Contract and Expatriate Management Tracking System

By

Mohammad Zarith Bin Ahmad

Project Dissertation submitted in partial fulfillment of

the requirements for the

Bachelor of Technology (Hons)

(Business Information System)

August 2012

UniversitiTeknologi PETRONAS
Bandar Seri Iskandar,
31750 Tronoh
Perak DarulRidzuan

CERTIFICATION OF APPROVAL

Contract and Expatriate Management Tracking System

For

HRM UniversitiTeknologi PETRONAS

by

Mohammad Zarith Bin Ahmad

A project dissertation submitted to the

Business Information System Programme

UniversitiTeknologi PETRONAS

in partial fulfillment of the requirement for the

BACHELOR OF TECHNOLOGY (Hons)

(BUSINESS INFORMATION SYSTEM)

Approved by,

…………………….
(Ms Amy FoongOi Mean)

UNIVERSITI TEKNOLOGI PETRONAS

TRONOH, PERAK

January 2012

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.

_____

Mohammad Zarith Bin Ahmad

ABSTRACT

Contract and expatriate management tracking system is develop to achieve its objective which are to develop system mainly purpose to be able tracking data on contract that staff wants to extract a system that can alert the user on the contract that needs attention or renewal. Whereas the problem with the current conduct is the troubles in tracking of specific items and value in the contracts and delay in contract renewals as there are no alert or by the HR staff of the expired date of the contract.

For this research, the scope of study aimed on researching effective options for the contract management such as tracking important data, alert system and generating reports. It is to identify the most suitable design principle that can be applied in the development phase and the suitable tools which are the Visual Basic and Microsoft Access.

An interview and discussion with the coordinator have been conducted as the research methodology. The coordinator gives great assistances in understanding the contract management and in determining the user requirement mostly. The system will be developed by using prototyping methodology which consist 4 phase such as planning, analyzing, developing and implementation.

Contract and expatriate management tracking system will be developing according the user requirement what are the HR staff requested. The coordinator guides much on the development and stated that the most important functionality is to be able to track any contract and any data specifically. The system also able to alert the end user on the contracts that needs attention from the personnel such as reviewing for extra actions and renewal process.

ACKNOWLEDGEMENTS

Table of Content

List Diagram:

Diagram 1: The Prototype Model

Diagram 2 Gantt Chart

Diagram 3: Contract and expatriate Management Tracking System Flowchart

Diagram 4: Use case diagram for the proposed system

List Table:

Table 1: Key milestone for FYP I

Table 2: Key milestone for FYP II

Table 3: SWOT Analysis

List Figure:

Figure 1: Microsoft Visual   Studio 2010

Figure 2: MySQL Logo

Figure 3: Sample employee contract data list are store on the excel document

Figure 4: Sample Accommodations and School data list store on the excel document

Figure 5: First Draft of the interface for the Add new contract records

Figure 6: Login Page (1st prototype)

Figure 7: Main Menu (1st prototype)

Figure 8: New Contract Menu (1st prototype)

Figure 9: Form for Editing Existing Records (1st prototype)

Figure 10: New Records Added (1st prototype)

Figure 11: Splash Screen of the System

Figure 12 : Localhost database

Figure 13: Shows the Tables, field and the function uses in the current prototype
system wiithout relationship.

Chapter 1

Introduction

1. Background of study

Contract management is commonly business element that important and essential for most organizational and business firm. The need for a good implementation are yet to accomplish for some organizational. Contracts play a very important role in defining and managing business relationships and industry analysts estimated that savings from better management of contracts and better management of the business relationships they represent are very significant.

Moreover there are other aspects that also need to well manage as it is related to contract management. The expatriate management was in line with the contract management in important role to have better business relationship. Expatriate management has become one of the important issues that have significant value as contract management to manage it. Some multinationalorganizational are in needs to have and implemented it.

Most organizational are facing dilemma to cater their requirement as they need to store large amount of files and data and it will cost them. Good contract and expatriate management system will increase one organizational or department work pace and improve efficiency in work. The contract management system usually is a formalized following the contract negotiation and however it is a living document and will continue to be updated throughout the life of the contract.

As contract management and expatriate management are critical and important issues, Human Resource Department of University Technology PETRONAS (HRM/UTP) are requesting Computer Information Science Department

(CIS) to develop a system that can cater the needs for managing and tracking contract as well as expatriate management. Hence the project also collaborates with the student to develop the system as their Final Year Project. The name of the system is Contract and Expatriate Management Tracking System.

1.2 Problem Statement

Currently there is no system or flow of process for this particular business process in the HRM/UTP. The current method is to store contract and expatriate data manually in the simple database using excel sheet. Although the current system still can be use and maintain, it lacks in terms of practicality as the contract tracking practice is decentralized and might cause confusion should there be any new staff to manage it. The new system is no bit different but it will help to ease the end user to solve some of the common problem they facing:

- Difficulties in tracking any specific field and value in the contracts
  The end user wants to have specific data and value that they want and need to find with huge amount of data and large amount of contract.

- Delay in contract renewals as there are no alert or by the HR staff of the expired date of the contract.
  The expired date of certain contract or passport expired are need to be well taken aware as it can cause losses.

1.3   Significance of the project:

- Allow flexibility and extra functions that can support the business processes such as validate items and authority, tracking the business items mainly the contract expired date.
- The new system has programmed workflow and coding that enables the forms/data automatically store in the system and be able to track specific data as well as increase the efficiency of the whole process.
- It also provides the necessary security features which allow only required personnel to have the access to view and edit the required field and data.

1.4   Objective

The objectives of the research are as follows:

- To develop system mainly purpose to be able tracking any contract that staff wants to extract in short time and any specific data that needed.
- To develop a system that can alert the user on the contract that needs attention or renewal.

1.5   Scope of study

This project will aim on researching effective options for the contract management such as generating reports and tracking important data. The system will be focus on local and expatriate contract management in UTP and for HRM staff to better management of the contract. Identifying most suitable design that can be applied on the developing system logic and system interface will become one of the research areas for this project.

1.6   The relevancy of the project

The project is one of the items that need to be complete and efficiently launch to maintain HR department KPI. It is important that every aspect in the business process especially the Contract and expatriate management such as the flow of the system, fields and variables, the authority permission and all details need to be analyze and discuss first.

Chapter 2

Literature Review

2.   Contracts Management

Contracts Management is the process of establishing a formal method of dealing and management of contracts with vendors, partners or employees as well as the contract negotiations, and the renewal or cancellation of existing agreements. Well this project mainly will focusonlyonemployment contract at UTP. According to Mark F. (2003),employment contract is an agreement between an employer and an employee which sets out their employment rights, responsibilities and duties. The terms and condition are negotiated in the contract and to ensure both parties compliance with the terms are includes in the contract management.

Besides contract management contains documenting and agreeing on any changes or amendments that may arise during its implementation or execution. It can be concise as the method of systematically and efficiently handling contract creation, execution, and analysis for the purpose of exploiting financial and operational performance and reducing risk.

Chong and Rosli (2010) stated that the data required by contract management consists of contract provisions, jurisdictions of legal cases, and literatures. While such data are voluminous and very useful, end-users are poor in managing and appreciating it. This shows that most staff managing any contract can overlook the important data or critical issues in contract and unaware the contract valuable records as the number of contracts store are huge. Thus the important of contract management are increasing.

If one organizational implemented well contract management, Gupta and Mumick (2005) also stated it would help to mitigate the problem when the data have been

well-developed and organized. It could perform data analysis, reporting, and query tools to help end-users sift through tomes of data and extract valuable information from them. Hence, by using database tracking management for managing staff contract the end user will have organized and structured storage of information and be able to perform analysis and reporting

The contract management market is watched by analysts from a number of the leading research firms. Here are some of the comments being made by these leading consulting and research organizations:

Gartner

"When I came across this issue of (companies not knowing who they have contracts with, etc.) contract management in 2001, I found it difficult to believe some of the scenarios being painted for me by clients that were experiencing problems with contracts," says Andrew Kyte, a senior Vice President with Gartner. "They seemed to be describing quasi-medieval practices." After additional research, Kyte and his team conducted, the more apparent it became that these "chaotic, undefined, poorly controlled processes around contract assets" are typical, even in world-class companies.

PricewaterhouseCoopers

PwC suggests that companies could realize savings that equate to 2% of total annual costs by eliminating inaccuracies and non-compliance through contract automation. A company spending $1 billion could save $20 million annually.

2.2 Expatriate Management

Expatriate is a person that temporarily or permanently residing in a foreign country and usually stay for a certain period of time, and plan to return to their home country eventually, although there are some who never return to their country of citizenship. According to R. Takuechi, J.P. Shay, and J.T. Li (2005) an expatriate is an employee who is sent to work overseas for certain time-basis in the firm's subsidiary to complete certain task or achieve organizational goals. Commonly they are being hired by another country for their skills and technical knowledge on certain areas.

To hire them an organizational also needs certain contracts that thoroughly check and managed. As the globalization of the business world continues with ever faster changes, new trends have emerged within the field of expatriate management. This amounts to new challenges in research but also more opportunities to assess the theoretical and practical value of these emerging trends.

P. Dowling (1994) stated that costs are the main concern in expatriate management. The costs involved in the expatriation are three to four times higher than the domestic human resource management. Thus the importance of having expatriate management is vital to one organizational.

The traditional reasons for foreign assignments have gradually been replaced by a more strategic view of expatriation focusing on the global expertise that can be gained by expatriates and how this knowledge can be transferred to and benefit the parent corporation. As reasons may change for using expatriates, so may the types of assignments they are set on. Self-initiated expatriates are becoming more common and there is little research on this category of employees. Especially, in the fast internationalizing academic sector, many academics have a global job perspective.

2.3   Contract and Expatriate Management System

There is various contract management software and system that had been developed for organizational and business firms use and the reasons for they implemented the system, because it can track specific data and field in the contract as per queried and store large amount of data and can extract anytime in short period of time.

Some companies develop the system and listed the best practices for contracts management and they suggest that:

- Identify and collect all contracts, agreements, conditions, into a centralized area and put into a database that can be queried using the proper tools.

- Establish current and future charges based on contract language. Simply finding all the contracts and costs associated with the contract.

- Create a tickler process that will alert you to upcoming contract renewal dates or termination.

Implementation of Contracts Management can occur in many forms. The crucial points are that it has a process that identifies all of the contracts, and that these contracts are managed centrally. The Contracts Management process must fit into the organizational structure and style, and therefore should be customized to fit their needs. There are several inexpensive tools today, that when combined, can help manage the process.

But for this Contract and Expatriate Management Tracking System the main concern is on how the system will react on the user requirement and additional features in the context of Expatriate management. The system is needed to be categorized with different sub system for expatriate to differentiate with other contract. Thus it will make the system different with other system that available in the market. One of the

user requirements is needed that only certain people that can access the system as it concern on confidential data and information.

For the Expatriate management it might concerns on certain aspect differ from the common contract such as the termination rules, benchmarking practices, compensation approach, expatriation allowances, pension and benefits, home trips and relocations, schooling and accommodation policy, and spouse support programs. The expatriate management will be the subsystem of the contract management tracking system.

Chapter 3

Methodology

In general, research methodology refers to a set of procedures used to conduct a research project. How the project will be done is the focus on this chapter. In here, the methodology includes the mode of data collection, how the data is analyzed and the research tool design:

- Research Methodology
- Project Activities
- Key Milestone
- Gantt Chart
- Tools

3. Research Methodology

This project use prototyping method which is part of System Development Life Cycle that consists of planning, analyzing, design and implementation. The system prototype will be the best for evaluate the progress and act as the key milestone in this project because it allows the user to take a look at the system personally along the development.

3.1.1 Project Planning

For this phase it involve the review of related journals, books, research papers and developers forum to increase the familiarity, better understanding and also to get a clear view about the topic of this project. The main information resources are from the ACM Digital Library, and also Scopus.org. After the reading has been done, a Gantt chart has been drawn which consist of several milestone and planning for project activities so that the time will be allocated in the right way.

3.1.2   System Analysis

A preliminary study conducted on the HR personnel on how the current manual system is being done. Discussion and interviews with HR personnel managing the contract are the main activities to collect information and sources about the system requirements. Apart from that, observation of the contract management been done in order to have more understanding on the contract management flow

3.1.3   System Design

In this phase, system flowchart or a process diagram will be created based on the system requirement. In this phase, developer will convert the recommend solution to system specifications and physical design specification transformed to technology specific details. At first, the user interface will be developed and then the actual coding for the interface functionality will be written to complete the prototype.

3.1.4   Implementation

In this phase, complete platform prototype will be connected to SQL database server and the system can be tested first within local host. If nothing problem arise then it can continue to the local drive of the end user and install the server needed thus can proceed for user to do the usability test on the system.

3.2   System Methodology
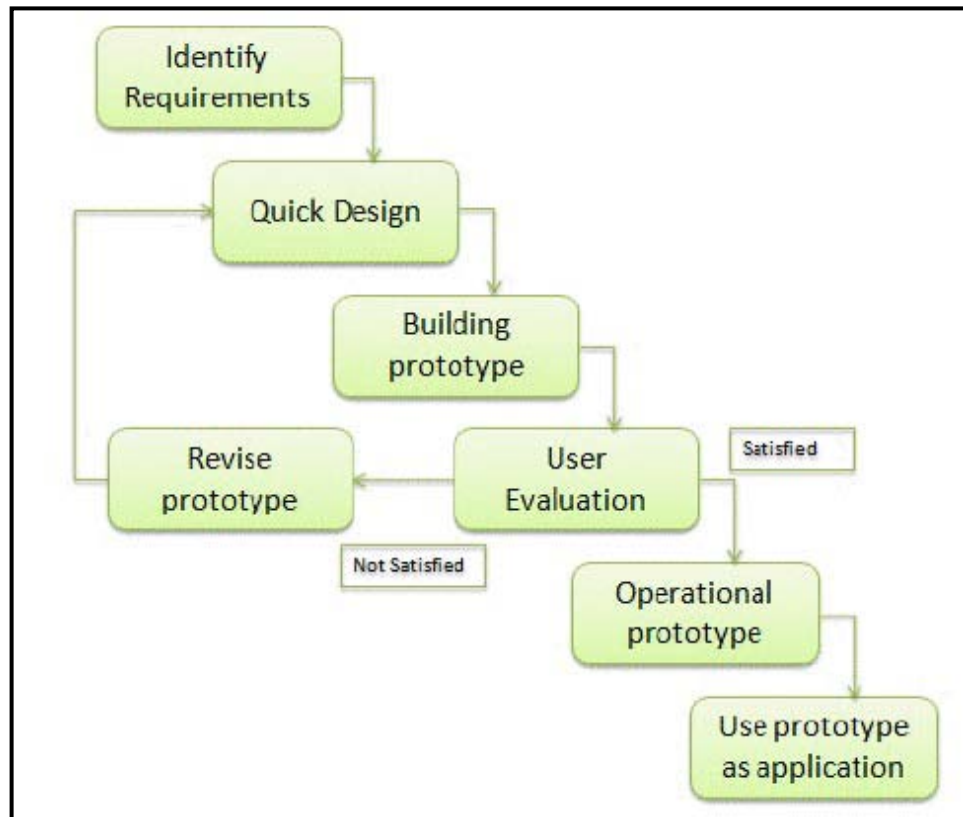
Diagram 1: The Prototype Model

The Prototype Model is best for evaluate the progress and act as the key milestone in this project because it allows the user to take a look at the system personally along the development.

The system itself is the continuing of previous business process and the initial discussion data about the system with the requestor. The cycle repeated continually based on the comments until the system prototype successfully meets the requirements. These constraints make the prototype model to be the best option available. Not only that, it allows the development to be progress quickly because of time constraint.

3.3   Project Activities

- **Thinking aloud**

    According to Nielsen (1993) the method of thinking aloud allows us to understand how the users approach the system and what considerations the users keep in mind when using the system. During the test procedure the users are asked to verbalize and describe their thoughts, feelings while interacting with the system. The main advantage of this method is a better understanding of the user's thoughts and interaction with the android system

- **Discussion**

    Discussion is the most common activities that will be conduct as it will be comfortable for the user as it will allow the user to have more time to know what are their needs and requirement. It will also allow the author to gathering data and requirements.

- **Qualitative interviews**

    Although interviews may be different from questionnaires in the concept of their formality they should not be considered less important. Instead, they should be used in a better state that makes the best use of their strengths. Rubin (1981) suggests that interviews are used at the beginning and end of an evaluation, initially to gather general information to form the basis for a questionnaire and afterwards to clarify its results and fill in gaps.

- **Testing and Training**

Furthermore, the User Acceptance Testing (UAT) will be conduct to as the user evaluation in many different case or scenario. Training also will be conduct to the user for them to understand on how the process and flow of the new system. After launching the project and to further review the project, guide manual will be act as a medium to assist the HR Staff.

3.4 Key Milestone

Below are the key milestone that need to be achieve throughout both of the semester of final year project 1 (FYP I) final year project 2 (FYP II).

Semester 1

Milestone	Week
Project Proposal	Week 3
Extended proposal (10%)	Week 6
Proposal Defense (40%)	Week 9
Interim Report (50%)	Week 11

Table 1: Key milestone for FYP I

Semester 2

Milestone	Week
Progress Report (10%)	Week 7
Pre-SEDEX (10%)	Week 10
Dissertation (40%)	Week 12
VIVA (30%)	Week 13
Technical Report (10%)	Week 14

Table 2: Key milestone for FYP II

3.5 Gantt Chart

Final Year Project

Phase	FYP I													FYP II												
	Weeks																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Planning	■	■	■	■	■	■																				
Topic selection	■	■																								
Project scheduling			■	■	■																					
2 Analysing							■	■	■	■	■	■	■													
Preliminary study						■																				
Determine focus								■																		
Identify problem and requirement										■	■															
3 Developing														■	■	■	■	■	■	■						
Process diagrams													■													
Developing interface																	■									
Developing full prototype																			■	■						
4 Implementation																					■	■	■	■		
installation																					■	■				
Usability test																							■			
Test result analysis																								■		
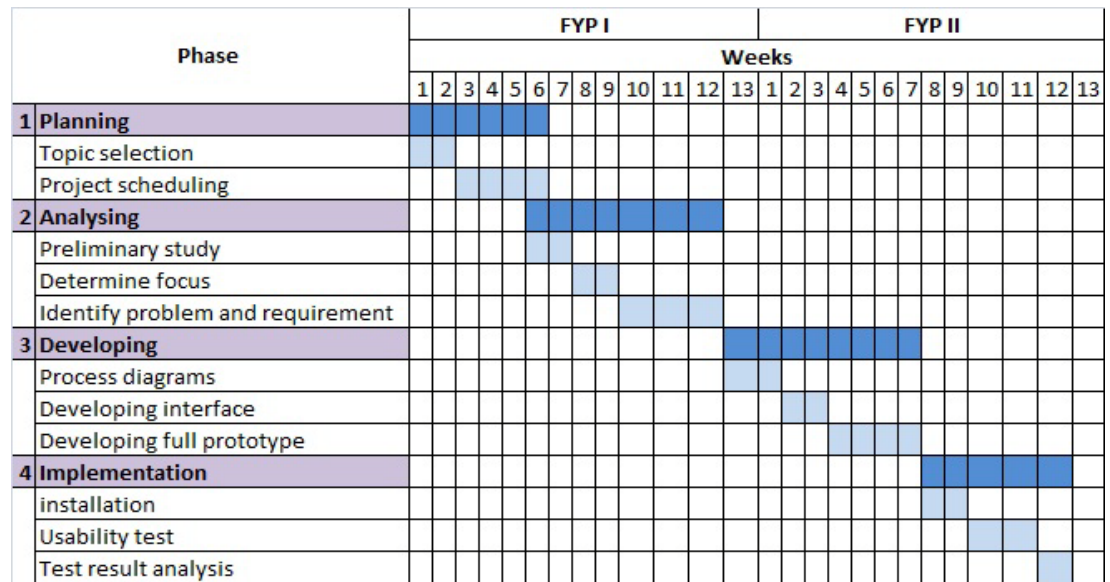
Diagram 2 Gantt Chart

3.6   Tools

3.6.1   Hardware

For this project, a personal computer will be used as a workstation and demonstrate the prototype system.

3.6.2   Software

For the software, the author had chosen Visual Studio 2010 development toolkit and MySQL as the development tool of the prototype. Visual Basic is a third-generation event-driven programming language and integrated development environment (IDE) from Microsoft .By any measure, MySQL is a robust and popular database. It should be said that it does not have the industrial strength of Oracle, for example. However, it is enough to use as the database for this Contract and expatriate management tracking system.

Figure 1: Microsoft Visual Studio 2010

Figure 2: MySQL Logo

3.7   Current System Flowchart
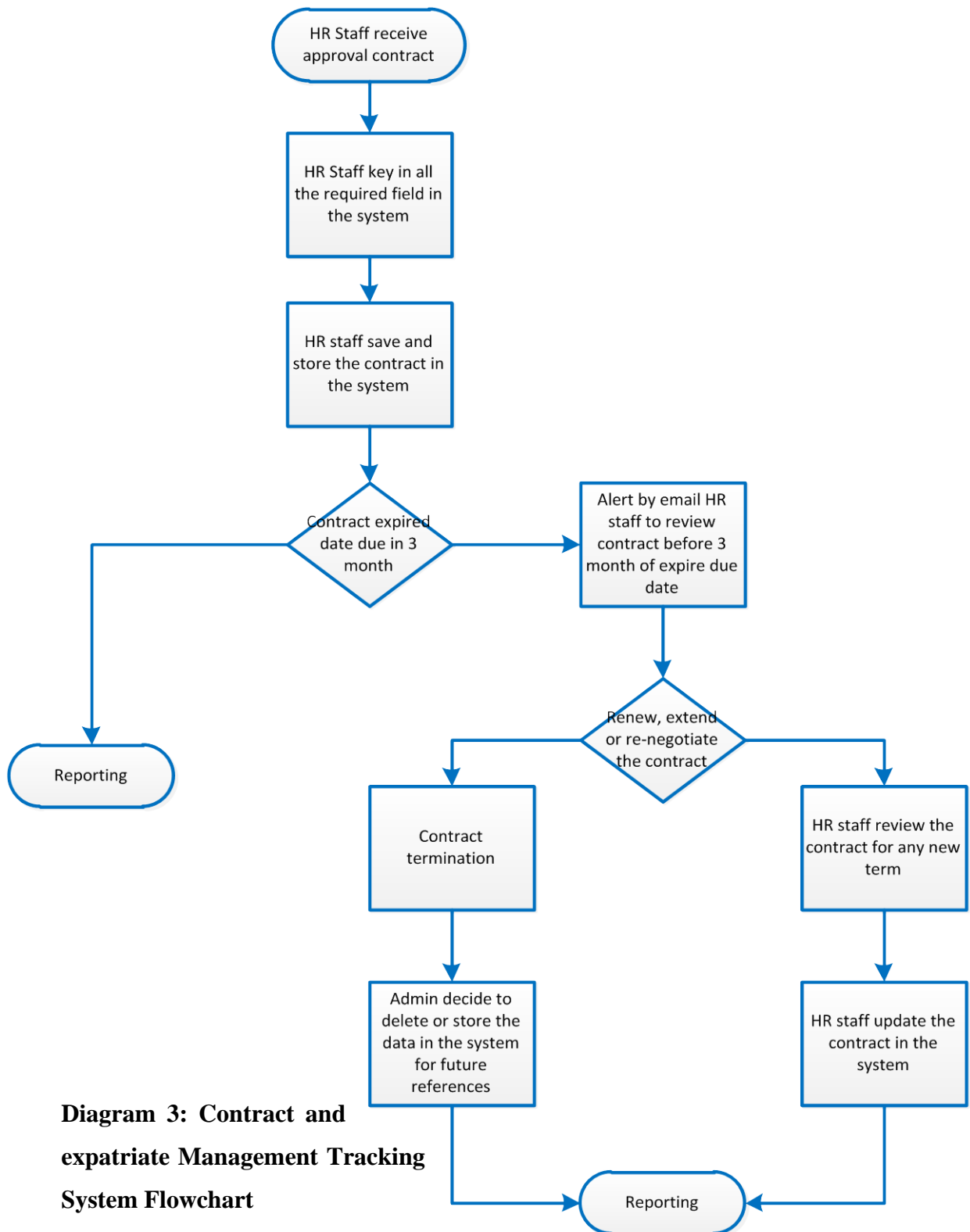
Diagram 3: Contract and expatriate Management Tracking System Flowchart

Chapter 4

Results and Discussions

4.1   Discussion and Interview

Discussion and interviews with the end user is the common and direct method to gather information. Because of the end user which is UTP HR staff only that will use the system survey or questionnaire is not necessary to conduct. Basically this project had one coordinator that guide the author through the development of the system. Thus, the information gathering and system requirement could be done with interviewing and discussion with that coordinator.

Coordinator: Mr.KhairulBadrisham B Ramly, Human Resourse personnel, UniversitiTeknologiPetronas.

Interviwer: Mohammad Zarith Bin Ahmad

Summary of interview:

The interview conducted with Mr.Khairul is conducted non-formally at his workplace. He exposed the current system used by them to store the contract and other data. He explained on the contract and expatriate management where the feature that he want to have in the system and which is the important data that need to be keep tracking by the HR staff. Moreover, the expatriate contracts also will be need to store and tracking on the system. He stated that the expatriate contracts are bit more different than simple staff contract as it has many data and field to track.

The previous method used by the HR department of UTP to manage the contract is by using excel sheet and store in the local drive. He explained that the system not necessary to have online function because he wants to have only their HR staff that can access to the proposed system. Thus the proposed system can be install locally in the HR drive and be access by their staff only. Moreover the system have security

measure where it have admin and user function that separate which staff can just see the list contract and the staff that can modify the data in the proposed system.

Thus, Mr. Khairul wants the system have the most important functionality is to be able to track any contract and any data specifically. The system also able to alert the end user on the contracts that needs attention from the personnel such as reviewing for extra actions and renewal process.

4.2   Functionality list

The overall project will cover functionality that will ease and help end user to maintain their database for the contract and expatriate management:

a) Login with admin or user and account registration

- The system checks the username and the password given input by the user. From that the system can verify the user is the normal user or admin. Existing users can login using their existing username and password whereas new users have to create a new account before logging in.

b) Show the list of all contract divided with local contract and expatriate

- Admin and normal user can see full details of all the contract

c) Admin functionality

- Admin are able to add new, edit, and delete contracts and data in inventory.

d) Search for specific contract and the value within the contract

- User can search and choose to search by what field value to get their data perfectly.

Further discussion

As a result this project will cover the overall basic practices for contract management and will add functionality such as:

- Any other document relevant to the contract can be attach
- Tracks contract status such as release, needs review, renew, terminated.
- Statistically approach reporting
- User assist review that check requirement, term and condition for end user easily review contract for renewal, on hold, or termination.

The figure below shows the current HR staff using Excel to store the data:

Figure 3: Sample employee contract data list are store on the excel document

Figure 4: Sample Accommodations and School data list store on the excel document

4.3   Purposed system design
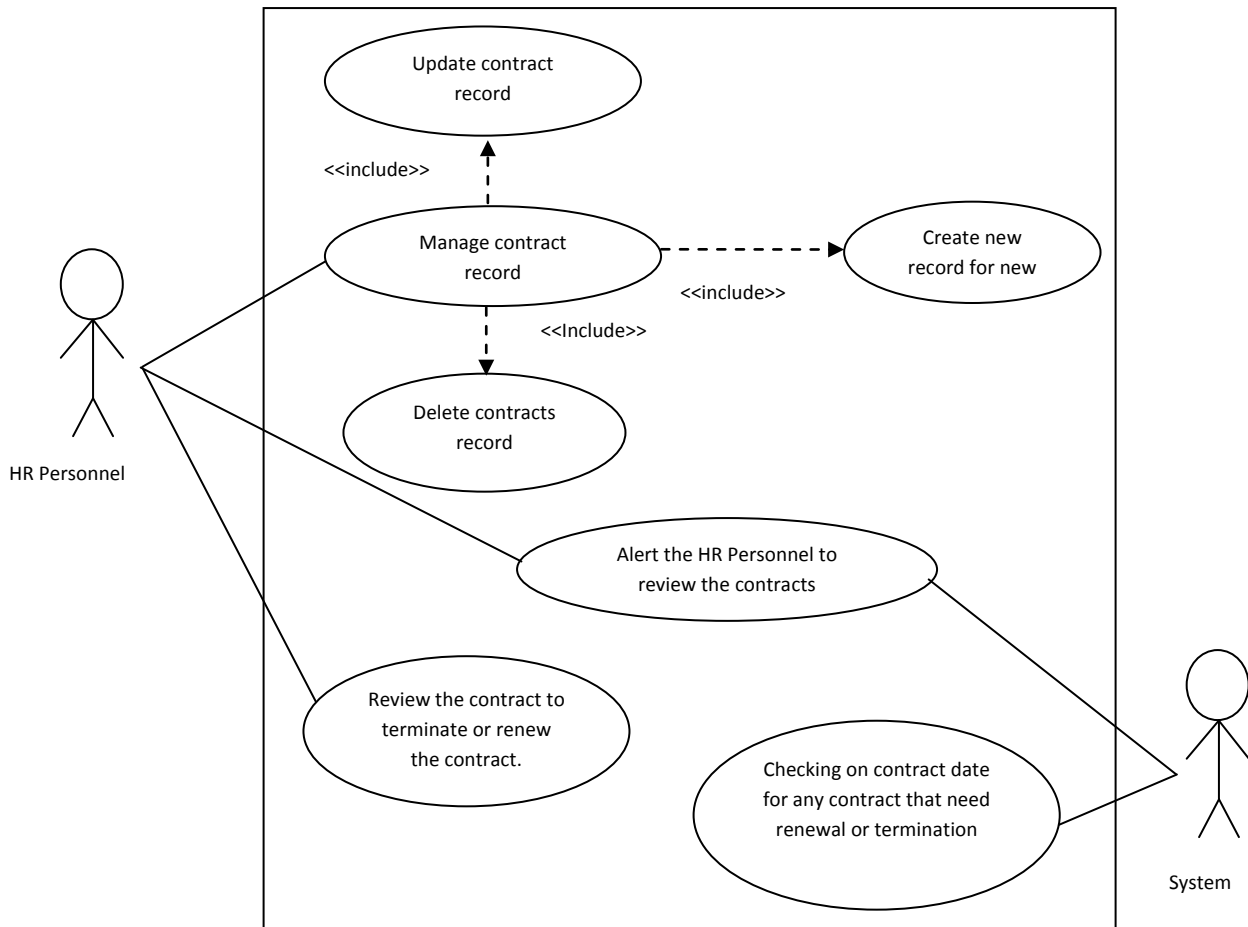
Diagram 4: Use case diagram for the proposed system

The proposed system will focus on the interaction between end user and the system itself.

- Actor: HR Personnel
    - Role: Manage contract record
    - Activity:
        - Update contract record after renewal process or input new data to the record
        - Delete contracts record if termination process occur
        - Create new record for new contract
        - Review the contract after given alert by the system.

4.4   SWOT Analysis

To gain better understanding about the proposed system SWOT analysis is constructed after conducted the interviews and discussion.

Strength (S)	Weaknesses (W)
- Offers multi-user system, that allows more interactive and systematic ways in tracking contract record - Low in cost - Offer necessary security as only certain personnel can access it	No expertise on detail information of the contract management software.
Opportunity (O)	Threat (T)
Have space for enhancement since UTP have IT support itself.	More advance contract management system if UTP decide to outsource external software.

Table 3: SWOT Analysis

4.5 Draft and prototype screenshots

Figure 5: First Draft of the interface for the Add new contract records

- **First prototype of the Project System**

Figure 6: Login
Page

Figure 7: Main
Menu

Figure 8: New Contract Menu

Figure 9: Form for Editing Existing Records

Figure 10: New Records Added

4.6   Screens, Reports and Message Description

Second Prototype of the system

Figure 11: Splash Screen of the System

User	:	Admin/User.
Type	:	Splash screen.
Function	:	Shown to the user that the program of the system is in running and working.

4.6.1 Log in Screen

User   :   Admin/Customer.

Type   :   Transaction screen.

Function   :   Enable existing admin and users to log in to the contract and
                             expatriate management system. The program will detect if the
                             username is the admin or not.

Purpose   :   To allow existing user to log in into the page to see the main
                             menu. Admin must tick the check box to determine that the current
                             user is the admin.

Button

Number	Button Name	Purpose / Description
1	admin_chkbx	Determine the current user is admin or not
2	login_button	It will determine either user is admin or customer. if admin, it will direct to the admin page while user will have limited functionality.

Message

Message Type	Message Box Title	Message Text	Conditions When Message Occur	Button
Log In Error	Username Error	Please fill in the username	When the username field is null	OK
Log In Error	Password Error	Please fill in the password	When the password field is null	OK
Log In Error	Log In Error	Please correct the username or password	When the username or password is not identical in the database	OK
Log In Successful	CEMS	Welcome Admin	When the current username is admin	OK
Log In Successful	CEMS	Welcome User	When the current username is user	OK

4.6.2. Main Menu Screen
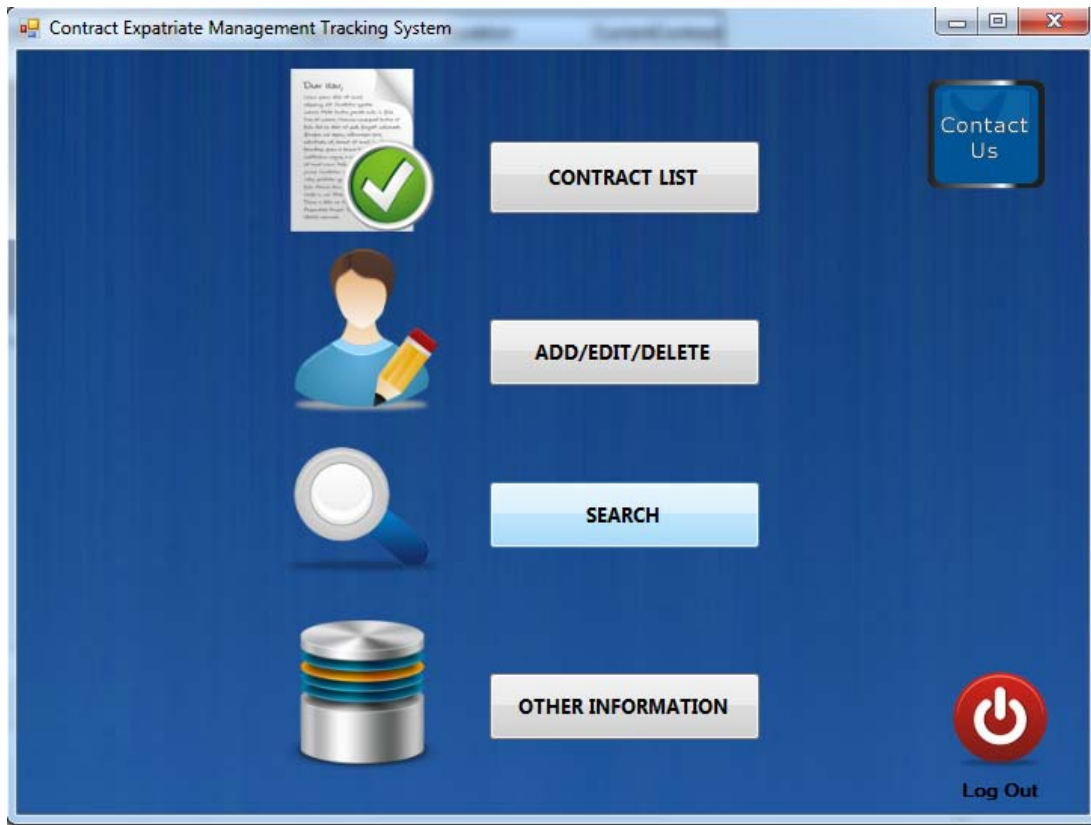
User   :   Admin/User

Type   :   Definition screen.

Function   :   List all the actions or activities those users want to perform

Purpose   :   User will be more organized in what they want to perform and

user only can see the contract list, search and other information

function but cannot modify the inventories.

Button

Number	Button Name	Purpose/Description
1	ContractList_button	To direct user to the shopping cart page and when user want to buy the product
2	ContactUs_button	Use to link to the log in page where user need to log in first in order to buy the product
3	Modify_button	User will want to add, edit or delete contracts so

		user will click this button
4	Search_button	Direct the current user to the Search form where user wants to search for specific values in contracts
5	OtherInfo_button	Will direct the current user to the other information data list.
6	Exit_button	Log out the user from the system

Message

Message Type	Message Box Title	Message Text	Conditions when message occur	Button
You do not have permission to modify any data in the database	Error	Please log in to with administrator account	When the current user is not admin	Ok

4.6.3. Contract List/Inventory Screen

User   :   Admin/user
Type   :   Inventory screen.
Function   :   Enable admin and user to see the list of contract/inventory
                 available.
Purpose   :   To enable all users to facilitate all the inventories as a whole
                 and see detail view of each of the inventories.

<u>Button</u>

Number	Button Name	Purpose / Description
1	Movefirst_button	To link back to the first item in list of the data
2	Moveprevious_button	To link back to the previous items in the list of data
3	Movenext_button	To link back to the next items in the list of data
4	Movelast_button	To link back to the last items in the list of data

Field Description
(The field are used in all form such as in the modify form and search form)

Number	Field Name	Purpose / Description	Data Type	Length	Format
1	Image_txtbx	To display the image of product	longblob	Up to 2mb image size	.jpg, .gif, .png
2	name_txtbx	To display the name of the staff	varchar	255	
3	gender_txtbx	To display the personal info	enum	Male or female	
4	DOB	To display the personal info	date		
5	ICNO	To display the personal info	Varchar	255	
6	Report Duty	To display the personal info	Date		
7	Duration_txtbx	To display the personal info	Integer	2	
8	CurrentConract from	To display the personal info	Date		
9	CurrentContractTo	To display the personal info	Date		
10	StaffNo_txtbx	To display the work info	varchar	10	
11	Position ID_txtbx	To display the work info	Integer	10	
12	Position_txtbx	To display the work info	varchar	255	
13	Department ID_txtbx	To display the work info	Integer	10	
14	Department_txtbx	To display the work info	varchar	255	
15	Grade_txtbx	To display the work info	varchar	255	
16	Salary_txtbx	To display the work info	Integer	10	
17	Group_txtbx	To display the work info	varchar	255	
18	Division_txtbx	To display the work info	varchar	255	
19	Company_txtbx	To display the work info	varchar	255	
20	C.Center_txtbx	To display the work info	varchar	255	

4.6.4. Modify Form Screen

User	:	Admin.
Type	:	Transaction screen.
Function	:	Enable admin to add new item to the inventory. Admin may upload the picture of the staff, change any value the in the data field in the inventories.
Purpose	:	To provide admin with an easy add new item screen to be add in the inventory and to be shown to in the inventories screen. Admin can just click on the desire contract of desired field of the data to modify the data store in it or change image of the staff.

<u>Button</u>

Number	Button Name	Purpose / Description
1	Movefirst_button	To link back to the first item in list of the data
2	Moveprevious_button	To link back to the previous items in the list of data
3	Movenext_button	To link back to the next items in the list of data

4	Movelast_button	To link back to the last items in the list of data
5	AddContract_button	To add new line and new form to fill in
6	Delete_button	To delete the existing contract or inventories
7	Save_button	Save any modify data in the existing inventories

Message

Message Type	Message Box Title	Message Text	Conditions When Message Occur	Button
Wrong data type	Error	Please fill in the with correct data type	When wrong data type in the field	OK
Staff No. are blank	Error	Please insert staff no value	When the staff no are not inserted in the data or null	OK

- **Field Description will be same with the previous one**

4.6.5. Search Form Screen

User	:	Admin/user
Type	:	Search form screen.
Function	:	Enable admin and user can search the data inventories by search by using 4 selected fields.
Purpose	:	To enable all users to search any specific data that they want to extract and search by using different fields. It provides fast search and wide range of method to the user as it can be search by 4 fields.

- **Button and field Description will be same with the previous**

Message

Message Type	Message Box Title	Message Text	Conditions When Message Occur	Button
Not found	Error	Please fill in the field correct value	When not any items found	OK

4.6.6. Contract List/Inventory Screen (for expatriate)

Button and field Description will be same with the other one (except for the expatriate)

Field Description

Number	Field Name	Purpose / Description	Data Type	Length
1	PassportNo	Work detais	varchar	15
2	CategoryPass_txtbx	Work detais	varchar	255
3	Pass_expired	Work detais	date	
4	NameDepend	Dependant details	varchar	255
5	PassNoDepend	Dependant details	varchar	255
6	DobDepend	Dependant details	date	
7	Relationship	Dependant details	varchar	255

4.6.7. Other Information data Screen (for expatriate)

User   :   Admin/user

Type   :   Search form screen.

Function   :   Enable admin and user to see the other information in the other inventories.

Purpose   :   To enable all users to see other information but only the admin can change the value in this inventory.

4.6.8. About and contact developer screen

Chapter 5: Conclusion and Recommendation

The development of the system will bring a solution to the UTP HR personnel to overcome their difficulties to better manage their local and expatriate contracts. Nevertheless, based on the interviews and discussion conducted, the results show that the proposed system's deliverables are favorable and desirable to be implemented in day-to-day tasks. Based on this, it can be conclude that the research made is successful as it brings both users and developer come to an agreement on how the proposed system could ease the user's workload, as well as the system requirements.

In order to come out with the best solution, all of the objective must be met which are to develop system purposely 1) to be able tracking any contract that staff wants to extract in short time and any 2) a system that can alert the user on the contract that needs attention or renewal.

In the nutshell, the conclusion is that after met all of the objectives and met all of the user requirements, it is hoped that the Contract and Expatriate Management Tracking System will be used actively and effectively in order to ease and improve their performance to better contract management.

I would like to recommend that further development will have better software such as Microsoft Server that can support very huge amount of database that can support heavy usage if necessary.

To have better system not only HRMA but all UTP should implement Microsoft SharePoint into their main system that can integrate all department in UTP and share all information and data strategically thus it will improve their business activities.

REFERENCES

1. *Michael Robey, Donald Coney and Rainer A. Sommer*"**Contracting for implementation of standard software**", Enterprise Engineering and Policy Laboratory, George Mason University, Fairfax, Virginia, USA.

2. "Understanding Public Sector Procurement Processes A Supplier's Guide to the Procurement of ICT Goods and Services CONTRACT MANAGEMENT"Booklet 6

3. *VesaSuutari, University Vaasa, Vaasa, Finland and Chris Brewster, Cranfield School of management , Cranfield, UK* "**Expatriate management practices and perceived relevance"**

4. *NIELSEN J., (1993), "Usability Engineering". Academic Press, New York*

5. Mark Freedland, *The Personal Employment Contract* (2003) Oxford University Press

6. Chong, H.Y. and Rosli, M.Z. (2009), "*The behavior of dispute resolution methods in Malaysian construction industry*", The IEEE Proceedings of the 2009 International Conference on Industrial Engineering and Engineering Management (IEEM), Hong Kong, pp. 643-7.

7. Gupta, H. and Mumick, I.S. (2005), "*Selection of views to materialize in a data warehouse*",IEEE Transactions on Knowledge and Data Engineering, Vol. 17 No. 1, pp. 24-43.

8.] R. Takuechi, J.P. Shay, and J.T. Li. When does decision autonomy increase expatriate managers' adjustment? An empirical test. *Academy of Management Journal.* 2008, **51**(1): 45-60.

9.] P. Dowling. International and Domestic Personnel/ Human Resource Management: Similarities and Differences.In: P. Enderwick, and J.H. Dunning (eds.). *United Nations Library on Transnational Corporations: TransnationalCorporations and Human Resources.* 1994, 16, pp. 56-65.

Appendices
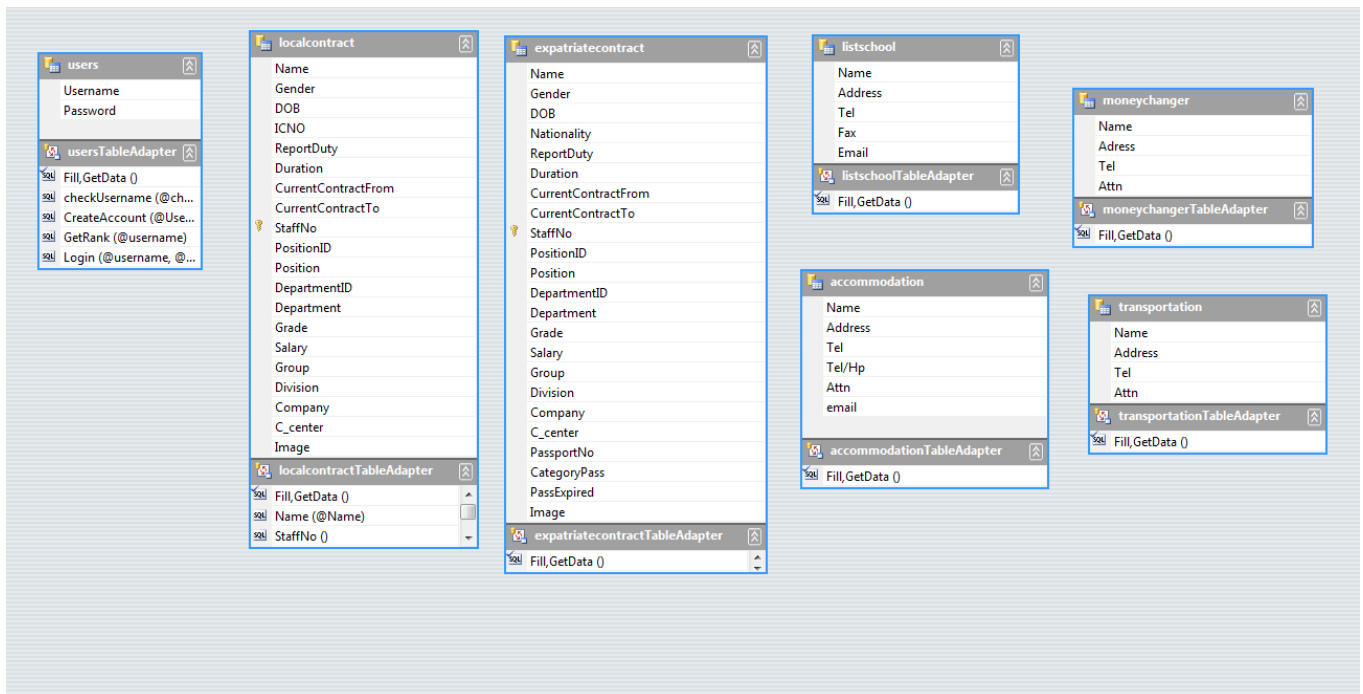

Figure 12 : Localhost database

Figure 13: Shows the Tables, field and the function uses in the current prototype system wiithout relationship.