francis Buttle, *Customer Relationship Management: Concepts and Technologies*, 2nd ed, 2010
7. John Frazer Robinson, *It's all about Customers*, 2nd ed, London, England: Kogan Page Limited, 1999
8. Judith W. Kincaid, *Customer Relationship Management Getting It Right*, 1st ed. New Jersey: Pearson Hall PTR, 2003
9. Kenneth C.Laudon and Jane P.Laudon, *Management Information Systems*, 3rd ed. New Jersey: Pearson, 2009
10. Michael Zubey and William Wagner, *Customer Relationship Management: A People, Process and Technology Approach*. Massachusetts: Thomas Course Technology, 2007
11. Paul Greenberg, *CRM at the Speed of Light: Capturing and Keeping Customers in Internet Real Time*, 2nd ed. California: McGraw-Hill, 2002
12. Paul Hawkes and John Abram, *The Seven Myths of Customer Management*. West Sussex, England: John Wiley & Sons, 2003
13. Roger Cartwright, *Mastering Customer Relations*, 1st ed. Hampshire, England: Macmillan Press Ltd, 2000

14. Sarah Cook, *Measuring Customer Service Effectiveness*, Hampshire, England:
Gower Publishing Company, 2004
15. Stanley A. Brown, *Customer Relationship Management*, Ontario: Canada:
John Wiley & Sons Canada, Ltd, 2000

APPENDIX 1: GANTT CHART

GANTT CHART FOR FYP I





● Suggested milestone
 Process

Timelines for FYP 2

No.	Detail/ Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Project Work Continues	█	█	█	█	█	█	█								
2	Submission of Progress Report								●							
3	Project Work Continues								█	█	█	█	█			
4	Pre-EDX											●				
5	Submission of Draft Report												●			
6	Submission of Dissertation (soft bound)													●		
7	Submission of Technical Paper													●		
8	Oral Presentation														●	
9	Submission of Project Dissertation (Hard Bound)															●

Mid-Semester Break

 Suggested milestone
 Process

APPENDIX 2: LIST OF STAFFS TO BE INTERVIEWED

Name	Mr Cu Truong Vinh
Phone	+84-83-911-6206
Mobile	+84-90-777-1956
Fax	+84-43-822-5432
Email	<u>vinhct@vn.ibm.com</u>
Department	STG Sales Specialist - GEO Expansion Systems and Technology Group, IBM Vietnam
Address	Level 3B - Saigon Trade Center 37 Ton Duc Thang St., District 1 Ho Chi Minh, 084, Vietnam

Name	Ms Nguyen Truc Anh
Phone	+84-839116228
Mobile	+84-937011771
Fax	+84-38225432
Email	<u>anhnt2@vn.ibm.com</u>
Department	Systems and Technology Group, IBM Vietnam
Address	Level 3B - Saigon Trade Center 37 Ton Duc Thang St., District 1 Ho Chi Minh, 084, Vietnam

Name	Mr Pham Van Thinh
Phone	+84-86824 1474
Mobile	+84-908-778-111
Fax	+84-38225432
Email	thinhpv@vn.ibm.com
Department	South Territory Partner Manager, Business Partner Organization, IBM Vietnam
Address	Level 3B - Saigon Trade Center 37 Ton Duc Thang St., District 1 Ho Chi Minh, 084, Vietnam

Name	Mr Tran Duc Truong
Phone	+84-4-3946-2637
Mobile	+84-982-564-023
Fax	+844-3946-0203
Email	truongtd@vn.ibm.com
Department	Partner Manager, Business Partner Organization, IBM Vietnam
Address	2nd Flr., Pacific Place Bldg., 83B Ly Thuong Kiet Str. Hoan Kiem Dist., Hanoi, Vietnam

Name	Ms Nguyen Thi Viet
Phone	+844-3946-26-01
Mobile	+844-9-0220-6556
Fax	+844-3946-0203
Email	vietnt@vn.ibm.com
Department	North Territory Partner Manager, Business Partner Organization, IBM Vietnam
Address	2nd Flr., Pacific Place Bldg., 83B Ly Thuong Kiet Str. Hoan Kiem Dist., Hanoi, Vietnam

Name	Mr Do Phuc Anh
Phone	+844-3946-2071
Mobile	+84 98 988 5969
Fax	+844-3946-0203
Email	anhdp@vn.ibm.com
Department	IBM System x Marketing Manager, Systems and Technology Groups, IBM Vietnam
Address	2nd Flr., Pacific Place Bldg., 83B Ly Thuong Kiet Str. Hoan Kiem Dist., Hanoi, Vietnam

Name	Mr Vu Anh Hung
Phone	+844-3946-2036
Mobile	+84 93 625 7979
Fax	+844-3946-0203
Email	hungva@vn.ibm.com
Department	IBM System x Product Manager, Systems and Technology Groups, IBM Vietnam
Address	2nd Flr., Pacific Place Bldg., 83B Ly Thuong Kiet Str. Hoan Kiem Dist., Hanoi, Vietnam

Name	Mr Phung Hoai Duong
Phone	+84-4394-62018
Mobile	+84-9034-45866
Fax	+844-3946-0203
Email	duongph@vn.ibm.com
Department	Country Manager Hanoi, Systems and Technology Groups, IBM Vietnam
Address	2nd Flr., Pacific Place Bldg., 83B Ly Thuong Kiet Str. Hoan Kiem Dist., Hanoi, Vietnam

Name	Ms Le Thi Hong Lien
Phone	+844-3946-2071
Mobile	+84-977094975
Fax	+844-3946-0203
Email	lienlh@vn.ibm.com
Department	MTS Sales Specialist, Global Technology Services, IBM Vietnam
Address	2nd Flr., Pacific Place Bldg., 83B Ly Thuong Kiet Str. Hoan Kiem Dist., Hanoi, Vietnam

Name	Ms Hoang Minh Hien
Phone	+844-3946-2038
Mobile	+84 98 623 6756
Fax	+844-3946-0203
Email	hienhm@vn.ibm.com
Department	Velocity Center, IBM Vietnam
Address	2nd Flr., Pacific Place Bldg., 83B Ly Thuong Kiet Str. Hoan Kiem Dist., Hanoi, Vietnam

APPENDIX 3: AN INTERVIEW QUESTIONNAIRE

Name:

Position:

Contact:

Office Phone:

Mobile:

Fax:

Department:

Office location:

Email:

1. How much are you interested in the CRM?

- Very much
- Quite
- Not very
- It's not my interest

2. How often do you evaluate the activeness of customer?

- Every week
- Every month
- Every quarter
- Not very often

3. What criteria do you usually base on to evaluate the level of customer?

- Sales
- Event or conference attendance
- Number of certificate
- Others

If you choose *Others*, please specify your answer:

.....
.....

4. Is there a CRM tracking system in your company?

- Yes
- No
- Not sure

5. How important do you think the tracking of customer relationship with company?
- Very important now
 - Not very important now, but will be in the future
 - Quite important
 - Not important
6. If you think there should be a web-based system for CRM analysis, what other function, apart from information updates and analysis, do you expect from such a system to provide you with?
- A forum or a chat tool, for signed-in people to discuss about the customer
 - Database retrieval for historical customer status.
 - None of the above
8. What is your most favorite web layout style for an information-based website?
- Simple and organized texts
 - Illustrative and nice images
 - Dynamic flash illustrations
 - Any style. As long as it gives me the information I need.
9. What color mixes do you like the most in a web page?
- Black and white
 - Blue and white
 - Black and orange
 - Others

If you choose *Others*, please specify your answer:

.....

10. Do you have any comment or proposal for the system?

.....

Thank you very much for your cooperation.

APPENDIX 4: QUESTIONNAIRES TESTING PHASE

CRM Tracking System in Database and Web helps the company to track and update business performance of customer, therefore the company can continuously push and manage their business as well as improve the relationship with the customer. Moreover, the system aims to consolidate customer information from many sources and it's the foundation for the company to design more suitable strategy and program for different type of customer.

With the aim to improve the system so that it can serve the company better, I need your cooperation to answer the following questions by giving your assessment based on the following standard:

1. Excellent 2. Good 3. Normal 4. To be improved* 5. Not useful*

** Please specify your comments so that the system can be improved in the space provided below.*

Criteria	Ranking
1. Interface	
a. Color	1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/> 5. <input type="checkbox"/>
b. Arrangement of buttons and links	1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/> 5. <input type="checkbox"/>
c. Pictures	1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/> 5. <input type="checkbox"/>
2. Content	
a. List of personal information:	
• Contact details	1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/> 5. <input type="checkbox"/>
• Picture	1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/> 5. <input type="checkbox"/>

<p>b. List of categories</p> <ul style="list-style-type: none"> • Active customer • Inactive customer • Interest sector • Event • Certificate <p>c. Arrangement of categories</p>	<p>1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/> 5. <input type="checkbox"/></p> <p>1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/> 5. <input type="checkbox"/></p> <p>1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/> 5. <input type="checkbox"/></p> <p>1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/> 5. <input type="checkbox"/></p> <p>1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/> 5. <input type="checkbox"/></p>
<p>3. Functions</p> <p>a. Search</p> <p>b. Update profile</p>	<p>1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/> 5. <input type="checkbox"/></p> <p>1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/> 5. <input type="checkbox"/></p>

APPENDIX 5: DATABASE SOURCE CODES

```
--_phpMyAdmin SQL Dump
--
-- version 3.2.4
-- http://www.phpmyadmin.net
--
-- Host: localhost
-- Generation Time: Apr 22, 2011 at 08:02 AM
-- Server version: 5.1.41
-- PHP Version: 5.3.1

SET SQL_MODE="NO_AUTO_VALUE_ON_ZERO";

/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8 */;

--
-- Database: `crm`
--

-----

--
-- Table structure for table `certificate`
--

CREATE TABLE IF NOT EXISTS `certificate` (
  `id` int(255) NOT NULL AUTO_INCREMENT,
  `name` varchar(50) NOT NULL,
  `desc` varchar(50) NOT NULL,
  `expiredDate` varchar(50) NOT NULL,
  `picture` varchar(100) NOT NULL,
  PRIMARY KEY (`id`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=6 ;

--
-- Dumping data for table `certificate`
--

INSERT INTO `certificate` (`id`, `name`, `desc`, `expiredDate`, `picture`) VALUES
(1, 'C1', 'IBM Professional Certificate', '23.12.2012', 'v16-process-banner-1.jpg'),
(2, 'C2', 'System x Certificate', '31.04.2015', '70704947.png'),
(3, 'C3', 'Premium Business Partner', '23.12.2013', 'IBM_Pre.gif'),
(4, 'C4', 'IBM Business Partner', '30.12.2017', 'IBM_Business_Partner_logo.jpg'),
(5, 'C5', 'IBM System Storage', '20.12.2016', 'sm-banner.jpg');

-----

--
-- Table structure for table `custcert`
--

CREATE TABLE IF NOT EXISTS `custcert` (
  `id` int(255) NOT NULL AUTO_INCREMENT,
  `CustId` int(255) NOT NULL,
  `CertId` int(255) NOT NULL,
  PRIMARY KEY (`id`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=43 ;

--
-- Dumping data for table `custcert`
--
```

```
INSERT INTO `custcert` (`id`, `CustId`, `CertId`) VALUES
```

```
(1, 1, 1),  
(2, 1, 2),  
(3, 2, 2),  
(4, 2, 3),  
(5, 4, 3),  
(6, 1, 3),  
(8, 8, 3),  
(9, 10, 3),  
(10, 2, 4),  
(11, 8, 5),  
(12, 2, 1),  
(13, 4, 1),  
(14, 5, 1),  
(15, 26, 1),  
(16, 27, 1),  
(17, 29, 1),  
(18, 30, 1),  
(19, 32, 1),  
(20, 35, 1),  
(21, 30, 2),  
(22, 31, 2),  
(23, 35, 2),  
(24, 37, 2),  
(25, 39, 2),  
(26, 40, 2),  
(27, 41, 4),  
(28, 43, 4),  
(29, 45, 4),  
(30, 47, 4),  
(31, 49, 4),  
(32, 50, 4),  
(33, 51, 5),  
(34, 53, 5),  
(35, 54, 5),  
(36, 55, 5),  
(37, 57, 5),  
(38, 60, 5),  
(39, 61, 5),  
(40, 63, 5),  
(41, 64, 5),  
(42, 65, 5);
```

```
--  
-- Table structure for table `customer`  
--
```

```
CREATE TABLE IF NOT EXISTS `customer` (  
  `id` int(255) NOT NULL AUTO_INCREMENT,  
  `name` varchar(50) NOT NULL,  
  `address` varchar(100) NOT NULL,  
  `phone` varchar(15) NOT NULL,  
  `email` varchar(50) NOT NULL,  
  `product` varchar(50) NOT NULL,  
  `event` varchar(50) NOT NULL,  
  `certificate` varchar(50) NOT NULL,  
  `revenue` decimal(10,2) NOT NULL,  
  `profitability` decimal(10,2) NOT NULL,  
  `status` varchar(10) NOT NULL,  
  `interest` varchar(50) NOT NULL,  
  PRIMARY KEY (`id`)  
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=66 ;
```

```
--  
-- Dumping data for table `customer`  
--
```

INSERT INTO `customer` (`id`, `name`, `address`, `phone`, `email`, `product`, `event`, `certificate`, `revenue`, `profitability`, `status`, `interest`) VALUES

(1, 'ONE Corporation', 'Ha Noi', '0084313611264', 'phuong.dang@one.com.vn', 'P1, P2,P3', 'E1,E2,E3', 'C1,C2,C3', '150000.00', '0.00', 'old', 'banking'),
(2, 'Tuan Thanh', 'Ha Noi', '(84-31) 3767559', 'tuanpm@tuanthanh.com.vn', '', '', '450000.00', '10.00', 'old', 'government'),
(10, 'Thang Long', 'Ho Chi Minh', '(84-31) 3838112', 'thanhhuong@thanglong-jsc.com', '', '', '100.00', '90.00', 'old', 'Entertainment'),
(4, '3C', 'Ho Chi Minh', '(84-31) 3841456', 'hungdoduy@ccc.com.vn', '', '', '90.00', '90.00', 'old', 'BANKING'),
(5, 'GTC', 'Ho Chi Minh', '(84-31) 3719282', 'quynhtd@gtc-jsc.vn', '', '', '100.00', '80.00', 'old', 'securities'),
(6, 'Seatech IT', 'Ho Chi Minh', '(84-31) 3567868', 'minhng@seatechit.com.vn', '', '', '20.00', '100.00', 'old', 'securities'),
(7, 'Con Son', 'Da Nang', '(84-31) 3641580', 'hungpq@conson.com.vn', '', '', '90.00', '700.00', 'old', 'media/entertainment'),
(8, 'Sao Viet', 'Da Nang', '(84-31) 3718556', 'taquangha@gmail.com', '', '', '2000.00', '3000.00', 'old', 'media/entertainment'),
(13, 'Thuong Mai', 'Quang Ninh', '(84-33) 3772306', 'info@phuchungvn.com', '', '', '0.00', '0.00', 'new', 'education'),
(11, 'Nguyen Gia', 'Hai Phong', '(84-31) 3747120', 'elinco-nd@hn.vnn.vn', '', '', '0.00', '0.00', 'new', 'education'),
(9, 'Vinh Trinh', 'Thai Nguyen', '(84-31) 3530639', 'haidx@vinhtrinh.com.vn', '', '', '0.00', '0.00', 'new', 'banking'),
(14, 'Binh Minh', 'Hanoi', '(+844) 3513 236', 'hainh@binhminh.com.vn', '', '', '5600.00', '900.00', 'old', 'securities'),
(15, 'Tran Trung', 'Ha Noi', '(+844) 3733 808', 'pkd.aice@fpt.vn', '', '', '0.00', '0.00', 'new', 'banking'),
(16, 'CNI', 'Ha Noi', '+8443512 2330', 'ntduong@cni.com.vn', '', '', '0.00', '0.00', 'new', 'banking'),
(17, 'An Phu', 'Ha Noi', '(+848) 3756 941', 'dinh@anphu.net', '', '', '0.00', '0.00', 'new', 'securities'),
(18, 'Hoang Phat', 'Hai Phong', '(+844) 3537 346', 'phongva@hoangphat.com.vn', '', '', '0.00', '0.00', 'new', 'securities'),
(19, 'DTS', 'Ho Chi Minh', '8443974 5699', 'hungnm@dts.com.vn', '', '', '0.00', '0.00', 'new', 'banking'),
(20, 'CP Ben', 'Ha Noi', '(844) 3730 1955', 'benthienv@ben.com.vn', '', '', '0.00', '0.00', 'new', 'media/entertainment'),
(21, 'Hong Quang', 'Ha Noi', '008443650 224', 'hien@hqvn.com', '', '', '0.00', '0.00', 'new', 'media/entertainment'),
(22, 'Anh Ngoc', 'Hai Phong', '008443943 1592', 'toan@anhngoc.com.vn', '', '', '0.00', '0.00', 'new', 'media/entertainment'),
(23, 'ASP', 'Ho Chi Minh', '00844573 7459', 'dungnd@asp.vn', '', '', '0.00', '0.00', 'new', 'media/entertainment'),
(24, 'Dong Phuong', 'Bac Kan', '8443783 0841', 'tunguyen@dp-co.com', '', '', '0.00', '0.00', 'new', 'media/entertainment'),
(25, 'DAISY', 'Tuyen Quang', '008443636 7327', 'hoavi@daisy.com.vn', '', '', '0.00', '0.00', 'new', 'banking'),
(26, 'Dang Khoa', 'Ha Giang', '008443772 4770', 'hiepnq@dangkhoa.vn', '', '', '4678.00', '2457.00', 'old', 'Financial Markets'),
(27, 'Dat Viet', 'Ha Noi', '008443754 9377', 'tuanha@datvietpc.com.vn', '', '', '15803.00', '3367.00', 'old', 'education'),
(28, 'NEO', 'Da Nang', '008443793 0395', 'baoh@neo.com.vn', '', '', '2257.00', '1589.00', 'old', 'education'),
(29, 'AIC', 'Ha Noi', '008443942 1039', 'ladg@aic.com.vn', '', '', '3368.00', '1134.00', 'old', 'education'),
(30, 'CSE', 'Ho Chi Minh', '008443791 4958', 'thuan@cse-tech.net', '', '', '2678.00', '225.00', 'old', 'education'),
(31, 'PYTHIS', 'Ha Noi', '008443978 2747', 'quyetnk@pythis.com', '', '', '2567.00', '2278.00', 'old', 'education'),
(32, 'Dat Viet', 'Da Nang', '008443553 7907', 'trungna@apzon.com', '', '', '66890.00', '2255.00', 'old', 'education'),
(33, 'OIC', 'Da Nang', '008443733 2122', 'oicminhqn@nhathai.com.vn', '', '', '29906.00', '88559.00', 'old', 'education'),
(34, 'VSSD', 'Da Nang', '008443734 6900', 'thangdq@vssd.com.vn', '', '', '36788.00', '3367.00', 'old', 'education'),
(35, 'ELCOM', 'Da Nang', '008443835 9359', 'phuonghd@elcom.com.vn', '', '', '2579.00', '2680.00', 'old', 'media/entertainment'),
(36, 'NSV', 'Quang Tri', '008443881 3189', 'kita@nsv.com.vn', '', '', '3368.00', '2257.00', 'old', 'Health/Life Science Sector'),
(37, 'Dong A', 'Quang Binh', '008443733 6682', 'donga@fpt.com.vn', '', '', '22570.00', '678.00', 'old', 'Health/Life Science Sector'),
(38, 'FSCD', 'Ho Chi Minh', '008443552 5840', 'nguyenminh@npp.com.vn', '', '', '895480.00', '3389317.00', 'old', 'Health/Life Science Sector'),
(39, 'NOVA', 'Ho Chi Minh', '00848 39253124', 'nova@hcm.vnn.vn', '', '', '26890.00', '2267.00', 'old', 'Health/Life Science Sector'),
(40, 'Minh Phuc', 'Ho Chi Minh', '008408.3836 025', 'trangnt@caat.com.vn', '', '', '36805.00', '33708.00', 'old', 'Health/Life Science Sector'),
(41, 'Minh Phuc', 'Ho Chi Minh', '00843836 0251', 'trangnt@caat.com.vn', '', '', '36805.00', '33708.00', 'old', 'Health/Life Science Sector'),
(42, 'MP Telecom', 'Ha Noi', '00844 5771608', 'phuongnt1@mptelecom.com.vn', '', '', '36980.00', '1587.00', 'old', 'Telco'),
(43, 'Tuong Phat', 'Ho Chi Minh', '008484043444', 'cmttuongphat@vnn.vn', '', '', '3768.00', '2567.00', 'old', 'Health/Life Science Sector'),
(44, 'Trung Phat', 'Ha Noi', '0084862970162', 'thu.le@ntp.vn', '', '', '33688.00', '2579.00', 'old', 'Telco'),
(45, 'Thuan Phong', 'Da Nang', '008483863 0366', 'ninh.tt@snt.vn', '', '', '33790.00', '33672.00', 'old', 'Telco'),
(46, 'Thuan Phong', 'Da Nang', '0084838630366', 'ninh.tt@snt.vn', '', '', '33790.00', '33672.00', 'old', 'Telco'),
(47, 'Hung Phat', 'Quang Binh', '008483863 0366', 'hungphat@vesa.com.vn', '', '', '3679.00', '9065.00', 'old', 'Telco'),
(48, 'Hung Phat', 'Quang Binh', '0084838630366', 'hungphat@vesa.com.vn', '', '', '3679.00', '9065.00', 'old', 'Telco'),
(49, 'MITEC', 'Ha Noi', '0084839257966', 'duclm@mitec.com.vn', '', '', '832780.00', '336894.00', 'old', 'Telco'),
(50, 'An Thinh', 'Hue', '00840533858515', 'quocman@anthinh.com', '', '', '22568.00', '16903.00', 'old', 'government'),
(51, 'ATI', 'Hue', '008453862032', 'linhpt@ativn.com', '', '', '3690.00', '11578.00', 'old', 'government'),
(52, 'Chan Chinh', 'Da Nang', '0084543581868', 'chinhdv@chanchinh.com.vn', '', '', '57868.00', '258904.00', 'old', 'government'),
(53, 'Ciscom', 'Ha Noi', '0084543513956', 'thang.hq@ciscom.com.vn', '', '', '89478.00', '31692.00', 'old', 'government'),
(54, 'Dai Tran Gia', 'Thai Nguyen', '00842803656898', 'hoantran@traginet.com', '', '', '74483.00', '77127.00', 'old', 'government'),
(55, 'Dong Quan', 'Quang Ninh', '00842803752764', 'dongnt@dongquan.vn', '', '', '227689.00', '77633.00', 'old', 'government'),
(56, 'GEN', 'Hue', '0084313838112', 'loint@genpacific.com.vn', '', '', '77327.00', '279832.00', 'old', 'Financial Markets'),
(57, 'Hong Quang', 'Hai Phong', '0084313838112', 'dungntk@5sjsc.com', '', '', '76733.00', '26798.00', 'old', 'Financial Markets'),
(58, 'Hop Nhat', 'Da Nang', '0084316252097', 'kiennt@wonderbuy.vn', '', '', '773389.00', '226799.00', 'old', 'Financial Markets'),
(59, 'Khoi Loc', 'Ho Chi Minh', '0084313611264', 'loc.le@smartmus.com', '', '', '67637.00', '22689.00', 'old', 'Financial Markets'),
(60, 'IDE', 'Thai Nguyen', '0084313530639', 'thonghoang@kncvietnam.com', '', '', '77480.00', '22689.00', 'old', 'Financial Markets'),
(61, 'KNC', 'Hai Phong', '00842103840002', 'ide.hannd@vnn.vn', '', '', '932267.00', '122679.00', 'old', 'Financial Markets'),
(62, 'Blue Hat', 'Ho Chi Minh', '00842103840002', 'hoah@bluehat.vn', '', '', '884376.00', '26899.00', 'old', 'Insurance'),
(63, 'Nguyen Kim', 'Hai Phong', '00842113841924', 'thietpn@nguyenkimvn.vn', '', '', '773379.00', '278904.00', 'old', 'Insurance'),
(64, 'Nhat Hai', 'Hue', '00842113843121', 'hiep@nhathaisystem.com.vn', '', '', '36894.00', '38903.00', 'old', 'Electrical & Electronic'),
(65, 'NGN', 'Ha Noi', '00842113873199', 'huynh@ngn.com.vn', '', '', '657804.00', '168058.00', 'old', 'Electrical & Electronic');

```
-- Table structure for table `event`
```

```
--  
CREATE TABLE IF NOT EXISTS `event` (  
  `id` int(255) NOT NULL AUTO_INCREMENT,  
  `name` varchar(50) NOT NULL,  
  `desc` varchar(50) NOT NULL,  
  `Date` varchar(50) NOT NULL,  
  `time` varchar(50) NOT NULL,  
  `picture` varchar(100) NOT NULL,  
  PRIMARY KEY (`id`)  
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=6 ;
```

```
--  
-- Dumping data for table `event`  
--
```

```
INSERT INTO `event` (`id`, `name`, `desc`, `Date`, `time`, `picture`) VALUES  
(1, 'E1', 'IBM Systems Director 6.2 for System x and Blade', '2 January 2011', '5.00 p.m. - 6.00 p.m.', 'systemsdirect.jpg'),  
(2, 'E2', 'VMware vSphere: Fast Track (V4)', '29 Jan 2011', '8.00 a.m. - 10.00 a.m.', '51P7qPvYJBL.jpg'),  
(3, 'E3', 'Introduction to Director 6.1', '30.12.2010', '10am', 'ibm-systems.jpg'),  
(4, 'E4', 'AIX 6 Jumpstart for UNIX Professionals', '21.08.2010', '7am-9am', 'e.jpg'),  
(5, 'E5', 'eX5 and Blade Announcement', '17.09.2010', '8-10AM', 'eX5.jpg');
```

```
--  
-- Table structure for table `eventattend`  
--
```

```
CREATE TABLE IF NOT EXISTS `eventattend` (  
  `id` int(255) NOT NULL AUTO_INCREMENT,  
  `CustId` int(255) NOT NULL,  
  `EventId` int(255) NOT NULL,  
  PRIMARY KEY (`id`)  
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=60 ;
```

```
--  
-- Dumping data for table `eventattend`  
--
```

```
INSERT INTO `eventattend` (`id`, `CustId`, `EventId`) VALUES  
(1, 1, 1),  
(2, 2, 2),  
(3, 1, 3),  
(4, 2, 5),  
(5, 1, 4),  
(6, 1, 2),  
(11, 2, 3),  
(8, 4, 3),  
(9, 6, 5),  
(10, 1, 5),  
(12, 8, 3),  
(13, 5, 5),  
(17, 10, 3),  
(15, 5, 3),  
(16, 4, 4),  
(18, 5, 1),  
(19, 4, 1),  
(20, 7, 1),  
(21, 8, 1),  
(22, 10, 1),  
(23, 13, 1),  
(24, 56, 1),  
(25, 30, 1),  
(26, 40, 1),  
(27, 27, 2),  
(28, 28, 2),  
(29, 34, 2),  
(30, 35, 2),
```

(31, 45, 2),
(32, 46, 2),
(33, 50, 2),
(34, 6, 2),
(35, 53, 2),
(36, 56, 2),
(37, 14, 3),
(38, 29, 3),
(39, 34, 3),
(40, 41, 3),
(41, 42, 3),
(42, 5, 4),
(43, 6, 4),
(44, 10, 4),
(45, 29, 4),
(46, 32, 4),
(47, 37, 4),
(48, 39, 4),
(49, 40, 4),
(50, 41, 4),
(51, 46, 4),
(52, 48, 4),
(53, 26, 5),
(54, 27, 5),
(55, 28, 5),
(56, 29, 5),
(57, 43, 5),
(58, 45, 5),
(59, 47, 5);

--
-- Table structure for table `product`
--

```
CREATE TABLE IF NOT EXISTS `product` (  
  `id` int(255) NOT NULL AUTO_INCREMENT,  
  `name` varchar(50) NOT NULL,  
  `price` decimal(10,2) NOT NULL,  
  `picture` varchar(50) NOT NULL,  
  `brand` varchar(50) NOT NULL,  
  `model` varchar(50) NOT NULL,  
  PRIMARY KEY (`id`)  
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=71 ;
```

--
-- Dumping data for table `product`
--

```
INSERT INTO `product` (`id`, `name`, `price`, `picture`, `brand`, `model`) VALUES  
(1, 'X3200 M2', '7238.00', 'ibm serverx3200.jpg', 'IBM Server', 'System X'),  
(2, 'X3500 M2', '2486.00', 'i22-6013.jpg', 'IBM Server', 'System X'),  
(3, 'X3400 M2', '1980.00', 'x3400 M2.jpg', 'IBM Server', 'System X'),  
(4, 'X3250 M3', '1551.00', 'x3250 M3.jpg', 'IBM Server', 'System X'),  
(5, 'X3550 M2', '2490.00', 'descr_img778.jpg', 'IBM Server', 'System X'),  
(6, 'X3650 M2', '4130.50', '3650M2_443x160.jpg', 'IBM Server', 'System X'),  
(7, 'X3850 M2', '2689.00', 'x3850 M2 frontleft.jpg', 'IBM Server', 'System X'),  
(8, 'X3950 M2', '1820.00', 'x3950m2.jpg', 'IBM Server', 'System X'),  
(9, 'HS12', '3099.00', 'hs12.jpg', 'IBM Server', 'System X'),  
(10, 'HS22', '4178.00', 'hs22.jpg', 'IBM Server', 'System X'),  
(11, 'LS42', '5134.00', 'descr_img852.jpg', 'IBM Server', 'System X'),  
(12, 'Power 720 Express', '2892.00', 'IBM720Express.jpg', 'IBM Server', 'System P'),  
(13, 'Power 730 Express', '5279.00', 'ibm-power730.jpg', 'IBM Server', 'System P'),  
(14, 'Power 740 Express', '4167.00', 'ibm-power740.jpg', 'IBM Server', 'System P'),  
(15, 'Power 750 Express', '5112.00', '750.jpg', 'IBM Server', 'System P'),  
(16, 'Power 770', '6830.00', 'Power770.jpg', 'IBM Server', 'System P'),  
(17, 'Power 780', '4869.00', 'Power 795.jpg', 'IBM Server', 'System P'),  
(18, 'Power 795', '6292.00', 'IBM_Power_795x380.jpg', 'IBM Server', 'System P'),  
(19, 'DS8000', '5889.00', 'IBM_DS8000.jpg', 'IBM Storage', 'Disk Storage'),
```


(20, 'Storwize V7000', '5687.00', 'IBM_StorwizeV7000.jpg', 'IBM Storage', 'Disk Storage'),
(21, 'DS3950', '5789.00', '181494H_595.jpg', 'IBM Storage', 'Disk Storage'),
(22, 'DS5000', '4879.00', 'DS5000_400_216.jpg', 'IBM Storage', 'Disk Storage'),
(23, 'DS5020 Express', '7800.00', 'tgm0035.jpg', 'IBM Storage', 'Disk Storage'),
(24, 'DCS9900', '64590.00', 'ibm_DCS9900.jpg', 'IBM Storage', 'Disk Storage'),
(25, 'DS3000 series', '6890.00', 'ibmDS3000series.jpg', 'IBM Storage', 'Disk Storage'),
(26, 'DS3500', '8920.00', 'DS3500.jpg', 'IBM Storage', 'Disk Storage'),
(27, 'EXP3000', '6890.00', 'EXP3000.jpg', 'IBM Storage', 'Disk Storage'),
(28, 'N7000 series', '6989.00', 'N7000.jpg', 'IBM Storage', 'Disk Storage'),
(29, 'N6000 series', '5699.00', 'IBM_SS_ID_Creative_174Edit_443.jpg', 'IBM Storage', 'Disk Storage'),
(30, 'N5000 series', '4590.00', 'N5000.jpg', 'IBM Storage', 'Disk Storage'),
(37, 'N3000 series', '5290.00', '12451339352870.jpg', 'IBM Storage', 'Disk Storage'),
(38, 'TS7680 ProtecTIER@ Deduplication Gateway for Syste', '4998.00', 'TS7650G.jpg', 'IBM Storage', 'Tape Systems'),
(39, 'TS7700 Virtualisation Engine', '4589.00', 'TS7700.jpg', 'IBM Storage', 'Tape Systems'),
(40, 'TS1130 Tape Drive', '6490.00', 'storage_ts1130.jpg', 'IBM Storage', 'Tape Systems'),
(41, 'TS3500 Tape Library', '4660.00', 'ts3500.jpg', 'IBM Storage', 'Tape Systems'),
(42, 'TS7650G ProtecTIER@ Deduplication Gateway', '6469.00', '0.jpg', 'IBM Storage', 'Tape Systems'),
(43, 'TS3200 Tape Library Express Model', '6420.00', 'ts3200.jpg', 'IBM Storage', 'Tape Systems'),
(44, 'TS7650 ProtecTIER@ Deduplication Appliance', '3600.00', '0304001a.jpg', 'IBM Storage', 'Tape Systems'),
(45, 'TS3310 Tape Library', '3400.00', 'ibm_syst_ts3310.jpg', 'IBM Storage', 'Tape Systems'),
(46, 'TS3100 Tape Library Express Model', '2699.00', 'zmi1291372166.jpg', 'IBM Storage', 'Tape Systems'),
(47, 'TS2900 Tape Autoloader', '3605.00', 'TS2900_400_100.jpg', 'IBM Storage', 'Tape Systems'),
(48, 'TS2350 Tape Drive Express', '2690.00', '11515587.jpg', 'IBM Storage', 'Tape Systems'),
(49, 'TS2250 Tape Drive Express', '6400.00', '250.jpg', 'IBM Storage', 'Tape Systems'),
(50, 'TS2240 Tape Drive Express', '3678.00', 'ts2240.jpg', 'IBM Storage', 'Tape Systems'),
(51, 'TS2230 Tape Drive Express Model', '3656.00', '1008630.jpg', 'IBM Storage', 'Tape Systems'),
(52, 'TS7610 ProtecTIER Deduplication Appliance Express', '4689.00', 'ts7610.jpg', 'IBM Storage', 'Tape Systems'),
(53, '7214 Storage Device Enclosure', '4512.00', '7214.jpg', 'IBM Storage', 'Tape Systems'),
(54, 'IBM System Storage SAN768B and SAN384B', '5443.00', '192.jpg', 'IBM Storage', 'Enterprise SAN directors'),
(55, 'IBM TotalStorage SAN256B', '3800.00', '200.jpg', 'IBM Storage', 'Enterprise SAN directors'),
(56, 'Cisco MDS 9513', '5411.00', '9513.jpg', 'IBM Storage', 'Enterprise SAN directors'),
(57, 'Cisco MDS 9509', '4300.00', 'MDS9509.jpg', 'IBM Storage', 'Enterprise SAN directors'),
(58, 'Cisco MDS 9506', '4311.00', '9506.jpg', 'IBM Storage', 'Enterprise SAN directors'),
(59, 'IBM System Storage SAN80B-4', '6657.00', 'B80.jpg', 'IBM Storage', 'Mid-range SAN switches'),
(60, 'IBM System Storage SAN40B-4', '5645.00', 'systems_storage_san.jpg', 'IBM Storage', 'Mid-range SAN switches'),
(61, 'IBM System Storage SAN32B-E4', '4800.00', 'san32be4.jpg', 'IBM Storage', 'Mid-range SAN switches'),
(62, 'Cisco MDS 9134', '4211.00', '9124.jpg', 'IBM Storage', 'Mid-range SAN switches'),
(63, 'Cisco MDS 9148', '4622.00', '1016412159.jpg', 'IBM Storage', 'Mid-range SAN switches'),
(64, 'Cisco MDS 9124 Express', '7230.00', '021_1.jpg', 'IBM Storage', 'Entry SAN switches'),
(65, 'IBM System Storage SAN24B-4 Express', '3199.00', 'vev1289876188.jpg', 'IBM Storage', 'Entry SAN switches'),
(66, 'IBM System Storage SAN04B-R', '3453.00', 'AN04BR.jpg', 'IBM Storage', 'Multiprotocol routers'),
(67, 'IBM System Storage SAN06B-R', '4200.00', '400x128.jpg', 'IBM Storage', 'Multiprotocol routers'),
(68, 'Cisco MDS 9222i', '2982.00', '9222i.jpg', 'IBM Storage', 'Multiprotocol routers'),
(69, 'IBM System Storage N series Gateway', '5300.00', '3000.jpg', 'IBM Storage', 'IBM System Storage N series hardware'),
(70, 'IBM System Storage N3000 Express', '4690.00', '4700 Express.jpg', 'IBM Storage', 'IBM System Storage N series hardware');

--
-- Table structure for table `sales`
--

```
CREATE TABLE IF NOT EXISTS `sales` (
  `id` int(255) NOT NULL AUTO_INCREMENT,
  `CustId` int(255) NOT NULL,
  `ProductId` int(255) NOT NULL,
  `date` varchar(10) NOT NULL,
  `quantity` int(255) NOT NULL,
  `InvoiceNo` varchar(50) NOT NULL,
  `partnumber` varchar(50) NOT NULL,
  PRIMARY KEY (`id`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1 AUTO_INCREMENT=32 ;
```

--
-- Dumping data for table `sales`
--

```
INSERT INTO `sales` (`id`, `CustId`, `ProductId`, `date`, `quantity`, `InvoiceNo`, `partnumber`) VALUES
(1, 1, 1, '23.01.2011', 2, '150095', '794722A'),
(2, 2, 2, '23.06.2010', 4, '150102', '794732A');
```

```
(3, 2, 1, '26.04.2010', 5, '47893', '794792A'),
(4, 1, 2, '26.01.2011', 2, '72870', '436738A'),
(5, 4, 60, '21.08.2010', 2, '72850', '794772A'),
(6, 6, 45, '09.07.2010', 3, '150137', '783634A'),
(7, 10, 12, '12.04.2010', 1, '150164', '794732B'),
(8, 65, 37, '23.04.2010', 4, '109822', '794722A'),
(9, 8, 70, '30.04.2010', 5, '109839', '783624A'),
(10, 26, 30, '15.04.2010', 4, '109844', '794732A'),
(11, 14, 39, '23.04.2010', 6, '109876', '794722C'),
(12, 27, 42, '19.04.2010', 12, '109877', '794792A'),
(13, 60, 46, '10.04.2010', 32, '109944', '794752B'),
(14, 63, 37, '15.05.2010', 5, '109986', '794722B'),
(15, 31, 38, '30.05.2010', 44, '6568', '794752A'),
(16, 35, 16, '20.05.2010', 42, '6585', '794732A'),
(17, 38, 39, '21.05.2010', 35, '6603', '783624A'),
(18, 49, 67, '29.05.2010', 434, '6610', '436738A'),
(19, 39, 39, '12.06.2010', 34, '6647', '794732A'),
(20, 5, 37, '21.06.2010', 24, '6452', '72334LA'),
(21, 61, 39, '29.06.2010', 242, '6486', '783634A'),
(22, 7, 55, '18.06.2010', 256, '6498', '436738A'),
(23, 27, 37, '03.07.2010', 33, '6521', '794752A'),
(24, 63, 18, '22.07.2010', 336, '6505', '4190D4A'),
(25, 44, 38, '16.07.2010', 268, '6526', '794772A'),
(26, 10, 69, '27.07.2010', 42, '6534', '783612A'),
(27, 28, 46, '09.08.2010', 367, '54463', '794752A'),
(28, 29, 54, '14.08.2010', 74, '54480', '794752A'),
(29, 64, 51, '13.08.2010', 251, '54506', '172621X'),
(30, 8, 58, '11.08.2010', 350, '110015', '4194D4A'),
(31, 4, 33, '04.05.2009', 224, '110050', '794752A');
```

```
--
-- Table structure for table `user`
--
```

```
CREATE TABLE IF NOT EXISTS `user` (
  `id` int(255) NOT NULL AUTO_INCREMENT,
  `email` varchar(50) NOT NULL,
  `password` varchar(50) NOT NULL,
  `fname1` varchar(50) NOT NULL,
  `lname` varchar(50) NOT NULL,
  `phone` varchar(50) NOT NULL,
  `dept` varchar(50) NOT NULL,
  `post` varchar(50) NOT NULL,
  `picture` varchar(50) NOT NULL,
  PRIMARY KEY (`id`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=15;
```

```
--
-- Dumping data for table `user`
--
```

```
INSERT INTO `user` (`id`, `email`, `password`, `fname1`, `lname`, `phone`, `dept`, `post`, `picture`) VALUES
(7, 'thuyandyou@gmail.com', '123456', 'Le Thi', 'Thuy', '0172945092', 'CIS', 'Student', 'thuy.JPG'),
(9, 'dhanapai_d@petronas.com.my', '123456', 'Assoc.Prof.Dr.', 'P.D.D Dominic', '0175071408', 'CIS', 'Senior Lecturer', 'n.jpg');

/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
```

APPENDIX 6: SYSTEM SOURCE CODES

1. Certificate

```
<?php
session_start();
if (empty($_SESSION['email'])) {
    header("location:index.php");
}

include "include/connection.php";
$productid=$_REQUEST['id'];

$getProductInfo=mysql_query("Select * from certificate where id=$productid");
$productInfo=mysql_fetch_row($getProductInfo);

?>

<table height="260" width="250">
<tr><td colspan="3"><?php echo $ProductInfo[1]?></td></tr>
<tr><td colspan="3"><?php echo $ProductInfo[2]?></td></tr>
<tr><td>Expired Date </td><td>:</td><td><?php echo $ProductInfo[3] ?></td></tr>
<tr valign="center"><td align="center" colspan="3"></td></tr>
</table>
```

2. CertificateOwned

```
<?php
session_start();
include "include/connection.php";

$certificate=$_REQUEST['certificate'];

$getEventInfo=mysql_query("Select * from certificate where id=$certificate");
$EventInfo=mysql_fetch_row($getEventInfo);

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<link rel="stylesheet" type="text/css" href="css/styles.css" />

</head>
<body>
<div id="top" >
<div id="home"><a href="home.php">Home</a></div>
<div id="searchBox" >

<form name="search" action="SearchCustomer.php" method="post">
<input type="text" name="search" /> <input type="submit" value="search"/>
</form>

</div><?php include "include/logStat.php"; ?>
</div>

<div id="header" >

</div>

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>

<div id="content"><table><tr><td>
<div id="Nav">
<div id="navigation">

<?php
include "include/navBar.php";

?>
```

```

</div>
</div>
<div id="conMid">
<div id="LoyCustomer">
<h2> Certificate</h2>
<table class="tableColor" border=0 width="100%">
<tr class="tableHeaderColor" ><td align="left" colspan="5">Certificate <?php echo $certificate ?><br /> Name : <?php echo
$EventInfo[2] ?><br />Date expired: <?php echo $EventInfo[3] ?> </td></tr>

<tr class="tableHeaderColor">
<td width="20%">Name</td>
<td width="20%">Address</td>
<td width="20%">Email</td>
<td width="20%">Phone</td>
<td width="20%">Revenue (USD)</td>

</tr>
<?php

$getCustomerId=mysql_query("Select * from custcert where CertId='$certificate'");
while($CustomerId=mysql_fetch_row($getCustomerId)){
$getCustomerAttend=mysql_query("Select * from customer where id='$CustomerId[1]'");
while($CustomerAttend=mysql_fetch_row($getCustomerAttend)){

print("<tr
class='tableConColor'><td>$CustomerAttend[1]</td><td>$CustomerAttend[2]</td><td>$CustomerAttend[4]</td><td>$Customer
Attend[3]</td><td>$CustomerAttend[8]</td></tr>");
}}
?>

</table>

</div>

</div>
</td></tr></table>
</div>
<?php include "include/footer.html"; ?>

</body>

<html>

```

3. Event

```
<?php
session_start();
if (empty($_SESSION['email'])) {
    header('location:index.php');
}

include "include/connection.php";
$productId=$_REQUEST['id'];

$getProductInfo=mysql_query("Select * from event where id='$productId'");
$productInfo=mysql_fetch_row($getProductInfo);

?>

<table height="260" width=250 border=0>
<tr><td colspan="3"><?php echo $ProductInfo[1]?></td></tr>
<tr><td colspan="3"><?php echo $ProductInfo[2]?></td></tr>
<tr><td>Date </td><td>:</td><td><?php echo $ProductInfo[3] ?></td></tr>
<tr><td>Time</td><td>:</td><td><?php echo $ProductInfo[4] ?></td></tr>
<tr valign="center"><td align=center colspan="3"></td></tr>
</table>
```

4. EventAttend

```
<?php
session_start();
include "include/connection.php";

$event=$_REQUEST['event'];
$attend=$_REQUEST['attend'];

if($attend==1)
$part="List of all participant who attend the event.";
else
$part="List of all participant who are NOT attend the event.";

$getEventInfo=mysql_query("Select * from event where id='$event'");
$EventInfo=mysql_fetch_row($getEventInfo);

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<link rel="stylesheet" type="text/css" href="css/styles.css" />

</head>
<body>
<div id="top" >
<div id="home"><a href="home.php">Home</a></div>
<div id="searchBox" >

<form name="search" action="SearchCustomer.php" method="post">
<input type="text" name="search" /> <input type="submit" value="search"/>
</form>

</div><?php include "include/logStat.php"; ?>
</div>

<div id="header" >

</div>

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>

<div id="content">
<table><tr><td>
<div id="Nav">
<div id="navigation">
```



```
}  
}
```

```
/**$getCustomerId=mysql_query("Select * from eventattend where EventId=$event");
```

```
while($CustomerId=mysql_fetch_row($getCustomerId)){  
if($attend==1)
```

```
$getCustomerAttend=mysql_query("Select * from customer where id=$CustomerId[1]");  
else
```

```
$getCustomerAttend=mysql_query("Select * from customer where id !=$CustomerId[1]");  
while($CustomerAttend=mysql_fetch_row($getCustomerAttend)){
```

```
print("<tr  
class='tableConColor'><td>$CustomerAttend[1]</td><td>$CustomerAttend[2]</td><td>$CustomerAttend[4]</td><td>$CustomerAttend[3]</td><td>$CustomerAttend[8]</td></tr>");  
}}**/  
?>
```

```
</table>
```

```
</div>
```

```
</div>
```

```
</td></tr></table>
```

```
</div>
```

```
<?php include "include/footer.html"; ?>
```

```
</body>
```

```
</html>
```

5. Home

```
<?php
session_start();
if (empty($_SESSION['email'])) {
    header('location:index.php');
}
include "include/connection.php";

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<link rel="stylesheet" type="text/css" href="css/styles.css" />
</head>
<body>
<div id="top" >

<div id="home"><a href="home.php">Home</a></div>
<div id="searchBox" >
<form name="search" action="SearchCustomer.php" method="post">
<input type="text" name="search" /> <input type="submit" value="search"/>
</form>
</div>
<?php include "include/logStat.php"; ?>
</div>

<div id="header" >

</div>

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>

<div id="content">
<table ><tr><td>
<div id="Nav">
<div id="navigation">

<?php

include "include/navBar.php";

?>
</div>
</div>
```

```
<div id="conMid">
```

```
<div id="Introduction" class="pop_container_advanced">
```

```
<h2>Introduction</h2>
```

```
<p >
```

```
CRM Tracking System provides a full set of database for staffs in Sales department at IBM Vietnam. Based on the information about customer such as contact details, location, interest sector, certificate, sales, event, the system will provide the staffs with a useful search engine so that people in need can find necessary information in a timely and effective manner. Besides, the staffs can use the system to track and update the business performance of customers to continuously push and manage their business with the company. The system aims to evaluate the relationship of customer with the company, therefore company can design different program for different group of customer. </p>
```

```
</div>
```

```
<div id="intro1">
```

```
News & Event
```

```
<p> <a href="http://www.ibm.com/us/en">
```

```
</a><br/></p>
```

```
</div>
```

```
<div id="intro2">
```

```
CRM
```

```
<p> <a href="http://www.google.com.vn/search?hl=vi&biw=1280&bih=662&gbv=2&q=CRM&ie=UTF-8&sa=N&tab=iw"> </a><br/></p>
```

```
</div>
```

```
<div id="intro3">
```

```
Authorized Distributors
```

```
<p> <a href="http://www.ibm.com/us/en"> </a><br/></p>
```

```
</div>
```

```
</td></tr></table>
```

```
</div>
```

```
<?php include "include/footer.html"; ?>
```

```
</body>
```

```
</html>
```

6. inactiveCustomer

```
<?php
session_start();
if (empty($_SESSION['email'])) {
    header('location:index.php');
}

include "include/connection.php";

$month=$_REQUEST['month'];
$year=$_REQUEST['year'];
$generateMonthM=array('January','February','Mac','April','May','June','July','August','September','October','November','December');

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<link rel="stylesheet" type="text/css" href="css/styles.css" />

</head>
<body>
<div id="top" >
<div id="home"><a href="home.php">Home</a></div>
<div id="searchBox" >

<form name="search" action="SearchCustomer.php" method="post">
<input type="text" name="search" /> <input type="submit" value="search"/>
</form>

</div><?php include "include/logStat.php"; ?>
</div>

<div id="header" >

</div>

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>

<div id="content">
<table><tr><td>
<div id="Nav">
<div id="navigation">

<?php
```

```

include "include/navBar.php";

?>
</div>
</div>
<div id="conMid">
<div id="LoyCustomer">
<h2> Inactive Customer</h2>
<table class="tableColor" border=0 width="100%">
<tr class="tableHeaderColor"><td align="center" colspan="10"> <b>Inactive Customer in <?php echo $generateMonthM[$month-1].
20". $year; ?> </b></td></tr>

<tr class="tableHeaderColor">
<td width="50%">Name</td>
<td width="20%">Email</td>
<td width="20%">Invoice Date</td>
<td width="20%">Invoice No.</td>
<td width="20%">Location</td>
<td width="20%">Brand</td>
<td width="20%">Part No</td>
<td width="20%">Model</td>
<td width="20%">Quantity</td>
<td width="20%">Revenue (USD)</td>

</tr>
<?php
//determine the status of active and inactive customer
$getDistinct=mysql_query("Select Distinct CustId from sales ");
$activeCust=0;

while($Distinct=mysql_fetch_row($getDistinct)){
$getStatus=mysql_query("Select * from sales where CustId=$Distinct[0] Order By date DESC LIMIT 1");
while($StatusDate=mysql_fetch_row($getStatus)){
$SalesDayStatus=(int)substr($StatusDate[3],0,2);
$SalesMonthStatus=(int)substr($StatusDate[3],3,2);
$SalesMonthYear=(int)substr($StatusDate[3],8,4);

if($SalesMonthYear == $year ){
if($SalesMonthStatus > $month )
$Date--1;

else
$Date=$month-$SalesMonthStatus;

if($Date >7){
$getActiveCustomer=mysql_query("Select * from customer where id=$StatusDate[1]");

$ActiveCustomer=mysql_fetch_row($getActiveCustomer);

print("<tr class='tableConColor'><td>$ActiveCustomer[1]</td><td>$ActiveCustomer[4]</td>");

$getProductInfo=mysql_query("Select * from product where id=$StatusDate[2]");

$ProductInfo=mysql_fetch_row($getProductInfo);

print("<td>$SalesDayStatus ". $generateMonthM[$SalesMonthStatus-i].
20$SalesMonthYear</td><td>$StatusDate[5]</td><td>$ActiveCustomer[2]</td><td>$ProductInfo[4]</td><td>$StatusDate[6]</td><td>
$ProductInfo[5]</td><td>$StatusDate[4]</td><td>$ActiveCustomer[8]</td>");
$activeCust=1;

```

```

}

}
else if($SalesMonthYear < $year){

$Date=(12-$SalesMonthStatus)+1+$month;

if($Date >7){
$getActiveCustomer=mysql_query("Select * from customer where id=$StatusDate[1]");

$ActiveCustomer=mysql_fetch_row($getActiveCustomer);

print("<tr class='tableConColor'><td>$ActiveCustomer[1]</td><td>$ActiveCustomer[4]</td>");

$getProductInfo=mysql_query("Select * from product where id=$StatusDate[2]");

$ProductInfo=mysql_fetch_row($getProductInfo);

print("<td>$SalesDayStatus ".$generateMonthM[$SalesMonthStatus-1]."
20$SalesMonthYear</td><td>$StatusDate[5]</td><td>$ActiveCustomer[2]</td><td>$ProductInfo[4]</td><td>$StatusDate[6]</td><td>
$ProductInfo[5]</td><td>$StatusDate[4]</td><td>$ActiveCustomer[8]</td>");
$activeCust=1;
}
}
}
}
if($activeCust==0)
print("<tr><td colspan=10>No inactive customer for this month.</td></tr>");

?>

</table>
</div>

</div>
</td></tr></table>
</div>
<?php include "include/footer.html"; ?>

</body>

</html>

```

7. index

```
<?php
```

```
?>
```

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

```
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >
```

```
<head>
```

```
<link rel="stylesheet" type="text/css" href="css/css.css" />
```

```
</head>
```

```
<body><div id="header" >
```

```
<!--<object width="900" height="150">
```

```
<param name="movie" value="flash/banner.swf">
```

```
<embed src="flash/banner.swf" width="900" height="150">
```

```
</embed>
```

```
</object-->
```

```
</div>
```

```
<div id="custNavigation">
```

```
<?php
```

```
include "include/custNav.php";
```

```
?>
```

```
</div>
```

```
<div id="content">
```

```
<table><tr><td>
```

```
<div id="conLeft">
```

```
<table class="tableColor" border=0>
```

```
<form name="login" action="login.php" method="post">
```

```
<tr class="tableHeaderColor"><td colspan="3" align="center"><font size="4px">Login</font></td></tr>
```

```
<tr><td>Email</td><td></td><td><input type="text" name="email" /></td></tr>
```

```
<tr><td>Password</td><td></td><td><input type="password" name="password" /></td></tr>
```

```
<tr><td colspan="2"><input type="submit" value="Login" /></td><td><a href="SignUp.php"><font color="black">Sign  
Up</font></a></td></tr>
```

```
</form>
```

```
</table>
```

```
</div>
```

```
<div id="conMid1">
```

```
<div id="Introduction" class="pop_container_advanced">
```

```
<h2>Introduction</h2>
```

```
<p >
```

CRM Tracking System provides a full set of database for staffs in Sales department at IBM Vietnam. Based on the information about customer such as contact details, location, interest sector, certificate, sales, event, the system will provide the staffs with a useful search engine so that people in need can find necessary information in a timely and effective manner. Besides, the staffs can use the system to track and update the business performance of customers to continuously push and manage their business with the company. The system

aims to evaluate the relationship of customer with the company, therefore company can design different program for different group of customer. </p>

</div>

<div id="intro1">

News & Event

<p>

</p>

</div>

<div id="intro22">

CRM

<p>
</p>

</div>

<div id="intro33">

Authorized Distributors

<p>
</p>

</div>

</td></tr></table>

</div>

<?php include "include/footer.html"; ?>

</body>

<html>

8. interestSector

```
<?php
session_start();
if (empty($_SESSION['email'])) {
    header('location:index.php');
}

include "include/connection.php";

$interest=$_REQUEST['interest'];

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<link rel="stylesheet" type="text/css" href="css/styles.css" />

</head>
<body>
<div id="top" >
<div id="home"><a href="home.php">Home</a></div>
<div id="searchBox" >

<form name="search" action="SearchCustomer.php" method="post">
<input type="text" name="search" /> <input type="submit" value="search"/>
</form>

</div><?php include "include/logStat.php"; ?>
</div>

<div id="header" >

</div>

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>

<div id="content">
<table><tr><td>
<div id="Nav">
<div id="navigation">

<?php
include "include/navBar.php";

?>
```

```

</div>
</div>
<div id="conMid">
<div id="LoyCustomer">
<h2> Interest Sector</h2>
<table class="tableColor" border=0 width="100%">
<tr class="tableHeaderColor"><td align="center" colspan="5"> <b> Customer List in <?php echo $interest; ?> Sector </b></td></tr>

<tr class="tableHeaderColor">
<td width="20%">Name</td>
<td width="20%">Address</td>
<td width="20%">Email</td>
<td width="20%">Phone</td>
<td width="20%">Revenue (USD)</td>

</tr>
<?php

// dieu kien de chon ra interest la vao table cua customer
$getCustomerLocation=mysql_query("Select * from customer where interest like '%$interest%'");

while($CustomerLocation=mysql_fetch_row($getCustomerLocation)){

print("<tr
class='tableConColor'><td>$CustomerLocation[1]</td><td>$CustomerLocation[2]</td><td>$CustomerLocation[4]</td><td>$Custom
erLocation[3]</td><td>$CustomerLocation[8]</td></tr>");
}
?>

</table>

</div>

</div>
</td></tr></table>
</div>
<?php include "include/footer.html"; ?>

</body>

<html>

```

9. Location

```
<?php
session_start();
if (empty($_SESSION['email'])) {
    header('location:index.php');
}

include "include/connection.php";

$location = $_REQUEST['location'];

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<link rel="stylesheet" type="text/css" href="css/styles.css" />

</head>
<body>
<div id="top" >
<div id="home">Home</div>
<div id="searchBox" >

<form name="search" action="SearchCustomer.php" method="post">
<input type="text" name="search" /> <input type="submit" value="search"/>
</form>

</div><?php include "include/logStat.php"; ?>
</div>

<div id="header" >

</div>

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>

<div id="content">
<div id="Nav">
<div id="navigation">

<?php
include "include/navBar.php";

?>
</div>
```

```

</div>
<div id="conMid">
<div id="LoyCustomer">
<table border=1 width="100%">
<tr><td align="center" colspan="5">Customer List in <?php echo $location ?></td></tr>

<tr>
<td width="20%">Name</td>
<td width="20%">Address</td>
<td width="20%">Email</td>
<td width="20%">Phone</td>
<td width="20%">Revenue (USD)</td>

</tr>
<?php

$getCustomerLocation=mysql_query("Select * from customer where address like '%$location%'");

while($CustomerLocation=mysql_fetch_row($getCustomerLocation)){

print("<tr><td>$CustomerLocation[1]</td><td>$CustomerLocation[2]</td><td>$CustomerLocation[4]</td><td>$CustomerLocation[3]<
/td><td>$CustomerLocation[8]</td></tr>");
}
?>

</table>

</div>

</div>

</div>

</body>

<html>

```

10. Login

```
<?php
include "include/connection.php";
$email=$_POST['email'];
$password=$_POST['password'];
$loginChecked=1;
$checkLogin=mysql_query("Select * from user where email='$email' and password='$password'");
$numrows=mysql_num_rows($checkLogin);
if($numrows!=1){
$loginChecked=0;

}
else{
session_start();
session_register('email');
header("Location: home.php");
}

```

```
?>
```

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

```
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >
```

```
<head>
```

```
<link rel="stylesheet" type="text/css" href="css/css.css" />
```

```
<link rel="stylesheet" type="text/css" href="css/styles.css" />
```

```
</head>
```

```
<body>
```

```
<div id="top" >
```

```
<div id="home">Home</div>
```

```
<div id="searchBox" >
```

```
<input type="text" /> <input type="submit" value="search"/>
```

```
</div>
```

```
</div>
```

```
<div id="header" >
```

```
</div>
```

```
<div id="custNavigation">
```

```
<?php
```

```
include "include/custNav.php";
```

```
?>
```

```
</div>
```

```
<div id="content">
```

```
<table><tr><td>
<div id="Nav">
<div id="navigation">

</div>
</div>
<div id="conMid">
<div id="Introduction">
<?php
if($loginChecked == 0)
echo "<center>Invalid email or wrong password<br /> <a href='\"index.php\"'>back</a></center>";
?>
</div>
</td></tr></table>
</div>

</body>

</html>
```

11. Logout

```
<?php
session_start();
session_destroy();
header('location:index.php');
?>
```

12. LoyalCustomer

```
<?php
session_start();
if (empty($_SESSION['email'])) {
    header('location:index.php');
}

include "include/connection.php";

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<link rel="stylesheet" type="text/css" href="css/styles.css" />
<!-- In the head section of the page -->
<script>
<!--
function wopen(url, name, w, h)
{
h=350;
w=300;

w += 32;
h += 96;
var win = window.open(url,
    name,
    'width='+ w + ', height=' + h + ', ' +
    'location=no, menubar=no, ' +
    'status=no, toolbar=no, scrollbars=no, resizable=no');
win.resizeTo(w, h);
win.focus();
}
// -->
</script>
</head>
<body>
<div id="top" >
<div id="home"><a href="home.php">Home</a></div>
<div id="searchBox" >

<form name="search" action="SearchCustomer.php" method="post">
<input type="text" name="search" /> <input type="submit" value="search"/>
</form>

</div><?php include "include/logStat.php"; ?>
</div>

<div id="header" >
```



```

</div>

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>

<div id="content">
<table><tr><td>
<div id="Nav">
<div id="navigation">

<?php
include "include/navBar.php";

?>
</div>
</div>
<div id="conMid">
<div id="LoyCustomer">

<table class="tableColor" border=0 width="auto">
<tr class="tableHeaderColor"><td align="center" colspan="7"> <b>Loyal Customer </b></td><tr>

<tr class="tableHeaderColor">
<td width="05%">Name</td>
<td width="17%">Address</td>
<td width="12%">Phone</td>
<td width="20%">Email</td>
<td width="40%">Product</td>
<td width="10%">Event</td>
<td width="10%">Certificate</td>
</tr>

<?php
$getLoyalCustomer=mysql_query("Select * from customer where status !='new' Order By revenue DESC, profitability DESC LIMIT 5");
while($LoyalCust=mysql_fetch_row($getLoyalCustomer)){

print("<tr
class=\"tableConColor\"><td>$LoyalCust[1]</td><td>$LoyalCust[2]</td><td>$LoyalCust[3]</td><td>$LoyalCust[4]</td><td>");
//print out all product buy by the customer
$getProduct=mysql_query("Select * from sales where CustId='$LoyalCust[0]'");
// dong tren co nghia custID(sales)= custID(customer)

while($productId=mysql_fetch_row($getProduct)){

$getProductInfo=mysql_query("Select * from product where id='$productId[2]'");
while($ProductInfo=mysql_fetch_row($getProductInfo)){
// co nghia productID(sales)= ID(product)

print("&nbsp;<a target=\"popup\" onClick=\"wopen('product.php'.\"?id={\$ProductInfo[0]}&CustId={\$LoyalCust[0]}\", 'popup', 300, 200);
return false;\" href=\"product.php\".?id={\$ProductInfo[0]}\">\$ProductInfo[1]</a>");
}
}
}

```

```

$getPro=mysql_num_rows($getProduct);
if($getPro ==0)
print("No product </td><td>");
else
print("</td><td>");

//print out all event attended by the customer

$getEvent=mysql_query("Select * from eventattend where CustId=$LoyalCust[0]");
//custID (eventattend) = custID (customer)

while($eventID=mysql_fetch_row($getEvent)){

$getEventInfo=mysql_query("Select * from event where id=$eventID[2]");
while($EventInfo=mysql_fetch_row($getEventInfo)){
// eventID = eventID(event)

print("&nbsp;<a target='popup' onClick='wopen('event.php'. "?id={ $EventInfo[0]}' , 'popup', 300, 200); return false;'
href='event.php'. "?id={ $EventInfo[0]}'>$EventInfo[1]</a>");
}
}

$getEve=mysql_num_rows($getEvent);
if($getEve ==0)
print("No event </td><td>");
else
print("</td><td>");

//print out all cert taken by the customer

$getCert=mysql_query("Select * from custCert where CustId=$LoyalCust[0]");
//custID(Certificateattend) = cust (cust)

while($certID=mysql_fetch_row($getCert)){

$getCertInfo=mysql_query("Select * from certificate where id=$certID[2]");
while($CertInfo=mysql_fetch_row($getCertInfo)){
//certID= ID(certificate)

print("&nbsp;<a target='popup' onClick='wopen('certificate.php'. "?id={ $CertInfo[0]}' , 'popup', 300, 200); return false;'
href='certificate.php'. "?id={ $CertInfo[0]}'>$CertInfo[1]</a>");
}
}
}

$getCer=mysql_num_rows($getCert);
if($getCer ==0)
print("No certificate </td><tr>");
else
print("</td><tr>");
}
?>

</table>

```

```
</div>
```

```
</div>
```

```
</td></tr></table>
```

```
</div>
```

```
<?php include "include/footer.html"; ?>
```

```
</body>
```

```
</html>
```

13. NewCustomer

```
<?php
session_start();
if (empty($_SESSION['email'])) {
    header('location:index.php');
}

include "include/connection.php";

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<link rel="stylesheet" type="text/css" href="css/styles.css" />

</head>
<body>
<div id="top" >
<div id="home"><a href="home.php">Home</a></div>
<div id="searchBox" >

<form name="search" action="SearchCustomer.php" method="post">
<input type="text" name="search" /> <input type="submit" value="search"/>
</form>

</div><?php include "include/logStat.php"; ?>
</div>

<div id="header" >

</div>

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>
<div id="warpContent">
<div id="content">
<table><tr><td>
<div id="Nav">
<div id="navigation">

<?php
include "include/navBar.php";

?>
</div>
```

```

</div>
<div id="conMid">
<div id="LoyCustomer">
<table class="tableColor" border=0 width="100%">
<tr class="tableHeaderColor"><td align="center" colspan="4"> <b>New Customer </b></td></tr>

<tr class="tableHeaderColor">
<td width="10%">Name</td>
<td width="12%">Address</td>
<td width="12%">Phone</td>
<td width="20%">Email</td>

</tr>
<?php
$getLoyalCustomer=mysql_query("Select * from customer where status='new'");

while($LoyalCust=mysql_fetch_row($getLoyalCustomer)){

print("<tr
class='\"tableConColor\"'><td>$LoyalCust[1]</td><td>$LoyalCust[2]</td><td>$LoyalCust[3]</td><td>$LoyalCust[4]</td></tr>");
}
?>

</table>

</div>

</div>
</td></tr></table>

</div>
</div>
<?php include "include/footer.html"; ?>

</body>

<html>

```

14. PremiumCustomer

```
<?php
session_start();
if (empty($_SESSION['email'])) {
    header('location:index.php');
}

include "include/connection.php";

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<link rel="stylesheet" type="text/css" href="css/styles.css" />
<!-- In the head section of the page -->
<script>
<!--
function wopen(url, name, w, h)
{
h=350;
w=300;

w += 32;
h += 96;
var win = window.open(url,
name,
'width=' + w + ', height=' + h + ', ' +
'location=no, menubar=no, ' +
'status=no, toolbar=no, scrollbars=no, resizable=no');
win.resizeTo(w, h);
win.focus();
}
// -->
</script>
</head>
<body>
<div id="top" >
<div id="home"><a href="home.php">Home</a></div>
<div id="searchBox" >

<form name="search" action="SearchCustomer.php" method="post">
<input type="text" name="search" /> <input type="submit" value="search"/>
</form>
</div><?php include "include/logStat.php"; ?>
</div>

<div id="header" >

</div>
```

```

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>

<div id="content">
<table><tr><td>
<div id="Nav">
<div id="navigation">

<?php
include "include/navBar.php";

?>
</div>
</div>
<div id="conMid">
<div id="LoyCustomer">
<table class="tableColor" border=0 width="auto">
<tr class="tableHeaderColor"><td align="center" colspan="7"> <b>Premium Customer </b></td></tr>

<tr class="tableHeaderColor">
<td width="05%">Name</td>
<td width="12%">Address</td>
<td width="12%">Phone</td>
<td width="20%">Email</td>
<td width="20%">Product</td>
<td width="10%">Event</td>
<td width="10%">Certificate</td>
</tr>
<?php
$getCustLoyCustomer=mysql_query("Select * from customer where status !='new' Order By profitability DESC,revenue DESC LIMIT 5");
while($LoyCust=mysql_fetch_row($getCustLoyCustomer)){

print("<tr
class='\tableConColor\'><td>$LoyCust[1]</td><td>$LoyCust[2]</td><td>$LoyCust[3]</td><td>$LoyCust[4]</td><td>");
//print out all product buy by the customer
$getProduct=mysql_query("Select * from sales where CustId=$LoyCust[0]");

while($productId=mysql_fetch_row($getProduct)){

$getProductInfo=mysql_query("Select * from product where id=$productId[2]");
while($ProductInfo=mysql_fetch_row($getProductInfo)){

print("&nbsp;<a target='popup' onClick='wopen('product.php\"?id={\$ProductInfo[0]}&CustId={\$LoyCust[0]}', 'popup', 300, 200);
return false;' href='product.php\"?id={\$ProductInfo[0]}'>\"$ProductInfo[1]</a>");
}
}

//print out all event attended by the customer
$getPro=mysql_num_rows($getProduct);
if($getPro ==0)
print("No product. </td><td>");
else
print("</td><td>");

$getEvent=mysql_query("Select * from eventattend where CustId=$LoyCust[0]");

```

```

while($eventId=mysql_fetch_row($getEvent)){

$getEventInfo=mysql_query("Select * from event where id='$eventId[2]'");
while($EventInfo=mysql_fetch_row($getEventInfo)){

print("&nbsp;<a target='\"popup\"' onClick='\"wopen('event.php\".\"?id={\$EventInfo[0]}', 'popup', 300, 200); return false;\"
href='\"event.php\".\"?id={\$EventInfo[0]}\">\"$EventInfo[1]\"</a>\"");
}
}

//print out all cert taken by the customer
$getEve=mysql_num_rows($getEvent);
if($getEve ==0)
print("No event. </td><td>");
else
print("</td><td>");
$getCert=mysql_query("Select * from custCert where CustId=$LoyalCust[0]");

while($certId=mysql_fetch_row($getCert)){

$getCertInfo=mysql_query("Select * from certificate where id='$certId[2]'");
while($CertInfo=mysql_fetch_row($getCertInfo)){

print("&nbsp;<a target='\"popup\"' onClick='\"wopen('certificate.php\".\"?id={\$CertInfo[0]}', 'popup', 300, 200); return false;\"
href='\"certificate.php\".\"?id={\$CertInfo[0]}\">\"$CertInfo[1]\"</a>\"");
}
}
$getCer=mysql_num_rows($getCert);
if($getCer ==0)
print("No certificate. </td></tr>");
else
print("</td></tr>");
}
?>

</table>

</div>

</div>
</td></tr></table>
</div>

<?php include "include/footer.html"; ?>
</body>

<html>

```


15. Product

```
<?php
include "include/connection.php";
$productId=$_REQUEST['id'];
$custId=$_REQUEST['CustId'];

$getSalesDate=mysql_query("Select * from sales where CustId='$CustId' AND ProductId='$productId' ");
$SalesDate=mysql_fetch_row($getSalesDate);

$SalesDayStatus=(int)substr($SalesDate[3],0,2);
$SalesMonthStatus=(int)substr($SalesDate[3],3,2);
$SalesMonthYear=(int)substr($SalesDate[3],6,4);

$Month=array('January','February','Mar','April','May','June','July','August','September','October','November','December');

$getProductInfo=mysql_query("Select * from product where id='$productId'");
$productInfo=mysql_fetch_row($getProductInfo);

?>

<table border=0>
<tr><td><?php echo $ProductInfo[1]?></td></tr>
<tr><td>Invoice date </td><td>:</td><td><?php echo $SalesDayStatus." ".$Month[$SalesMonthStatus-1]." ".$SalesMonthYear
?></td></tr>
<tr><td>Invoice number </td><td>:</td><td><?php echo $SalesDate[5]?></td></tr>
<tr><td>Part number </td><td>:</td><td><?php echo $SalesDate[6]?></td></tr>
<tr><td>Quantity </td><td>:</td><td><?php echo $SalesDate[4]?></td></tr>
<tr><td>Price </td><td>:</td><td><?php echo "$".$ProductInfo[2] ?></td></tr>
<tr><td align="center" colspan="3"></td></tr>
</table>
```

16. Profile

```
<?php
session_start();
if (empty($_SESSION['email'])) {
    header('location:index.php');
}

include "include/connection.php";

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<link rel="stylesheet" type="text/css" href="css/styles.css" />

</head>
<body>
<div id="top" >
<div id="home"><a href="home.php">Home</a></div>
<div id="searchBox" >

<form name="search" action="SearchCustomer.php" method="post">
<input type="text" name="search" /> <input type="submit" value="search"/>
</form>

</div><?php include "include/logStat.php"; ?>
</div>

<div id="header" >

</div>

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>

<div id="content">
<table><tr><td>
<div id="Nav">
<div id="navigation">

<?php
include "include/navBar.php";

?>
</div>
```

```

</div>
<div id="conMid">
<div id="Registration">
<h2> My Profile</h2>
<table class="tableColor" border=0 width="480px">
<tr><td align="center" colspan="3"></td></tr>
<tr class="tableHeaderColor"><td colspan="3">Member Account</td></tr>
<tr><td width="25%">Email Address</td><td>:</td><td><?php echo $user[1] ?></td></tr>

</table> <hr/>
<table class="tableColor" border=0 width="480px">
<tr class="tableHeaderColor"><td colspan="3">Personal Detail</td></tr>
<tr><td width="25%">First Name</td><td>:</td><td><?php echo $user[3] ?></td></tr>
<tr><td>Last Name</td><td>:</td><td><?php echo $user[4] ?></td></tr>
<tr><td>Phone</td><td>:</td><td><?php echo $user[5] ?></td></tr>
<tr><td>Department</td><td>:</td><td><?php echo $user[6] ?></td></tr>
<tr><td>Position</td><td>:</td><td><?php echo $user[7] ?></td></tr>
</table>

</div>

</div>
</td></tr></table>
</div>
<?php include "include/footer.html"; ?>

</body>

<html>

```

17. Registered

```
<?php
include "include/connection.php";

$email=$_POST['EmailAddress'];
$password=$_POST['Password'];
$rePassword=$_POST['RePassword'];
$fName=$_POST['fName'];
$lName=$_POST['lName'];
$phone=$_POST['phone'];
$dept=$_POST['dept'];
$post=$_POST['post'];

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />

</head>
<body>
<div id="top" >
<div id="home">Home</div>
<div id="searchBox" >

<input type="text" /> <input type="submit" value="search"/>
</div>
</div>

<div id="header" >

</div>

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>

<div id="content">
<?php

if ((($_FILES["file"]["type"] == "image/gif")
|| ($_FILES["file"]["type"] == "image/jpeg")
|| ($_FILES["file"]["type"] == "image/png")
|| ($_FILES["file"]["type"] == "image/pipeeg"))
&& ($_FILES["file"]["size"] < 2000000))
{
if ($_FILES["file"]["error"] > 0)
{
```

```

echo "Return Code: " . $_FILES["file"]["error"] . "<br />";
}
else
{
$picture=$_FILES["file"]["name"];

move_uploaded_file($_FILES["file"]["tmp_name"],
"images/" . $_FILES["file"]["name"]);

}
}
else
{
echo "Invalid file format.";
}

if(mysql_query("INSERT INTO user (email,password,fname,lname,phone,dept,post,picture) VALUES
('$email','$password','$fName','$lName','$phone','$dept','$post','$picture)"))
echo "<center>Your registration was successful!<br /> <a href='\"index.php\"' >back</a></center>";
else
echo mysql_error();

?>

</div>

</body>

<html>

```

18. SearchCustomer

```
<?php
session_start();
if (empty($_SESSION['email'])) {
    header('location:index.php');
}

include "include/connection.php";

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<link rel="stylesheet" type="text/css" href="css/styles.css" />
<script>
<!--
function wopen(url, name, w, h)
{
h=350;
w=300;

w += 32;
h += 96;
var win = window.open(url,
name,
'width=' + w + ', height=' + h + ', ' +
'location=no, menubar=no, ' +
'status=no, toolbar=no, scrollbars=no, resizable=no');
win.resizeTo(w, h);
win.focus();
}
// -->
</script>
</head>
<body>
<div id="top" >
<div id="home">Home</div>
<div id="searchBox" >

<form name="search" action="SearchCustomer.php" method="post">
<input type="text" name="search" /> <input type="submit" value="search"/>
</form>
</div><?php include "include/logStat.php"; ?>
</div>

<div id="header" >

</div>
```

```

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>

<div id="content">
<table><tr><td>
<div id="Nav">
<div id="navigation">

<?php
include "include/navBar.php";

?>
</div>
</div>
<div id="conMid">
<div id="LoyCustomer">
<table class="tableColor" border=0 width="100%">

<tr class="tableHeaderColor">
<td width="20%">Name</td>
<td width="20%">Address</td>
<td width="20%">Email</td>
<td width="20%">Interest sector</td>
<td width="10%">Sales</td>

<td width="10%">Event</td>

<td width="10%">Certificate</td>

</tr>
<?php
$searchCustomer=$_POST['search'];
$getLoyalCustomer=mysql_query("Select * from customer where name LIKE '%$searchCustomer%' OR address LIKE
'%$searchCustomer%'");

while($LoyalCust=mysql_fetch_row($getLoyalCustomer)){

print("<tr
class='tableConColor'><td>$LoyalCust[1]</td><td>$LoyalCust[2]</td><td>$LoyalCust[4]</td><td>$LoyalCust[11]</td><td>");
//print out all product buy by the customer
$getProduct=mysql_query("Select * from sales where CustId=$LoyalCust[0]");

while($productId=mysql_fetch_row($getProduct)){

$productInfo=mysql_query("Select * from product where id=$productId[2]");
while($productInfo=mysql_fetch_row($getProductInfo)){

print("&nbsp;<a target='popup' onClick='wopen('product.php'.\"?id={\$ProductInfo[0]}&CustId={\$LoyalCust[0]}' , 'popup', 300, 200);
return false;' href='product.php\"?id={\$ProductInfo[0]}'>\"$ProductInfo[1]</a>");
}
}

//print out all event attended by the customer

```

```

$getPro=mysql_num_rows($getProduct);
if($getPro ==0)
print("No sales </td><td>");
else
print("</td><td>");

$getEvent=mysql_query("Select * from eventattend where CustId='$LoyalCust[0]'");

while($eventid=mysql_fetch_row($getEvent)){

$getEventInfo=mysql_query("Select * from event where id='$eventid[2]'");
while($EventInfo=mysql_fetch_row($getEventInfo)){

print("&nbsp;<a target='\"popup'\" onClick='\"wopen('event.php\".\"?id={\"$EventInfo[0]\"}, 'popup', 300, 200); return false;\"
href='\"event.php\".\"?id={\"$EventInfo[0]\"}\">$EventInfo[1]</a>");
}
}

//print out all cert taken by the customer
$getEve=mysql_num_rows($getEvent);
if($getEve ==0)
print("No event </td><td>");
else
print("</td><td>");
$getCert=mysql_query("Select * from custCert where CustId='$LoyalCust[0]'");

while($certid=mysql_fetch_row($getCert)){

$getCertInfo=mysql_query("Select * from certificate where id='$certid[2]'");
while($CertInfo=mysql_fetch_row($getCertInfo)){

print("&nbsp;<a target='\"popup'\" onClick='\"wopen('certificate.php\".\"?id={\"$CertInfo[0]\"}, 'popup', 300, 200); return false;\"
href='\"certificate.php\".\"?id={\"$CertInfo[0]\"}\">$CertInfo[1]</a>");
}
}
}
$getCer=mysql_num_rows($getCert);
if($getCer ==0)
print("No certificate </td></tr>");
else
print("</td></tr>");
}
?>

</table>

</div>

</div>
</td></tr></table>
</div>
<?php include "include/footer.html"; ?>

</body>

<html>

```


19. SignUp

```
<?php
?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<script language="JavaScript" type="text/javascript">
<!--
function checkform ( form )
{
// vao trang nay de xem giai thich ve cach dung neu bi hoi: http://www.thesitewizard.com/archive/validation.shtml

// ** START **

// error checking neu k dien email
if (form.EmailAddress.value == "") {
    alert( "Please enter your email address." );
    form.EmailAddress.focus();
    return false;
}

// error checking neu k dien pass
if (form.Password.value == "") {
    alert( "Please enter your password." );
    form.Password.focus();
    return false;
}

// neu k co retype password thi se co alert
if (form.RePassword.value == "") {
    alert( "Please retype your password." );
    form.RePassword.focus();
    return false;
}

//neu pass khac voi retype pass thi se co alert
if (form.Password.value != form.RePassword.value ) {
    alert( "Your password did not match." );
    form.Password.focus();
    return false;
}

// k dien first name se co alert
if (form.fName.value == "") {
    alert( "Please put your first name." );
    form.fName.focus();
    return false;
}

// k dien last name se co alert
```

```

if (form.lName.value == "") {
    alert( "Please put your last name. " );
    form.lName.focus();
    return false;
}
// ** END **
return true;

```

```

}
//-->
</script>

```

```
</head>
```

```
<body>
```

```
<div id="top" >
```

```
<div id="home"></div>
```

```
<div id="searchBox" >
```

```
<input type="text" /> <input type="submit" value="search"/>
```

```
</div>
```

```
</div>
```

```
<div id="header" >
```

```
</div>
```

```
<div id="custNavigation">
```

```
<?php
```

```
include "include/custNav.php";
```

```
?>
```

```
</div>
```

```
<div id="content">
```

```
<table><tr><td>
```

```
<div id="conLeft">
```

```
<table class="tableColor" border=0 >
```

```
<form name="login" action="login.php" method="post">
```

```
<tr class="tableHeaderColor"><td colspan="3" align="center">Login</td></tr>
```

```
<tr><td>Email</td><td>:</td><td><input type="text" name="email" /></td></tr>
```

```
<tr><td>Password</td><td>:</td><td><input type="password" name="password" /></td></tr>
```

```
<tr><td colspan="2"><input type="submit" value="login" /></td><td><a href="SignUp.php">Sign Up</a></td></tr>
```

```
</table></form>
```

```
</div>
```

```
<div id="conMid1">
```

```
<div id="Registration">
```

```
<table class="tableColor" border=0 width="480px">
```

```
<form name="signup" action="registered.php" method="post" onsubmit="return checkform(this);" enctype="multipart/form-data">
```

```
<tr class="tableHeaderColor"><td colspan="3">Member Account</td></tr>
```

```
<tr><td width="25%">Email Address</td><td>:</td><td><input style="width:335px" type="text" name="EmailAddress" /></td></tr>
```

```
<tr><td>Password</td><td>:</td><td><input style="width:335px" type="password" name="Password" /></td></tr>
```

```
<tr><td>Retype password</td><td>:</td><td><input style="width:335px" type="password" name="RePassword" /></td></tr>
```

```
</table> <hr>
```

```
<table class="tableColor" border=0 width="480px">
```

```
<tr class="tableHeaderColor"><td colspan="3">Personal Detail</td></tr>
```

```
<tr><td width="25%">First Name</td><td>:</td><td><input style="width:335px" type="text" name="fName" /></td></tr>
```

```
<tr><td>Last Name</td><td>:</td><td><input style="width:335px" type="text" name="lName" /></td></tr>
```

```
<tr><td>Phone</td><td>:</td><td><input style="width:335px" type="text" name="phone" /></td></tr>
<tr><td>Department</td><td>:</td><td><input style="width:335px" type="text" name="dept" /></td></tr>
<tr><td>Position</td><td>:</td><td><input style="width:335px" type="text" name="post" /></td></tr>
<tr><td>Picture</td><td>:</td><td><input type="file" name="file" id="file" /></td></tr>
</table>
```

```
<br />
```

Term and Condition


```
<textarea cols="57" rows="5">
```

Welcome to CRM Tracking System.

By registering to the webpage,I have read and agreed to abide by the following terms and conditions set out by the administrator.

```
</textarea>
```

```
<br />
```

```
<input type="submit" value="submit" />
```

```
</form>
```

```
</div>
```

```
</div>
```

```
</td></tr></table>
```

```
</div>
```

```
</body>
```

```
</html>
```

20. UpdateAccount

```
<?php
session_start();
if (empty($_SESSION['email'])) {
    header('location:index.php');
}

include "include/connection.php";

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<link rel="stylesheet" type="text/css" href="css/styles.css" />

</head>
<body>
<div id="top" >
<div id="home"><a href="home.php">Home</a></div>
<div id="searchBox" >

<form name="search" action="SearchCustomer.php" method="post"><table><tr><td>
</td><td><input type="text" name="search" /> <input type="submit"
value="search"/></td></tr></table>
</form>

</div><?php include "include/logStat.php"; ?>
</div>

<div id="header" >

</div>

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>

<div id="content">
<table><tr><td>
<div id="Nav">
<div id="navigation">

<?php
include "include/navBar.php";
```

```

?>
</div>
</div>
<div id="conMid">
<div id="Registration">
<h2> Update Account Member</h2>
<table class="tableColor" border=0 border=1 width="480px">
<form name="updateAccount" action="updatedAccount.php" method="post" enctype="multipart/form-data">
<tr class="tableHeaderColor"><td colspan="3">Member Account</td></tr>
<tr><td width="25%">Email Address</td><td>:</td><td><input style="width:335px" type="text" name="EmailAddress" value="<?php
echo $user[1] ?>" /></td></tr>
<tr><td>Password</td><td>:</td><td><input style="width:335px" type="password" name="Password" value="<?php echo $user[2]
?>" /></td></tr>
<tr><td>Retype password</td><td>:</td><td><input style="width:335px" type="password" name="RePassword" /></td></tr>
</table> <br />
<table class="tableColor" border=0 width="480px">
<tr class="tableHeaderColor"><td colspan="3">Personal Detail</td></tr>
<tr><td width="25%">First Name</td><td>:</td><td><input style="width:335px" type="text" name="fName" value="<?php echo
$user[3] ?>" /></td></tr>
<tr><td>Last Name</td><td>:</td><td><input style="width:335px" type="text" name="lName" value="<?php echo $user[4]
?>" /></td></tr>
<tr><td>Phone</td><td>:</td><td><input style="width:335px" type="text" name="phone" value="<?php echo $user[5] ?>" /></td></tr>
<tr><td>Department</td><td>:</td><td><input style="width:335px" type="text" name="dept" value="<?php echo $user[6]
?>" /></td></tr>
<tr><td>Position</td><td>:</td><td><input style="width:335px" type="text" name="post" value="<?php echo $user[7] ?>" /></td></tr>
<tr><td>Picture</td><td>:</td><td><input style="width:335px" type="file" name="file" id="file" /></td></tr>
</table>
<br />

<input type="submit" value="submit" />
</form>
</div>

</div>
</td></tr></table>
</div>

<?php include "include/footer.html"; ?>

</body>

</html>

```

21. updatedAccount

```
<?php
session_start();
include "include/connection.php";

$email=$_POST['EmailAddress'];
$password=$_POST['Password'];
$rePassword=$_POST['RePassword'];
$fName=$_POST['fName'];
$lName=$_POST['lName'];
$phone=$_POST['phone'];
$dept=$_POST['dept'];
$post=$_POST['post'];
$pic=$_FILES["file"]["name"];

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<link rel="stylesheet" type="text/css" href="css/styles.css" />

</head>
<body>
<div id="top" >
<div id="home"><a href="home.php">Home</a></div>
<div id="searchBox" >

<form name="search" action="SearchCustomer.php" method="post">
<input type="text" name="search" /> <input type="submit" value="search"/>
</form>

</div><?php include "include/logStat.php"; ?>
</div>

<div id="header" >

</div>

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>

<div id="content">
<table><tr><td>

<div id="Nav">
<div id="navigation">

<?php
include "include/navBar.php";
```

```

?>
</div>
</div>
<div id="conMid">

<div id="Registration">
<h2> Update Account Member</h2>
<?php
if($pic!=""){
if ((($_FILES["file"]["type"] == "image/gif")
|| ($_FILES["file"]["type"] == "image/jpeg")
|| ($_FILES["file"]["type"] == "image/png")
|| ($_FILES["file"]["type"] == "image/pjpeg"))
&& ($_FILES["file"]["size"] < 2000000))
{
if ($_FILES["file"]["error"] > 0)
{
echo "Return Code: " . $_FILES["file"]["error"] . "<br />";
}
}
else
{
$picture=$_FILES["file"]["name"];

move_uploaded_file($_FILES["file"]["tmp_name"],
"images/" . $_FILES["file"]["name"]);
}
}
else
{
echo "Invalid file format.";
}}
if($pic!=""){
if(mysql_query("UPDATE user SET
email='$email',password='$password',fname1='$fName',lname='$lName',phone='$phone',dept='$dept',post='$post',picture='$picture'
where email='".$_SESSION['email']."'"));
echo "<center>You have successfully updated your information.<br /><a href='\"UpdateAccount.php\">back</a></center>";
else
echo mysql_error();
}else
{
if(mysql_query("UPDATE user SET
email='$email',password='$password',fname1='$fName',lname='$lName',phone='$phone',dept='$dept',post='$post' where
email='".$_SESSION['email']."'"));
echo "<center>You have successfully updated your information.<br /><a href='\"UpdateAccount.php\">back</a></center>";
else
echo mysql_error();
}
?>
</div>

</div>
</td></tr></table>
</div>

<?php include "include/footer.html"; ?>
</body>

<html>

```

22. activeCustomer

```
<?php
session_start();
if (empty($_SESSION['email'])) {
    header('location:index.php');
}

include "include/connection.php";

$month=$_REQUEST['month'];
$year=$_REQUEST['year'];

$generateMonthM=array('January','February','March','April','May','June','July','August','September','October','November','December');

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en-gb" lang="en-gb" >

<head>
<link rel="stylesheet" type="text/css" href="css/css.css" />
<link rel="stylesheet" type="text/css" href="css/styles.css" />
<script type="text/javascript" src="javascript/basiccalendar.js"></script>
</head>
<body>
<div id="top" >
<div id="home"><a href="home.php">Home</a></div>
<div id="searchBox" >

<form name="search" action="SearchCustomer.php" method="post">
<input type="text" name="search" /> <input type="submit" value="search"/>
</form>

</div><?php include "include/logStat.php"; ?>
</div>

<div id="header" >

</div>

<div id="custNavigation">

<?php
include "include/custNav.php";

?>
</div>

<div id="content">
<table><tr><td>
<div id="Nav">
<div id="navigation">

<?php
include "include/navBar.php";
```



```

?>
</div>
</div>
<div id="conMid">
<div id="LoyCustomer">
<h2> Active Customer</h2>
<div style="float:right;margin:5px 5px 5px 0px">
<script type="text/javascript">

var curmonth=<?php echo $month ?>;
var curyear=<?php echo "20".$year ?>;

document.write(buildCal(curmonth,curyear,"main","month","daysofweek","days",1));
</script></div>
<table class="tableColor" border=0 width="100%">
<tr class="tableHeaderColor"><td align="center" colspan="10">Active Customer in <?php echo $generateMonthM[$month-1]."
20".$year; ?></td></tr>

<tr class="tableHeaderColor">
<td width="20%">Name</td>
<td width="20%">Email</td>
<td width="20%">Invoice Date</td>
<td width="20%">Invoice No.</td>
<td width="20%">Location</td>
<td width="20%">Brand</td>
<td width="20%">Part No</td>
<td width="20%">Model</td>
<td width="20%">Quantity</td>
<td width="20%">Revenue (USD)</td>

</tr>
<?php
//determine the status of active and inactive customer
$getStatus=mysql_query("Select * from sales ");
$activeCust=0;
while($StatusDate=mysql_fetch_row($getStatus)){

$SalesDayStatus=(int)substr($StatusDate[3],0,2);

$SalesMonthStatus=(int)substr($StatusDate[3],3,2);
$SalesMonthYear=(int)substr($StatusDate[3],8,4);

if($SalesMonthYear == $year && $month == $SalesMonthStatus){

$getActiveCustomer=mysql_query("Select * from customer where id='$StatusDate[1]'");

$ActiveCustomer=mysql_fetch_row($getActiveCustomer);

print("<tr class='tableConColor'><td>$ActiveCustomer[1]</td><td>$ActiveCustomer[4]</td>");

$getProductInfo=mysql_query("Select * from product where id='$StatusDate[2]'");
$productInfo=mysql_fetch_row($getProductInfo);

```

```

print("<td>$$SalesDayStatus ".$generateMonthM[$SalesMonthStatus-1]."  

20$SalesMonthYear</td><td>$$StatusDate[5]</td><td>$$ActiveCustomer[2]</td><td>$$ProductInfo[4]</td><td>$$StatusDate[6]</td><td>  

$$ProductInfo[5]</td><td>$$StatusDate[4]</td><td>$$ActiveCustomer[8]</td>");  

$activeCust=1;  

}  

}  

if($activeCust==0)  

print("<tr><td colspan=10>No active customer for this month.</td></tr>");  

?>  

</table>  

</div>  

</div>  

</td></tr></table>  

</div>  

<?php include "include/footer.html"; ?>  

</body>  

</html>

```