INDUSTRIAL TRAINING REPORT
UNIT TEKNOLOGI MAKLUMAT
HOSPITAL PULAU PINANG

SPECIAL PROJECT: SISTEM PINJAMAN PERALATAN ICT (SPPICT) PROPOSAL REPORT

BY

NURUL SHAFIKAH BINTI ABDUL RAHMAN

FACULTY SUPERVISOR
MADAM NOR KAMARIAH BINTI CHIK

REPORT SUBMITTED IN FULFILLMENT OF REQUIREMENT
FOR THE INDUSTRIAL TRAINING
FACULTY OF INFORMATION MANAGEMENT
UNIVERSITI TEKNOLOGI MARA
CAWANGAN KELANTAN

01 AUGUST 2016 – 31 DECEMBER 2017

DECLARATION

I hereby declare that this is my original work. I have not copied from any other student's work or from other sources. I am also declare that no part of this report has been published or submitted for publication except where due to reference or acknowledgement is made explicitly in text, nor has any part been written for me by another person. I confirm that I have read and understood the UiTM regulations with regards to plagiarism and will be penalized by the university if found guilty.

2014436246

Date of submission: 12 January 2017

ABSTRACT

The report are based on industrial training program attended by a trainee begins from 1st August 2016 to 31st December 2016 at Hospital Pulau Pinang. The trainee has been places in the Information Technology department under operational and technical section with supervision from Puan Irdawati Binti Ishak The trainee undergoes the daily task in technical and operational section like PC maintenance, network troubleshooting, updating information in e-helpdesk system, document management and also being exposed on how to manage the Information Communication Technology (ICT) asset. In order to complete the industrial training program successfully, the trainee has to complete the special project which then decided and have an approval from supervisor to propose a Sistem Pinjaman Peralatan ICT (SPPICT). The trainee also being exposed and have an opportunity in learn a new thing. Through this the trainee gain knowledge, skill and experience and feel the environment on how the industry real work.

Keywords: Information Technology, Information Communication Technology (ICT) PC Maintenance, e-Helpdesk, Document Management, Network Troubleshooting, Industrial Training

ACKNOWLEDGEMENT

First of all I would like to thank god ALLAH S.W.T because of longevity and ease my way to undergo and complete my practical training at Hospital Pulau Pinang and able to prepare this report. I also would like to thanks to Puan Irdawati for give an opportunity to do my practical training at the organization teach and guide me a lot of things especially in operational and technical area.

I am not forgetting to thanks my gratitude to my lecturer Puan Izzatil Husna Binti Arshad as a practical training coordinator and to my faculty supervisor Puan or Kamariah Binti Chik and also special thanks to visiting supervisor Encik Mahadi Bin Mahmood.

Lastly, I also want to thank my family for their support during my industrial training.

Thank You.

TABLE OF CONTENT

LIST OF TABLE

LIST OF FIGURE

LIST OF APPENDICES

CHAPTER 1: INTRODUCTION

1.1 Background of the organization

Hospital Pulau Pinang (HPP) is a government hospital located in George Town, Penang, Malaysia. HPP was among the first health care facility held in Malaysia. Initially, a temporary hospital had been set up at a site now Hotel E & O in 1812. HPP is a referral center for excellence in health care services in the northern region of Peninsular Malaysia.

Figure 1: Early year of establishment

i. 1812 - A temporary hospital was set up at a site where it is now Eastern & Oriental Hotel.

ii. 1854 - China Merchants Ah Po has built Pauper Hospital for treatment of opiate addicts

iii. 1882 - The hospital was handed over to the British in 1882 and established a perfect hospital.

iv. The original site of the Penang General Hospital starts. The cost of construction when it was $ 90,997.00.

HPP traces its history to the Pauper's Hospital started by Mun Ah Foo, a leader of the Ghee Hin Society in circa 1854. The aim of the hospital was to provide healthcare to the poor and needy as well as rehabilitation for opium smokers. After Mun Ah Foo had passed on, the Pauper's Hospital continued to be managed by a committee headed by Governor Archibald Anson, with representations from the Chinese clan associations, guilder and other pillars of 19th century society. During this period, the Leper Hospital was relocated to Pulau Jerejak, where it functioned until the mid-20th century.

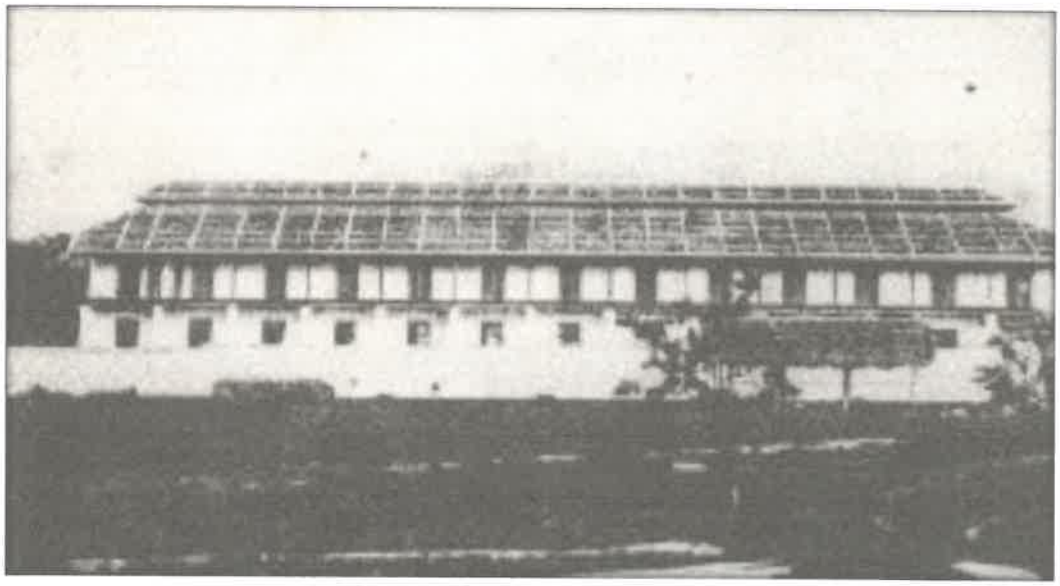


Figure 2: Hospital building that established in 1882

Figure 3: Current view of HPP

Figure 4: ACC (Ambulatory Care Centre) Building

1.1.1 Layout of the Hospital Pulau Pinang

The oldest portion of the hospital is Block A, which is behind the car park for medical specialists. Behind Block A is the low-lying Block B. This is now the main administrative building of the hospital. Its various parts include the outpatient clinic and the emergency unit. There are ground-level public car parks in front of Block B. Facing Western Road is Block , which is in fact older than Block B.

A new addition to the hospital is the Ambulatory Care Centre D, located north of Block B and connected to it via a sheltered passageway. Jalan Hospital, the main road through the complex, runs under the centre.

Facing Tull Road are newer additions to the HPP. They include the Northern Territory Forensic Medical Centre and a multi-storey public car park. Across Tull Road is the Department of Chemistry, which offers auxiliary support to the hospital.

There are nurse hostels as well as staff hostels all around the hospital complex, along Residency Road, Western Road and Jalan Lim Khoon Huat. This includes the Penang Hospital Quarters along Western Road and Kuarters Anggota Kesihatan along Jalan Lim Khoon Huat. Across Residency Road is the Maternity Hospital and the Penang Nursing College while along Sepoy Lines Road is the Children's Dental Centre , Dental Training College and the Penang Medical College .

Table 1: Organization Profile

Organization Name	Hospital Pulau Pinang
Year Establish	1882
Address	Hospital Pulau Pinang Jalan Residensi, 10990 Georgetown Pulau Pinang.
Operations Hours Office	7.30 am – 4.30 pm 8.00 am – 5.00 pm 8.30 am - 5.30 pm
Visiting Hours	Monday – Friday :1.00 pm - 2.00 pm 5.00 pm - 8.00 pm Saturday – Sunday :1.00 pm - 8.00 pm + Public Holiday
Telephone Number	04-222 5333
Fax Number	04-2281 737
Email Address	hpinang@moh.gov.my

Figure 5: Logo of Hospital Pulau Pinang

1.1.2 Vision

HPP will cease to exist as a medical institution that excels in every aspect of service and tertiary health care in the Northern Territory, peninsular Malaysia.

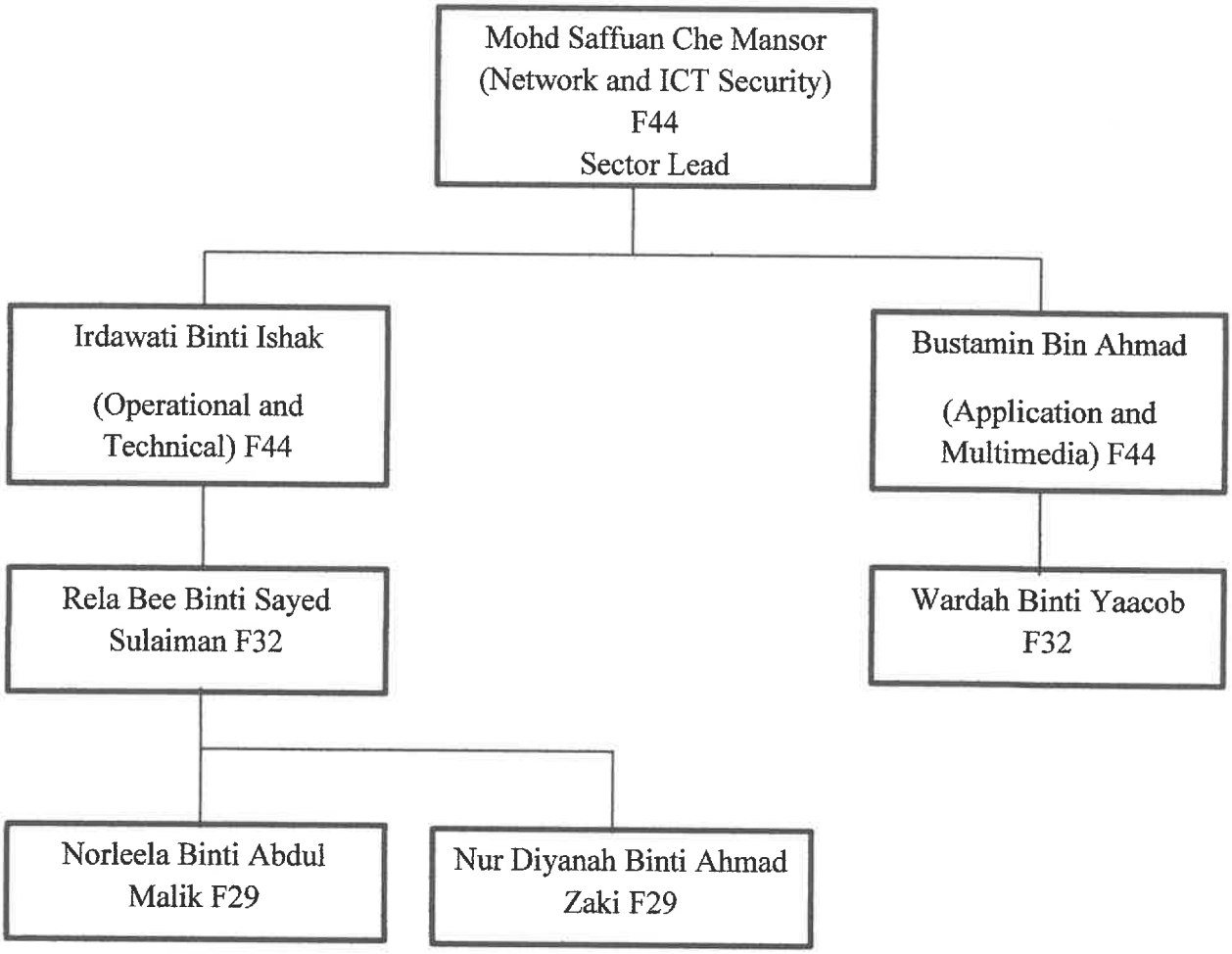
1.1.3 Mission

HPP will provide curative care services, diagnostic and recovery with efficient, effective and quality with emphasis on aspects of training and research, development, and ensuring corporate culture values applied to each layer of his health.

1.1.4 Strategy

i. In order to ensure the achievement of the vision and mission, the HPP has outlined a number of specific strategies:
ii. Providing promotive, preventive, diagnostic, curative and rehabilitative effective.
iii. Providing services to practice the values of the corporate culture at any time.
iv. Improving infrastructure and the use of existing energy resources optimally.
v. Improving the quality of management in all departments.
vi. Running all quality improvement activities continuously Ministry of Health.
vii. Conduct training activities and research on an ongoing basis.
viii. Encourages participation and involvement of communities and individuals in the health care process.
ix. Providing a comfortable environment to all who deal with the hospital.

1.2 Organizational Structure



Information Technology unit in HPP is under administrative services. Based on the structure Information Technology Unit there are 3 leaders above the unit which including the Director of HPP, deputy director and assistant director. Under the information technology management there are 3 sections which is application and multimedia lead by Mr Bustamin Bin Ahmad, networking and Information Technology security by Mr Mohd Saffuan as head of the Information Technology Unit and operational and technical lead by Mrs Irdawati Ishak.

CHAPTER 2: ORGANIZATION INFORMATION

2.1 Departmental Structure

Information Technology Unit Hospital Pulau Pinang (HPP) is a small unit which consist of 7 staff and divided in 3 section application & multimedia, networking & Information Communication Technology (ICT) security, and operational & technical. Each section has their own job scope and task to be done. Although the roles have been emerged or change, the old staff faded away and there are some of them mingled together to reflect the divergence of technology nowadays. The advanced of technology development has change rapidly and IT workforce also being change and at this point the team must have a good cooperation and communication to support each other in one unit.

2.2 Department Function

Information Technology Unit is located at level 3, building Ambulatory Central Care (ACC) acts as the control center for ICT services, Hospital Pulau Pinang, Maternity Hospital and Hospital Jalan Perak. Information Technology Unit consists of three subs - units, Operations & Technical Unit, Unit Applications & Multimedia and Network & ICT Security Unit.

Each unit is headed by an Information Technology Officer F44 responsible to the Senior Assistant Director (Management) M52. This section has the strength of seven members consisting of three Information Technology Officer F44, two Assistant Information Technology Officer F32 and two technicians F29.

There are several services that provided in Information Technology Unit HPP:

i. ICT Help Desk service.
ii. Service maintenance of ICT equipment.
iii. HPP network maintenance services.
iv. ICT equipment rental services.
v. Maintenance Website HPP.
vi. The system of e-government applications and the Ministry of Health (MOH).
vii. Development of a multimedia presentation application development system.
viii. Management Ministry of Health (MOH) official email.
ix. Services providing ICT training courses and HPP staff.
x. Preparation of specifications for procurement of services / ICT equipment.

2.2.1 Operation and technical

i. Checking and maintaining damaged ICT equipment such as damage from hardware, components and other accessories.
ii. As responsible officer for maintenance activities including log, monitor the work done by suppliers, follow up to the related parties like vendor.
iii. Managing all matters relating to the ICT complaint equipment in organization.
iv. Assist the hospital management in managing the registration and documentation of asset information over the government for ICT equipment in hospital.

v. Assist in the hospital management in managing the disposal of government assets for ICT equipment in hospital.

vi. Help in giving input in preparing the procurement needs of ICT for hospital management.

vii. Preparing, managing and updating all the files of ICT in hospital.

2.2.2 Network and ICT security.

i. Assist, monitor and oversee the network for the whole hospital.

ii. Helping in manage all complaints relating to network connection in hospital.

iii. Assist, manage and coordinate the distribution of IP Address (IP Address), Router, Access Point, Switch, VPN and so on.

iv. Also appointed to manage e-mail 1GOVUC, e-HADIR and MyCPD.

v. Helping, supervise and monitor the network Local Area Network (LAN) in hospital.

2.2.3 Application and Multimedia

i. Assist in providing ICT equipment for the updating of data and information activities for the application and the online system and so on.

ii. Help in managing and record all online information systems and software that are received by the hospital.

iii. Responsible in helping user in managing, updating and control of system use and multimedia in hospital.

CHAPTER 3: INDUSTRIAL TRAINNING ACTIVITIES

3.1 Training Activities

The duration of the practical training was 5 month starting from 1st August until 31st December 2016. The job scope in internship is mostly in operational and technical area and the responsible supervisor for the trainee is Mrs Irdawati Ishak. The daily task mostly were given by Mrs Irdawati and sometime also from Mrs Rela Bee. The faculty supervisor for trainee is Madam Nor Kamariah Binti Chik and for the visiting lecturer is Mr Mahadi Bin Mahmood from UiTM Merbok, Kedah.

3.1.1 Operational and technical task.

The trainee activities in the organization are mainly about the technical and operational task in which involve with ICT maintenance like Private Computer (PC) and printer maintenance. At the beginning of internship the trainee learn a lot of maintenance and troubleshooting the PC and printer first and then the trainee needs to solve the issue to the user place.

3.1.1.1 PC Maintenance and troubleshooting

In PC maintenance the task normally involve like checking, maintaining and repairing damaged ICT equipment such as damage from hardware, components and other accessories. This is because the trainee is under the operational and technical section that leads by Mrs Irdawati Ishak. This section main job scope is about maintenance in which responsible in for carrying out maintenance for the ICT equipment like computer according to the needs. There are several PC issue that trainee normally find like slow performance, hang, monitor won't turn on or displaying, and etc. If minor problem like PC hang or slow performance normally trainee will solve the issue at the user place like do a cleaning, scan

viruses and so on. Then, if the problem couldn't be solve at user place because of hardware or component damage the PC will be sent to the IT Unit for further inspection and checking by technicians. After the inspection and checking done and have a major problem like need to change part or component the equipment will be sent to the outside vendor that appointed by HPP. Back to the IT Unit the trainee normally will ask to do a PC formatting, backup user data, restore point, upgrade the Random Access Memory (RAM), installed the driver and so on.

Figure 6: Upgrade RAM

In Hospital Pulau Pinang there are several PC's, printer or other ICT equipment that are not fully the asset of HPP. Mostly HPP will rented and make a contract from a few company or vendor like Edaran IT services, Starza, Topbit System and so on. So by this if there are problem or issue from user and the equipment under the vendor responsible the issue will be solve by the vendor that HPP appointed. Although several PC under the vendor control but the problem or issue occur the IT unit team will try to solve first and if it couldn't be fix

then they will call the vendor. If the major damage occurs like hardware problem the equipment will be sent to the outside vendor for change part and further repairing.

3.1.1.2 Preventive Maintenance

Furthermore, the trainee also does a preventive and maintenance for 30 PCs in the Bilik Latihan. This room usually acts as a computer lab where many training were conducted there and there are about 30 PC's provided. The trainee asks by supervisor to create the checklist for preventive maintenance based on the guidance and verification given by supervisor. The trainee need to check the registered number of PC, PC model, operating system, processor, check also whether the windows were updated, using what type of document processor, what kind of antivirus, fully scan the virus, PDF reader, what type of browser use, WinRAR/WinZip, and other software use.

Despite that, the trainee also does a cleaning like using Disk cleanup and CC Cleaner for each PC. This action is taken to prevent the PC from being slow or infected of any viruses. If there any document or files left by user the document will be deleted from the PC. This is because this entire PC has been use by many users and to avoid from problem the cleaning must be done. Despite from checking, the trainee also needs to make sure the software use in the PC is all active like antivirus, Microsoft office, and operating system. If not the software must be activate when doing the preventive maintenance.

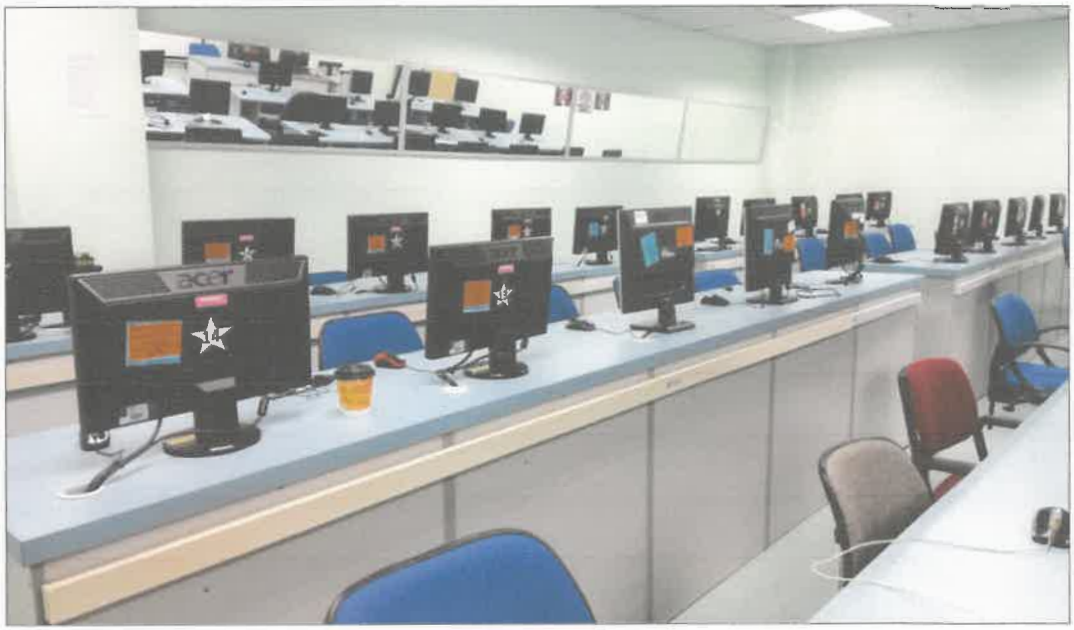


Figure 7: PC's that have been doing preventive and maintenance

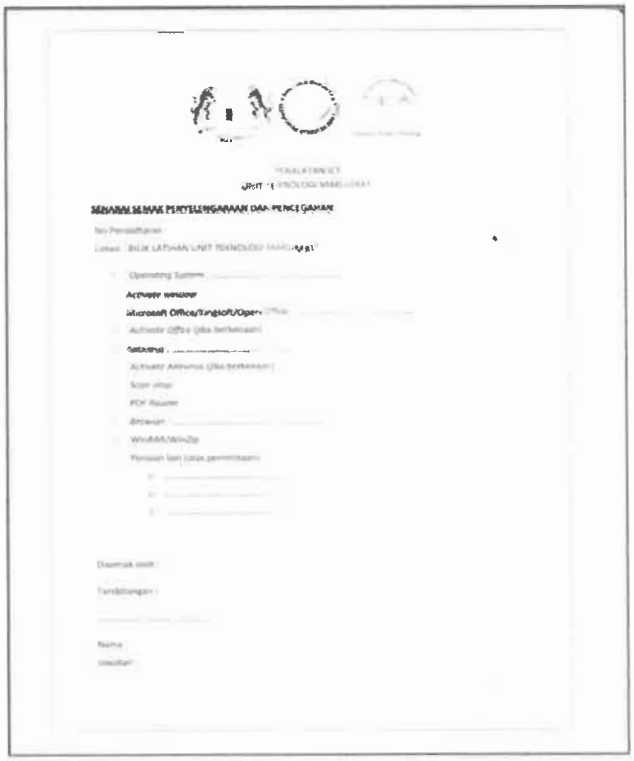


Figure 8: Preventive and maintenance checklist

3.1.1.3 Printer Troubleshooting

Normally the trainee will do a troubleshooting of printer. If there any issue or complaint from user regarding the printer the trainee will go directly to user to solve the problem. Usually user will call the IT officer first to tell the issue or they come directly to the office. The issue is depending with what problem occurs. Common problem of printer that normally trainee solve like the printer wont print, cartridge problem, paper get stuck, printer cant connect to PC, poor quality of print and so on. For this common problem, the trainee will try to solve which start from the basics like checking the printer condition whether has an error sign like message or warning light from the printer. Then ensure there are still have a paper in the printer tray, the ink cartridge not empty, the printer connected with USB cable or through Wi-Fi network.

Besides that, if already have a driver installed in the PC the trainee will uninstalled and install back. Each different brand of printer like HP or Canon they provide the troubleshoot tips and guide to the user in which it facilitate to identify the problem.

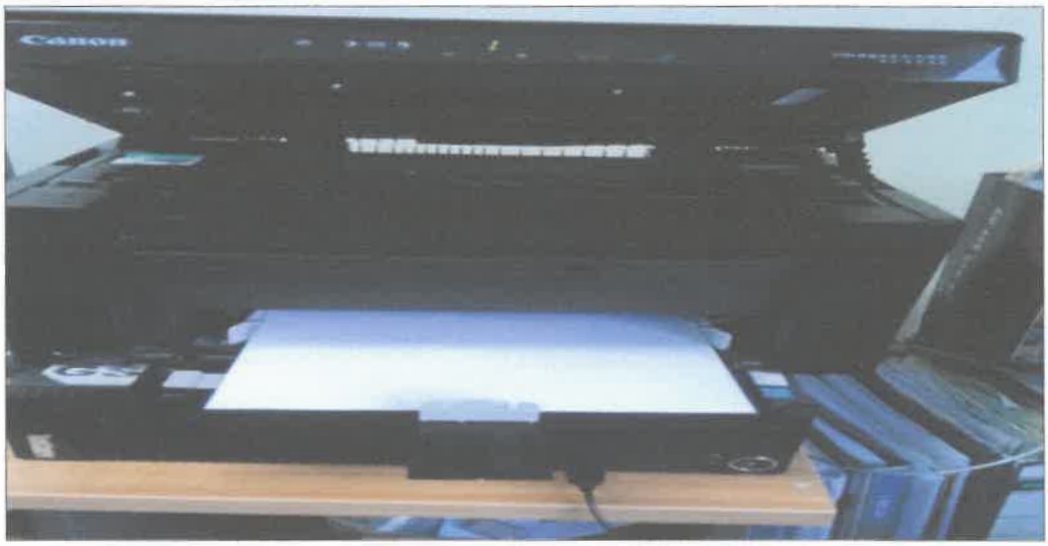


Figure 9: Troubleshoot printer Canon Image Class MF3010

Apart from that, there are also other alternatives that trainee try such as using printing troubleshooter that have been provided by Microsoft that it will help in identify what problem occurs to the printer. However, there are numerous possibilities in fixing the printer problem sometimes the trainee just try and error although it doesn't always help, but it worth it to trying and at the same time the trainee can learn something for future reference. If there have hardware or components problem like pickup roller damage the printer will be sent outside vendor for change parts.

3.1.2 Helpdesk and User Support

Apart from that, there are sometime the trainee were ask to standby in the technician room to manage the ICT equipment like laptop and projector for borrowing purposes. This situation will occurs when the technicians not around or on leave then the trainee needs to taking care of that matters. This is because every day user will come to the IT department to make a booking or come to take the equipment. The trainee needs to manage, alert and make sure the equipment always in the exact quantity and condition according to the booking demand. The reason is to avoid the equipment from loss or damage, not give to the wrong people and can keep track the equipment movement.

At the same time, the trainee also needs to answer or entertain the telephone call. The call normally comes from user who wants to make a complaint regarding the ICT equipment problem and to make a booking. There is also trainee need to answer or entertain any enquiry from user that asking regarding issue or problem that related to the IT unit supervision for an example issue like it can be solve through telephone call. Most of the cases, user will be guided with basic troubleshooting for them try solve the issue without IT staff went to their department. For example restart or turn on/off the computers or printers,

check the power connection or cable, reinsert cable, enable or disable network cable. If the issue remains unresolved the trainee need to inform IT staff regarding that issue then IT staff or trainee itself will go to the user for further checking.

3.1.3 Network Troubleshooting

Other than that, although the trainee under the operational and technical section, sometime the trainee also does some networking task and help the network unit like if there have an issue regarding network from user the trainee need to solve the issue by the guidance from Supervisor and technician. The usual problem that trainee find and solve regarding network are lost network connection, printer can't be share, network port problem, cable loose and need to replace for new one, IP address conflict. For IP address normally will try to solve like do a release/renew, reinsert or change an Unshielded Twisted Pair (UTP) cable and also change an IP address if automatic change to static. Furthermore if the network port problem the trainee needs to activate by activate back the RJ45 wall jack.

Moreover, the trainee also asks to do a UTP Registered Jack (RJ45) cable if there is any other work. Normally, the cable will be making according to the demand from user but the trainee needed to make a cable according the 3 different size like 1 to 3 meter, 4 to 7 meter and 8 above size. These 3 different sizes will be put in the box and each of the boxes has a label according to the sizes. The reason is the cable will be always available and facilitates the officer when to use the cable according to what sizes the user need. Then, the trainee need to write any daily task that were given by organization to the log book that have been provided by faculty as a reference for faculty supervisor and also as reference for the organizational supervisor to monitor the trainee daily activities.

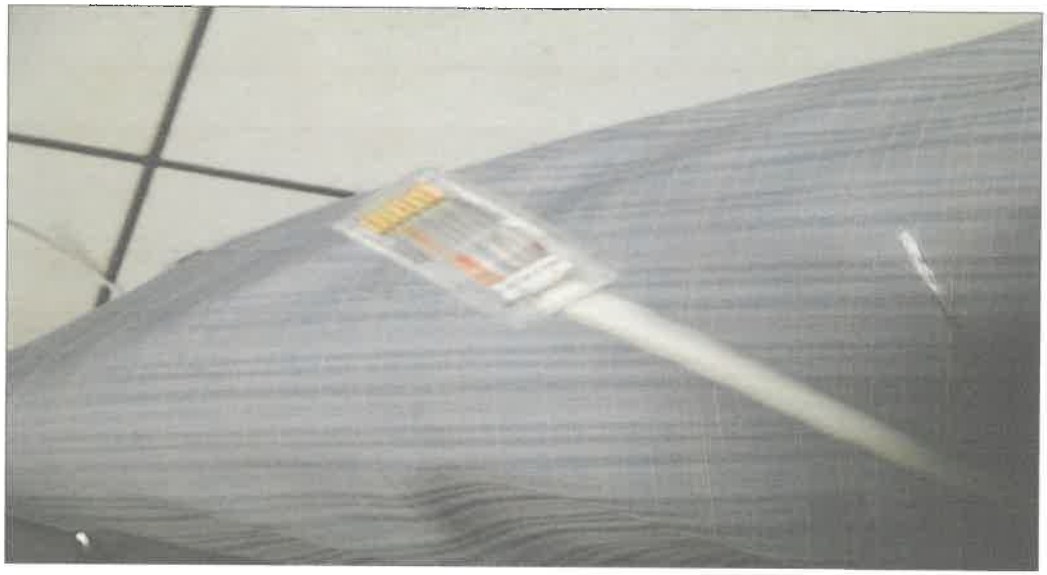


Figure 10: RJ45 Cabling

Figure 11: UTP cable boxes

3.1.4 Document Management

Despite from the technical there also have a records management task. The task is related to ICT records management. The trainee needs to update information regarding records about

maintenance or repairing that already finished from outside vendor and inside repairing preventive maintenance records into Microsoft excel. The preventive maintenance has been doing for about 5 month by vendor that appointed by HPP. In the records the trainee needs to update the registration number, tag ID, user of the equipment, department, brand model and serial number that already being doing by vendor. This information need to be updated because to avoid the duplication of work from vendor in term of preventive maintenance.

Besides that, the trainee also do a filing for the bulk of records that already settle the process of repairing and the file name is "Kerosakan Telah Selesai". This records was mix together into 1 file and it make it difficult to find the records back. The content of the records about the user complaint form that mostly repairing by vendor. After the form receive it need to be log in the report in e-helpdesk system. All the records was divided into department using a colorful tag. By doing this it can enable the IT staff in retrieve the file for future reference at the same time can avoid from misplaced and loss.

Figure 12: File "KEROSAKKAN TELAH SELESAI"

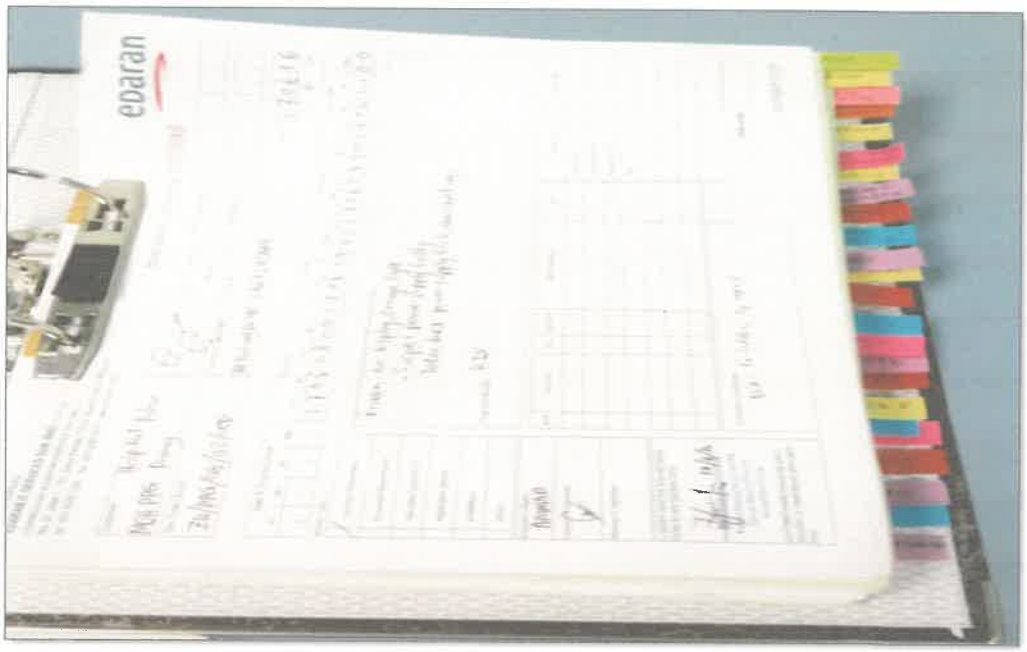


Figure 13: Color tag divided by department

3.1.5 Data Entry: e-HESLPDESK

To ensure the effectiveness of services, Information Technology Unit in Hospital Pulau Pinang uses an e-HELPDESK system. The e-HELPDESK system or known as "Sistem Aduan Kerosakan ICT" is system that enable user and IT staff in make a report or complaint regarding damage of ICT equipment.

It also facilitate IT staff in updating information of complain regarding the equipment in the system. If have any complaint from user, the information of complain must be log to the e-helpdesk system. The trainee will fill the information of the damage equipment and then after complete fill in the information it will give a log no. All the needed information was based on complaint form and after that it will be log in using this system.

Each of complain that have been log will be given with "Log no" to ensure the complainant or user can check back the complaint status that have been make. Another task is updating information of complain from "baru lapor" or "dalam tindakan" to "selesai". This action will be taken when the equipment is already repairing and can be used. The repairing it can be from in house repairing or from vendor.

Figure 14: Complaint form

Figure 15: Log no of complaint

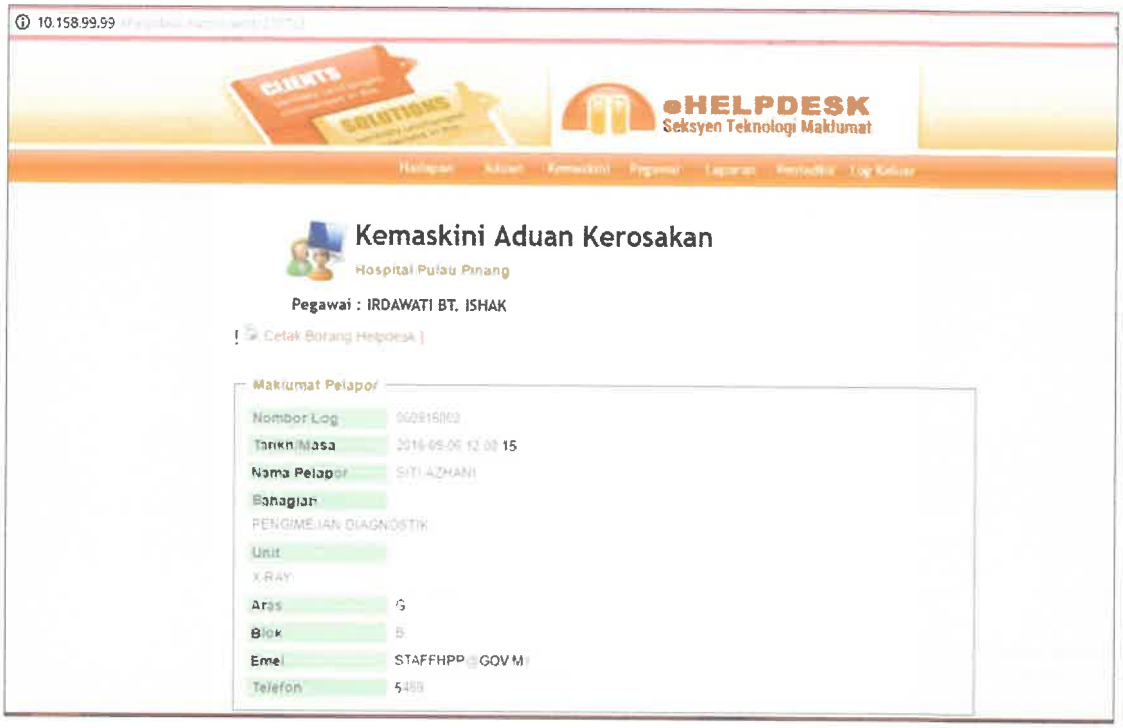


Figure 16: Update complaint

Figure 17: Check complaint status

3.1.6 Asset Inventory Management

This is another task that given from supervisor and the trainee needs to go to selected location all around Hospital Pulau Pinang including Hospital Jalan Perak and Penang Maternity Hospital to check 100 pieces of Lenovo Think Centre M72E PC's and also need to update the current location of PC's. The trainee has been providing with inventory list of PC which is "SENARAI INVENTORI PERKAKASAN ICT" from the previous contract and the trainee need to find and locate the PC location according to the list.

This task were given because of this rented PC already end of contract from vendor and need to be replace for new PC from new vendor. Besides that, want to ensure that all this 100 pieces of PC can be returned back to the vendor after 3 years of contract. The main characteristic that need to be check are central processing unit (CPU) series number, monitor series number, current user name that use that PC, extension number, location and also what type of printer that PC connected. This all kind of information is very important to have in checklist inventory because of this information will save time and facilitate the staff in the process of distribution the new PC soon. After all the PC's being locate the trainee needs to update and reedit the inventory list because of there are changes occurs especially user of the PC and also location. The changes happen because of the inventory list are 3 years ago.

Other than that, the trainee also needs to check what system has been used in that particular PC. This is because each of PC has a different system to use according to their department and it will facilitate the IT staff soon. The system that normally trainee finds is Sistem Pemantauan Pesakit Dalaman (SPPD) and GSO that usually used in ward to record the inpatient information.

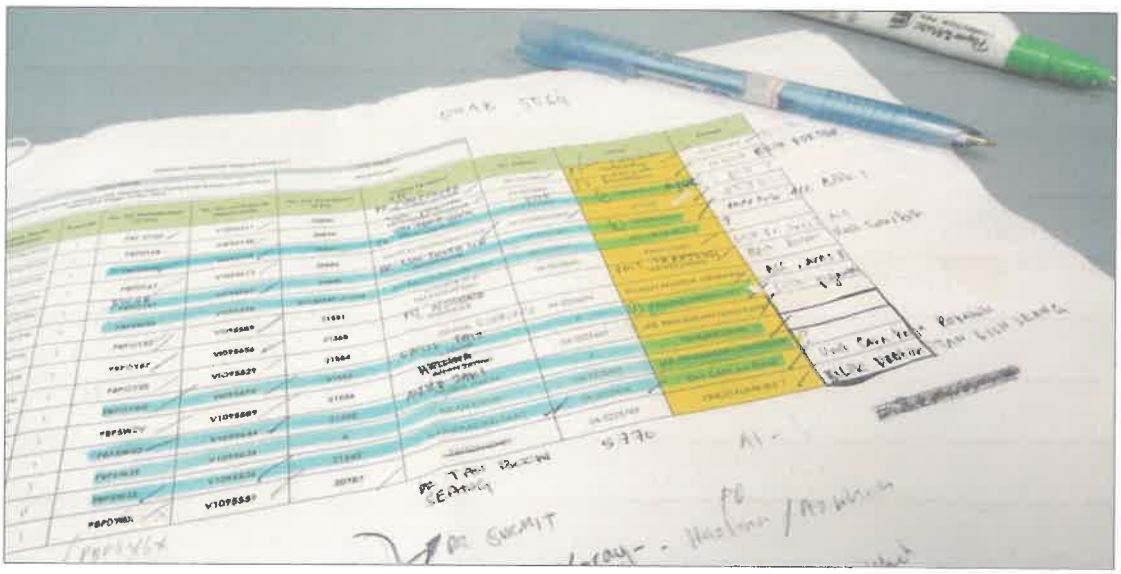


Figure 18: Inventory List

3.2 Special Project

After being discuss with the supervisor Puan Irdawati Binti Ishak for special project the trainee proposes a system proposal which is Sistem Pinjaman Peralatan ICT (SPPICT) for Information Technology Unit HPP. This system is a simple booking system in which user make a booking for ICT equipment through online. This is because from the trainee observation they still use a manual way in booking the ICT equipment. Duration on making this proposal around 1 month to complete.

3.2.1 SISTEM PINJAMAN PERALATAN ICT PROPOSAL

3.2.1.1 Project overview/Background of Study

ICT equipment such as laptop, computer, projector that has been used in the daily task activities will accelerate the process of working and one of the important assets in the organization especially for hospital institution. The availability of this equipment is a key enabler in the implementation and supporting of activities in the hospital especially in

management area. The equipment must be managed in order to provide optimum benefits to interested parties at the hospital itself.

Taking into account the quantity of equipment available at the Information Technology Unit Hospital Pulau Pinang (HPP), it is necessary to manage it in the proper system equipment. System for this equipment will be one of the tools that create information processing speed, accuracy, and completeness of an integrated system, so that the activity in the organization becomes more efficient, scalable, and flexible. Less than optimal equipment in an organization, it can cause delays in the overall activity.

In this proposal, I am planning to make a booking system for ICT equipment or it will know as Sistem Pinjaman Peralatan ICT (SPPICT) for Information Technology Unit, Hospital Pulau Pinang (HPP). This is because in terms of booking and arrangement of ICT equipment they are still using a manual booking. The ICT equipment that has been provided in this unit to the user is 10 laptop and 6 projectors.

Sistem Pinjaman Peralatan ICT (SPPICT) is a simple booking system that specifically developed for Information Technology Unit which is one of the main center public hospital and in the IT department itself only have 7 officers working there to cover the whole hospital including Hospital Jalan Perak and maternity hospital.

Although we know that the main business of hospital is based on their medical and treatment but through the use of technology it can help and enable the process for much better. Most of employees are busy with giving patient treatment and best services but through this Sistem Pinjaman Peralatan ICT (SPPICT) it can facilitate them to plan the operation when to use the equipment. Normally user will use this system for meeting or have an event. This is because in the main meeting room there is no computer provided.

The purpose is to facilitate the employee or user in booking the ICT equipment. Through this system the time can be save and the employee can booking their equipment's through online and no need to come straightway to Information Technology Unit just for a booking. Moreover, the employee can use their wasted time for others important work.

3.2.1.2 Problem Statement

In Information Technology Unit Hospital Pulau Pinang (HPP) there are no proper system to manage the booking equipment and them still use the paper-based system to keep tracks the laptops and projectors. They provide the form that must be fill by the user and also booking through telephone. This manual system is used for every single booking that have been made. The quantity of laptop and projectors are based on this booking form and also the staffs update the quantity in the whiteboard. The update of quantity will be update daily. Through this only the IT staff knows the availability of equipment and user can't know the information about current update of quantity and condition before and after borrow the equipment. Through this it will distress the user because must go to Information Technology Unit first to know how many laptop and projectors are available to booking. As a solution, the system will be developed to overcome the problems that stated above and provide an effective way to in booking and the IT staff itself. This system will provide a user-friendly interface to make the system easy to use.

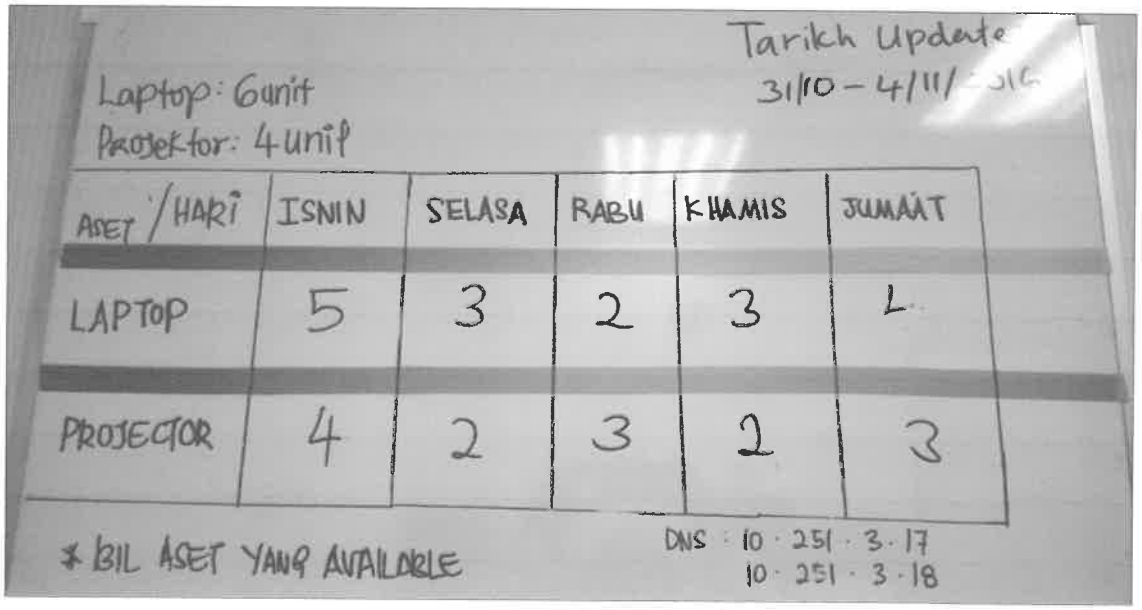


Figure 19: Update Board

3.2.1.3 Objectives of the project

Objective of this system trying to achieve is as follows:

i. To provide information relating to borrowing instruments accurately and in real-time.

ii. To facilitate the loan application process and review of ICT equipment application

iii. To adding service channel where user have a choice to apply through online or come directly to IT unit.

iv. Increase the systematic way in managing ICT equipment

3.2.1.4 Scope of the project

The system can be used by administrator and user which are employees in the Hospital Pulau Pinang (HPP), Maternity Hospital and Hospital Jalan Perak. Administrator and user have their own interface through login. This system focused more on IT staff and user in

HPP, Hospital Jalan Perak and Maternity Hospital. This system is running on Windows Platform.

i. This system is used to enable user in booking the ICT equipment in IT Unit HPP.

ii. The implementation is implementing in IT Unit HPP.

iii. The user of this system is IT Unit staff and employee in HPP, Hospital Jalan Perak and Maternity Hospital.

3.2.1.5 User Target

i. User

Enable Employee in Hospital Pulau Pinang in booking the ICT equipment through system and can save their time.

ii. IT staff

Staff can keep track, update and manage the booking of equipment in systematic and efficient way.

3.2.1.6 Tool Used for Development

A. Software

i. Microsoft Office Project

ii. Microsoft Visual Basic

iii. Adobe Dreamweaver MX – interface

iv. Balsamiq Mockup –design intrface

v. WampServer Softwware

vi. Notepad++

vii. Adobe Photoshop

viii. Language used: PHP 5.5, My SQL

ix. Interface design: HTML

x. Web browser: Mozilla Firefox, Google Chrome and Internet Explorer

Hardware

i. Computer

ii. Mouse

iii. Internet

iv. Printer

3.2.1.7 Methodology

The observation analyzed and review existing report, document, forms and standard operating procedure that have been doing and it shows that all information about borrowing information recorded in manual way which is using form to fill the information. Although the form they kept in same file and have a divider like "pengambilan" and "pemulangan" but there a sometime the form will mix together and it can be confusing to the IT staff. This is because when to trace the form it takes times and sometime can be misplaced

3.2.1.8 Existing system

The system that will be develop, are using System Development Life Cycle (SDLC). The SDLC process was designed to ensure end-state solutions meet user requirement in support of business strategic goals and objectives. In addition, the SDLC also provides a detailed guide to help Program Manager with all aspects of IT system development, regardless of the system size and scope. The SDLC contains a comprehensive checklist of the rules and regulations governing IT system, and is one way to ensure system developers comply with

all applicable Government regulations, because the consequences of not doing so are high and wide ranging.

The first phases in SDLC are the planning phase. This phase involves identifying the problem statement. The objectives of the system are studied to solve the matters contained in the statement of the problem. In addition, the planning phases also studying the ability of proposing alternatives solutions after investigates the booking arrangement in IT Unit. From my observation, they still use a manual booking In this case, after analyzing the data, I proposed to solved their problem by develop a new system for monitoring their booking in computerized way.

Sistem Pinjaman Peralatan ICT (SPPICT) is a simple booking system that specifically developed for IT Unit HPP. The purpose is to employee in booking the equipment. With this system, the administrator can keep track and updating. This system provides a update quantity of equipment's and user friendly.

The second phases in System Development Life Cycle (SDLC) are analysis phases. System analysis is a process of collecting factual data, understand the processes involved, identifying problem and recommending feasible suggestions for improving the system functioning. This phase will also describes the existing system with similar system to the system shortcoming can be corrected. The thing to do in this phase is to analyze the needs of the staff and the system will be developed. This is done to examine the effectiveness of the system to the target. System analysis also includes subdividing of complex process involving the entire system, identification of data store and manual process. In this case, we are more focus on staff that will be used the system. Then, we are identifying what the staff aspect to get when they are using this system. Most feedback especially from the IT staff

itself and user, they aspect the system are being easy to use and be easier to them keep track and make a booking effective and efficiencies way through the computerized system.

On the other hand, the third phase in System Development Life Cycle (SDLC) is design phase. Among the things to be done in this phase is to produce a database design, user interface a Specification of output. System builders to design appropriate data entry procedures so that the data used in the system information is correct. The interface is designed to act as an intermediary between the user and the system and aims to facilitate users to use the system.

This phase is including detail of the design function and also the functions which cover such as screen layout, process diagram and also business rules. In this phase, we sketch the website through storyboard to decide how the system will appear and the function based on the context diagram, DFD level 0, DFD level 1 that have been made. We are also design through step by step for be easy the staff use the website.

Apart from that, the fourth phase in System Development Life Cycle (SDLC) is implementation. Implementation phase involves the construction of a real system in which the program development system will be implemented using appropriate software, software PHP system interface while also using Dreamweaver MX and Adobe Photoshop CS6. Development of a database for the system should be implemented carefully because the database is the cornerstone of a system to function properly.

In addition, this phase also involved the testing process and system testing program. This is process after a full understanding on the specification and system requirements where it is the construction process for the request system after complete and illustrated design. For Sistem Pinajaman Peralatan ICT (SPPICT) it will be implement at the Unit IT HPP. The

testing for the staff or employees also required as to know and check the efficiency and effectively of the system to solve the problem that has been issued as they are one of the groups that will be using the Sistem Pinajaman Peralatan ICT (SPPICT). When the training has been completed, it will move to the final environment as it is intended to be used by user and employees.

Lastly, the phase in System Development Life Cycle (SDLC) is maintenance phase. The maintenance phase is necessary to eliminate errors in the system during its working life and to tune the system to any variations in its working environments. In this phase, it will be maintain the system to be in a good condition as well as the efficiency and effective. Besides that, we are also will be make sure the maintenance will be carried out as to maintain the Sistem Pinajaman Peralatan ICT (SPPICT). In addition, this phase is also will be make sure the hardware is in a good condition that can maintain the system performance. We will make sure the hardware or software that we used to maintain the system will be right standard where providing the latest technology and updates. This is because to avoid from the security threats.

I am use the System Development Life Cycle (SDLC) to the Sistem Pinajaman Peralatan ICT (SPPICT). It shows the guidance and help in develop the system according what hae been planning. The SDLC phase is related each other for the first we need to planning, then analysis, design, implementation and the last maintenance.

3.2.1.9 Planning

There are five flow of the project planning in developing Sistem Pinjaman Peralatan ICT (SPPICT) which is planning analysis, design, and implementation and last one is maintenance. The project also plan for the department to have a new system that can help

the IT staff itself and employee manage and keep track the booking of ICT equipment. Through this system the work will be systematic and make it easier without any problem. The planning of projects must be implementing in order to ensure the resources and budgeting also time consuming to develop the projects can be measured to produce a good project management. In the information systems development project, anything that involved in the information systems projects must be measured. Besides that, there are some important aspect in project planning such as user involvement, resources, project phases, risk management, requirement analysis and project management.

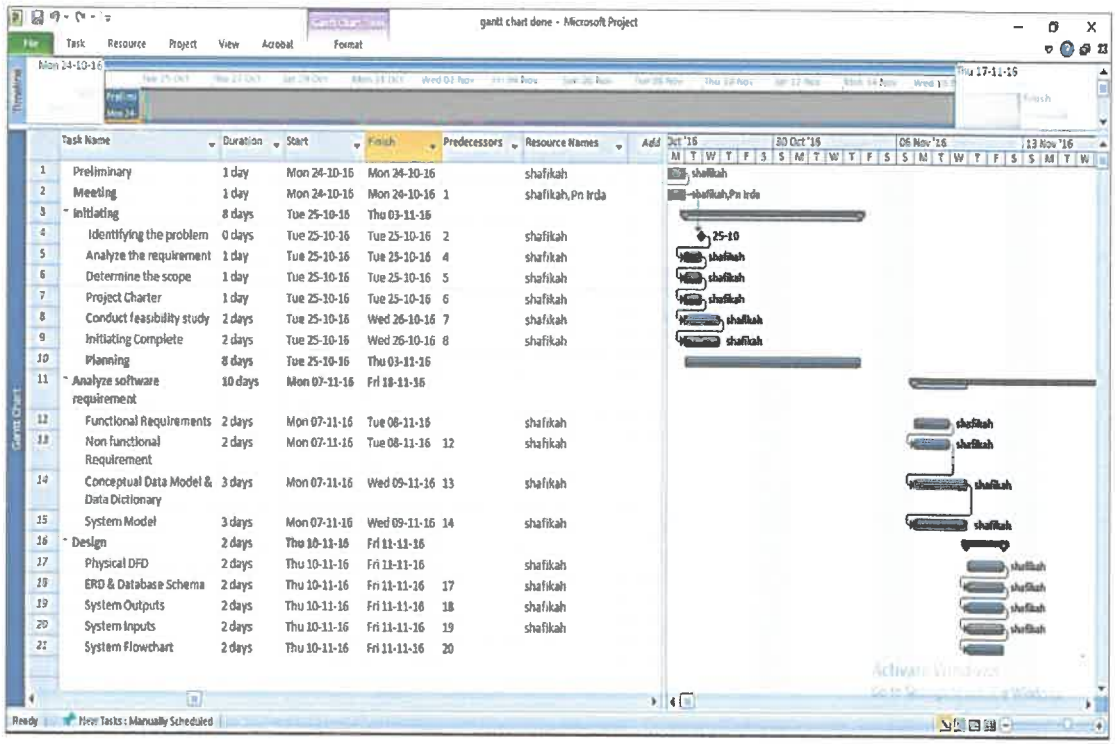


Figure 20: Gantt Chart of the system

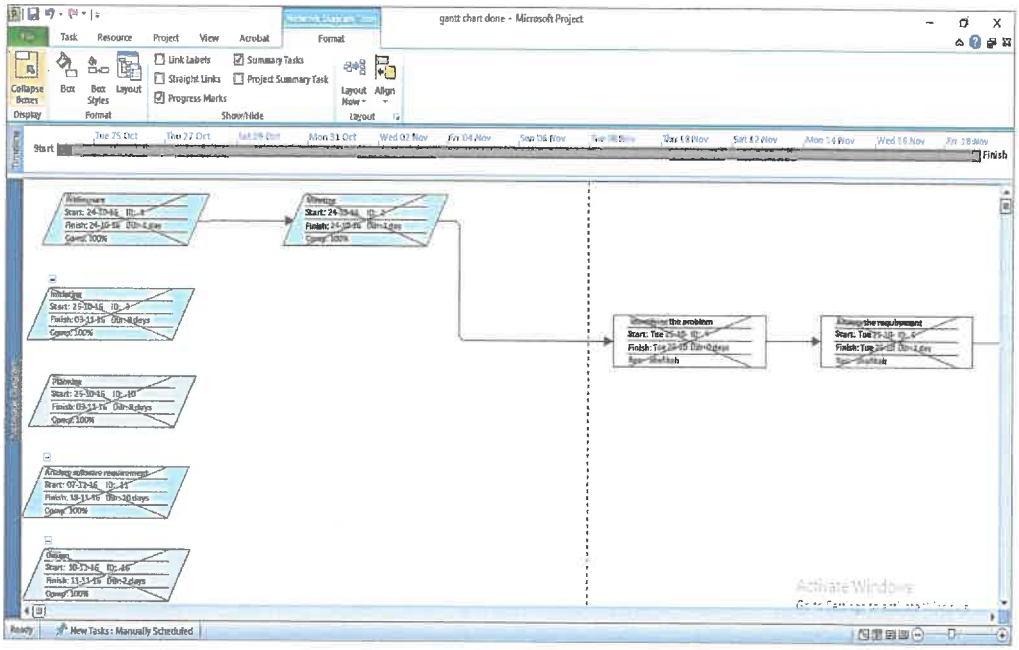


Figure 21: Network Diagram 1

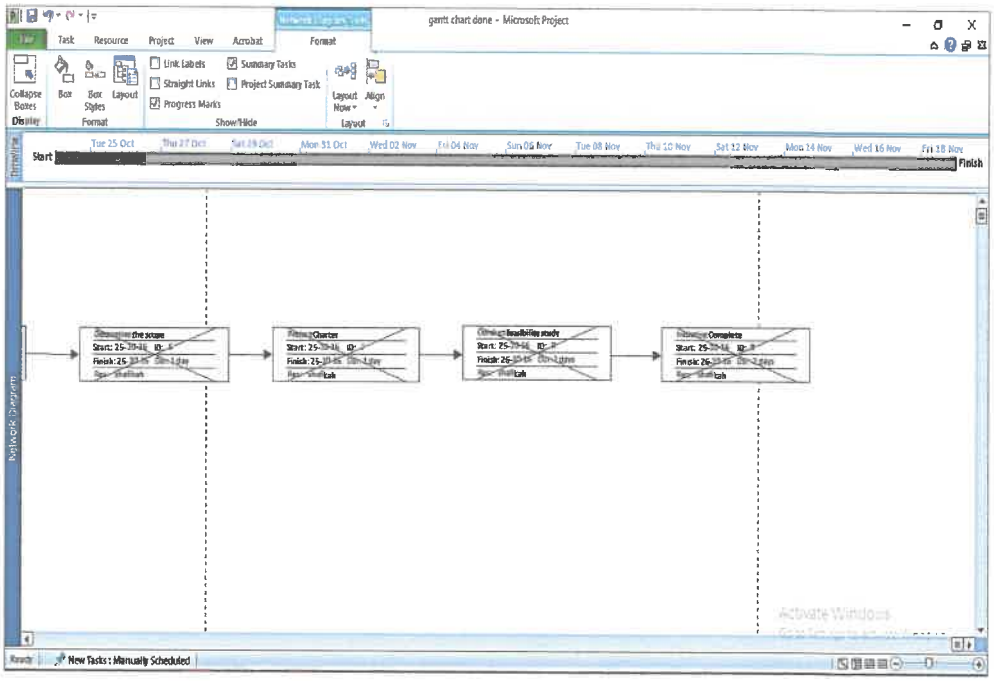


Figure 22: Network Diagram 2

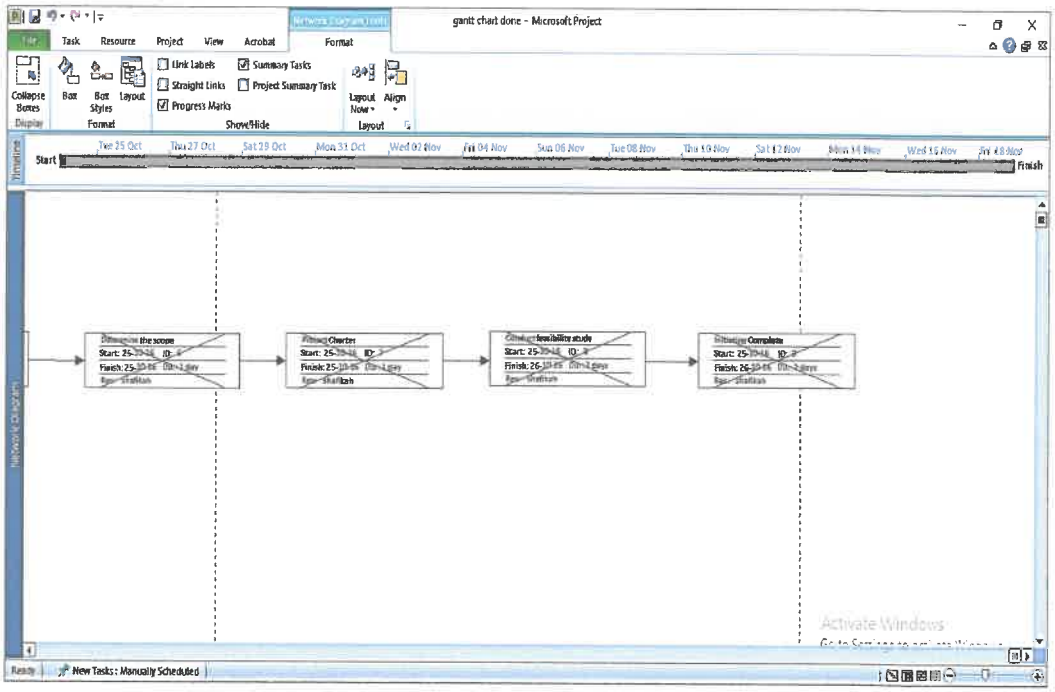


Figure 23: Network Diagram 3

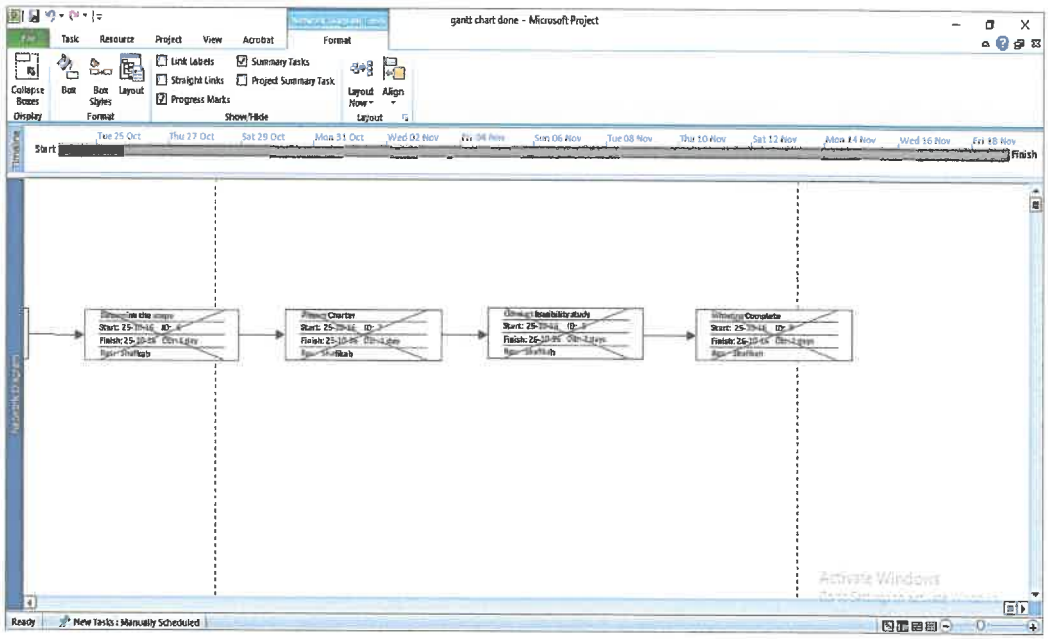


Figure 24: Network Diagram 4

3.2.1.10 Analysis

Systems analysis is a problem solving technique that decomposes a system into its component pieces for the purpose of the studying how well those component parts work and interact to accomplish their purpose". Systems analysis is the process of studying a procedure or business in order to identify its goals and purposes and create systems and procedures that will achieve them in an efficient way. Analysis and synthesis, as scientific methods, always go hand in hand; they complement one another. Every synthesis is built upon the results of a preceding analysis, and every analysis requires a subsequent synthesis in order to verify and correct its results.

3.2.1.11 Analyze current system

Currently in IT Unit HPP they have a system for complaint of damage equipment which is "IT ehelpdesk" but not for booking equipment. Although Hospital Pulau Pinang (HPP) itself not fully IT hospital and with small amount of IT staff only 7 employee, this will be a difficult task for them in manage the equipment and to avoid the laptop and projectors from missing.

Besides of doing the booking manually just using the form the booking also doing by telephone. This actually quite a hard task and it may cause calculation of equipment errors and can contribute to repetition of work. The repetitions of work are time consuming and the quantity of equipment must be check many times to ensure that there is error free. Moreover, current booking works still in paper-based which mean that everything and every detail are written down manually on paper or form. In case loss of a single record or form may lead to difficulty of trace the borrower and equipment.

In many situations, manual systems are inferior to computerized systems. Some disadvantages of manual systems such as productivity. The productivity is usually lower or operational situations such as transaction processing. Besides that, information is generally less accessible. Access to information is often restricted to one user at a time, paper files can easily be misled or buried in in-trays, in which case the information they contain is not available at all. It is also difficult to make corrections. If a manual document contains errors or need updating it is often necessary to recreate the whole documents from scratch.

3.2.1.12 Discuss a system proposed

Sistem Pinjaman Peralatan ICT (SPPICT) is computerized system in manage the booking of equipment's of ICT in Unit IT HPP. The main purpose is to make sure that the employee can book and borrow the laptop and projectors that has been provided in Unit IT HPP in easier way. Moreover, this system aims as a media management tool in term of booking or lending the equipment more efficiently and effectively which is expected to facilitate the user. The system that I try to purposed will give a benefits to a staff and also the employee because it can save time and decrease the used of paper. This is because the user itself no needs to fill form anymore. All information regarding the booking will be show in the system. The proposed system is user friendly because the retrieval and storing of data is fast and data is maintained efficiently. Moreover the graphical user interface is provided in the proposed system, which provides user to deal with the system very easily.

Sistem Pinjaman Peralatan ICT (SPPICT) can improve the service delivery system of Information Technology Unit Hospital Pulau Pinang (HPP) and meet the user need and no longer need to contact the IT officer or come directly to IT Unit for ICT equipment loan approval. Application status also can be done through online. This amendment meets the

requirements while demanding the right services, fast and efficient. This can give a positive impact to the various user entire HPP. There are positive effect can be enjoyed by user are:

i. Improve productivity

This system will helps in increasing productivity and efficiency of ICT equipment management in Hospital Pulau Pinang (HPP). With this the officer can give a quick approval in a short time even have a duty outside the office.

ii. Cost Savings

The development of this system can cut the using of paper, toner fax machine and the IT officer can give and entertain the user that come to the office.

iii. Fulfill the element of satisfaction

Besides that it can meet the elements of effectiveness as it allows applicants to apply ICT equipment loan and review the status online application that can direct:

iv. User friendly

This system provides the functions and displays are easy to navigate and used by each customer. The simple interface, structured, easy to understand and interesting features that meet the user needs.

3.2.1.13 Illustration of Context Diagram

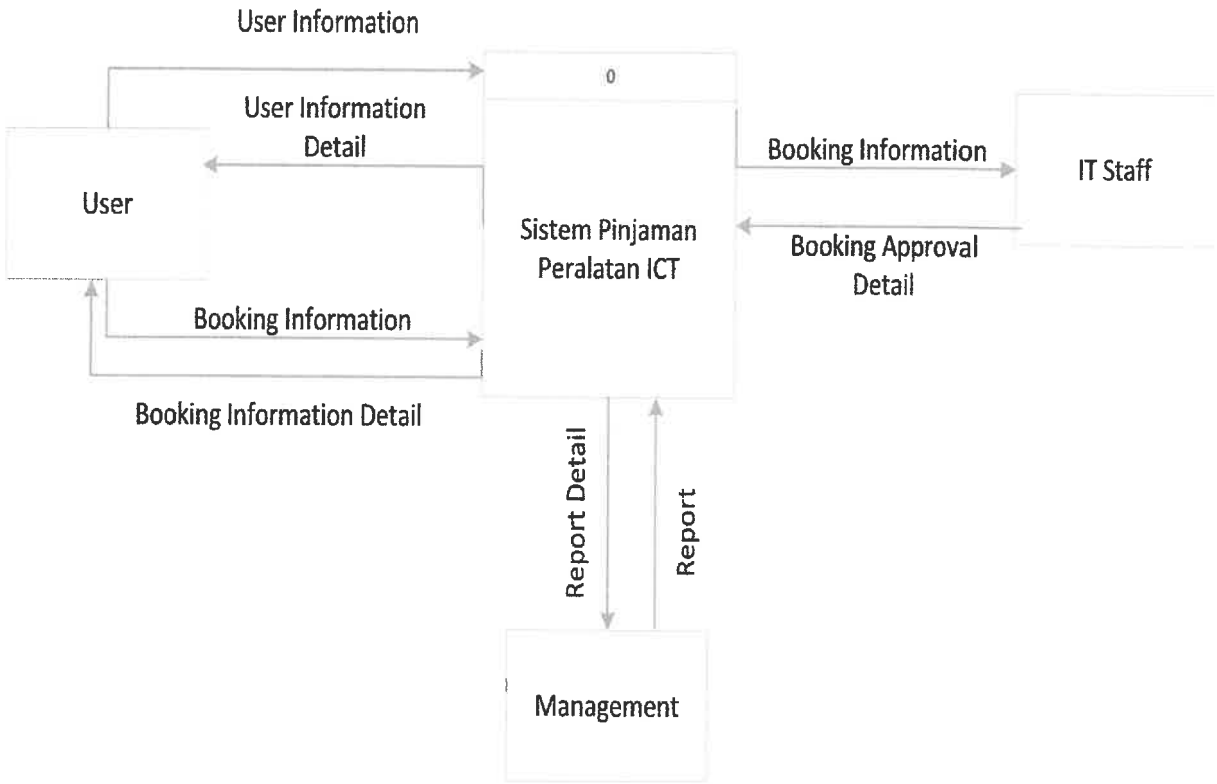


Diagram 2: Context Diagram of the system

Based on the context diagram above, we can see there are three (3) external entities which include user and IT staff which is act as admin. The data flow is shown by the arrow available in the diagram above. Data flow also act as an arrow depicting the movement of data. Based on the diagram there are three (3) types of data flow that communicate between user and system. In addition, the context diagram also will show there are four (4) types of data flow that communicate between user and system. As we can see on the diagram, the system will generate reports and pass to the admin for the booking approval of equipment. Besides, there also management that will manage the report.

3.2.1.14 Illustration of Data Flow Diagram

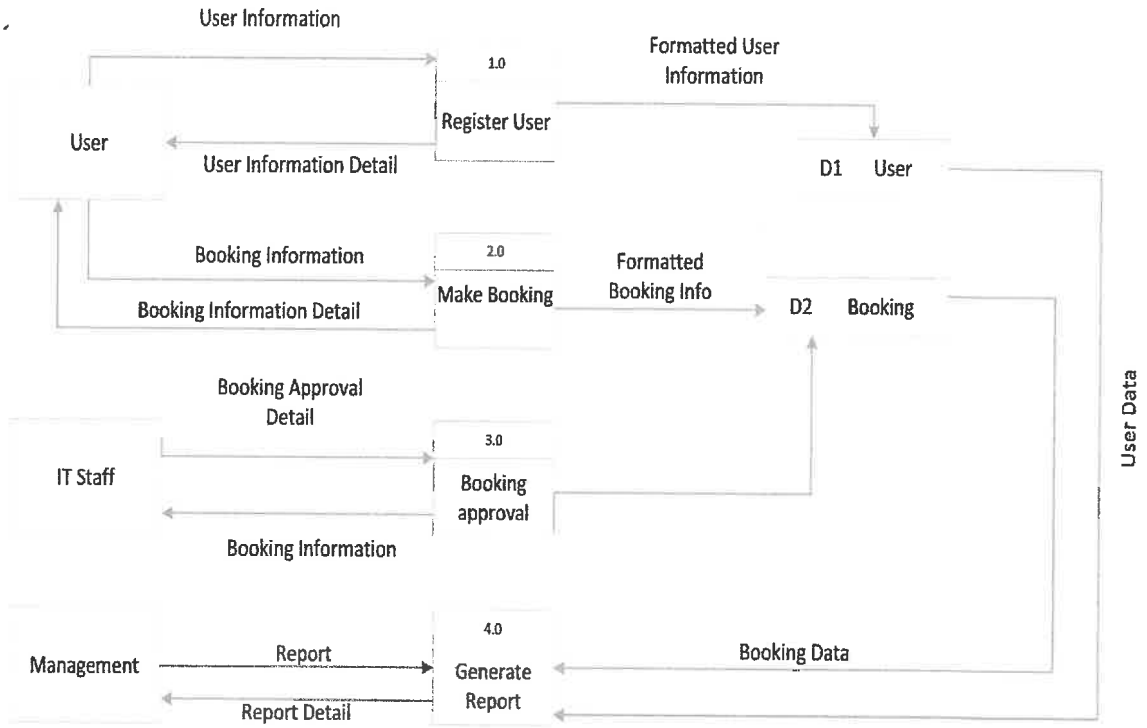


Diagram 2: Data Flow Diagram (DFD) level 0

The above diagram known as Data Flow Diagram Level [0] also called as DFD [0]. As indicated by the diagram in the Sistem Pinjaman Peralatan ICT (SPPICT) there will be four (4) modules that we called as the process consists of register user, make booking, booking approval, and generate report. Each module will process the data between (user and the system), and (admin and system). Besides that, there are two (2) categories of database be created in the systems to store the information such as user data and booking data. The entire database will be store in the report module and the report module will generate all the reports and handover to the IT staff to make reference of its booking transaction. In conclusion, the analysis phase is performed to analyze the system requirements. It involving research and development planning and project system. This phase will also

describes the existing system with similar system to the system shortcomings can be corrected. The thing to do in this phase is to analyze the needs of the user and the system will be developed. This is done to examine the effectiveness of the system to the target.

3.2.1.15 Database

Database design is the process of producing a detailed data model of a database. This data model contains all the needed logical and physical design choices and physical storage parameters needed to generate a design in a data definition language, which can then be used to create a database. A fully attributed data model contains detailed attributes for each entity. The term database design can be used to describe many different parts of the design of an overall database system. Principally, and most correctly, it can be thought of as the logical design of the base data structures used to store the data. In the relational model these are the tables and views. In an object database the entities and relationships map directly to object classes and named relationships.

However, the term database design could also be used to apply to the overall process of designing, not just the base data structures, but also the forms and queries used as part of the overall database application within the database management system (DBMS).

The process of doing database design generally consists of a number of steps which will be carried out by the database designer. Usually, the designer must:

i. Determine the data to be stored in the database.
ii. Determine the relationships between the different data elements.
iii. Superimpose a logical structure upon the data on the basis of these relationships

3.2.1.16 Entity Relational Diagram (ERD)

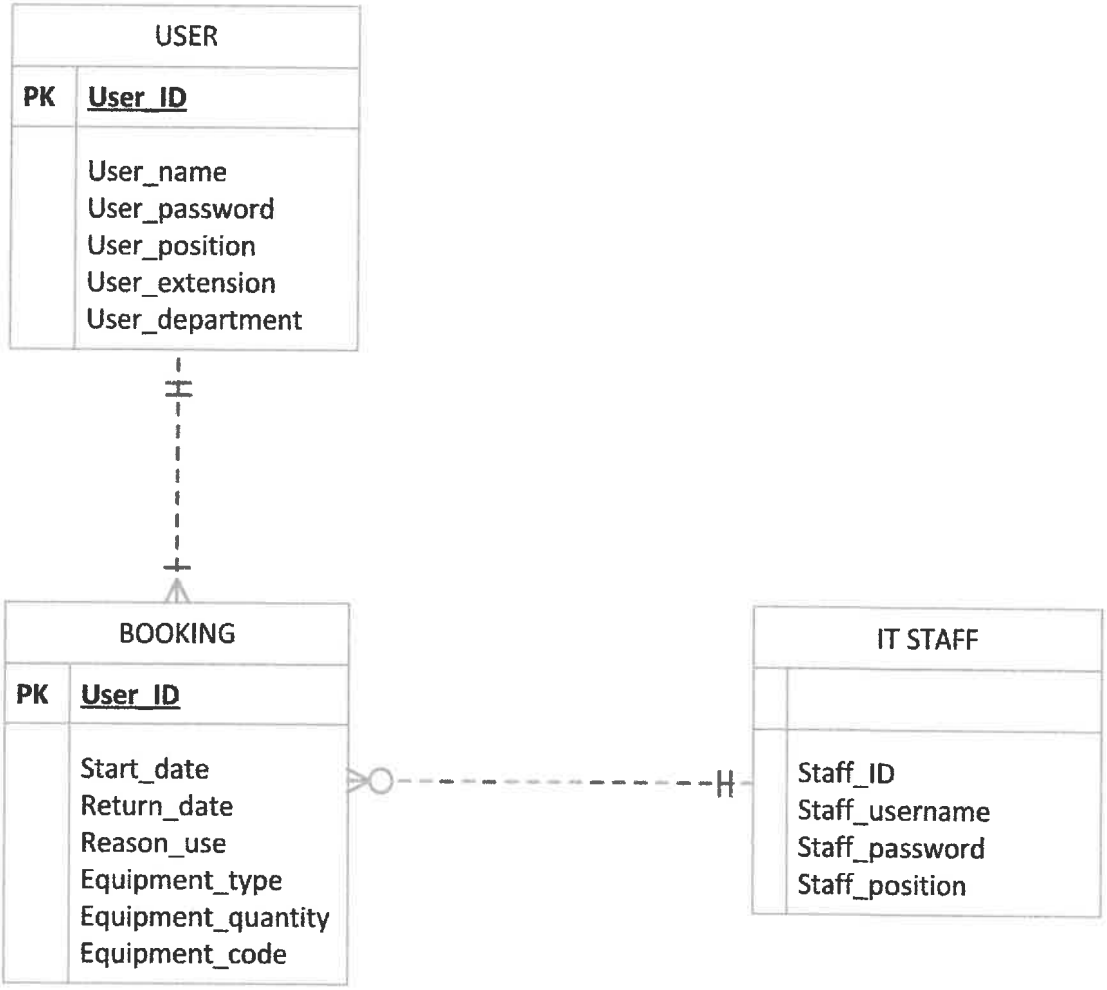


Diagram 3: Entity Relational Diagram (ERD) of Sistem Pinjaman Peralatan ICT (SPPICT)

For the user entity the there are few attribute which is user identity number, name, department of unit, user position and department extension number. Equipment entity and the attribute based on context diagram and DFD which this system needed to make a saving process or loan process. The attribute for equipment are equipment code which is act as primary key. Each equipment has a code which number given to it and it make it easier to IT staff to locate and find the equipment. Then have an equipment name, specification of the equipment and the availability or status of the equipment whether in good condition or

damage, being borrowed or not. Booking entity attribute is booking ID. Booking ID user will get when booking processes do. After fill the information in the system booking ID will be given to the user. After that user ID, equipment code, loan date, return date and reason of use the equipment.

3.2.1.17 Data Dictionary

Table 2: Data Dictionary of Sistem Pinjaman Peralatan ICT (SPPICT)

No	Table Name	Attribute Name	Contents	Type	Format	Required	PK/FK
1	User	User_ID	User ID	INTERGER (12)	99999999 9999	Y	PK
		User_ name	user name	VACHAR (50)	XXXXXX	Y	
		User_ dept	user departmen t	VACHAR (50)	XXXXXX	Y	
		User_ ext	user extension	INTERGER (12)	99999999 9999	Y	
		User_posit ion	User position	VACHAR (50)	XXXXXX	Y	
2	Booking	User_ID	User ID	INTERGER (12)	99999999 9999	Y	PK
		Start_date	Start Date	DATETIM E	DD-MON-YYYY	Y	
		Return_ date	return date	DATETIM E	DD-MON-YYYY	Y	
		Reason_ use	reason of use	VACHAR (100)	XXXXXX	Y	
		Equipment	equipment	INTERGER	99999999	Y	

		_code	code	(12)	9999		
		Equipment _quantity	equipment quantity	INTERGER (12)	99999999 9999	Y	
		Equipment _type	equipment type	VACHAR (100)	XXXXXX	Y	
3	IT Staff	Staff_ID	Staff ID	INTERGER (12)	99999999 9999	Y	
		Staff_user name	Staff username	VACHAR (100)	XXXXXX	Y	
		Staff_pass word	Staff password	VACHAR (100)	XXXXXX	Y	
		Staff_posit ion	Staff position	VACHAR (100)	XXXXXX	Y	

3.2.1.18 Interface Design (Input/Output/Dialog Box)

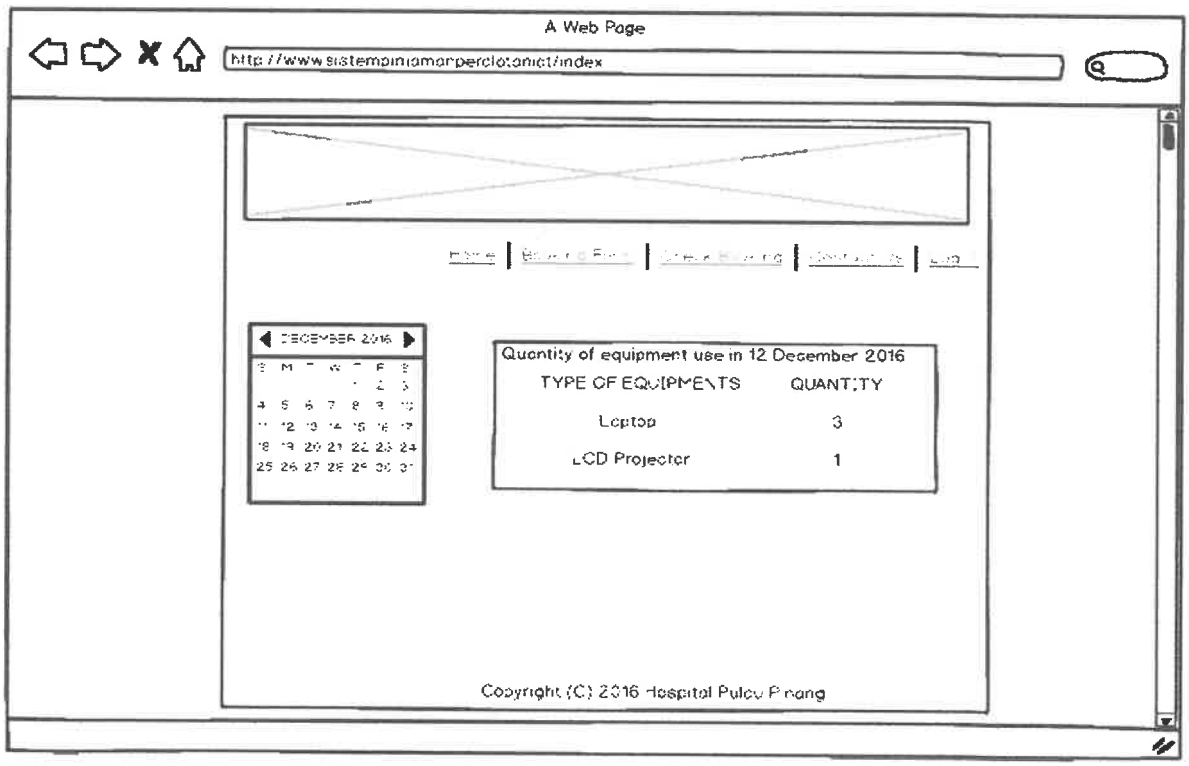


Figure 25: Home Page of the system

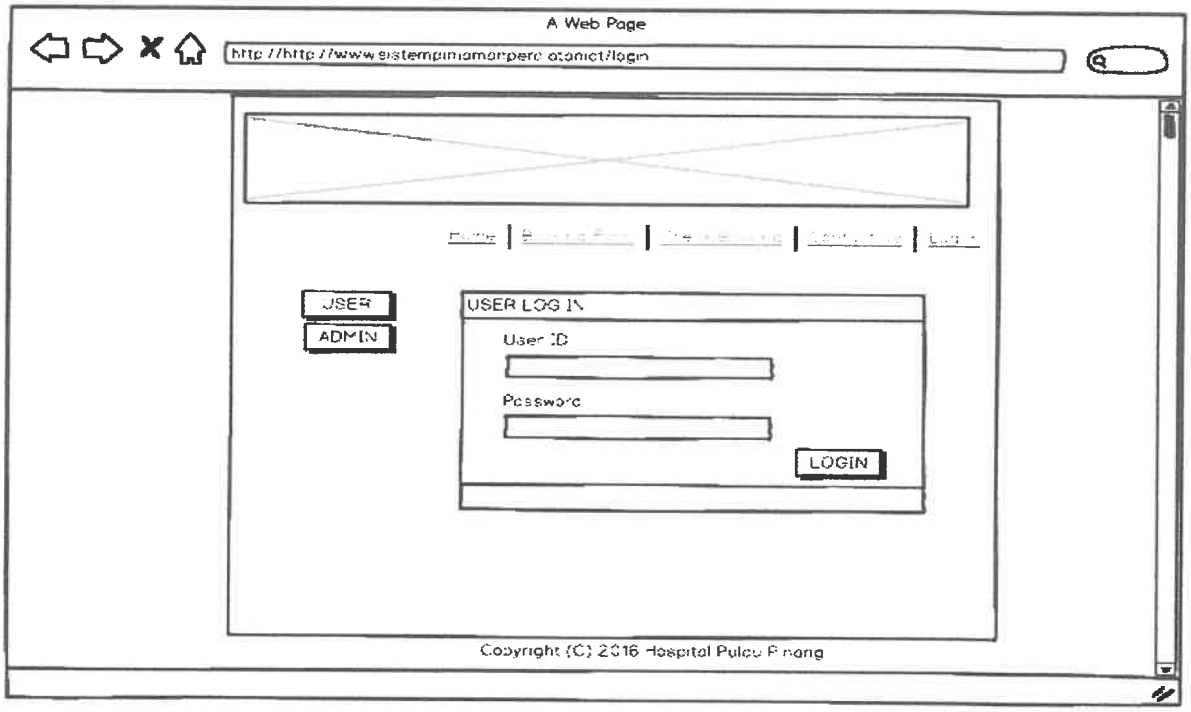


Figure 26: Login Page

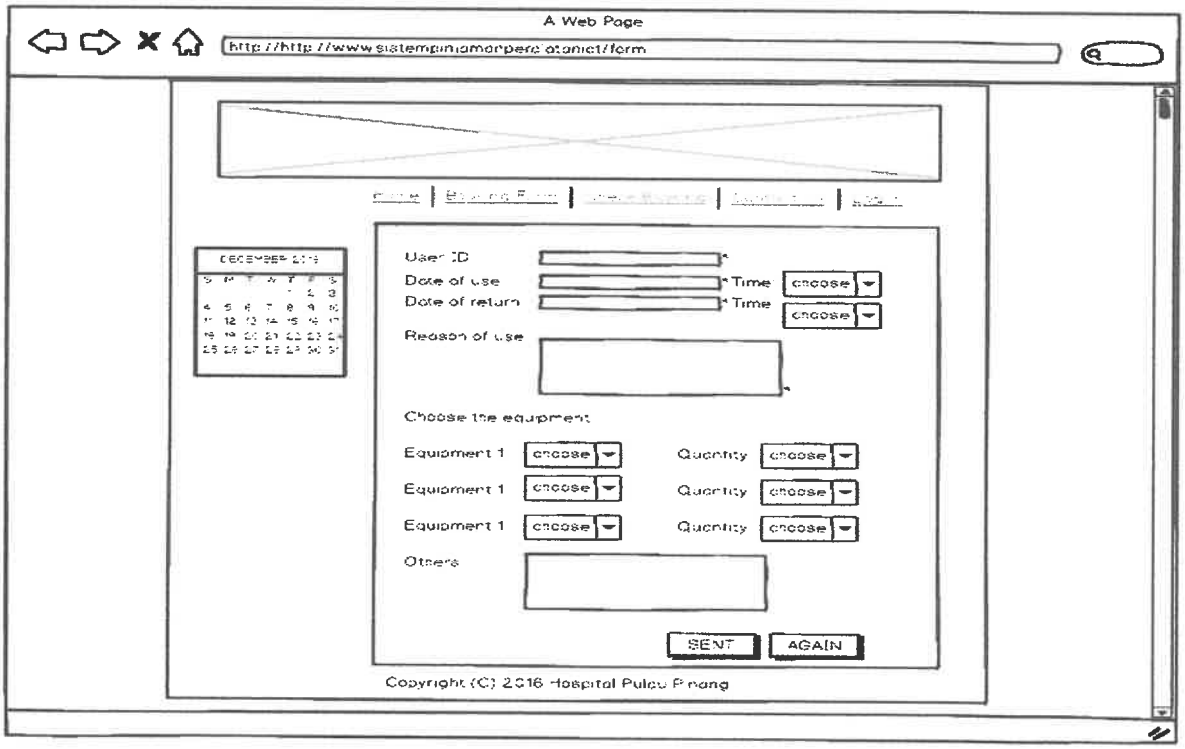


Figure 27: Booking Form

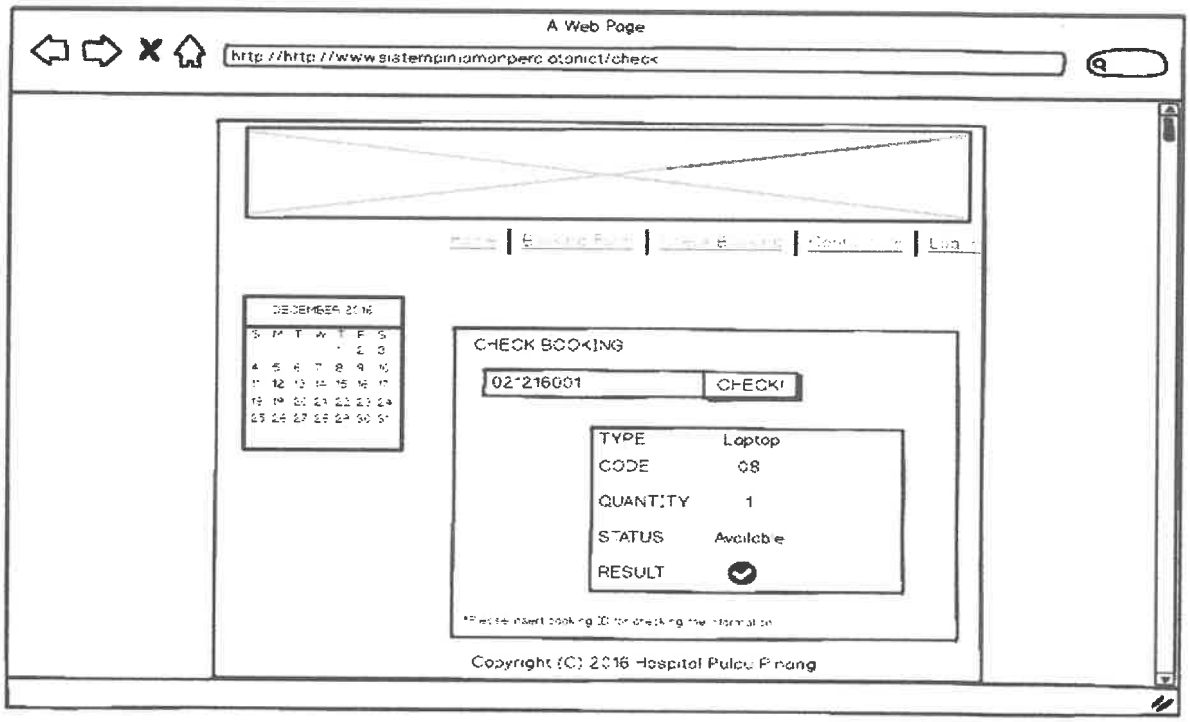


Figure 28: Booking Status

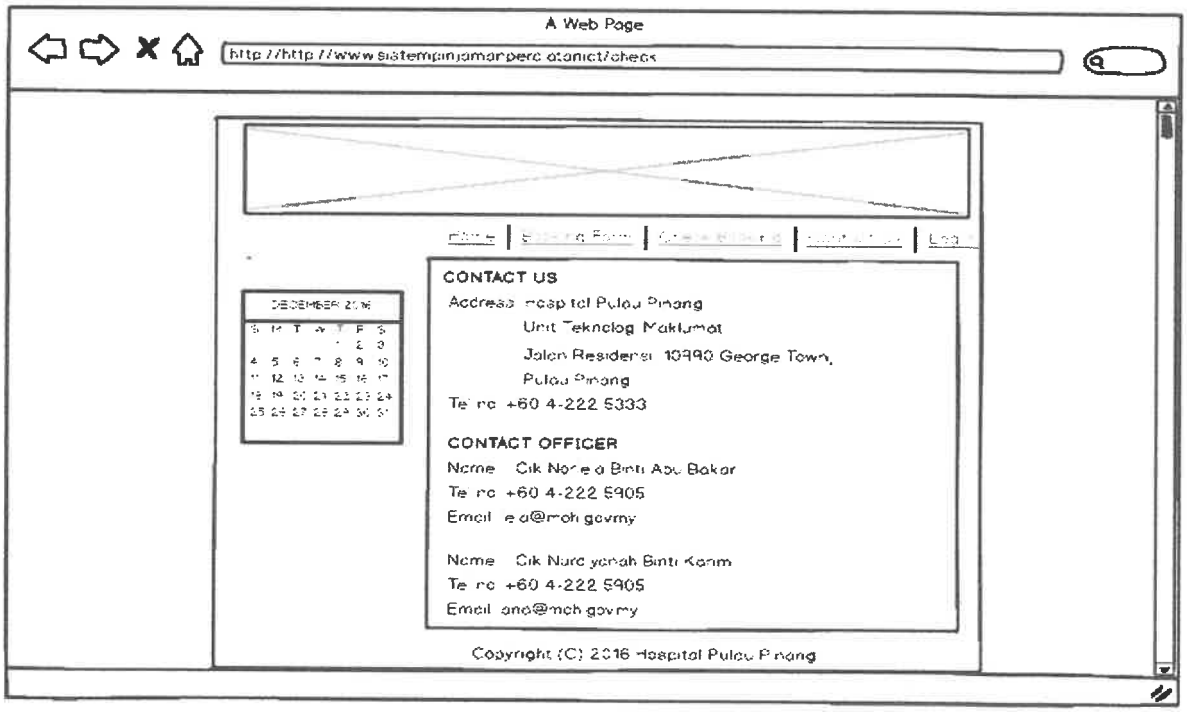


Figure 29: Contact Information

3.2.1.19 HIPO (Hierarchical input-process-output)/Screen flow/Menu

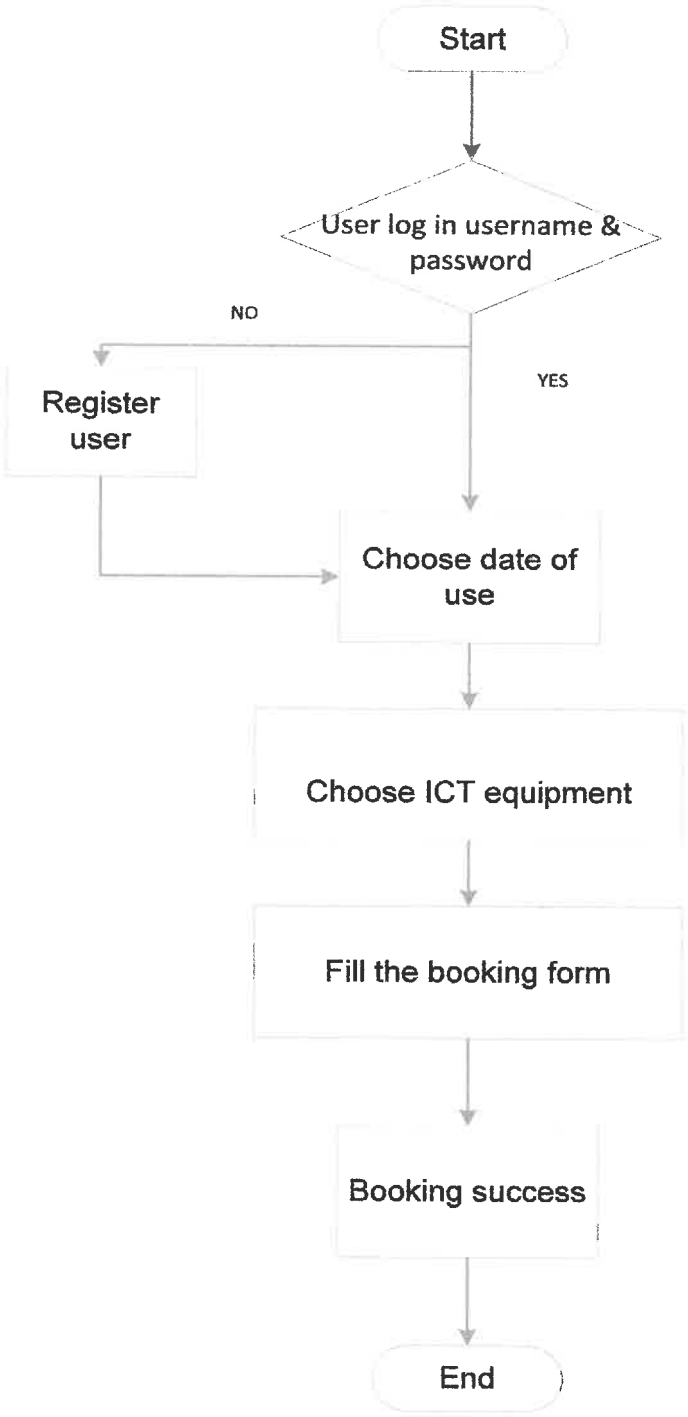


Diagram 4: System flowchart

3.2.1.21 Conclusion

As a conclusion, design phases are really important to the systems. This is because the design can affect the user in order to use the system. Database design is the process of producing a detailed data model of a database. This data model contains all the needed logical and physical design choices and physical storage parameters needed to generate a design in a data definition language, which can then be used to create a database. A fully attributed data model contains detailed attributes for each entity. The interface must be easy to understand, and then the design of the system must user friendly. We as systems developers must thinking about to make the user more easy and manageable when use the system.

CHAPTER 4: CONCLUSION

4.1 Application of knowledge, skills and experience in undertaking the task.

Table 3: Application of knowledge, skills and experience.

Task	Knowledge	Skills	Experience	Related Course
PC or printer Maintenance & Troubleshooting	Can identify and fix the error or issue regarding PC and printer	Troubleshoot skills using software and tools	Help user in troubleshoot their PC and Printer	Technical Support Service And Maintenance For Information Agencies (IMD 259)
Network Troubleshooting	Know more deeply in networking area	Basic troubleshooting like ping, release/renew. Do a cabling RJ45	Able to make a UTP cable & fix the wall jack RJ45	Data Center Operational And Services (IMS 605)
Helpdesk & User support	Interact and communicate with user	Effective communication	Guide user in troubleshoot problem	Data Center Operational And Services (IMS 605)
Special Project Sistem Pinjaman Peralatan ICT for IT Unit HPP	Planning and developing system framework	Using SDLC in planning the system	ERD, DFD, Context Diagram	System Analysis in Information Management 1 (IMS506)

During the period of practical training, the trainee gain a knowledge, skills, experience and exposure in the information technology world especially in the operation and technical

area. All this kind of matters needs to be learned in order to felt what things actually occurs behind the IT industry. The most knowledge, skills and experience that the trainee got was about PC or printer troubleshooting and maintenance. If before this the trainee learns more on management or system development in university but throughout this internship the trainee get exposure and opportunity more to developing skill in technical area.

After being exposed the trainee can learn and identify the problem and at the same time can solve the problem. Moreover through this, it can increase knowledge and skills in troubleshoot and maintenance of ICT equipment's. Then trough this learning the trainee can solve and help the user regarding their technical problem. The exposure of Technical Support Service and Maintenance for Information Agencies (IMD 259) subject make trainee recall back the PC maintenance that were being learnt in diploma days. This subject also helps trainee get familiar with the hardware or components used in PC. In university most of the course learned in theory but through this internship the trainee can understand and familiar the function of the tools or equipment used in pc maintenance.

Experience in doing a networking task also increases the skill and knowledge of trainee. When in the industry the trainee more understand the flow of network in which on how it work. The Data Center Operational & Services (IMS 605) subject enables trainee in understanding more deeply the network area. By giving this exposure the trainee are able in troubleshoot the basic network problem. For an example the trainee normally try to solve a network error like try a ping, tracert/traceroute, release/renew, change the IP configuration and so on. Moreover the trainee able to do an UTP cable RJ45 and able to activate the network port back which is cat 5 wall jack.

Then as we know that most of IT personnel only work with their computer and never had an effective communication with others. Through this perspective we must aware that being able to interact or communicate effectively is the most important things and it also one of the key of human interaction especially in workplace. The exposed of information systems interaction & consultation (IMS556) make the trainee being able to interact with the user and increase the confident level in in term of interact and communicate with user whether by telephone or face to face in term of solving their PC or problem. For an example giving them explanation and also guide them regarding the troubleshoot problem.

Furthermore, subject System Analysis in Information Management 1 (IMS506) exposed to the trainee the PADIM (Planning, Analysis, Design, Implementation, and Maintenance) framework in plan the project thoroughly from the beginning to end of the project and subject Information Systems Project Management (IMS654) help the trainee to do a Gantt chart and planning the project timeline.

In term of solving the user technical problem although most of the time the trainee takes time to solve the user problem but through the assist and helper from IT staff its make one problem easier to solve. Through this case it shows that what teamwork is all about. Beside learned new things from superior the trainee also take an initiative to explore and learn about maintenance and technical issue from internet searching. This is because there are always an issue from different type and version of pc or printer learning from an internet also gives a benefit to the trainee to solve the technical problem. Despite majoring in information system and more familiar with developing application and system through this it give a new knowledge and experience to be learned.

4.2 Personal Thoughts & Opinion

During this period of time the trainee has been exposed to the professional environment of work as an Information Technology officer in which what actually the job scope of each the officer in daily task activities. As we know that Information Technology Unit is one of supportive management which is non clinical unit in Hospital Pulau Pinang and have a small team the trainee does not have a chance to explore and learn more on Information Technology related work especially in application and multimedia section. Although the trainee major in the developing information system but the opportunity and changes to learn more and in deeply is not occur. However, learn a lot of new things and skills like in operation and technical area and also networking area give a trainee a new experience and new knowledge in troubleshooting and networking.

Apart from that, what have been learn in the University almost in 3 years give the benefit in terms of communication to the user not only just that and the trainee also need to take other initiatives in learn and explore the Information Technology field. Throughout this internship make a new perspective about this field and also be a biggest lesson to learnt and improve self to be more prepare to enter the industry and build the career. It also can be a best way to develop new skill and gain an insight on what is look like work in the industry.

4.3 Lesson Learnt

Throughout the period 5 month of internship it give a good memory and experience that nobody can't get. Information Technology Unit HPP offer and give a lot of opportunity to learn, develop and applied skill to the work environment. For an example is learnt a new things like PC and printer troubleshooting. Through this also give a real picture behind the Information Technology field. It also make trainee realizes that there are no easy way to

success but we must learn. However there are several lessons that trainee gain throughout this internship:

4.3.1 Communication

Throughout this period communication play an important role in trainee daily activities. This is because in operation and technical section, trainee needs to go to the user location to solve their technical problem. Besides from meet the user face to face, communication via telephone call also play a vital role. Usually user will call to make a complaint regarding ICT equipment problem and through that the trainee need to communicate with them to solve the user problem. Telephone call is the most common and being important medium to communicate and interact in organization. The reason is we can get immediate personal response and easy way to communicate. Through the communication the trainee can increase the confident level when speak English and how to approach people in a proper way.

4.3.2 Problem Solving

To solve any problem regarding PC maintenance it takes someone to find variety of solution in order to solve it. This is because technology is cutting edge not static to one solution but there are always way to fix the problem. Although some of the task can't be done immediately the trainee will find other alternative or other solution to solve the problem although it takes time. Usually trainee will try to find the solving way from internet or will ask the IT officer about some problem.

4.3.3 Time Management

Time management plays a major role and a big lesson throughout the practical training. Show on how to manage a schedule management especially to project. The trainee set a

Gantt chart to view the project timeline and able to plan the project in systematic way. Time also teach on how to be more punctual and also can teach on how to be more discipline in term of doing a work on time and can balance the work that given from supervisor and prioritize what more important to do.

4.3.4Teamwork

As the team has a few staff that involves other section, but they work together and assist each other especially to solve the user problem regarding ICT. The section has a different job scope but usually all the staff can do the task well. When a trainee have a problem to troubleshoot pc or printer the team especially the officer always give a guidance on how to solve and also give a good cooperation.

4.4 Limitations & Recommendations

The limitation where the trainee face is when to solve the user problem regarding their complaint about pc or printer problem. With the lack of trainee skills and knowledge in maintenance area it becomes difficult to solve the task given and it took a time to fix it. Another task like finding PC location also makes a challenge to solve it and it took around 3 month because of the location and user of PC was change or moved. Moreover it make this difficult task is the trainee takes time to find the location and not all the location the cant allowed to enter or access like in Intensive Care Unit (ICU) and Operation Theatre (OT). This is because only the authorized person can access the door. Then there are also situation where the responsible officer that control or manage the asset not around or on leave will make the task delayed because must wait the person until they come.

4.4.1 Install CCTV and access door

They need to install the Closed Circuit Television (CCTV) and access door. The used of CCTV nowadays is not one of the trends but it's needed for a company or organization to ensure the security and safety. As a government organization they should take this as a serious matter because of in Hospital or especially IT Unit HPP they don't have best practices of security and access to their unit. As we know the situation of Hospital many customer and have around 500 employees in and out and anyone can simply enter the unit without any restriction. By this situation, IT Unit HPP should ensure that timely access of any person including staff of HPP itself.

Moreover it is also important that the facility or equipment is safe and secure. Only the authorized persons or have permission from the IT staff like vendor can gain access to the IT Unit. This is because to avoid from any unwanted things happen like theft and at the same time can avoid from any dangers that might threaten the safety of IT Units HPP. The reason is if want to compare with other management department, IT Unit is one of the department that stored the valuable equipment like laptop and others ICT equipment that expensive. So no person except IT staff and authorized person shall be allowed to enter the IT Unit.

4.4.2 Enhance training skill

Apart from that, need to enhance training skill for staff especially in technical and operational skill. This is because in technical most of the technicians fix the problem by finding information through internet searching. It can be seen that the training only given if there are new system implemented in the organization but training and development of skill in technical area not being doing. This is because training can increase and more diverse

skill to them. This means they can take or cover additional responsibilities in which by supporting other officer work. For an example do an internal training like the officer give a training to technician especially by doing this can share a best practice within organization also can increase the internal relationship between officer and subordinates.

REFERENCE

Hospital Pulau Pinang (2016, January 10). Sejarah. Retrieved from http://jknpp.moh.gov.my/jknpenang/index.php/en/menegenaikamihpp/sejarahhpp

Hospital Pulau Pinang (2016,January 10). Unit Teknologi maklumat. Retrived from http://jknpenang.moh.gov.my/jknpenang/index.php/en/administrative-services/management/information-technology