

INDUSTRIAL TRAINING REPORT:
PUSAT PENGETAHUAN, KOMUNIKASI DAN TEKNOLOGI
(PPKT) HOSPITAL UNIVERSITI SAINS MALAYSIA

SPECIAL PROJECT:
SISTEM KEMASUKAN PELAJAR LATIHAN INDUSTRI
PPKT

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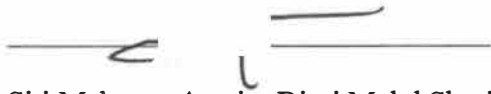
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ABSTRACT

The trainee undergoing industrial training based on the period from 01 August 2016 to 31 December 2016 in IT Department at Center for Knowledge, Communication and Technology (PPKT) Hospital Universiti Sains Malaysia. During the industrial training period, the trainee is placed under coordinator industrial training student in PPKT, Mr Mohd Darimi Bin Yusoff. After discussion, the trainee requires to update and upgrade the “Sistem Kemasukan Pelajar Latihan Industri PPKT” which is to change the flow and update the information in the system. The trainee also involved in activity in PPKT department and give cooperation to staff that need help and follow them to settle the maintenance work outside the PPKT department. Furthermore, the trainee also gains a new knowledge and skills that can be use and practice after finish the industrial training.

Keywords: Sistem Kemasukan Pelajar Latihan Industri PPKT, PPKT department, industrial training

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CHAPTER 1: INTRODUCTION

1.1 Background of the Organization

In February 1979, then Prime Minister namely YAB Dato Seri Dr. Mahathir Mohamad announced the government's decision to establish the third Medical Faculty in USM after establish the same faculty in UM and UKM. This campus started functioning fully in June 1983 to locate a Center Education of Medical Science, Hospital Universiti Sains Malaysia and to support other departments such as library, student hostel, staff nurse hostel and Houseman or trainee doctor hostel.

The Phase I project involves a lecture chambers construction, laboratories, sports complex, clinic, student hostel and office space that completed in May 1990. School of Medical Science moves overall to Kubang Kerian in June 1990. The Phase II completed in 1996 which covered wards, operation theatres, laboratory and office space. Figure 1.1 shows the HUSM logo and table 1.1 shows the organization profile of HUSM.

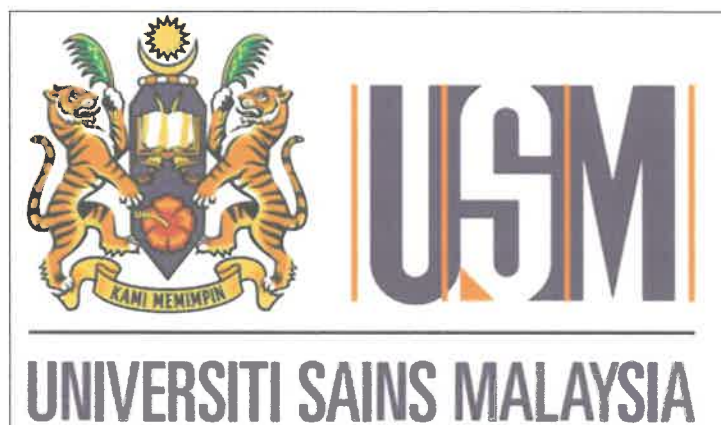


Figure 1.1 Logo of Hospital Universiti Sains Malaysia

Table 1.1
List of HUSM Organization Profile

Organization Name	Hospital Universiti Sains Malaysia
Address	Hospital Universiti Sains Malaysia Jalan Raja Perempuan Zainab II, 16150, Kubang Kerian, Kelantan.
Telephone Number	09-7673000
Fax Number	09-7671060
Website Address	www.kck.usm.my

Hospital Universiti Sains Malaysia also was selected to implement the Accelerated Program for Excellent (APEX) in 2008. A sustainable world, humanity and the future of the humankind are among the issues focused on by Universiti Sains Malaysia. Based on these over-arching principles, USM has been chosen by the Malaysian Ministry of Higher Education to implement the Accelerated Program for Excellence (APEX) under its auspices. This was announced by the Minister, The Honorable Dato' Seri Mohamed Khaled Nordin on 3rd September 2008. Besides, under the APEX proposal entitled, "Transforming Higher Education for a Sustainable Tomorrow", USM has outlined its efforts in advocating the process of a sustainable development in ascertaining a more lasting future. Last but not least, HUSM planning of construction and complex Perubatan done by foreign professional that experience in "Health Care Design".



Figure 1.2 Diagram of Vision, Mission & Value

1.1.1 Vision

"Transforming Higher Education for a Sustainable Tomorrow"

1.1.2 Mission

USM is a pioneering, transdisciplinary research intensive university that empowers future talents and enables the bottom billions to transform their socioeconomic well-being.

1.1.3 Value

Quality, Equality, Availability, Accessibility, Affordability, Appropriateness

1.1.4 Thrust

Knowledge, The Future, Uniqueness, Sustainability, Humanity, Universality, Change, Sacrifice, Wellness.

1.2 Organizational Structure

In organization, it must have a strong organization to support the business and operation. Hospital Universiti Sains Malaysia (HUSM) also has strong organization because each of them that hold the position have a great experience and high position in HUSM. Figure 1.3 below show the organization chart of HUSM.



Figure 1.3 Organization Chart of HUSM

CHAPTER 2: ORGANIZATION INFORMATION

2.1 Departmental Structure

The department that the trainee gets to attend industrial training is a Center for Knowledge, Communication and Technology (PPKT), Hospital Universiti Sains Malaysia. PPKT is IT department that control all the activities about the technology, IT services and information system in HUSM.

Center for Knowledge, Communication and Technology (PPKT) established on 1 January 2003 by a combination of four entities that based on Information Technology in USM namely Computer Centre, Information Technology Center, Unit of Information System Management and Unit of Information Technology Development in the Main Campus at Pulau Pinang. Figure 2.1 below show diagram of PPKT logo.



Figure 2.1 Diagram of PPKT Logo

Besides, it is launched officially was perfected by Vice Cansellor, Yg Bhg Prof Dato's Dzulkifli Abd Razak on 27 August 2003. PPKT will function as a one center in providing IT services with quality and also act as a catalyst to all research activity, learning, administration, lesson, management and consultation for University Science of Malaysia (USM).

In addition, it is because the Health Campus has no information technology center branch, Unit of Information System and Unit of Information Technology Development, so PPK in Health Campus is currently being merely name change for Computer Center branch without staff expansion. Computer Center branch starts with a staff in a year 1986 and continue to expand. In the year 1996 Computer Center branch begins services Hospital Information System and PC distribution to all lecturers, Official Category A, department to promote network service USMNet that becoming PPKT core service until now. Service of Hospital Information System finally took over by Information System Unit of Information System HUSM in the year 2000. Furthermore, with PPKT help in Main Campus, PPKT in Health Campus will offer all services needed to achieve agenda IT USM in this campus. Corporate application system development services will be developed by a staff on Main Campus to ensure it integrated.

A role that is comprehensive will ensure implementation of development and information technology service usage and communication that is more integrated in USM, in accordance with the target need to heading towards becomes an e-University Research Official Category A.

2.1.1 Mission of PPKT

The missions of PPKT are as below:

2.1.1.1 To provide services and Information technology infrastructure that quality and high quality. Matching processes which involve academic, student, administration and management through a website portal for transference objective and information sharing in an effort to increase knowledge and Information Technology expertise among USM population.

2.1.1.2 Guiding and become sources of inspiration to University citizen in wading Information Technology revision trend. Ensuring University vision to become a learning institution and research that is superior will materialize with Information technology as a catalyst.

2.1.1.3 Building campus community that is knowledge and have information in the Information Technology field. Being a reference center for matters related to Information Technology and to become and educate the campus community with Information. Technology.

2.1.1.4 Offering quality service in supporting R&D activity, lesson and tertiary education, learning and providing ICT infrastructure that comprehensive in USM innovatively and creatively. Apart from that, PPKT also act as ‘enabler” to the academic environment and knowledge.

2.1.1.5 Uniting academic service, student, administration and management and society through this information portal and transfer based on web. With the establishment to will be pioneering more new development for comfort deal and generate, keep and spread widest knowledge.

2.1.2 Quality Objective

The quality objective of PPKT department very significant because the objectives must be fulfilled for client satisfaction. There are have several quality objectives of PPKT department which are:

2.1.2.1 All applications will be revised and given approval within (3) three days of working days from application form that completely been accepted.

2.1.2.2 All reports about the PPKT hardware that damage does not require a spare part from the supplier or supplier expertise will be resolved within (5) five days of working days.

2.1.2.3 Processing and send all bills and payment claim to the Treasurer Department within (3) three days of the date of receiving bills.

2.1.3 Organizational Chart of PPKT department

The PPKT department has their own structure because of the organizational structure, it can let others know the structure of the department itself. Besides, it is also will give a good instruction from top level to their subordinate in this department. Figure 2.2 shows the organizational chart of the PPKT department.

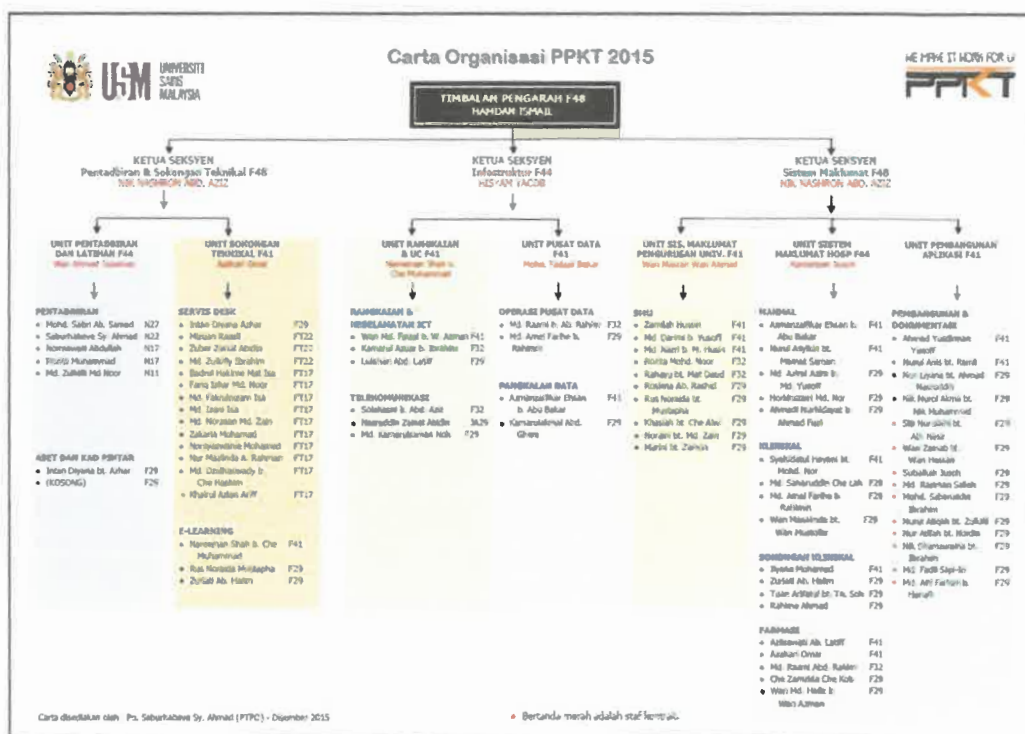


Figure 2.2 Organizational Chart of PPKT department

2.2 Department Function

The main function that PPKT provide to their clients and user are to providing facilities and information and communication technology service to support administration requirement and University management. Besides, PPKT also play their role in planning and to ensure all activity in PPKT Health Campus go well. Furthermore, the functions of PPKT are controlling and ensure service prepared always quality and value. This is because all the services that provide to their clients and users, they will repair and make it to become more quality and the clients felt worth it.

PPKT also need for planning, build and organize the Student Academic System and disseminating information about the use and information technology development to university member to ensure all rules and university policy will implemented. In addition, they need to modify and maintain the Administration Application System from Main Campus and to help solve the problem that faced by clients which use Information technology service that prepare by PPKT itself. Last but not least, PPKT also give the responsibility to maintaining systems that used by the administration.

2.2.1 Section available in PPKT department

There are have ten (10) section in PPKT which are Administration and Technical Support, Administration, Asset and Smart Card, Technical Support, Infostructure, Networking and ICT Safety, Telecommunication, Data Center, Information System, University Information System and Application Development. Each section will have a Head of Section that will be assigned by staff to do their task and they also have a responsibility to monitor the section and their subordinate to ensure all the works and activity run smoothly. Table 2.1 shows the section and the function of each unit in PPKT.

Table 2.1
List of sections and the function of each unit in PPKT department

SECTION/UNIT	FUNCTION
Administration and Technical Support	
Technical support	<ul style="list-style-type: none"> • Installing and configuring computer hardware, operating systems and applications. • Monitoring and maintaining computer systems and networks. • Troubleshooting system and network problems and diagnosing and solving hardware or software errors. • Providing support, including procedural documentation and relevant reports • Setting up new users' accounts and profiles and dealing with password for students and staff.
Administration, Asset and Smart Card	
Smart card service	<ul style="list-style-type: none"> • Providing USM Smart Card in form of matrix card for students (Full Time, IPS, PPPJJ, International DPLI), Staff Card and Afiliasi Card. • Providing a Facilitate Time Recorder to the

	<p>staff movement and Access Door which include systems and method.</p> <ul style="list-style-type: none"> • Provides an Online Attendance System for monitoring movement and claim overtime staff. • Provide Autogate System facility in USM gate. • Provides Convocation Graduate Movement System.
Service desk and technical support	<ul style="list-style-type: none"> • PPKT first stage technical support to any ICT need. • Providing additional technical assistance for specific need based on application and activity for all services in PPKT. • Provide a repair service for all ICT equipment such as time recorder, scanner, printer (dot matrix, inkjet, Deskjet and printer laser)
Asset servicing and inventory university	<ul style="list-style-type: none"> • Implementing PPKT asset management, according to Rules of Asset Management and University Inventory • Responsible in distribution process, maintenance and computer repatriation to PTJ. • Issuing Certificate Eligible Expired to PTJ

	include external agency.
Technical Support	
Technical service	<ul style="list-style-type: none"> • Technical service “On-call” include installation, configuration, health check (troubleshoot), email • Network technical service (Wired & Wifi) • Telecommunication technical service (Teleconference & PABX)
Infrastructure	
Infrastructure service	<ul style="list-style-type: none"> • Manage hardware, software and security systems. • Meeting with the employee from various departments to discuss how to make the company's data more accessible and secure and how to make business operations run more smoothly and efficiently.
Networking and ICT Safety	
Networking	<ul style="list-style-type: none"> • Providing and manages Network Infrastructure includes LAN (Local Area Network), MAN (Metropolitan Network Area) and WAN (Wide Area Network) that comfortable, rigid (Robust), reliable and safe (secure) to support all ICT requirements and generally to staff

	<p>USM</p> <ul style="list-style-type: none"> • Providing access to network MYREN and 1Gov*Net.
ICT safety	<ul style="list-style-type: none"> • Provide and manage Endpoint requirement equipment and hardware. • Provide and manage Confirmation Infrastructure through AD_USM (Active Directory) for all reference ICT services. • Provide and manage Anti-Spam Solution.
Telecommunication	
Integrated communications	<ul style="list-style-type: none"> • Provide and manage Telephone Infrastructure that rigid (robust), reliable and safe (secure) to all USM staff. • Provide Telephone Number Management include allocation extension number, upgrade number, category, migration number according to applicant location, diversion and ruminant telephone number. • Provide “Webex” web conference facility and provide technical assistance for Teleconference Video session “hardware” and “software” based.
Data Center	

Data center service	<ul style="list-style-type: none"> • Provide space and manage hosting service for server, saving appliance, communication, application and network integration, according to the specification that is set by Hosting Server. • Preparing, manage operationalized and monitor service operation for PTJ / Division / Department by Hosting Web. • Coordinating and managing basic security features (Baseline Security) • Ensuring operation and Data Center facility operate smoothly 24x7 and 365 days. • Supervising and implementing Data Center operational procedures to ensure the Data Center operation is clear, complied and in like smoothly.
Database service	<ul style="list-style-type: none"> • Preparing database, manage, monitor and improves terms of safety, capacity, backup and recovery and database replication. • Providing Database needs based on MSSQL Sybase, MSSQL for university application. • Planning, study and makes analysis of consumer need in terms of disaster recovery and implement disaster recovery planning to ensure operation of systems run very well

	<p>with minimum interference.</p> <ul style="list-style-type: none"> • Planning, study and makes analysis of consumer need in terms of database management by centralizing university.
Information System	
Information System service	<ul style="list-style-type: none"> • Sustains information systems results by defining, delivering, and supporting information systems such as auditing application of systems. • Assesses information systems results by auditing application of systems. • Enhances information systems results by identifying information systems technology opportunities and developing application strategies. • Researching and installing new systems • Guaranteeing the smooth running of all ICT systems, including anti-virus software, print services and email provision. • Keeping up to date with the latest technology.
University Information System	
University Information System	<ul style="list-style-type: none"> • Providing, manage, monitor and improve

service - Staff (SMUS)	<p>Online Platform (System) that's able to manage university daily operation well, efficient and fluent.</p> <ul style="list-style-type: none"> • Automated human resource processes. • Created SMUS that integrated. • Prepares data, report and statistics to parties that are related and prepares data for KPT need and JPA
University Information System service – Student	<ul style="list-style-type: none"> • Providing platform for university management so that can implementing administration with technology assistance (client or based web). • Provides a a system that integration so that information always latest. • Providing reporting requirement or statistics • Doing application maintenance (client or web based).
Application Development	
Application Development service	<ul style="list-style-type: none"> • Coordinating together with Head of Section and Deputy Director of Information System toward development activity and management information system in an integrated manner. • Assisting procedure standardization effort

	<p>work / operation (SOP) involves Information System in all USM campuses.</p> <ul style="list-style-type: none">• All new application development and improvement present system will be standardized by Application Development Unit by gathering all the developer from various unit.• System that finished developing will be handed returning to a related unit for maintenance purpose.
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CHAPTER 3: INDUSTRIAL TRAINING ACTIVITIES

3.1 Training Activities

To complete the study, the trainee need to finish the industrial training for five (5) month since it is compulsory because it is one of the condition to graduate. The trainee will be attended industrial training at Hospital Universiti Sains Malaysia starting from August 2016 until December 2016 at the Center for Knowledge, Communication and Technology (PPKT). It is related to the trainee field. From the industrial training, it will gain a new experience and information about the information technology. Before this, the information delivers through the theory while during internship, students can practice and applied what are they already learn during the study. From that, it will can develop more soft skill and communication skill among staff and others internship members.

During the internship, trainee will be placed under supervisor in PPKT which is Mr Mohd Darimi Bin Yusoff. He will responsible to help and observe for five (5) month industrial training. Besides, Sir Mohd Darimi Bin Yusoff is an IT Officer in University Information System (SMU) section. For the university supervisor that has a responsibility to monitor the trainee is Mr Faizal Haini Bin Fadzil.

In addition, during internship it is acquired trainee to develop or create a special project and also training activities to ensure the trainee can gain information through daily task that they make. In this chapter, it describes all the aspects of work for trainee during industrial training.

The training activity is the daily task that the trainee need to do either the trainee gets an instruction from the organization supervisor or other staff. Besides, all the activity during industrial training will be written and state in the log book that already provide from Coordinator Industrial Training from UiTM Machang. Furthermore, all the tasks are not specific and it is also based on the instruction from the staff.

3.1.1 Knowledge Sharing Session

The benefit of knowledge sharing session, it will gain knowledge and information about the something new for us because of the knowledge sharing, it can make us more aware about the current issue on any topic and get new information from this session. Furthermore, the knowledge sharing that related with the IT is valuable in most stages of the knowledge sharing process and it is used for content management as well as data and text mining. In addition, this program also can become a medium to get strengthening relationship among the staff because of this session, the staff must involve and need to ask questions based on the topic that will be told.

3.1.1.1 Big Data

In PPKT department, it is providing a knowledge sharing session to their staff to ensure all the staff can gain new information. The topic that has been chosen based on the person who will give a knowledge sharing session on that day. Besides, the trainee can get new knowledge because the topic that will be sharing mostly focus on the information technology so the trainee can get more information. In addition, this program also can become a medium to get strengthening relationship among the staff because of this session, the staff must involve and need to ask questions based on the topic that will be told.

The first knowledge sharing session that the trainee attend is about the Big Data that conduct by Mr Mohd Fadzali Bin Bakar and Mr Razmi Bin Abdul Rahim. From this knowledge session, trainee knows what is big data and the criteria of big data. Besides, the useful on big data for a commercial site and it is helping the management to make a decision. The variety of the criteria big data tell that it consists of three types which are structured data, such as database, unstructured data and semi structured data such as excel and html. From this topic, it has given new knowledge to the trainee. Mr Mohd Fadzali Bin Bakar also discuss about the Nagios. The Nagios is a powerful monitoring server, network traffic and application.

While Mr Razmi Bin Abdul Rahim informs about the emerging technologies such as cloud computing, Internet of Things (IoT) and big data. The IoT refers to any other natural or man-made object that can be assigned an IP address and provided with the ability to transfer data over a network. Furthermore, IoT also changes from the convergence of wireless technologies, micro-electromechanical systems (MEMS), micro services and the internet. For instance, punch card. In HUSM , it is using a punch card because it is connected to the server and it will transfer the data to the campus. Mr Razmi Bin Abdul Rahim also tells about the My SQL fabric that provides a framework that manage farms of My SQL fabric. In HUSM, to use My SQL it must have a suitable from the place. Figure 3.1 below show the example of My SQL fabric.

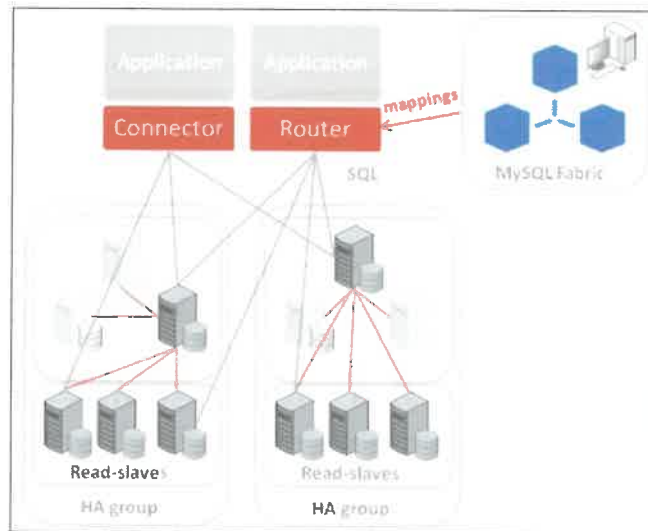


Figure 3.1 Diagram of My SQL fabrics

3.1.1.2 Data Server in PPKT department

The second knowledge sharing session that the trainee attends is about the networking and the usage of internet routing in HUSM. This knowledge sharing session was conducted by Mr Kamarul Azuar Bin Ibrahim. All the internship students in PPKT department involved in this session because Mr Kamarul Azuar Bin Ibrahim wants all the internship member know about the networking that they run in this department to all the HUSM campus. Besides, it gives benefit to us, especially internship student from Faculty of Networking. Mr Kamarul also shows us the data center that controls all the networking in HUSM. The data center located in the PPKT department and the staffs that responsible to manage and control this room is Mr Kamarul Azuar Bin Ibrahim and Mr Mohd Fadzali Bin Bakar. Figure 3.2 below show Mr Kamarul Azuar Bin Ibrahim explain about the server.



Figure 3.2 Diagram of the server that located in PPKT department

In addition, Mr Kamarul Azuar Bin Ibrahim also explains details about the networking and all the connection in USM will come into the core. From the cables it is going to switches and the switches available in this data center are 429 items. The percent of core to down is 0.01% and the UPS can support and back up for 30 minutes only if core down. He also said in the future, it will upgrade the UPS in USM and will support more than 1 hours if the core down. After that, he also shows the screen that record and show how it is controlling the data and it has given an alert through email to Mr Kamarul Azuar Bin Ibrahim if one of the servers down. Figure 3.3 below show the data appear from the screen.

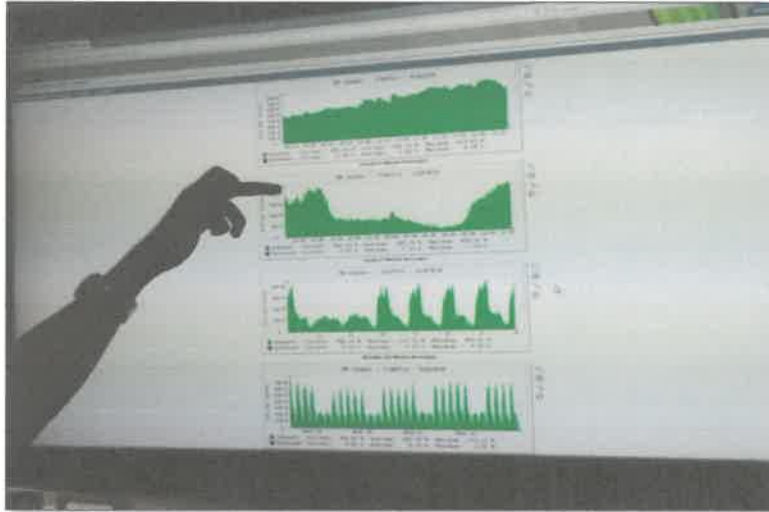


Figure 3.3 Diagram of the data that appear from the screen

3.1.1.3 Linux and File System

The knowledge sharing session will be continuously carried out to give knowledge to the staff and internship students. The third knowledge sharing session that trainee attend during 2 month trainee spend in PPKT department about the Linux and File System. Before this trainee only learn and know the basic information about the Linux from lecturer and internet. For this knowledge sharing session, trainees in PPKT department can know more details about the Linux. The Linux topic was conducted by Mr Razmi Bin Abdul Rahim that expert in data server and operation of data center because he expert in manage and control the server.



Figure 3.4 Diagram of the Partition Linux

In this session, he focuses on Linux Kernel which is interfaced between hardware with an interface and computer operating system kernel. Besides, Linux is one of the operating system after windows and it is organized on both traditional computer systems such as personal computer and server. In addition, Mr Razmi Bin Abdul Rahim also tells about the configuration file that exists in Linux. The server that has many 777 mostly can be easy to hack by hacker because it is open to public, meanwhile for 770 the other users cannot read and view because it is restricted.

In addition, Mr Mohd Fadzali Bin Bakar discuss about the partition and he also shows us on how making a partition for Linux. From that, the trainee can know and understand because Mr Mohd Fadzali Bin Bakar shows directly to the staff and internship students.

3.1.1.4 Google Apps Workshop

The Google Apps Workshop was conducted by Mr Mohd Nazri, IT Officer of PPKT department. He shows the benefits by using Google Apps to complete the tasks, such as Google Apps come with the unlimited storage. Besides, he also compares the Google Apps and Dropbox. In addition, the staff that use Gmail receives reminder meeting through the email, but most of them missed the important email from the department. So from Google Calendar in Google Apps it is easy to add events from email messages directly to the calendar. Mr Mohd Nazri also opens a Q&A session after the end of the workshop. If the participant wants to know details and have a question regarding the Google Apps, they can ask him. From this workshop, the trainee can know more details about the Google Apps because before this the trainee only use and did not know the benefit of using Google Apps.



Figure 3.5 Google Apps workshop, conducted by Mr Mohd Nazri

3.1.1.5 Data Science for data scientist, and future data scientist

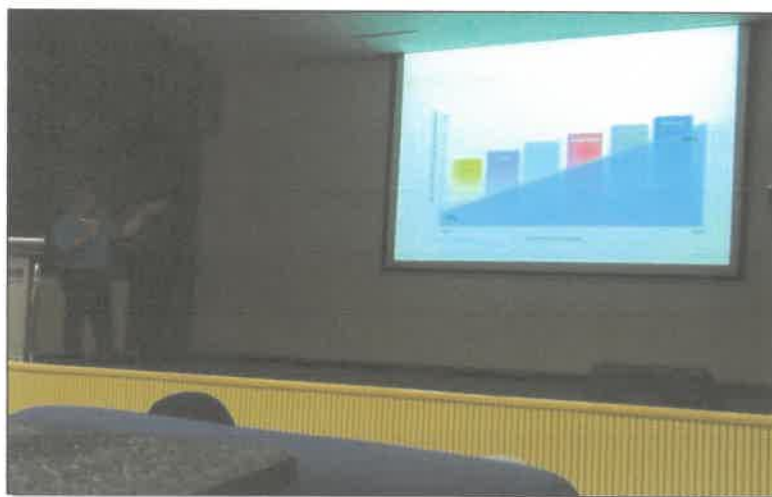
The knowledge sharing was conducted by practical student, Miss Nur Ashikin Binti Abdullah. She attends Wringle Conference 2006 at Hilton Hotel Kuala Lumpur on 9 December 2016. So her organization supervisor needs her to share the information and knowledge of what she gets from the conference to the staff and others practical student.

According to Nur Ashikin, at the Wringle Conference 2016, it has several slots from the speakers that expert in big data and mostly the speakers come from outside the Malaysia. Besides, the conference start at 8.30 AM until 5.00 PM. The knowledge sharing is only for 2 hours so she needs to share the important point and information to the audience. For the first slot, the Director of MDEC, Dr Karl Ng share what are the contribution and significant of MDEC for country. In addition, the information about the lead agency to drive the BDA initiative and the next slot was shared by Feng Yuan Liu from Singapore GovTech. The topic is about the data science for the public. He shared about the Merrey Chart: visual, conduct data wrangling and.

The next is the use cases for deep learning by Adam Gibson that tell about the deep learning which mean it is can use for the industry nowadays while Dr Alyana Medelyan share about the natural language understanding that related with the NLU analyse language through semantic. She also explains about the Google Allo which means people can communicate with the artificial intelligence (AI) but it is need to communicate through the phone. For instance, ask the nearby Italian restaurant in Google Allo so it will suggest the Italian restaurant that the users can choose. From this session, the trainee got a new information and knowledge about the data science.

3.1.1 6 ICT Security Talk

PPKT department provides a talk about the security awareness, especially in IT and ICT. The panel invited to give a talk is Mr Khairil Anwar Bin Jusoh, staff from PPKT main campus in Pulau Pinang. The topic that he discusses is about the ICT Security in USM. All internship member and PPKT staff were invited to attend this session to ensure they will get an input from the talk. Besides, nowadays technological era that sophisticated, so the people nowadays need to know the usage of technology that related to social media. From this talk, it will give the knowledge on how to avoid the threat through email that generally all of us have an email account so from that it will find out disadvantages of online scammer and phishing.



3.6 ICT Security talk

In addition, this talk occurs in the Administrative Department Auditorium, HUSM Kubang Kerian. Besides, the trainee also can learn the new information that delivers by Mr Khairil Anwar itself.

3.1.2 Electronic Publishing/Design

The trainee had given the responsibility in electronic publishing include to design an organizational chart, information about Person In Charge (PIC) and design bulletin board for 5S Program. The software to design all these things is by using Adobe Photoshop CS6 and Adobe Illustrator SC6. Adobe Illustrator CS6 is a vector graphics editor that developed and marketed by Adobe Systems. The Figure 3.10 shows the task that creates by using Adobe Illustrator CS6 while Adobe Photoshop is the premier photo editing software tool available. Whether working on a web page, power point presentation, or a document to be printed. The trainee used this software because it's easy to learn and use this software because before this, the trainee always uses to design a brochure, poster and banner.

3.1.2.1 Design Staff Movement Chart

The trainee is required to provide a staff movement in PPKT department. This is because to notify others staff either they available or not at their office or workplace. Besides, this is also for 5S program and all the staff need to ensure the PPKT is always in a good environment, clean and all the equipment need to be arranged and the staff has a responsibility to manage the equipment. In addition, the staff movement can be created in creative way and unique so it can be more interesting. It is used a cover CD and CD so the staff can spin the CD to let them know where is she/him right now. Figure 3.7 shows the example of staff movement in PPKT. The software used for this task is Adobe Photoshop CS6.



Figure 3.7 Diagram of the example of staff movement in PPKT

3.1.2.2 Organizational Chart design

The project was assigned by Mrs Azlizawati Binti Ab Latiff, the trainee needs to create one organizational chart for Technical Section while others internship student needs to create organizational for Administration Section, ROR Section and Big Data Section for 5S program and the trainee was chosen to create an organizational chart for Technical Section. Before proceed to create this organization chart, trainee had a meeting with Mrs Azlizawati and others internship member to know the details of staff information that need to arrange in the organizational chart. Besides, the trainee also shows the progress to Mrs Azlizawati Binti Ab Latiff to ensure she can give her opinion to get better results.



Figure 3.8 Organizational Charts for Technical Section

3.1.2.3 Design information for Person in Charge (PIC)

After completing the task given by staff before this, the next task was assigned by Mrs Rus Noraida Binti Mustapha. The task that needs to provide is PIC for 5S Program on 16 September 2016. All the staff busy to manage their work before the program happens and all the staff also take part to do their work. The trainee needs to provide the PIC about the staff who has a responsibility to manage and care the equipment and room in PPKT department. All the equipment needs to be clean and organized to ensure the way in PPKT department is always clean so the staffs needs to make sure the equipment is clean and function well for staff to use. Furthermore, in the PPKT department, it has a “Klinik PC”. “Klinik PC” is a place for maintenance service for the clients because all the equipment that damage will be repaired by technical support staff. So the room should be clean and all the hardware must be arranged.

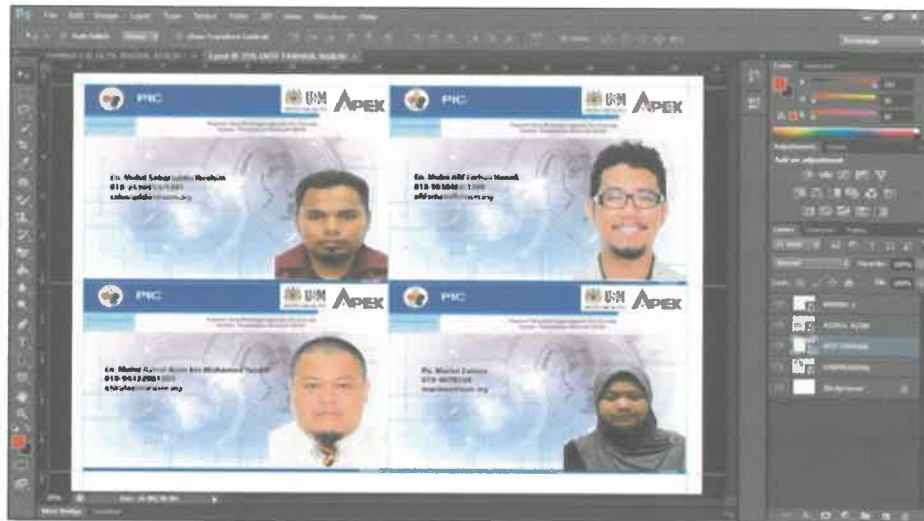


Figure 3.9 Diagram of PIC for 5S Programme

3.1.2.4 Bulletin design (Information Board)

The trainee had given responsibility design and arranges the pieces of information on the board outside the PPKT office. The task was assigned by Mrs Azlizawati Binti Ab Latiff. After getting all the information from Mrs Azlizawati, the trainee needs to arrange to ensure all the information is structured. Information board about the 5S Programme can be viewed by visitors so to attract the visitor to read the information, it must an attractive.



Figure 3.10 Arranged the information on board

3.1.3 Technical Support

The trainee also involved in technical support, including register USM Secure for new student that register in Medical School Hospital Universiti Sains Malaysia and update application of hospital information system series (1) in all wards.

3.1.3.1 Register USM Secure for New Student

PPKT department has a responsibility to manage the IT service to their clients. The trainee was asked to help the staff to register and configure the USM Secure for new students who register for new intake in USM health campus. Besides, the new students need to give their personal details include an IC number to register for USM Secure. In addition, the username will be used USM email and password will be determined itself by students. For the next usage, students are able to log in and use the WIFI service in USM health campus. The section that responsible to do this task is the technical support section that needs to setting up new users' accounts and profiles and dealing with password for students and staff.

From this activity, trainee can learn how the staff set up installing and configure the laptop and computer during the registration and trainee also can get new knowledge from the activity that they join and involve.



Figure 3.11 Diagram of the student who gives their personal information to key in into the system

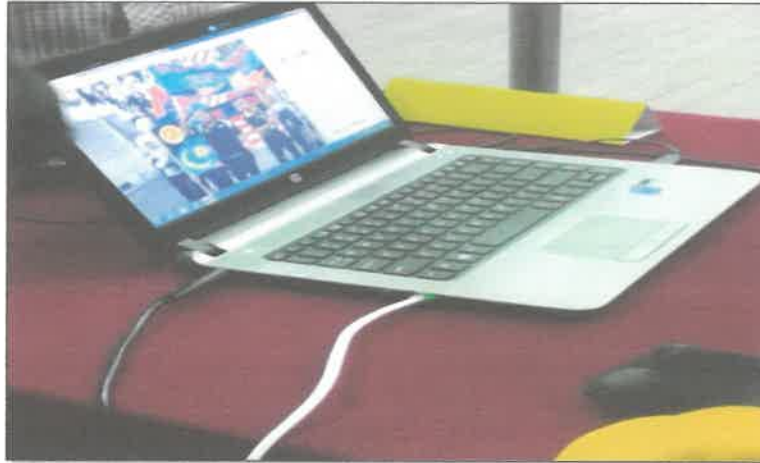


Figure 3.12 Laptop used for registration USM Secure

3.1.3.2 Update application of hospital information system series (1)

The trainee had given the responsibility to update application of hospital information system series (1). The staff in PPKT department will be divided into several groups to simplify work to update system in all wards and department. Besides, the trainee will work under Mrs Nurul Asyikin Mamat Seman and Mrs Nurul Anis Ramli. The staffs need to complete this work within four (4) days before the end of this month.

For the first day, the trainee will be updating the system and link website, inventory information record/asset in all departments such as printer, computer, photostat machine in ward of 4 southern parts (4S). After complete, the trainee needs to put the sticker on the computer as a sign that computer is already updated. For the beginning, Mrs Nurul Asyikin Mamat Seman taught the trainee the step on how to update the current version of the system and record all the inventory/asset and before the groups start go to ward, it has a briefing from the leader to ensure all the staff and practical student understand clearly. The function of these systems that used in HUSM is to make the task easier and faster because the medical official and staff nurse can prescribe the medicine by using these systems and pharmacies can get all the information through the system.

For the updating the system, the trainee need to uninstall Eset 5 before install the current version of Eset 6. Besides, for the current version, it is added web threat detection for threats caused by browser vulnerabilities or browser plug-ins (Java, Flash, Silverlight). After complete the installation, the trainee need to update link webstart that available and frequently use in computer by change the URL. For instance, C:\this\webstart\webstart.exe. <http://auth.kk.usm.my/this/apps/windows/files.xml>. The list of applications that used such as Lifeline, LIS, Mini IMS, Mini SPIFA, Aplikasi Laporan Kejururawatan (ALK), Aplikasi Proses Kejururawatan (APK) and Aplikasi Pengurusan Forensik (APF/Foensik), Result, LIS-CWSys and Online Prescription (all clinics). The IT equipment in all departments needs to have a serial number and it is must be same with the equipment.

For the last day, the trainee goes to Klinik Pakar Perubatan (KPP) HUSM to update the URL website in the examination room. Besides, in KPP it has a 30 room and each room has a two (2) computers so the trainee need to update the URL website in all computers. The leader for this day is Mrs Tuan Arifatul Binti Tuan Soh and all the internship students need to follow the instruction from her.

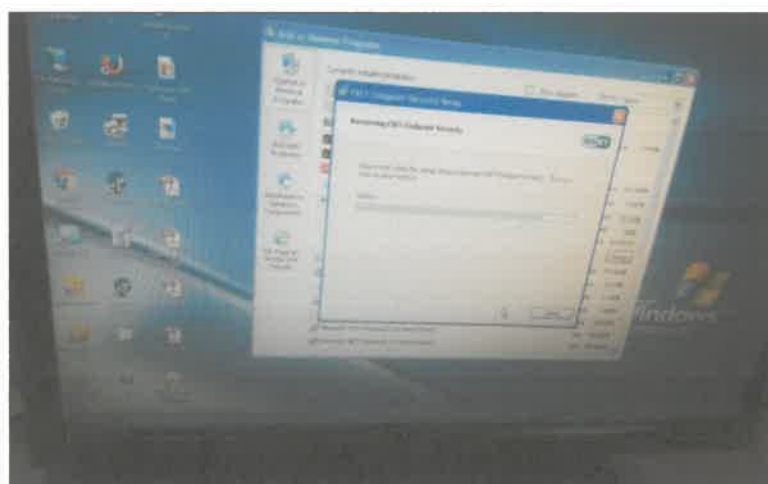


Figure 3.13 Diagram of assignment schedule

3.1.4 Event Management

Event management involves applying project management practices to designing, planning and coordinating special occasions such as forum, event, fund raisers, sporting activities and other affairs. The trainee also has a chance to join and help staff to handle an event for PPKT department.

3.1.4.1 IT Conf-Ex (Seminar Informasi CAKNA Teknologi (ICT) 2016

The PPKT department will create the event for once in every two (2) years. All the staff and internship students will be joining this event and help each other to ensure this program will be run smoothly. The ITConf-Ex Event was planned three months before the date and it is having a committee to ensure all the staff will take the chances to do their part in this event. The project director for the event this time is Mr AzmanZaifikar Ehsan Bin Abu Bakar.

Before the date of the event, all staff needs to settle their work to avoid from chaos. This event runs for two (2) days, start from 28 September until 29 September 2016. The first day of the event is Forum ICT and the panels that invited for this event from the famous person that have a great experience in the technology field. For instance, Prof Dr. Zaharin Yusoff from Universiti Pertahanan Nasional Malaysia that discuss about the Knowledge Technology, Dr Mohamad Awang Lah, the founder of Neutral Transmission Malaysia Sdn Bhd (My. NeuTrans) and he have been involved in Internet activities in Malaysia more than 30 years and he also was the primary driver for Internet development in Malaysia while working in MIMOS with strong support from the government, Chief Executive Officer from 2002 until 2012 in JARING. The third panel for Forum ICT is Prof Dr Ahamad Tajudin Khader, Dean PP Computer Science USM that discusses about the Big Data in Health Care.

From this event, the trainee got a new knowledge and information from the great person in the technology field. Besides, the information will be practiced during internship and after internship because it is a great chance that trainee got since follow the internship in PPKT department.

The last day of the event, PPKT department create a workshop that related with with the IT. For instance, Google Apps, Office 365 and Security Awareness. Many participants join this workshop because they want to gain a new knowledge and take part in this event. The participants who join the workshop is among the staff, students and visitors because this workshop open for public.



Figure 3.14 Panels for Forum ICT

3.1.4.2 Event of “One Library, Many Stories

This event was created by Nur Hafiezah Binti Shamsuddin, internship student at Resource Centre Sekolah Menengah Sains Tengku Muhammad Faris Petra (SMSTMFP). This event will invite Mrs Wan Emillin Wan Alli, Librarian/Head of Reference and Research Division of Hamdan Tahir Library USM Health Campus as a speaker for the closing ceremony on 09 November 2016. This event was created to fulfil the annual activities of the SMSTMFP Resource Centre under Mrs Siti Fauziah

Noor. The trainee was invited to become one of the committee to handle this event to ensure the trainee can gain knowledge, experience and apply a skill and capability that has been learned from university to this event. Besides, the trainee also got a permission to give her commitment to this event that occur on 06 November until 09 November 2016. The venue is Nilam Room SMSTMFP and all the committees that responsibility to manage this event are a resource center student because it is to ensure they can gain experience and soft skill in handling the event and after they finish their study in SMTMFP they will further their study in university so from that they already know on how to manage the event. The teacher that responsible in managing the Resource Center of SMSTMFP is Mrs Siti Aminah Safien and Mrs Mariah.



3.15 Prize division session to the winners

Before the program started, the trainee needs to go to SMSTMFP to clean Nilam Room and arrange the equipment in the room to ensure during the event it doesn't have a problem with the equipment. The resource center students give their cooperation to help us to clean Nilam Room and all of them give their full attention if the trainee gives an instruction to them. For the first day of the event, the committee provides an educational game to the students who come and join the event. For instance, Spell-It-Right, Bookface Photo Contest, Alphabetical Win and BINGO. All the students show their interested in these games until the last day of the event. For the winner of each

educational game will provide a prize to them. It is because to attract them to play seriously and show their interest for each game.

For the closing and officiating ceremony, Mrs Wan Emillin Wan Alli will give their talk and sharing knowledge about the library and her experience about the career of librarian. During the sharing knowledge session, it seems the students give their attention and interest to listen the knowledge that relayed by Mrs Wan Emillin Wan Alli. The event end at 2.30 PM and before going back all the committee will clean up the Nilam Room.



3.16 Closing and officiating ceremony from Mr Ibrahim Samat as a Senior Asst of
Students Affair SMTMFP

3.2 Special Project

The trainee got a special project from organization supervisor, Mr Mohd Darimi Mohd Yusoff after two weeks start industrial training in PPKT department. The main task of the system that trainee needs to do as a special project is to upgrade and enhance system from the existing system. The system that will be developed is “Sistem Kemasukan Pelajar Latihan Industri PPKT”. The duration to complete the special project is about 5 months, starting August 2016 and expected to be complete on December 2016.

3.2.1 Project Overview

After getting a final decision about the system that need to be upgraded, the trainee asks the detail information from Mr Mohd Darimi Yusoff and administrative assistant PPKT, Mrs Saburhabevee about the information from the previous system. The trainee got information based on the Mr Mohd Darimi and Mrs Saburhabevee tell to the trainee. Based on the information, the trainee is also learning and look more details the previous system. From the previous system, the trainee can imagine and think the new information and a requirement that should be upgraded in the system that will be developed.

Furthermore, the previous system did not run and use by this department so the PPKT department does not have any computerized system that can minimize the time consuming about the student application that want to perform industrial training in PPKT department and PPKT department also use the manual ways in order to receive the internship students. Besides, the previous system only enable to the admin because the admin needs to key in all the details of the student information in the system. It also needed a time consuming to the admin because the admin still needs to provide a manual ways to keep all the details student. So the trainee wants to upgrade the system to ensure the students can apply the application form without walk in or post to the

PPKT department. If the application was successful, the students need to wait for the official letter from PPKT department.

Before this, the students need to walk in or post all the letters such as cover letter from university, transcript, resume and others certificate that need to get a confirmation and verification from the parties concern. So it needs a time consuming and procedures must be taken to ensure the administrative assistant receives all the letters. From the system, the students can submit the application from the system. Using the manual ways, the forms also can make difficult to administrative assistant to keep all the forms from students because the document increasing and need a lot of files to store it. By using this system, if administrative assistant need to save a copy of the student application so she can print out through the system so the probability the forms lost is less.

3.2.2 Problem Statement

The problems that have been received in PPKT department is as follows:

3.2.2.1 Need more storage space and systematic method to keep the student information

To keep information about the internship student need a specific file because admin need to arrange the information about the student in systematic arrangement. Besides, the trainee sees the file that keeps student information too thick. So the trainee has an initiative to develop a system to ensure all the students' information will be saved in the database. If the admin needs to view student information or want to make a reference, the admin can view through the system and print out.

3.2.2.2 Difficult to manage the previous system

Before this, the previous system is only created for admin. It is seen that the admin has a difficulty to key in each of the details of student information in the system. Besides, the admin also manages the student application through the manual. The trainee upgrades the system to ensure it is give initiative to the staff to reduce time consuming.

3.2.2.3 Time consuming

If the admin wants to search the students' information from the file, it needs a time because the admin need to search each of the details of the information that she need. From the system that the trainee develops, the admin can view the student information who wants to apply their industrial training or successful application through the system. It saves the time because all the details there is in one same place.

3.2.2.4 The information do not secure

The student information not too secure because it only keeps inside the file. Besides, other staff also can see and takes forms without any control even the information is not confidential. If there are have a system, others staff did not easily search the student information because to log in into the system it needs a username and password that already register for admin to log in. So other people cannot easily search the student information without admin permission.

3.2.3 Objective of the System

The primary objective of the system is to support development activity in the PPKT department. This system clearly identifies that to become useful and give benefit to the organization. The specific objectives of the system are:

3.2.3.1 To minimize the usage of paper base in PPKT department

3.2.3.2 To improve the function of the system

3.2.3.3 To speed up the time consuming

3.2.3.4 To manage student information securely for student who have applied for industrial training in PPKT department

3.2.4 User Target

The focus of user target for this system is admin PPKT, organization supervisor and students.

3.2.4.1 Admin PPKT

The person that has a responsibility to give action and approval to the student's application either their application accepted or not. The admin PPKT also need to ask staff from registrar department HUSM about the industry training student intake before she gives an action to the students. Besides, the admin PPKT can access and view all the student information and can view the statistic of application from the students who apply the application.

3.2.4.2 Coordinator industrial training PPKT

The coordinator can view the log book from the students and give remarks to the information that students write through the system. The organization supervisor also can view the statistic of application from the students who apply the application.

3.2.4.4 Students

Students can apply and submit their application through the system by filling their application form before they can get the application status after one month they submit the application by clicking the "Semakan Permohonan" button. The status will be appearing either they accepted or not and if students accepted to undergoing industrial training in PPKT department, the admin will send acceptance letter to the student.

3.2.5 A Tool Used

There are several tools that have been used for developing the “Sistem Kemasan Pelajar Latihan Industri PPKT”:

3.2.5.1 Hardware

In the process of developing a special project, the hardware that has been used is:

3.2.5.1.1 Compaq Notebook

- i. Intel (R) Pentium (R) Dual CPU T3400 @ 2.16GHz 2.17GHz
- ii. 2.0 GB DDR2
- iii. Windows 7 Ultimate 32bit

3.2.5.2 Software Specification

The software specification is an operating system and all other applications, or tools used for the development of the proposed system that include the operating system and other applications that are compulsory for the system to be developed and organized:

3.2.5.2.1 Notepad ++

Notepad++ is a free (as in "free speech" and also as in "free beer") source code editor and Notepad replacement that supports several languages. Running in the MS Windows environment, its use is governed by GPL License.

3.2.5.2.2 Adobe Photoshop CS6

Adobe Photoshop is the premier photo editing software tool available. Whether working on a web page, power point presentation, or a document to be printed. Photoshop can be used to enhance your images. Participants will learn about image file types, cropping images, compositing (putting several images together), ghosting images (for use as web page backgrounds), using layers, creating masks, applying filters and formatting text with bevels and other effects.

3.2.5.2.3 Microsoft project

The application is designed to assist project managers in developing plans, assigning resources to tasks, tracking progress, managing budgets and analyzing workloads. Microsoft Project creates critical path schedules, although critical chain third-party additions are available from Prochain and Spherical Angle. Schedules can be resource levelled. The chain is visualized in a Gantt chart. After that, each resource can be assigned to multiple tasks in multiple plans and each task can be assigned multiple resources. Microsoft Project schedule task work based on the resource availability as defined in the resource calendars.

3.2.5.2.4 Microsoft Visio

Microsoft Visio is an application used for drawing layouts, blueprints, flowcharts, schematic diagrams etc. The trainee creates a context diagram, data flow diagram and entity relationship diagram by using this software.

3.2.5.2.5 Windows 7 Home Premium

Windows 7 is a major release of the Microsoft Windows, was available in six different editions: Starter, Home Basic, Home Premium, Professional, Enterprise and Ultimate. Only Home Premium, Professional, and Ultimate were widely available at retailers. The other editions focus on other markets, such as the developing world or enterprise use. All editions support 32-bit IA-32 CPUs and all editions except Starter support 64-bit x64 CPUs. 64-bit installation media is not included in Home-Basic edition packages, but can be obtained separately from Microsoft.

3.2.5.2.6 XAMPP v3.2.2

XAMPP stands for Cross-Platform, Apache, MariaDB, PHP and Perl. It is a simple, lightweight Apache distribution that makes it extremely easy for developers to create a local web server for testing purposes.

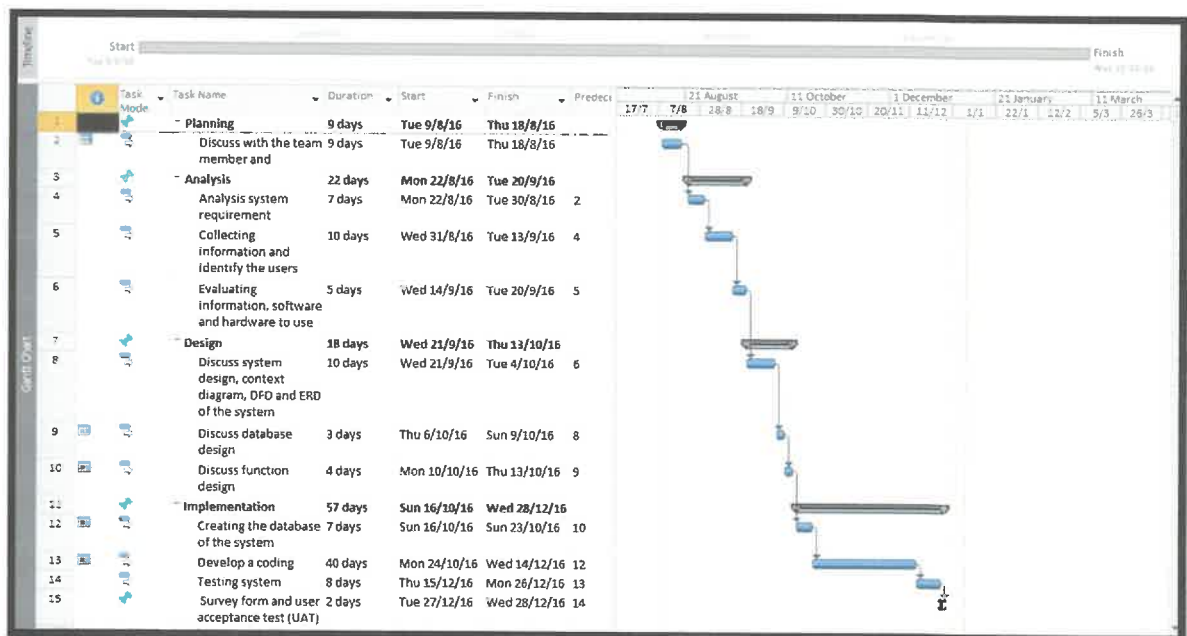
3.2.5.2.7 Browser List

- i. Google Chrome

Google Chrome is a freeware web browser developed by Google. It used the WebKit layout engine until version 27 and, with the exception of its iOS releases, from version 28 and beyond uses the Web Kit fork Blink.

3.2.6 Project Timeline

The duration to develop a “Sistem Kemasukan Pelajar Latihan Industri PPKT” start August 2016 until December 2016 and it will take five (5 months) to be complete. The system already store in the local host Mr Mohd Darimi Bin Yusoff, coordinator industrial training PPKT. In addition, the system already finish until implementation because it is needed to be tested to ensure the system will give benefits to the department. In addition, this system will be used after getting an order from the Mr Hamdan Bin Ismail, PPKT Deputy Director. It is because the system need to be reviewed by application development staff to ensure the system is meet the requirement of the organization.



3.17 Project Timeline for developing “Sistem Kemasukan Pelajar Latihan Industri PPKT”

3.2.7 Context Diagram

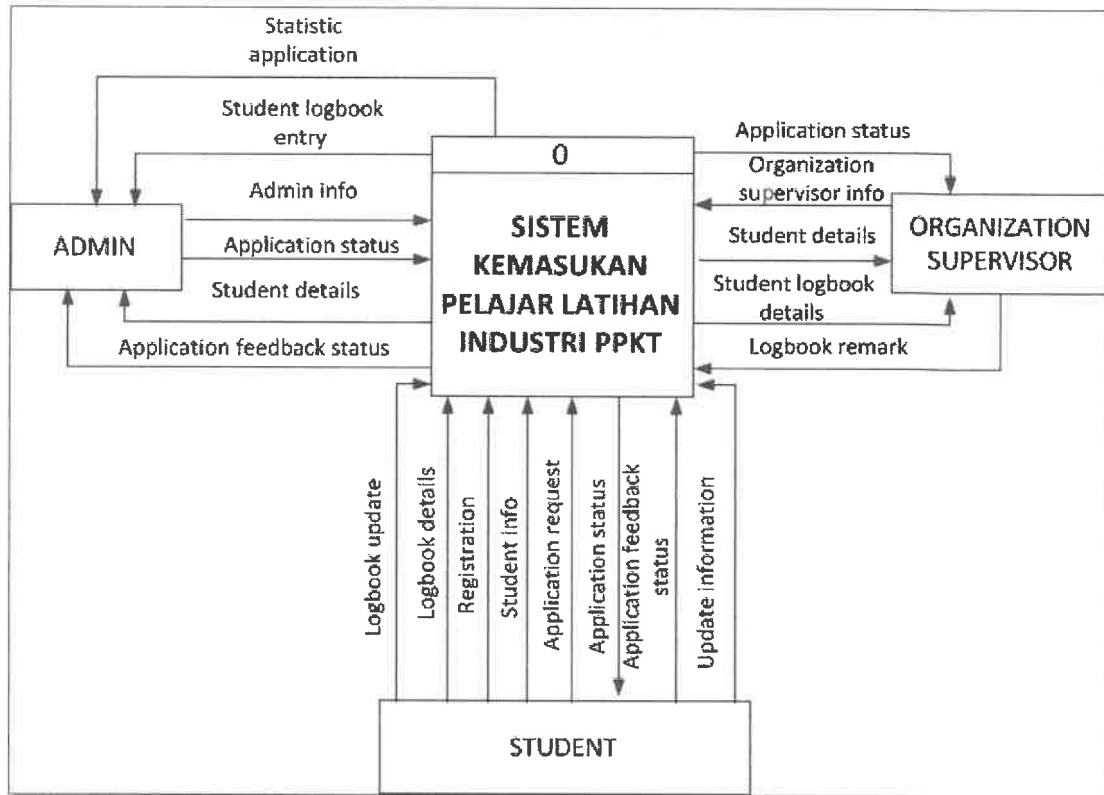


Figure 3.18 Diagram of context diagram

3.2.8 Data Flow Diagram (DFD)

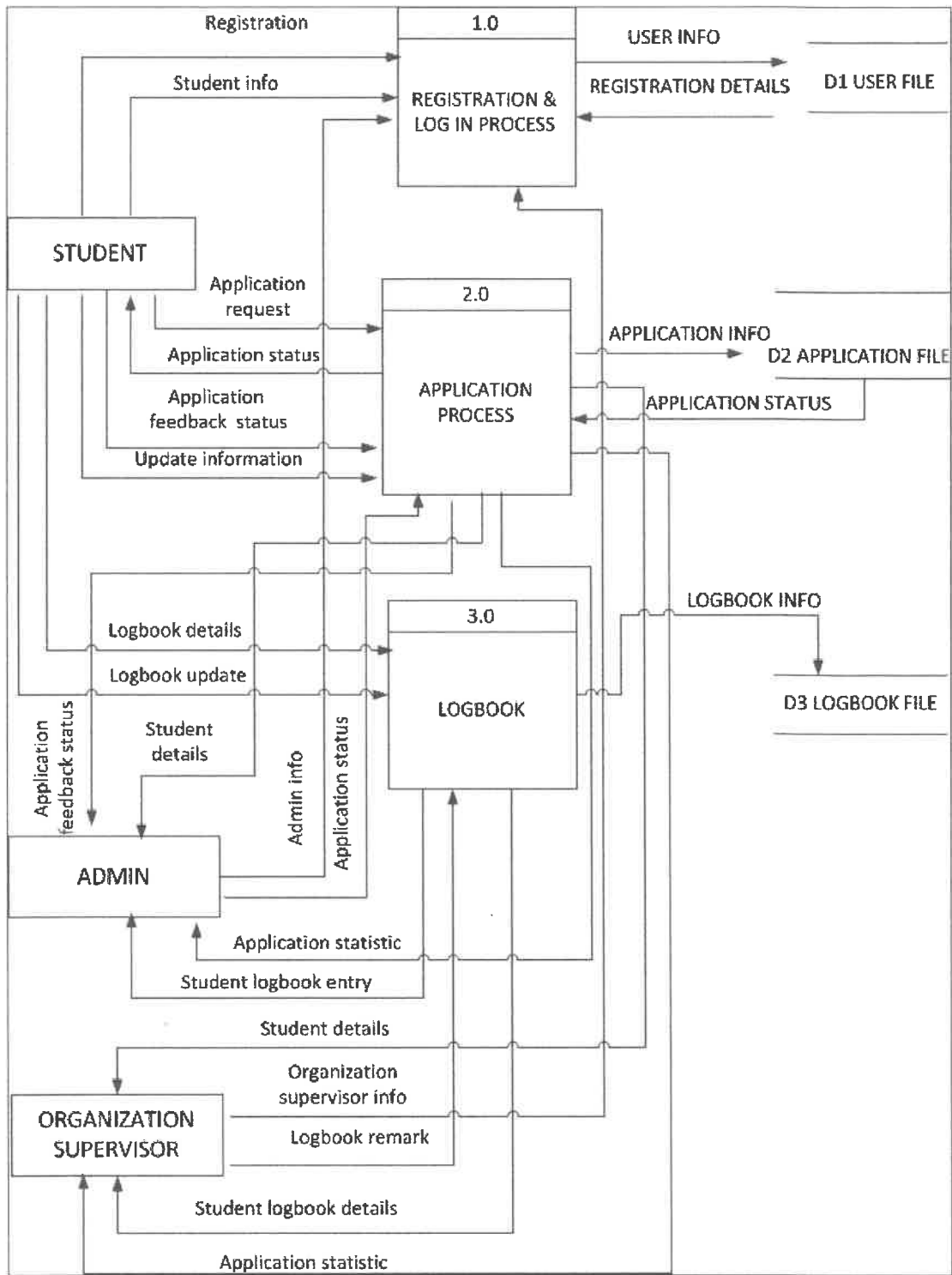


Figure 3.19 Diagram of DFD

3.2.9 Entity Relationship Diagram (ERD)

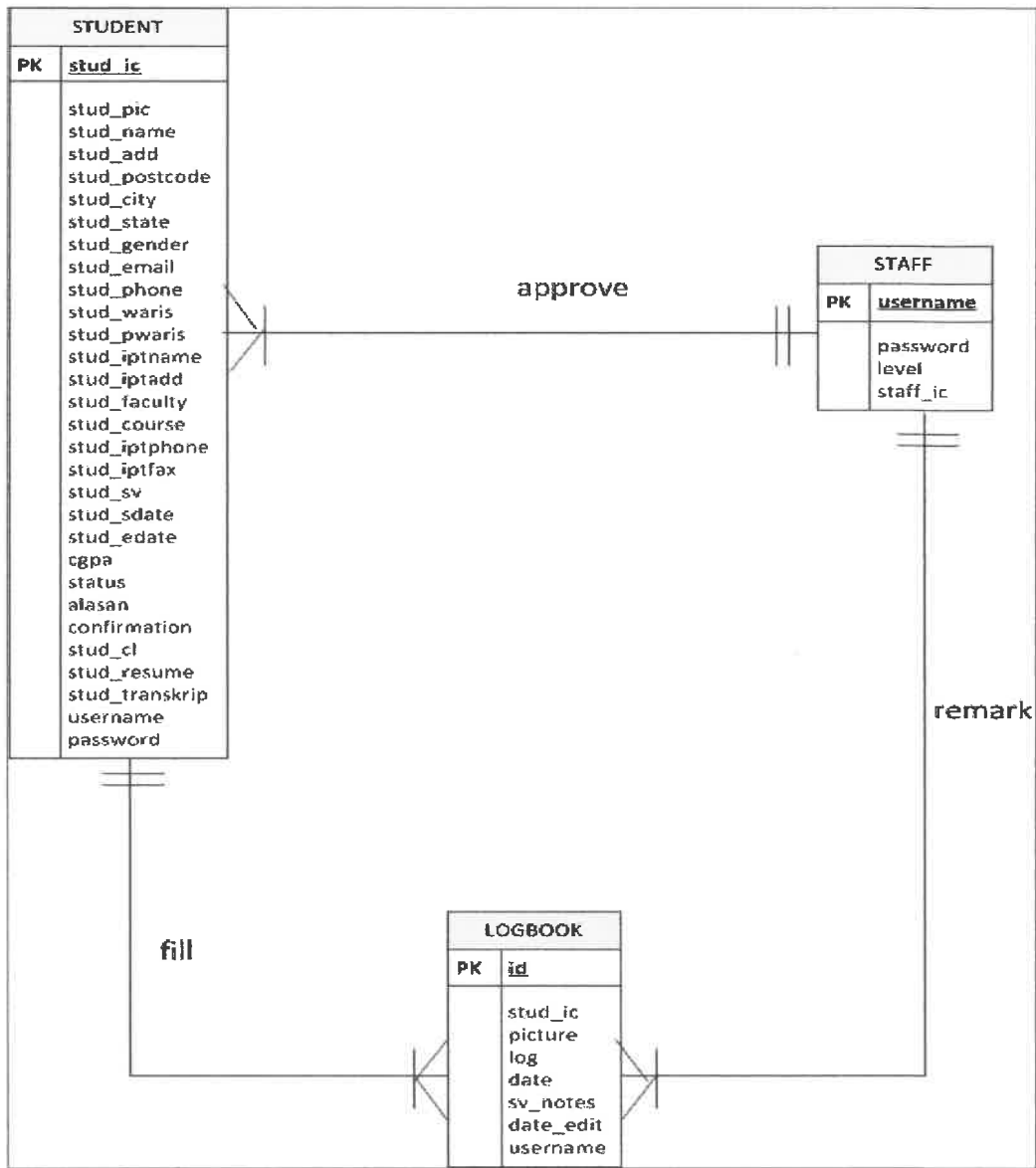


Figure 3.20 Entity relationship diagram

3.2.10 Business Rule

1. Each student can be approved by one staff

One staff can approve many students

2. One student can fill many log books

Each log book can be filled by one student

3. One staff can remark many student log book

Each log book can be remarked by one staff

3.2.10.1 Data Dictionary

Table 3.1

List of Data Dictionary

TABLE NAME	ATTRIBUTE NAME	CONTENT	TYPE	FORMAT	PK OR FK
Student	stud_pic	Student picture	Longblob	#####	
	stud_name	Student name	Varchar (40)	XXX999	
	stud_ic	Student IC	Varchar (20)	XXX999	PK
	stud_add	Student address	Varchar (100)	XXX999	
	stud_postcode	Student postcode	Int (10)	9999	
	stud_city	Student city	Varchar (25)	XXX999	
	stud_state	Student state	Varchar (25)	XXX999	
	stud_gender	Student gender	Varchar (10)	XXX999	

stud_email	Student email	Varchar (30)	XXX999	
stud_phone	Student phone	Varchar (15)	XXX999	
stud_ipname	Student IPT name	Varchar (50)	XXX999	
stud_ipadd	Student IPT address	Varchar (100)	XXX999	
stud_faculty	Student faculty	Varchar (50)	XXX999	
stud_course	Student course	Varchar (50)	XXX999	
stud_ipphone	Student IPT phone number	Varchar (15)	XXX999	
stud_waris	Student heir	Varchar (50)	XXX999	
stud_pwaris	Student heir phone number	Varchar (20)	XXX999	
stud_ipfax	Student IPT fax	Varchar (30)	XXX999	

stud_sv	Student supervisor	Varchar (50)	XXX999	
stud_sdate	Student start date	Date	#####	
stud_edate	Student end date	Date	#####	
cgpa	Student CGPA	Varchar (20)	XXX999	
status	Status of the application	Int (20)	9999	
alasan	Comment for unsuccessful application	Varchar (100)	XXX999	
confirmation	Student feedback application status	Varchar (50)	XXX999	
stud_cl	Cover letter from university	Blob	#####	

	Stud_resume	Student resume	Blob	#####	
	Stud_transkrip	Student transcript	Blob	#####	
Staff	username	Staff username staff to log in	Varchar (100)	XXX999	PK
	password	Staff password to log in	Varchar (50)	XXX999	
	level	Level to determine staff page	Int (10)	9999	
	staff_ic	Staff IC	Varchar (20)	XXX999	
user	username	Student username to log in	Varchar (100)	XXX999	PK
	password	Student password to log in	Varchar (50)	XXX999	

	email	Student email	Varchar (100)	XXX999	
logbook	Id	Student ID	Int (11)	99999	PK
	stud_ic	Student IC	Varchar (20)	XXX999	
	Picture	Picture of the activities (if any)	Blob	#####	
	Log	The task implemented	Longtext	XXX999	
	Date	The date task implemented	Date	#####	
	sv_notes	Supervisor remark	Longtext	XXX999	
	date_edit	Edit date	Date	#####	
	Username	Student username	Varchar (20)	XXX999	

CHAPTER 4: CONCLUSIONS

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

During the industrial training period, the trainee gain and acquire new knowledge and skill to ensure the trainee can be more confident and can apply the knowledge after finish the industrial training. Besides, the major skills that the trainee got during industrial training is communication skill and soft skill. During the semester 5 in the subject 'English for Professional Interaction (ELC 650)', the trainee learns about the communication skill and how to interact with the clients and people. It is because the trainee need to interact with the organization supervisor about the special project and daily activities that already done. Besides, the trainee also needs deal and communicate with the staffs in PPKT department because the daily activity may come from these staffs so the trainee needs to know how to communicate with the proper way to the staffs and also others internship students.

In addition, the trainee also can apply a problem solving during industrial training because in the subject 'Decision Theory (IMS552)' in semester 4 and 'Information Analysis for Decision Making (IMS 502)' for semester 5, the trainee has already learned about on how to solve the problem. So the trainee can practice the knowledge during study in the industrial training.

4.1.1 Knowledge sharing session

The training uses the knowledge and experience in attending and handling the knowledge sharing session from the subject 'Information Systems Interaction & Consultation (IMS556)'. Although the trainee did not have a chance to share the information during knowledge sharing session to the staffs and others industrial training students but the trainee also tell the tips and information that related to the communication and presentation skill to the staffs and industrial training students. In the

PPKT department, they always provide a sharing knowledge session to the staffs and industrial training students. Mostly, the topic that will be shared related to the big data and database management system. From these knowledge sharing sessions, the trainee can gain a new knowledge and provide an opportunity for the trainee to gain something new and meaningful.

4.1.2 Technical support

The trainee also involved with the system development task from the PPKT department, which is the trainee need to register a username and password for new intake students who register their study in HUSM because HUSM provide a free wifi to the students, staff and also visitors but the students and staff need to register their information and identity to the PPKT department before using the free wifi service. Before that, the trainee need to configure and arrange the laptop before start to register and the staff from a technical support give their help to ensure the laptop can be used.

In addition, the trainee also follows the staff to change the url website, record inventory/asset, update the system and antivirus in all computers in the wards and the department in HUSM. For these tasks, the trainee had applied the knowledge and skill from 'Technical Support Service and Maintenance for Information Agencies (IMD 259)'. The trainee learns this subject during diploma so for these tasks the trainee can expose what the trainee already learn to ensure the activity can give knowledge to the trainee. From these activities, the trainee can learn something new about the maintenance and knowledge on how to maintain the existing system to ensure it can help users to minimize the manpower and time.

4.1.3 Electronic Publishing/Design

The trainee also had given the responsibility to design the poster, organizational chart, PIC for 5S program. By involving with these activities, the trainee can expose the capability to design the task given by the staff. Besides, the software used to design these tasks by using Adobe Photoshop CS6 and Adobe Illustrator CS6. The trainee had applied the skill learnt from the 'Electronic Publishing (IMD258)' & 'Instructional Media Application (IMD 206)' during diploma. Even it is already long pass, but the trainee still can apply the skill to create a creative design. From this activity, the training can explore more details about the function of each tool in these software to ensure the trainee can learn a new skills and knowledge.

4.1.4 Event management

During industrial training, the trainee is also involved with the event management and handling an event. The experience gathered from handling an events and programs during studies also had benefited to the trainee in order to communicate with the staffs, speaker and guest. The subject that related to this activity is 'Legal and Ethical Aspects of Information System (IMS657)' & 'Management of Libraries and Resource Center (IMD 306)' because during the study, the trainee need to create and handle an event for this subject. Besides, the trainee also involve with the association which is Society of Information System Management Association (SISMA) that need the trainee to handle a few functions and events so from that, the trainee have an experience in handling an event and can apply what has been learned from the study to the industrial training. From that, the trainee can be more confident and brave to communicate with other people because it can make the trainee improve the communication skill.

4.2 Personal thoughts and opinion

During five (5) month of industrial training in PPKT department, the trainee learns much knowledge from the staffs in this department. Besides, the trainee feels that the organization provides a lot of opportunities and supportive environment from the top level management, supervisor, staffs and also other industrial training students. This is because the industrial training students who undergo their industrial training in PPKT department in 20 people from a variety of university and college that related to the IT field. So the trainee can meet and exchange the information from them to ensure all of industrial training students can learn new knowledge. Besides, a positive work environment makes employees feel good about coming to work and it is also will provides the motivation to sustain them throughout the day.

The staffs also give their cooperation if there are have an event to handle and small occasion among the staffs from PPKT department. Besides, they also have a great experience and skills about the technology and IT, especially in application development section, technical support and infrastructure section because in this section they need to meet the users and clients. Besides, all new application development and improvement present system will be standardized by Application Development Unit by gathering all the developer from various units.

The staff also expert in configuring and installing computer hardware because most of them have a certificate from the best university and polytechnic that related with the technical support to ensure they can solve the troubleshooting system and network problems and diagnosing and also solving hardware or software errors. From that, industrial training students can learn how to solve the problem, especially about the technical support.

4.3 Lesson learnt

Many lesson learn that the trainee gain during five (5) month of industrial training in PPKT department. For instance, the trainee has learnt to be more independent and more confident, improve the communication skills among staff and industrial training students, good teamwork, time management and punctuality.

4.3.1 Independence and increase self-confident

The trainee can become more independent because during industrial training, after got a special project from organization supervisor, the trainee need to search and find all the information that need to develop a system. Early industrial training, the trainee also tries to complete the task itself that given by the staff to ensure without others help, the trainee can complete the task within the time given. If the trainee got a problem during to complete the task, the trainee will ask the staff to get a help.

Furthermore, the trainee also can increase self-confidence by communicate and speak with the top level management in PPKT which is Mr Hamdan Bin Ismail as a PPKT deputy general and staffs about the IT field. From that, the trainee can learn something new from the top management and staffs.

4.3.2 Communication skill

The trainee also can increase the communication skill on how to interact with the staffs in PPKT department. Besides, the trainee also follows the staff to installing and update the system in wards and other department, so from that the trainee can increase the communication skill by dealing and interact with the clients and users. From that it will increase the self-confidence to speak with other people.

4.3.3 Time management and punctuality

During the industrial training, the trainee tries to come earlier before 8.10 AM every day to ensure the trainee can improve the time management during the study. In addition, it is important to be more punctual in work because of that it will show other people that industrial training students also have a good time management even they need to attend a sharing knowledge session or meeting with the staff. Besides, it is also important because the trainee brings the name of the university during industrial training so it is important to be more punctual. The trainee also can make sure the task will submit within the time given to ensure the staff can believe and have a good personal thought to the trainee.

4.3.4 Teamwork

The trainee also can learn about the teamwork among the staff because the teamwork is important in handling an event. Besides, the trainee also shows the good teamwork to ensure all the job duties and task will be done within the time given. During the industrial training period, the staffs also give a good cooperation and good teamwork in handling an event. If there are have an activity such as events, small occasion and communal work, they will give a teamwork spirit to ensure the task will run smoothly. If there are have a problem, they also will tell and share with the proper way to ensure all the group member did not have a hurt feeling and they will give any opinion and suggestion to solve the problem. From that, the problem can be settled in a short time because all of them give full cooperation and good teamwork.

4.4 Limitations and Recommendations

During industrial training, the training has a few limitations and recommendation about the organization to ensure the organization can improve the problem and limitation.

4.4.1 Limitations

In PPKT department, it also has a few limitations such as allowance and limited variety of task and activities.

4.4.1.1 Allowance

The limitation in this organization is allowance to the industrial training students. Nowadays, most of the government sector provides an allowance to the industrial training student to ensure they can attract and give motivation to the students to show a good performance during industrial training. So the PPKT department also can provide some of an allowance to the industrial students to ensure they can perform better and give full cooperation to this organization.

4.4.1.2 Limited variety of task and activities

The next limitation in PPKT department is limited variety of task and activities. This is because in PPKT department, the staffs in the technical support section only focus to the students who study in computer science, engineering software and technical will get the task from the staffs. The students from information system management and information technology only focus on the system that need to develop and special project. So the trainee will go and ask the staff if they are having a task to give to the trainee. In addition, they also sit separate with the information system management student and technical students while technical students room near with the technical support service room so the staff from technical support will ask them if they need help.

4.4.2 Recommendations

The trainee would like to suggest that faculty may improve the courses by providing more hands-on course, so that the students who will undergo industrial training will be well-equipped and will hands-on skills rather than only for theories learnt in class. This is because the trainee also thinks that knowledge and skills provided by faculty is necessary and useful. However, some improvement can be done by providing more hands-on course, such as maintenance and configuring the computer during lesson class to ensure the students can practice and do the hands-on skills.

The staff in PPKT department also needs to provide and give the task and activity to the industrial training student even the students from course information system management to ensure they also can learn about the technical support such as installing and configure the computer, maintain network technical service (Wired & Wife), control telecommunication technical service (Teleconference & PABX room) and monitoring and maintaining computer systems and networks. From that the trainee can improve the skill during practical training and can practice after finish the industrial training period. In addition, the trainee also can gain more knowledge about the technical task and the trainee can write the task for daily activities in the log book.

REFERENCES

- Azmanzaifikar Ehsan Abu Bakar. (2016, August, 3). Personal interview
- Kamarul Azuar Ibrahim. (2016, August, 18). Personal interview
- Md Razmi Ab Rahim. (2016, September, 22). Personal interview
- Mohd Darimi Yusoff. (2016, August, 1). Personal interview
- Mohd Fadzali Bakar. (2016, August, 8). Personal interview
- Merriam Webster. (2016). Retrieve 30, September, 2016, from <http://www.merriam-webster.com/dictionary/bigdata>
- Nur Ashikin Abdullah. (2016, December, 22). Personal interview
- Oracle Corporation. (2016). Retrieved 21, September, 2016, from <http://www.mysql.com/Products/enterprise/fabric.html>
- Pusat Pengetahuan, Komunikasi & Teknologi. (2016). Retrieved 19, October, 2016, from <http://www.ppkt.kk.usm.my/index.php/ms/>
- Tech Target. (2016). Retrieved 2, October, 2016, from <http://www.internetofthingsagenda.techtarget.com/definition/Internet-of-Things-IoT>
- The Linux Foundation. (2016). Retrieved 12, December, 2016, from linux.com/what-is-linux
- Universiti Sains Malaysia. (2016). Retrieved 21, August, 2016, from <http://www.usm.my/index.php/ms>

APPENDIX A
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APPENDIX B
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4.2 Personal thoughts and opinion

4.3 Lesson learnt

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COVER PAGE REPORT



UNIVERSITI TEKNOLOGI MARA
FACULTY OF INFORMATION MANAGEMENT

INDUSTRIAL TRAINING REPORT:

PUSAT PENGETAHUAN, KOMUNIKASI DAN TEKNOLOGI (PPKT)
HOSPITAL UNIVERSITI SAINS MALAYSIA
UNIVERSITI SAINS MALAYSIA KAMPUS KESIHATAN
JALAN RAJA PEREMPUAN ZAINAB 2
16150 KOTA BHARU KELANTAN

SPECIAL PROJECT:

SISTEM KEMASUKAN PELAJAR LATIHAN INDUSTRI PPKT

BY

SITI MAHERAN ASMIRA BT MOHD SHARI

2014214972

IM245 – BACHELOR OF SCIENCE (HONS)
INFORMATION SYSTEM MANAGEMENT
FACULTY OF INFORMATION MANAGEMENT
UNIVERSITI TEKNOLOGI MARA KELANTAN

01 AUGUST 2016 – 31 DECEMBER 2016

APPENDIX D
PHOTOCOPY OF ATTENDANCE
FORM

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INTERFACE DESIGN

SISTEM KEMASUKAN PELAJAR LATIHAN INDUSTRI PPKT

[Beranda](#) | [Tentang PPKT](#) | [Alumni Info](#) | [Pelajar](#) | [Staf](#) | [FAQ](#) | [Hubungi Kami](#)



PAUTAN DALAMAN

[Kampus Induk](#) | [Kampus Kejuruteraan](#) | [Kampus Kesihatan](#)

PENGIKTIRAFAN



PENAFIAN

PPKT Kampus Kesihatan tidak bertanggung jawab atas segala kerugian/kerosakan yang disebabkan oleh data yang diperolehi dari laman web ini.

Hubungi Kami

 Alamat : PPKT Kampus Kesihatan USA1
16150 Kubang Kerian Kelantan
 Email: ppkkt@usm.my
 Tel: 09-7671100 Faks: 097671133
 Talian Servisdesk : 09-7671111



PUSAT PENGETAHUAN, KOMUNIKASI & TEKNOLOGI

**SISTEM KEMASUKAN PELAJAR
LATIHAN INDUSTRI PPKT**

Nama Pengguna
Kata Laluan
No Kad Pengenalan

[Masuki/Reset](#)

[Pendaftaran Baru](#)

[Lupa Kata Laluan](#)

Nota - Sila gunakan kata nama pengguna dan kata laluan yang selamat untuk mengelakkan sebarang kesulitan



PUSAT PENGETAHUAN, KOMUNIKASI & TEKNOLOGI



Nama Pengguna
Kata Laluan
No Kad Pengenalan

[Masuk/Reset](#)

[Lupa Kata Laluan](#)

Nota: Sebarang kesulitan sila hubungi pegawai yang bertugas

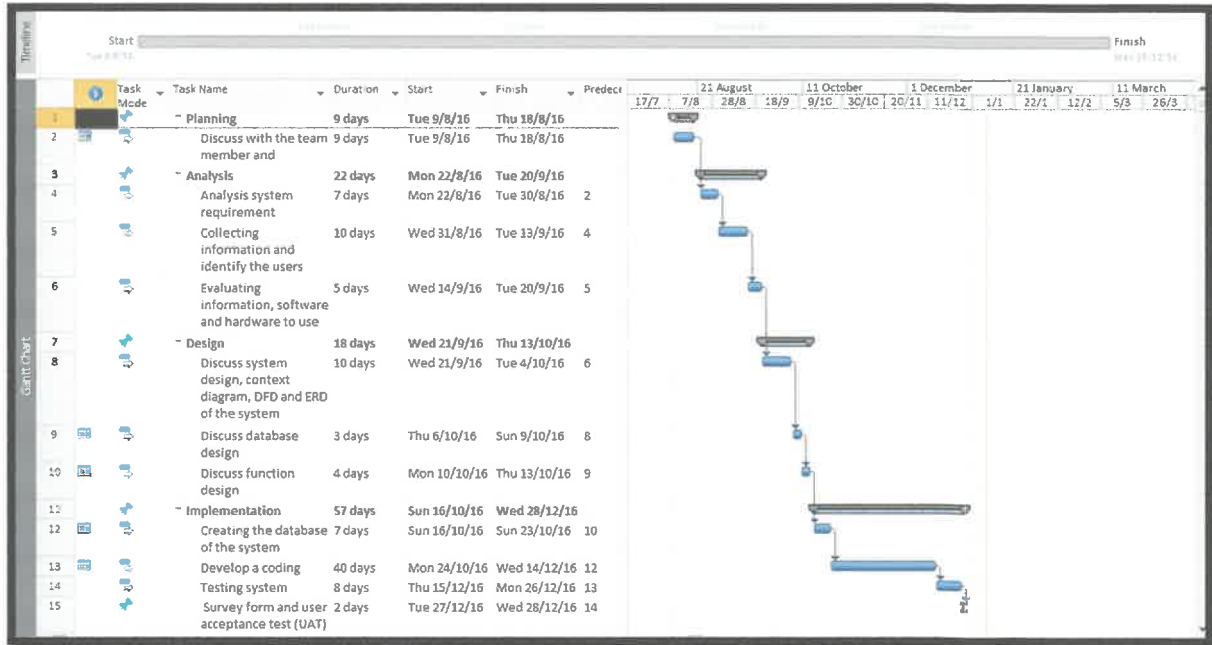
APPENDIX H
CHECKLIST

No	Description	Appendices in report
1.	Receive, read and understand the documents; <ul style="list-style-type: none"> i. Industrial Training Handbook [✓] ii. IMC690 Assessment [✓] iii. Definition of Special Project (IM225/245 Only) [✓] iv. Insurance Letter (UiTM) [✓] v. Industrial Training Report Overall Contents [✓] vi. Cover & Title Page Guideline [✓] vii. Declaration Guideline [✓] viii. Abstract Guideline [✓] 	
2.	Receive, read and understand the rubrics; <ul style="list-style-type: none"> 1. Rubric – Industrial Evaluation [✓] 2. Rubric - Individual Presentation [✓] 3. Rubric - Industrial Training Report (Overall) [✓] 4. Rubric - Industrial Training Report (Reflection Assessment) [✓] 	
3.	Receive, read and understand all the forms [✓]	
4.	Report duty to organization and submit report duty form to the Industrial Training Coordinator ('Borang Report Duty') within the first week of internship (1 – 5 March 2016). Email : izzatil.husna.arshad@gmail.com OR Fax : 09-9762156 – HEA (please put a note : "U.P : Puan Izzatil Husna Arshad") [✓]	
5.	Understand that students are NOT ALLOWED to take any leave during internship, unless for emergency leave / MC / special case (not more than 6 days in 5 months); or else the internship status is automatically FAIL . Get the permission from Organizational Supervisor before taking any leave. **Any extra leave provided by organization is not counted under this clause. Organization may provide extra leave / benefits to students, if necessary**	YES MC/LETTER
6.	Understand that NO semester break during internship.	
7.	Understand that public holidays/special leaves/weekend is different between states; follow current state during internship / organization's policy. * (put remark in the logbook)	

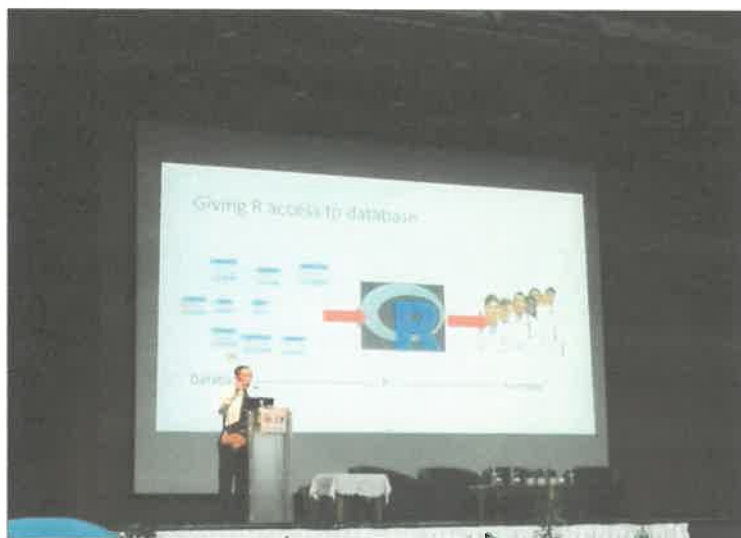
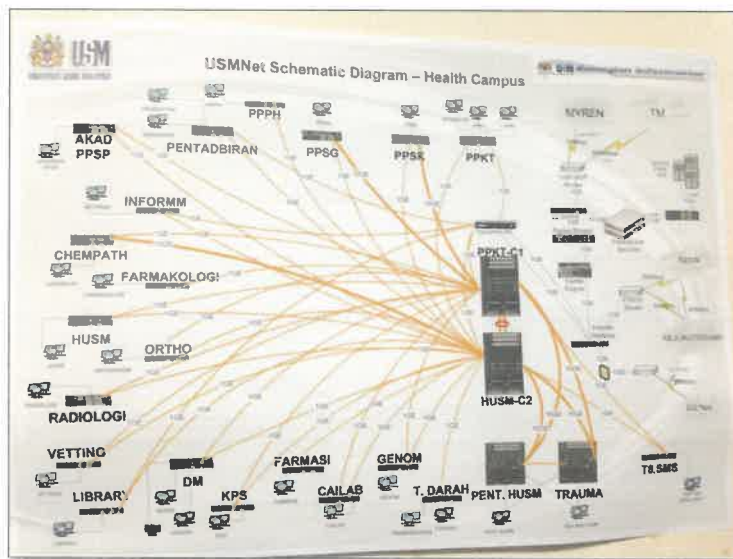
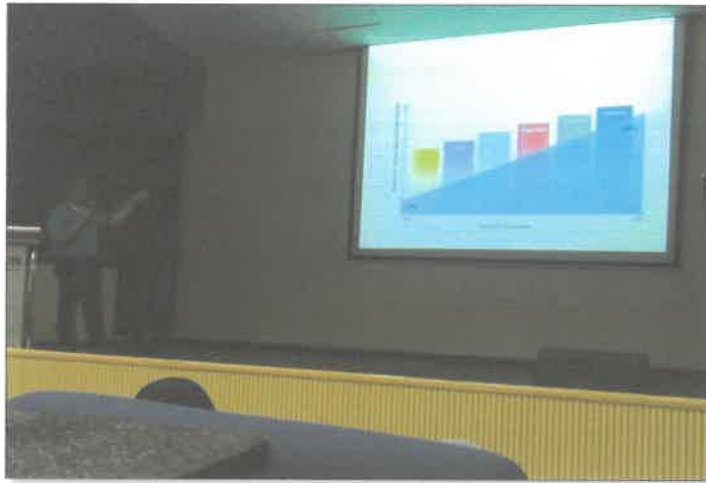
8.	Record every attendance in the form ('Borang Kedatangan Latihan Industri') or use any method provided by organization (thumbprint or punch card). [✓]	YES (Copy of attendance)
9.	Record every task given in the logbook every day. Ask the Organizational Supervisor to sign/verify on daily OR weekly OR monthly basis. [✓]	YES (Copy of logbook entry)
10.	Fill up Organizational Supervisor's details ('Template Maklumat Penyelia') and submit to the Industrial Training Coordinator once the supervisor has been assigned. (**You may include the topic for Special Project, if you already have it**) [✓] Email : izzatil.husna.arshad@gmail.com	
11.	Discuss with Organizational Supervisor regarding Special Project (Must be ISM OR IM related tasks). [✓]	
12.	Plan and strategize all the tasks given during internship (discuss with the Organizational Supervisor regarding duration for the tasks, especially Special Project). You may use the planner ('Jadual Perancangan Latihan Industri') OR make your own custom planner using MS Office / MS Project OR use the planner provided by the organization (if any). [✓]	YES
13.	Consult with your Faculty Supervisor regarding the tasks (especially Special Project) at least 3 TIMES , via <ul style="list-style-type: none"> • face-to-face (Once) • email (once : submit progress system) • phone calls • Any types of communication medium, which necessary. (3 times) [✓]	
14.	Hand over the industrial evaluation form (Rubric – Industrial Evaluation) to the Organizational Supervisor (softcopy or hardcopy, any way preferable by the supervisor). The Organizational Supervisor will make an evaluation on the student's performance. [✓]	
15.	PAY your fees (semester Sept – Jan 2017) before 02 October 2016 . Refer Academic Calendar for the date. [✓]	
16.	REGISTER for IMC690 (Industrial Training) course 29 August – 18 September 2016 – Refer Academic Calendar for the date. [✓]	

17.	<p>VALIDATE for IMC690 (Industrial Training) course 19 September – 02 October 2016.</p> <p>GUGUR TARAF: 06 October 2016 – Refer Academic Calendar for the date. [<input checked="" type="checkbox"/>]</p>	
18.	<p>Update your MUET status to the HEA (to those who not yet submitted the result/status). [<input checked="" type="checkbox"/>]</p>	
19.	<p>Have a visit from the Visiting Supervisor (from nearest campus / faculty) during internship. Prepare the evaluation form ('Borang Penilaian Visiting Supervisor'). Students may discuss or seek for opinions from the Visiting Supervisor. But approval for the tasks (especially Special Project) may only be done by the Organizational Supervisor & Faculty Supervisor. [<input type="checkbox"/>]</p>	
20.	<p>Submit the evaluation form (Rubric – Industrial Evaluation) to Industrial Training Coordinator OR Faculty Supervisor within the last week of internship before 30 December 2016. [<input checked="" type="checkbox"/>]</p>	
21.	<p>Attend the presentation (viva) at the faculty (9 Jan 2017) *subject to change. Bring along the evaluation form ('Borang Penilaian Pelajar') during the presentation. [<input type="checkbox"/>]</p>	
22.	<p>Submit the Industrial Training Report (hard cover bind, dark blue) *(8 or 9 Jan 2017) [<input type="checkbox"/>]</p>	
23.	<p>Provide a softcopy of Industrial Training Report in a CD, sealed in an envelope nicely, and attached at the back of the report. [<input type="checkbox"/>]</p>	YES
24.	<p>Attach this checklist in Appendices section. [<input checked="" type="checkbox"/>]</p>	YES
25.	<p>Attach any other necessary documents which related to your tasks in Appendices section [<input type="checkbox"/>] (i.e.: user manual,)</p> <ul style="list-style-type: none"> • photos of activities • forms • Sketches of storyboard • Sample of interface, etc 	YES

APPENDIX K
PROJECT TIMELINE (GANTT CHART)



APPENDIX L
PICTURE OF ACTIVITIES





APPENDIX M
OFFICIAL LETTER FROM SMSTMFP