

UTP Clinic Management System

By

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CERTAFICATION OF APPROVAL

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A project dissertation submitted to the
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In partial fulfillment of the requirement for the
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Approved by,

(Emy Elyanee BT Mustapha)

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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 acknowledgement, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

Miguel Botey Bopabote

ABSTRACT

This report focuses on the implementation of a management system that should be implemented at the University Technology PETRONAS's clinic in order to manage effectively their daily clinic operation information.

The system that is currently used by the clinic's staff is a manual system, which generates a lot of problems such as time consuming, misplacing of files, etc.

The implementation of this system will include patient's registration, storing their details into the system, medicine registration, disease registration and reports as well. This system will be having the facility to give a unique id for every patient and stores the details of every patient and the staff automatically.

The clinic Management System can be entered using a username and password. It is accessible either by an administrator or receptionist. The data can be retrieved easily. The interface is very user-friendly. The data is well protected for personal use and makes the data processing very fast.

Entire application is web based and built on 3-tier architecture using the latest technologies. The sound database of the application makes it more users friendly and expandable. The project is highly customizable and can be modified as per the needs and requirements of the client.

ACKNOWLEDGEMENT

I would like to thank the Almighty God for giving me the strength and wisdom to complete this Final Year Project (FYP). I would like to express my deep gratitude to my supervisor, Dr. Emy Elyanee bt Mustapha, for the enthusiastic encouragement, for his advice and great assistance and guidance given during the completion of this project.

Also, I would like to thanks UTP clinic staff for their cooperation and kindness to provide me with the needed data and information in order to gather the system requirements.

Furthermore, my grateful thanks are also extended to all my friends, for their great help and advice given during the development of the system.

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF STUDY

Today's organizations are extremely sophisticated and exceptionally large too. This is mainly attributed to technology, which keeps changing really fast. Technologies are the keys to success and, therefore, play a prudent role in the increasingly competitive world. As a result of this, people's working approach has changed drastically. Time and money are the driving forces in today's setting. In order to remain relevant, it is essential for people to shift from the manual system into an automatic system. This effectively paves way for the computerization concept. Online Clinic management System is one example of the computerization system.

Clinic management system is introduced to optimize clinic's operations. Because of huge changes in management nowadays, this system is significant due to the extensive spread of technology. This system is proposed for the clinic in University Technology PETRONAS (UTP). In this setting, the basic working is still on paper as compared to most clinics in Europe. It is essential to appreciate the fact that a majority of European clinics make use of computers in order to perform its daily chores more efficiently.

INITIAL INVESTIGATION

The first step in system development life cycle is the identification of need of change to improve or enhance an existing system. It is essential to note that an analysis of the present system was conducted.

Currently, the system used at the clinic is completely manual and many problems were identified during the study of the existing system.

THE CURRENT SYSTEM

UTP's Clinic is handling the process of registration and monitoring patients manually. The common operation is by manual practice where the receptionist needs to fill up a form manually in order to register new patients. However, this practice requires a highly structured document management system in order to facilitate ease of reference, error checking and efficiency when it comes to retrieval. Most of the time, it takes extremely long for the receptionist to register or track patients. This is mainly because the receptionist has to search among many physical files before getting the right ones.

The drawback of the current system is that it is very difficult to handle the whole system manually. It is also less efficient compared to a computerized system. Keeping data in files for safety and future reference could also be detrimental since the files can be destroyed easily. Moreover it is extraordinarily hard to retrieve data. It is also not easy for data redundancy to occur, which can lead into substantial inconsistencies. The manual system is so time-consuming as well.

One of the key advantages of the proposed system is its considerable ease when it comes to operating it. The proposed system is also fast and exceptionally accurate as opposed to the existing system. It is also worth pointing out that the proposed system leaves absolutely no room for redundancy. The data are stored securely and it can be easily retrieved and used at any time. The proposed system will effectively have the capacity to handle all data and all the work currently carried out by the manual system. The proposed system will remove the problems of the current system to a great extent and it provides tight security to data.

With the implementation of this system, it will lower the task of the receptionist. The receptionist will not have to go through many files in order to gain access to the right documents.

In addition to this, the system is expected to lessen the use of papers and alleviate the time taken to go through all files.

PROPOSED SYSTEM

1. **Registration:** patients key in they info which will be stored in a database to be more secure.
2. **Speed:** The new proposed system is very fast with 100% accuracy and saves time.
3. **Efficiency:** The system will allow the staff to search the patient record in an easy and efficient way from a large amount of data. The system response time will be fast and the system will allow the user to open several task at one time when they are using it.
4. **Reliability Requirement:** The system will be very reliable and the rate of error regarding this system must be reducing at a commendable rate.
6. **Reduces redundancy:** The most significant benefit of this system is that it reduces the redundancy of data within the organization.
7. **Work load:** Reduces the workload of the data store by helping in easy updates of the data.
8. **Easy statements:** day-end statement easily taken out without getting headaches on browsing through the day end statements.

1.2 PROBLEM STATEMENT

Based on the studies made on current system flow in the clinic, the following problems have been identified:

The excessive paper usage in their daily operation, which is not a good practice to go green, and help preserve our environment, is the main problem.

On the other hand, with the increase in the number of patients visiting the clinic daily and due to their paper base system, the clinic is facing problems with the appointment system. It has become very difficult to manage the appointment system manually.

It is extremely clear that the manual system of conducting vital operations within an organization has become an extremely tedious job.

In fact, many patients have requested an automated system where they can set up appointments for medical check up base on their availability.

Time consuming:

The long process flows to be completed in order to register new patient or retrieve information on existing patient because nurse go through a lot of files to get the right file and sometimes the files are misplaced.

Time and effort consuming for documents retrieval. It is difficult to retrieve back patient's medical records, because sometimes the files are misplaced and it become harder when there are a lot of patients.

1.3 PROJECT OBJECTIVES

The objectives of this system is to:

Fully automate the clinic daily operation in order to increase the operations efficiency and effectiveness and reduce error chances

Help the patients to **take appointment online** through Internet and track their records through it

Decrease the paper work in order to go green and help preserve the environment.

The following are the benefits associated with the clinic management system:

Cut down the paper usage

Ordinary, clinics record their patient information in a paper. As the patient visits often, the clinic nurse adds a paper to the patient's record in order to let the doctor have enough space to write down the diagnosis to that patient. The system provides the ability to store the patient information into a database so that the data is stored in a more organized manner and do not wasted any single space in a clinic. Furthermore, the database supports the clinic to store up to millions of patient records in an easy managerial way.

Save the communication time

As all the staff will be sharing the same database among the clinic, the nurse does not need to run over here and there to pass the patient record to the doctor or get back the patient record from doctor. All the clinic's staff could get up to date information from the shared database.

1.4 PROJECT SCOPE

The system cover all the basic modules such as:

a) Patient Registration

Patients need to register before use the facilities at the clinic. All the information will be safely secure.

b) Medical appointment

Through this module patients can make appointment for their medical check up based on their availability. Patient has to register or login to make appointment through online.

c) Disease Registration

This module manages data about patient's treatment history and register for various type of disease.

e) Medical advises

This module provides information about certain diseases; it also provides other guidance where patients can get more on healthy life style and find other clinics of hospital for especial treatment on a certain disease.

PROJECT SIGNIFICANCE

Clinic management system is a very powerful tool, which increases staff efficiency & productivity. The system offer better quality of care leading and patient satisfaction and errors caused by illegible handwriting are eliminated

The system will be operated by authorized people only. The end user will find it useful since it has some great advantages that will help users to work efficiently.

Besides that, it is easy for the management to maintain record about the patient. The time for retrieving the information needed will be less compare to the manual.

In addition, the system has a probably minimum possibility of losing stored data. Any specified data can easily be retrieved, viewed and report subsequently generated by the clinic nurse.

1.5 FEASIBILITY STUDY

1.5.1 Project Scope Feasibility

For the FYP clinic management system, the focus of the project will be entirely only on the system management process flow for both FYP1 and FYP2. Therefore, I need to emphasize on the current FYP1 as the system implementation is covering for both.

In order to gain more understanding on the scope of the project, I had discussed with the clinic's staff and some of my colleagues to gather information related to system management process flow. This is essential, as I need to do further research on my project. Therefore I need to ensure this is relevant to be implemented.

1.5.2 Time Frame Feasibility

I have my FYP course divided between FYP1 and FYP2, where each is completed within one semester respectively. During FYP1, I will be focused more on making further research on the project. During the planning and analysis phase, I will find out the problem statement to determine the real problem that I need to solve.

Research on literature review is another analysis made on the project to determine if such project has been done before and analyzing any comments on similar projects or problem identified.

On the other hand, during FYP2 course, I'll be focused more in designing the interface and framework of the system to help plan on the overall complete system. Besides that, I will also focus on the development and implementation of the project prototype and perform testing to ensure that the system has every function needed and error free.

As the FYP course is divided evenly between the two semesters, I believe this project will be able to complete within the time frame.

CHAPTER 2

LITERATURE REVIEW

Clinic Management System is defined as web-based solution that helps manage documentations efficiently resulting in higher efficiencies and faster patient turnaround time. (Wilcke, 2010).

Herselman (2008) stated that clinic management system improves workflow and applications of ICT facilitate communication between organization and stakeholders.

2.1 Automated System

Automated systems are widely used nowadays. Those systems are used in order to increase production and improved the technology used by the organization. There are several benefits from the automate system which are low cost, low human effort and better result in the end (Shoshanna, 2002).

In the implementation of the clinic management system, the most important aspect, which is low cost, is covered. No more papers and files are in need instead of a system, which is affordable to purchase. The long run advantages will take place. Also, the use of papers is reduced since it requires Internet connection only. Besides, the system lessens human efforts because the clinic staff does not need to search through the papers to retrieve any information.

Furthermore, with the new system implementation, it will increase the competition in terms of market value (Shoshanna, 2002). The university will be referred for the system as in Malaysia, not many university implements this kind of system yet.

2.1.1 Web based System

Web based systems offers many advantages relative to stand-alone desktop systems. Such advantages include savings on cost, improved productivity of employees, increased efficiency, improved communication, improved security of data and better effort coordination in the firm.

Janko Jovanovic (2010) defined web applications as dynamic, interactive systems that help businesses perform critical tasks. This includes increasing and measuring their productivity. Therefore, the primary key function of a web based system application is to execute a role that serves the tasks of the user in accordance with the rules defined by the business.

The power of a web-based application is that it is easily accessible regardless of time and place; as long as there is an Internet connection. This is much important in this project because the user can always access the system thus enhancing continuous workflow.

The clinic's staff will have full access and control to the system, while patients will only have access to make an appointment for medical check-up.

2.1.2 Green Technology

One of the green technology activities is to go paperless. Johnston and Spencer have quoted that technology is not the major obstacle to a paperless working environment but rather a resistance to re-engineering business process. Technology seems to drive factors of the process or procedure towards paperless-based working environment. In fact, the use of system in handling work and replacing paper has brought new discovery (Johnston & Spencer, 2005). For instance, new analysis from the system is retrieved. When combining the data, figures and others, many kinds of analysis can be done.

On the same note, the use of technology in replacement of paper will have promising savings. It has been estimated that every dollar invested in going paperless will generate a return of as much as \$30. Even if that estimate is overblown, the savings still would be considerable (Johnston & Spencer, 2005). Hence, the investment in buying or changing to automated system is worthwhile. The use of papers will have the possibilities of added cost if the papers happen to get lost or damaged.

However, some arguments claim that going paperless will cost a fortune in terms of money, effort, learning and cultural change (Shaw, 2001). The members of organization need to take time to understand the coding or the system. Besides, there is possibility that the organization necessitates to undergo training to make the members understand. There is also a risk of system breakdown where the system is not able to access. The user still needs to manually enter the documents (Shaw, 2004).

CHAPTER 3

METHODOLOGY

3.1 RESEARCH METHODOLOGY

Incremental methodology is the methodology chosen for this project and the phases of the project will be divided into:

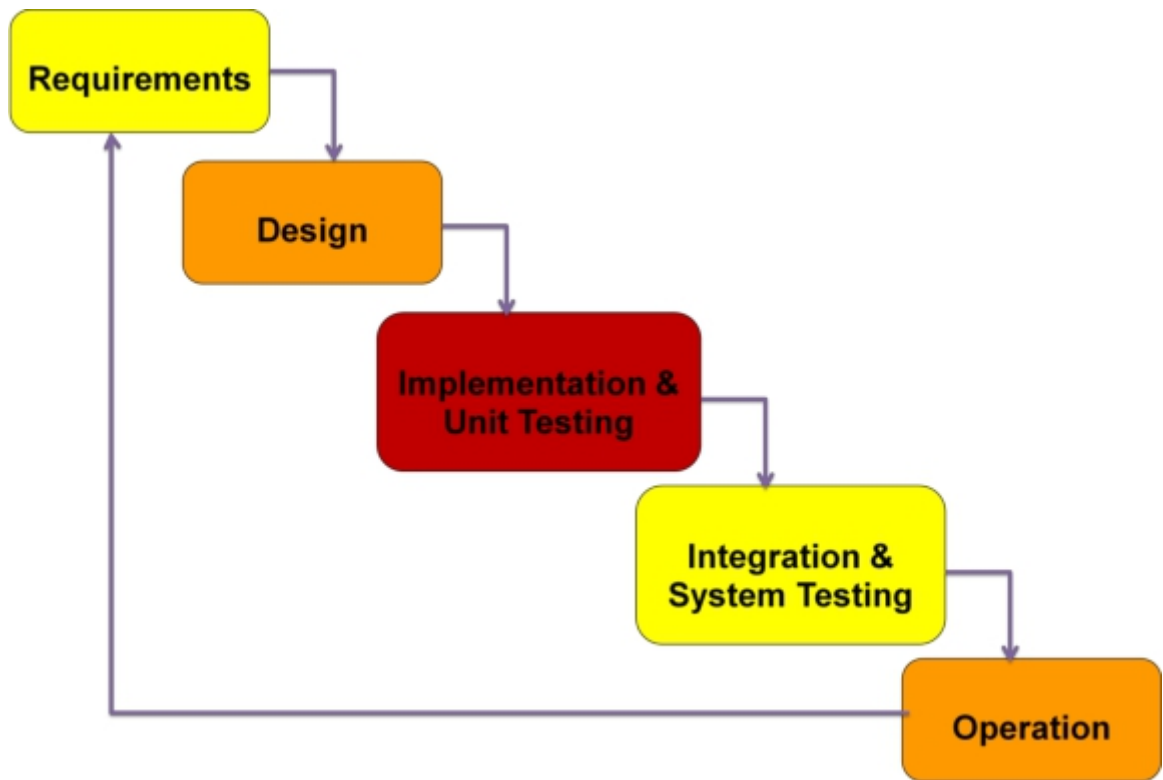
1. Planning, Requirements Gathering & Analysis.
2. Design
3. Implementation
4. Testing
5. Deployment

Incremental model generates working software quickly and early during the software life cycle.

It's more flexible – less costly to change scope and requirements.

It's easier to test and debug during a smaller iteration.

Customer can respond to each built and it's easier to manage risk because risky pieces are identified and handled during iteration.



1. Planning & Requirements Gathering

- a. The systems business value and fundamental process of understanding why an information system will be build will be identified.
- b. Involve estimating time, cost, quality, change, risk and issues to make sure the project is completed within the budgeted resources.
- c. The planning phase will produce a milestone-driven schedules and detailed project planning schedule for the development and implementation of the system.

2. System Analysis

- a. The main purpose for this phase is to gather user requirement so that at the end of project, it will produce a system that meet clients expectation.
- b. This phase will investigate the current available system; identify opportunities and improvement as well as developing a new concept for the systems.

3. System Design

- a. This phase will focus more on the technical part of the system especially on how the system will operate.
- b. System developer will understand and get familiar with the programming language used before getting ready to code the system. For this project, the clinic management does not restrict which language to be used.

4. Implementation

- a. The goal for this system is to implement the system correctly, efficiently on the device involved.
- b. The main activity involved in this implementation part is coding from scratch and the most important things is it meets the user requirement as well as to remove critical error found in the program to make sure the program run successfully.

5. Testing

- a. This is to make sure that the system produced is error free and in a high quality condition.
- b. The clinic staff will be using the system several times before it is released to them

6. Deployment

- a. In the deployment phase, it involves finalizing user documentation, finalizing the system set-up and conducting user training to get user familiar with the new system.

Project Tools

- a. Equipment/development tools (eg: IDE/Microsoft Project)

- | | |
|--------------|-----------------------|
| 1. Front end | HTML, PHP, JavaScript |
| 2. Back end | MySQL |
| 3. Editor | Notepad++ |

- b. Operating system server (e.g.: OS/Web server App Server)

Windows 7 Home premium

- c. Database system (eg: Oracle/MS SQL Server MySQL)

MySQL

- d. Hardware Requirement

Computer:

Intel core i3 and above- @ 2.50GHz 2.00GB of RAM and 64-bit O.S

3.2 PROJECT ACTIVITIES

Listed below are the project activities done throughout the implementation of FYP Clinic management system:

Fact Gathering: Observation

Before I started designing the system for the clinic, I visited the clinic and observed how is their daily business operation.

It is an ordinary clinic where their operations are done manually. I observed and recorded down in detail how is the progress flow from patient register on the counter until the patient takes medicine on the dispensary counter. Through the progress, I realized that there are a lot of papers needed to use in order to complete this progress.

3.2.1 System Design

During the project activities, among of the activities implemented involve mostly in designing the framework and architecture of de project, which includes:

- Activity Diagram and Use Case Diagram, which are shown in the next chapter.

System Development

The system implementation involves the development of the FYP clinic management system into an executable system. This will include the implementation of user interface, integration with database and other components. The system will be implemented based on the framework and architecture designed previously. Once completed, the system will be tested with their user to determine whether it has all the functions needed and user requirements.

Users Activities: Basic data flow

Login Account

To open the user account the users have to enter login information.

User must enter valid user id and password to open user page. If it is valid then it links to user account page. If the user is new to the clinic he/she has to register.

Basic data flow

- Here first the user enters login id and password.
- After entering the login information system checks whether entered login id and password is valid or not.
- If it is valid then it is linked to the user account.
- If the user doesn't have user account then user needs to register.

Admin

Admin is a super-user. He/she is able to control the whole system. Admin can add, delete, update and modify the system.

Admin logs into the admin account and do the relevant changes daily. Admin keeps the system up-to-date.

Basic data flow

- Admin logs into the system.
- Can add/delete/update/modify records.
- He/she controls the entire system.

Online appointment

Patients can take appointments through online by entering Date and Time.

Patient has to register or login to take appointment through online.

Patients should enter valid information to take appointment online. After entering appointment details receptionist verifies the information and gives date and timings.

Basic data flow

- Patient first logs into the website.
- After logging in, the patient enters the appointment information.
- The receptionist verifies the sent details from the patient and updates date and time.

Functional requirements

- Patients can take appointment online
- Patient can view the old appointment details and their records.

Doctors Module:

Doctors can check appointments taken by patients. Doctors can view Patients Test reports and he can enter and view suggested prescription details.

Basic data flow

- Doctor logins to the website.
- Doctor checks old record and appointment details.
- Doctor enters prescription and test reports.

Functional requirements

Doctor can view patient appointment, old records, and prescription.

Security Requirements

This system is provided with authentication without which no user can pass. Therefore, only the legitimate users are allowed to use the application. If the legitimate users share the authentication information, then the system is open to outsiders.

System Quality Attributes

Reliability: Good validations of user inputs will be done to avoid incorrect storage of records.

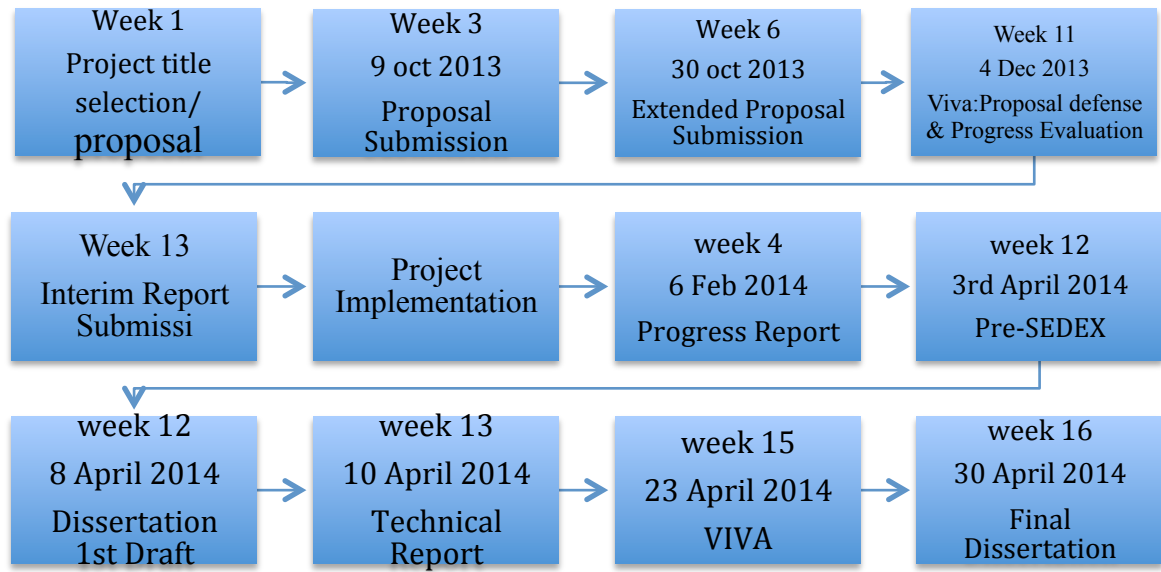
Portability: This system can be access anywhere at anytime as long as there is internet connection.

Flexibility: The system keeps on updating the data according to the transactions that takes place.

Timeless: The system carries out all the operations with consumption of very less time.

Security: Security of the system is maintained by giving access to only authenticated user id and password.

3.2.2 KEY MILESTONE



Gantt chart for FYP I & II

Detail/Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Project title selection/proposal	█																										
Proposal Submission to research cluster		█	█																								
Project planning (data analysis/requirement gathering)				█	█																						
Extended Proposal Submission						█																					
Project Analysis						█	█	█	█	█	█																
Viva: Proposal defense & Progress Evaluation											█																
Interim Report Submission												█	█														
Project Implementation														█	█	█	█	█									
Progress Report Submission																		█									
Pre-SEDEX																			█	█	█	█	█				
Submission of Dissertation (1 st Draft)																							█				
Technical Report Submission																								█	█	█	█
VIVA																											█
Final Dissertation Submission																											

CHAPTER 4

RESULTS & DISCUSSION

4.1 Interview

Several interviews have been conducted with the clinic's staff during the data collection phase. Generally, the interviews were carried out in order to understand the current workflow of the system as well as the improvement desired from the clinic. Beside that, I have prepared few questions regarding the system:

1. How is the current system works? Is it done manually? What are the problems with the current system?

The current system is done manually where the receptionist needs to fill up a form in order to register a new patient or check for an existing patient.

Also, the use of a lot of papers makes the clinic's staff difficult to retrieve or check on patients or medicines.

They have to go through a lot of papers that consumes times and energy. This shows that the current workflow or system is not really efficient.

2. What are the weaknesses the clinic wants to improve?

They want to cut down the time and waste of papers.

3. What are the functions that the clinic wants to implement through the system?

The following functions are requested to implemented in the new system:

Patient registration

Disease registration

Medical appointments (only for medical check up)

Medical advises

4. Who is the main user of the system? Or who has the access to this system?

Clinic's staff will have full access and control to the system, while patients will only be allowed to make appointments for medical check up

5. Who is the third party involved in this system?

No third party involved.

6. Is there any requirement on the specific software to be used?

It depends on the developer preference.

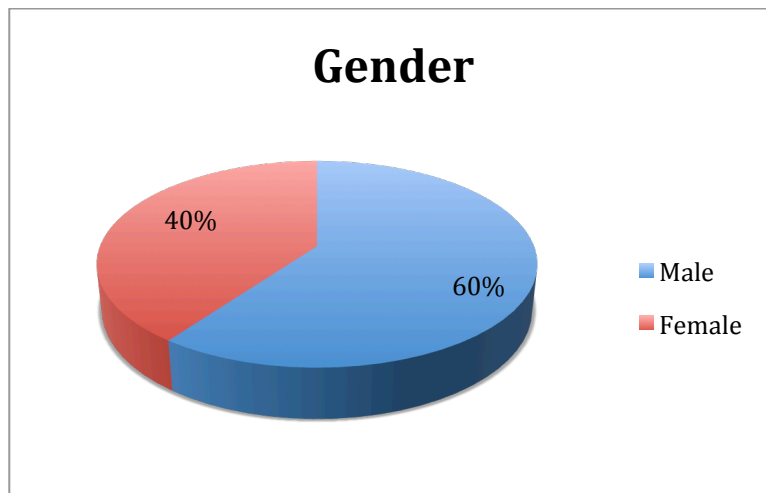
Based on this interview is clearly we can conclude that the clinic is facing some problems due to they paper based system and 100% of the participant agree to design an automated system which will enable them to overcome all these problems.

FINDINGS AND DATA GATHERING

Survey Result

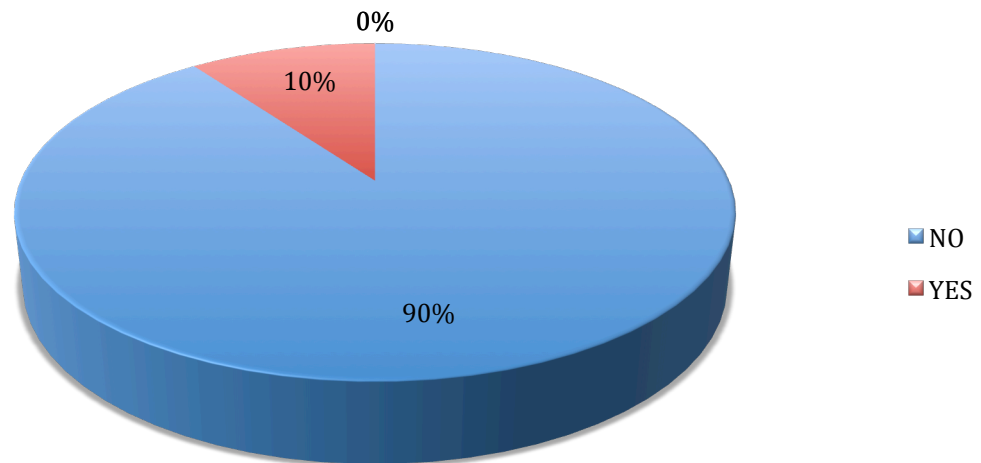
A survey has been conducted among the clinic's staff in UTP with the purpose to get their feedback on the current system, the problems that they face and their comment on the implementation of the new system

The result of the survey and their discussion are as below:



All of the respondents are members of the clinic's staff where 60% of them are male and the remaining 40% are female.

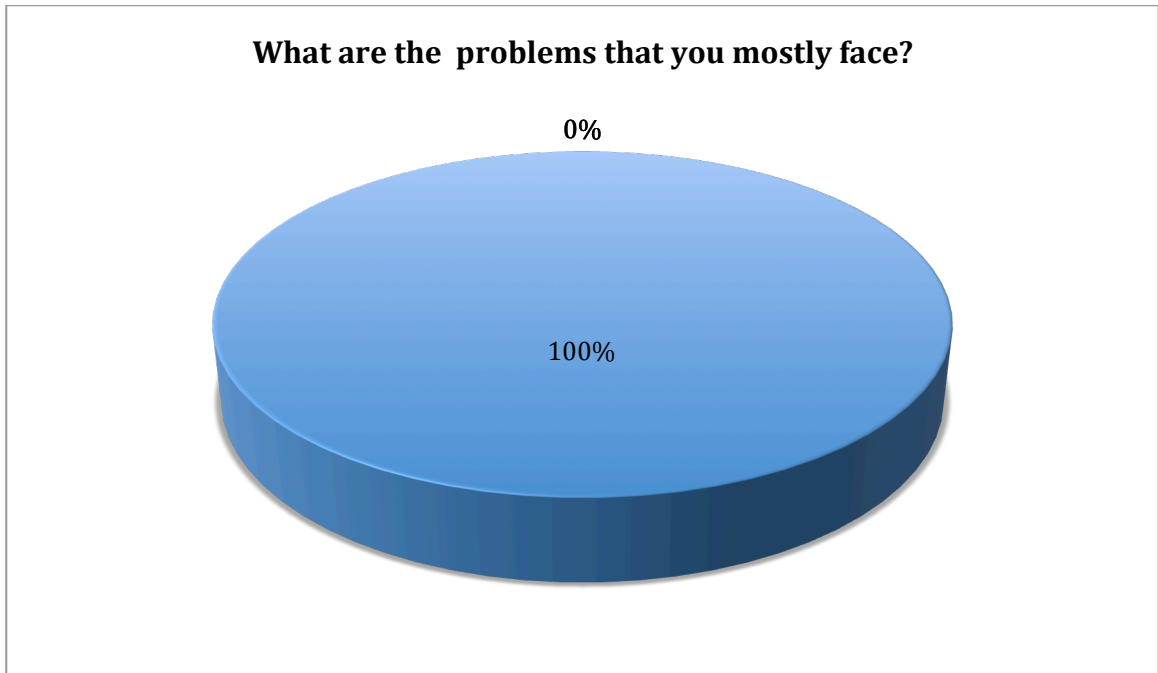
Are you satisfied with the current system?



Based on the respondent surveyed, 90% of the clinic's staff are not satisfied with the current system since they claim that it is less efficient, an old mode & so time consuming, a lot of paperwork and file might easily get lost.

However, 10% of them are just satisfied with the current system since they are already used to it and claimed that the new system might have some drawbacks as well such as it can be so expensive so purchase and to maintain, system crash and people will always find the way to hack into the system.

Therefore, it could be said that the implementation the new system is crucial as more than half of the clinic's staff agree that current system is giving very traditional and giving a lot of problems.



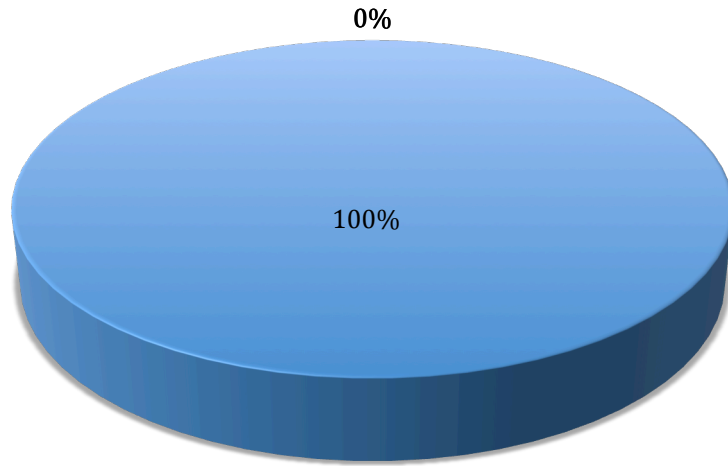
Based on the survey made, 100% of the respondent stated that most of the times they have to deal with a long queue of patients just to register them, which takes a lot of time.

They also misplace files sometimes because they deal with a lot of paper, there is so much paperwork and most patients are complaining about they services.

On the other hand, most patients are also claiming for an online appointment so they don't have to walk to the clinic just to make an appointment.

Besides that, this survey has given more proved that the implementation of the new system is vital which needs to be implemented as soon as possible with the objective to overcome these problems.

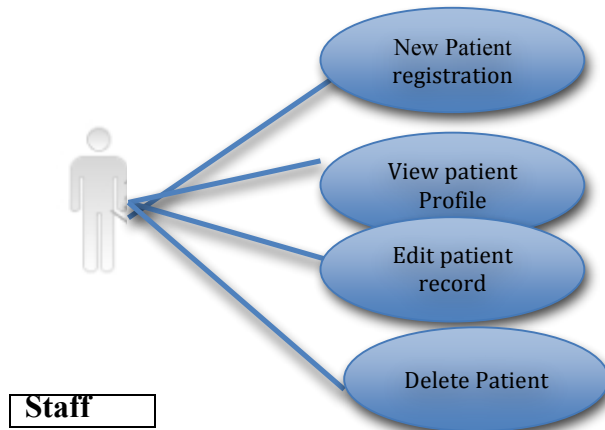
How would you like the new system to be?



Based on the survey made, 100% of the respondent stated that they would like a system, which is very efficient, user friendly; reliable that can help them do their job more efficient and offer a better service to the patients.

4.1.1 Data Analysis: Use Case Diagram and Use Case Description

Use case description for patient profile maintenance



Use Case Name: Patient Profile

Brief Description: This use case allows the user to add, view, edit, and delete the patient record. Besides that, it also can generate patient member card, print dispensary report and payment receipt.

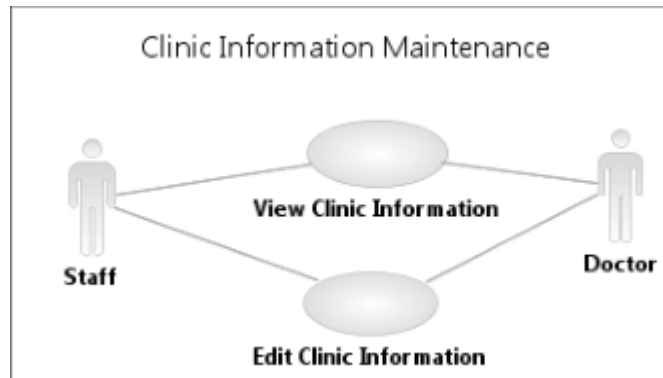
Actor: Admin, Doctor and Staff

Main Flow:

Actor Action**System Response**

- | | |
|---|--|
| 1. User login into system. | 2. Verify user ID and Password |
| 3. Click Patient List Button. | 4. Display patient list page |
| 5. Input Patient's name | 6. Display patient record |
| 7. Double click on particular record to edit. | 8. Display selected patient detail |
| 9. Edit info. | 11. Verify all data and update database. |
| 10. Click Save Button | |
| 12. Click Add New button. | 13. Enable all blank textbox |
| 14. Key in new patient information. | |
| 15. Click Add Button. | 16. Verify all data and add to database |
| 17. Click Delete Button. | 18. Remove patient record from database |
| 19. Click save Button to update | |

Detail Use Case Diagram for Clinic Information Module



Use Case Name: Clinic Information Maintenance

Brief Description: This use case allows user to view and edit the clinic information.

Actor: Doctor and Staff

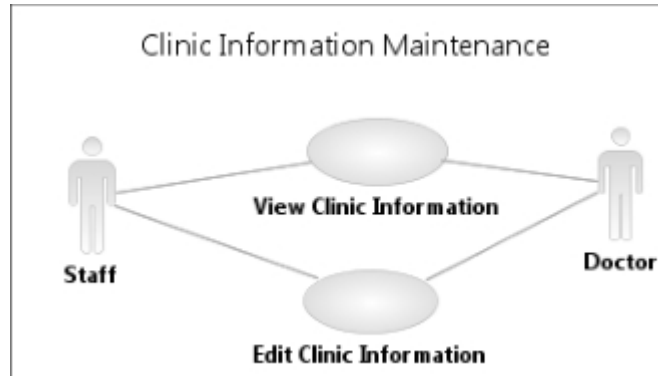
Main Flow:

Actor Action

System Response

- | | |
|---|--|
| 1. User login to the system. | 2. Verify User ID and Login Password. |
| 3. Click Clinic Information Button. | 4. Display Clinic Information Page. |
| 5. Edit Clinic Information (medical advices) | |
| 6. Click on save button to update the information | 7. Verify all data and update to database. |

Detail Use Case Diagram for Clinic Information Module



Use Case Name: Clinic Information Maintenance

Brief Description: This use case allows user to view and edit the clinic information.

Actor: Doctor and Staff

Main Flow:

Actor Action

System Response

1. User login to the system.

2. Verify User ID and Login Password.

3. Click Clinic Information Button.

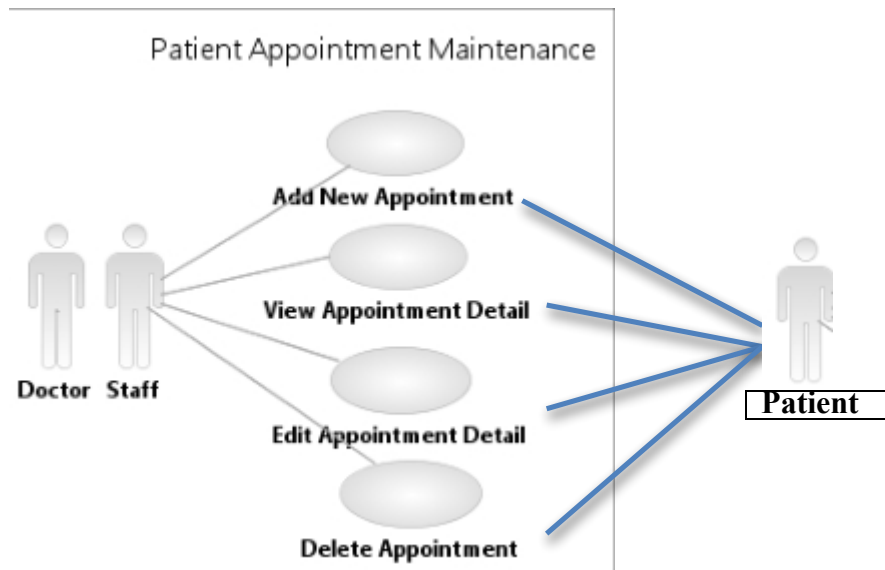
4. Display Clinic Information Page.

5. Edit Clinic Information (medical advices)

6. Click on save button to update the information

7. Verify all data and update to database.

Detail Use Case Diagram for Patient Appointment Module



Use Case Name: Patient Appointment Maintenance

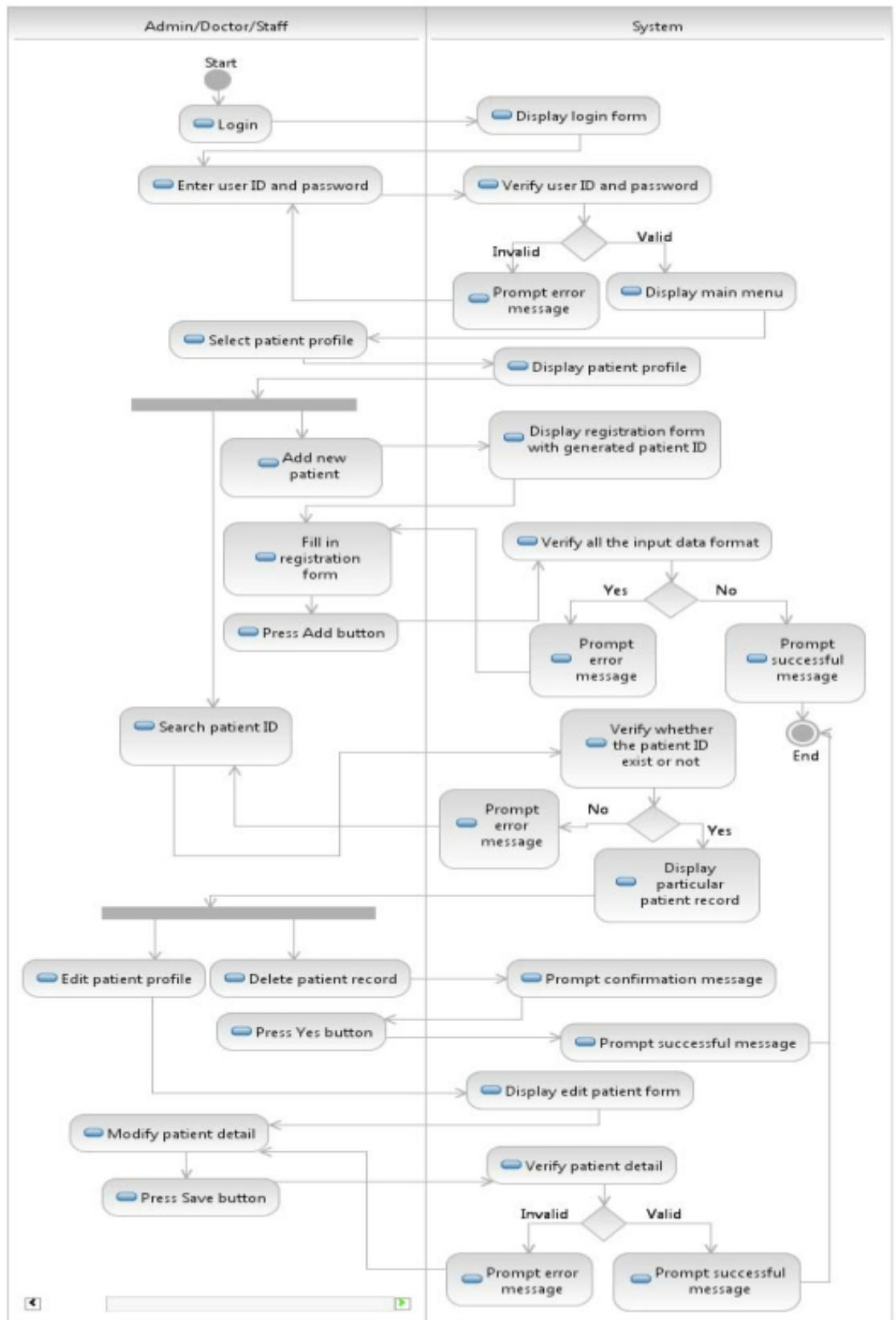
Brief Description: This use case allows the user to add, view, edit, and delete the patient appointment with the doctor.

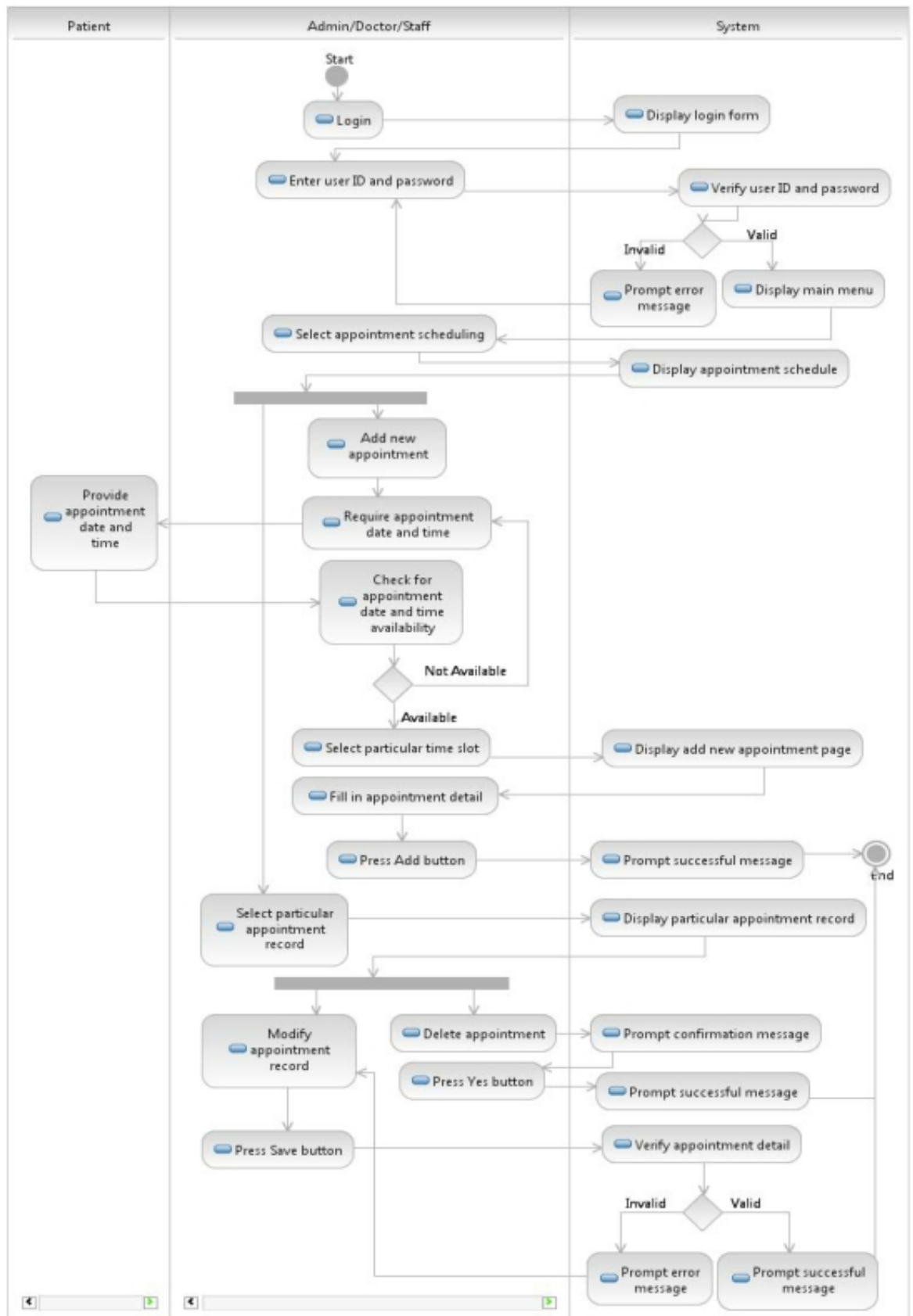
Actor: Doctor and Staff

Main Flow:

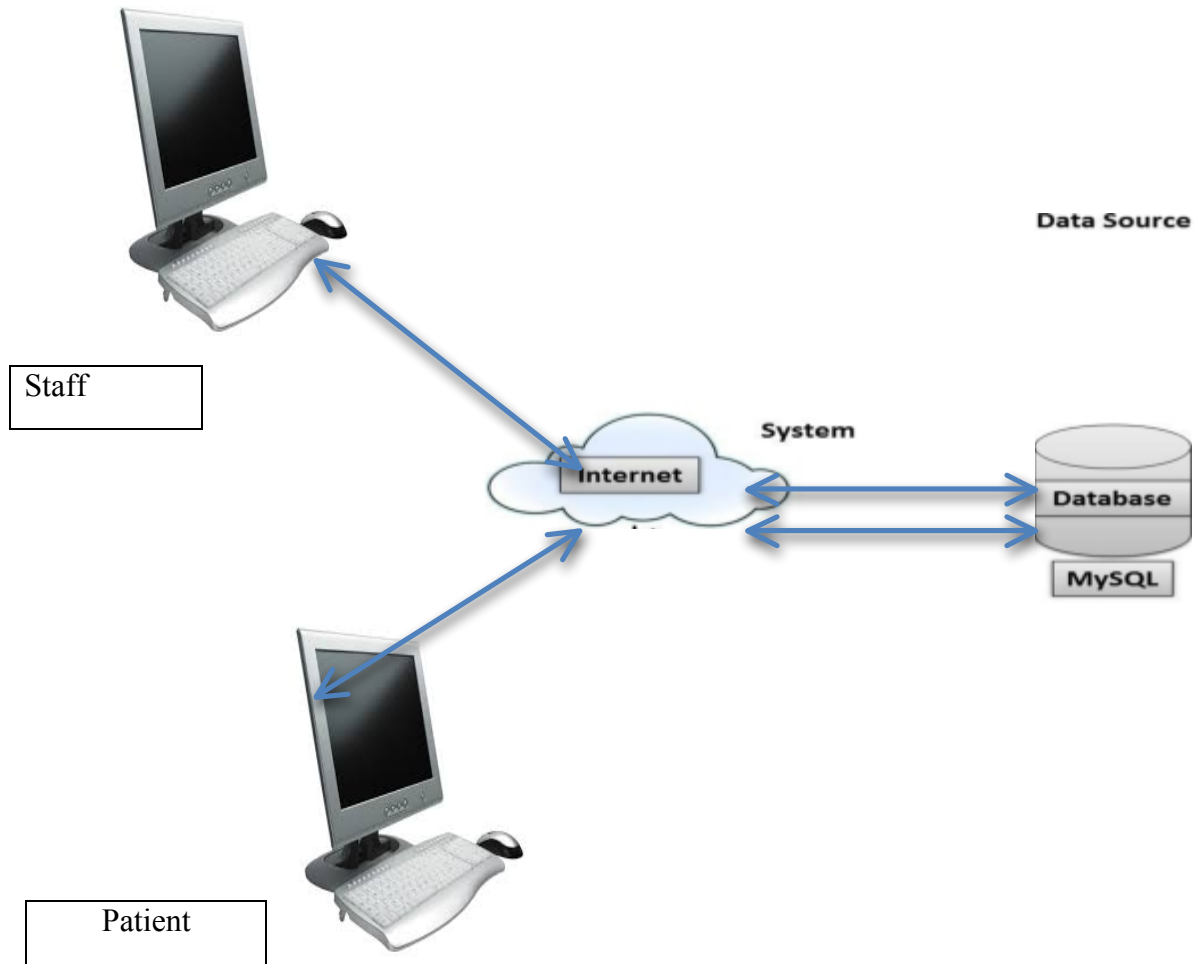
Actor Action	System Response
1. User login into system.	2. Verify User ID and Password
3. Click Patient Appointment Button.	4. Display Patient Appointment Page.
5. Select a date.	6. Display the appointment base on the date selected.
7. Double click on particular record to edit.	8. Display selected appointment in particular field
9. Edit info.	
10. Click Save Button.	11. Verify all data and update database.
	12. Double click on add
	13. Enable all blank textbox.

Activity Diagram





4.1.2 System Architecture



Based on this figure it shows the architecture of clinic management system and their functionality. The system consists of three main modules, which are the user module, system module and the data source module. Further explanation for each module is described below:

User Module

There are two main users with different ability in this system, which are the clinic's staff and the patients. Both of these users need computers to enable them to access the system.

The patient can only access the system and make appointments while the clinic's staff will handle the rest of the job.

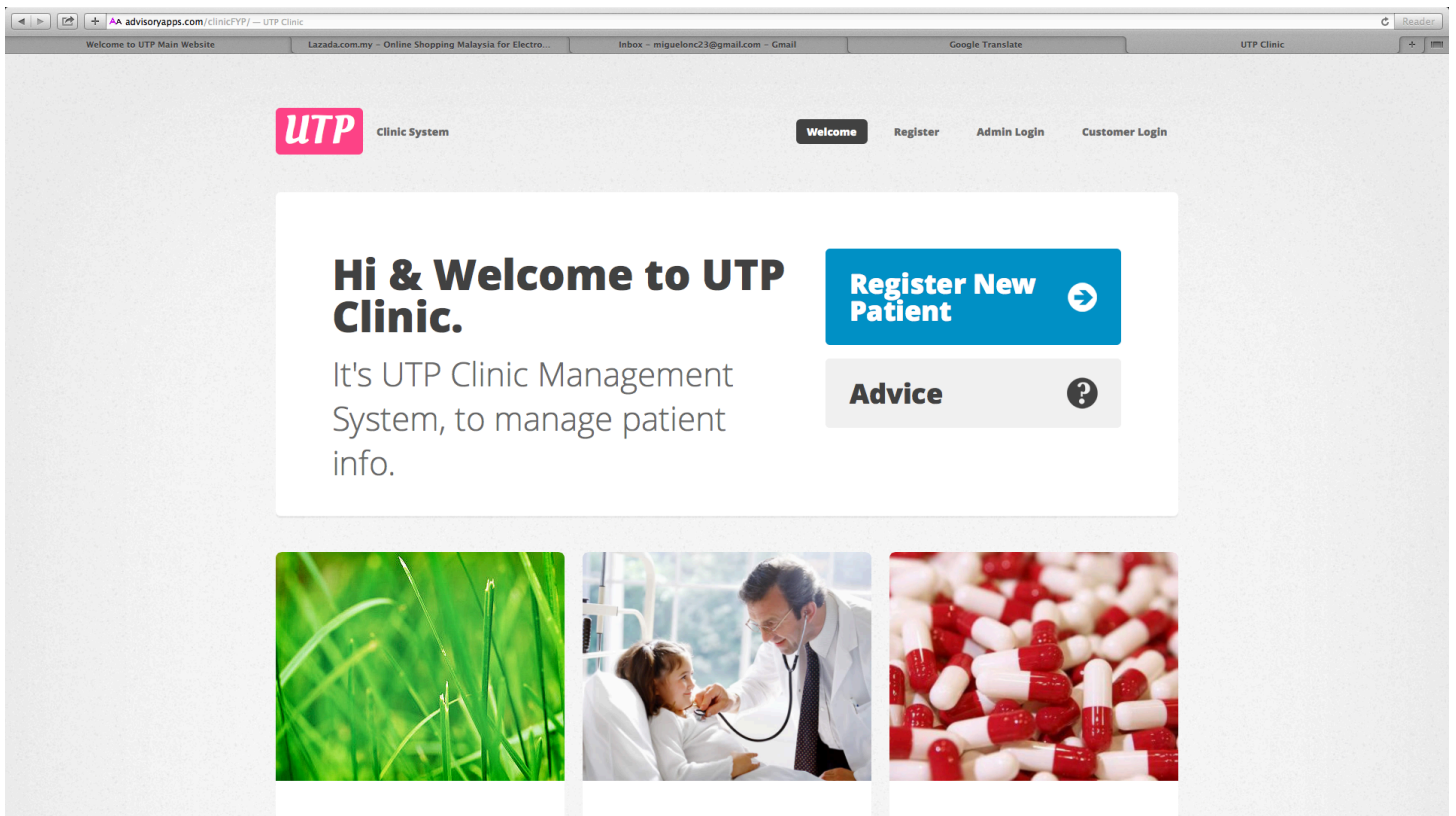
System Module

In order for both of the users use the system; they need to access it to through the Internet. After accessing, then they can start using the system.

Data Source Module

The data source that is used to keep all the related information is the MySQL database. This is where all the record will be save, and it will be used for retrieve data as well.

4.2 Prototype



Login Page

Here is the main Login Page, which requires users to log in in order to access the system. Users will be provided with a user name and password in order to log in. This home page includes the welcoming notes as well as other features.

Registration Page

New Patient

All the new patient should be registered in this page.
The data of the patient will be kept save in the database and speed up the process of registration.

Navigation of the site

[Set New Appointment](#)
[Manage Appointment](#)

Register New Patient

Please enter the information of the new patient.

Username
Password
Name
IC/Passport
Telephone
Address
Country

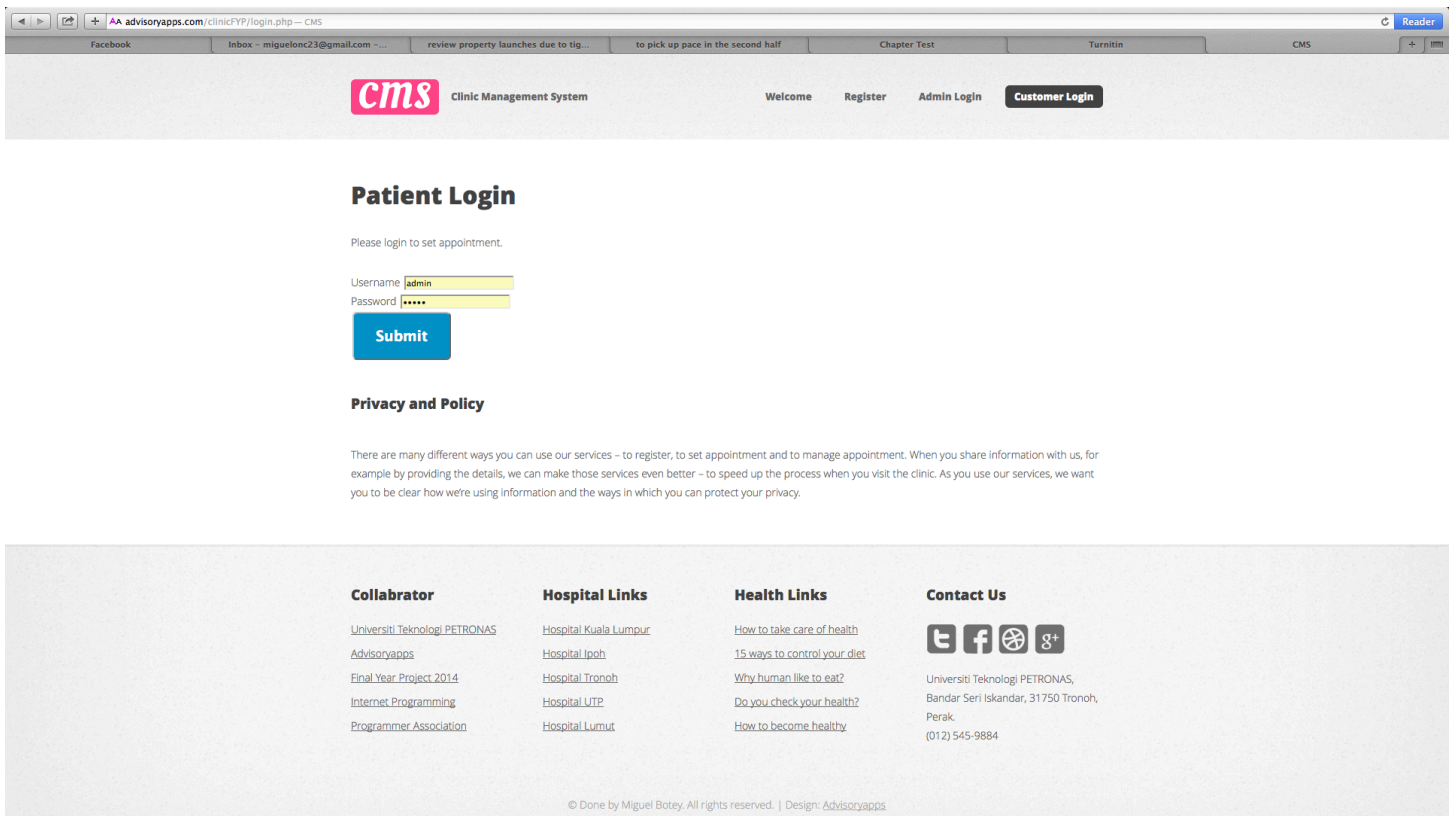
Done? Submit Now!

Privacy and Policy

There are many different ways you can use our services - to register, to set appointment and to manage appointment. When you share information with us, for example by providing the details, we can make those services even better - to speed up the process when you visit the clinic. As you use our services, we

After successfully login into the system the admin can use any of the system's features such as patient's registration, manage patient's appointment, etc.

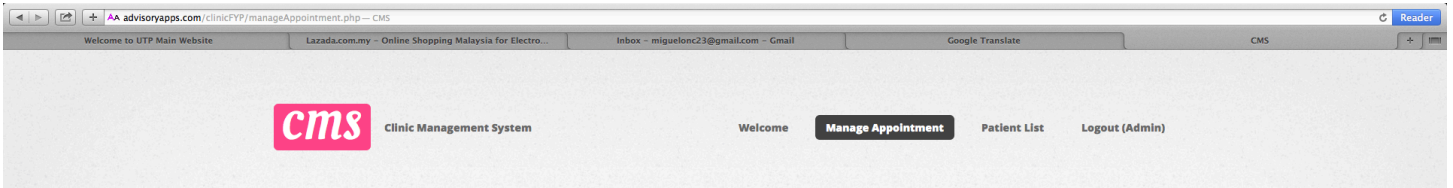
This is the registration page where the staff will be key in patient's details.



Patient Login page

This will be the patient's log in page in order to set up his appointment.

After the patient is successfully login into the system he/she will be directed to the appointment page as shown in the below figure to make appointment for his medical check up.



Manage Appointment

This page will show all the appointments made by the patient. The time and date is arranged in a table for viewing purpose.



Navigation of the site

[Register New Patient](#)

Manage Appointment

You are able to manage all the appointment set by the patient here.

Name	IC/Passport	Time	Date	Action
Javier	12345	09:00	25/04/2014	Done Reschedule
Emy	1234	09:00	25/04/2014	Done Reschedule

Privacy and Policy

There are many different ways you can use our services - to register, to set appointment and to manage appointment. When you share information with us, for example by providing the details, we can make those services even better - to speed up the process when you visit the clinic. As you use our services, we want you to be clear how we're using information and the ways in which you can protect your privacy.

This page will display the details of the appointments made by the patient such as date & time and it will also allowed the patient to manage his appointment by cancelled them or simply reschedule an appointment. Any changes of updates will be automatically updated in the database.

CHAPTER 5

CONCLUSION & RECOMMENDATION

The author expects that the project will improve and ease the existing system at the clinic by reducing the chances of errors, time consumption and help to preserve the environment by reducing the paper usage.

The author believes that the project can be delivered within the time interval with satisfied quality outcomes as well as meeting the project objectives.

The project aims to help improving time efficiency, as well as promoting green computing and also enhance efficient working culture. The author expects further enhancement of the project in the future since it is the first time for the clinic to make the workflow online.

However, there are more future work that needs to be done for expansion and continuation of the project. Among the suggested works are:

SMS features: If patient takes appointment or treatment, he/she will receive and SMS or Email as a reminder.

Safety features:

- In case the user forgets or loses Password, repair functionality should be added to help by choosing “forgot password” option in the main login window.
- While typing the password, if the caps lock is on it must be notified.
- If the system is kept idle for 10 min, the session expires. This is done for security reason and to help increase the overall speed of the web page.

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