

### UNIVERSITI TEKNOLOGI MARA FACULTY OF INFORMATION MANAGEMENT

INDUSTRIAL TRAINING REPORT:
PEJABAT PENDIDIKAN DAERAH MUAR
JKR 242, JALAN ARAB, MUAR, 84000 MUAR JOHOR

SPECIAL PROJECT : MEETING ROOM BOOKING SYSTEM (MRBs)

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03<sup>rd</sup> FEBRUARY 2019 - 30<sup>th</sup> JUNE 2019

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

03<sup>rd</sup> FEBRUARY 2019 – 30<sup>th</sup> JUNE 2019

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DATE OF SUBMISSION: 04th July 2019

### **ABSTRACT**

The academic report writing paper is based on the industrial training period from 03<sup>rd</sup> February 2019 until 30th June 2019 at Information Management Unit (ICT Unit) at Muar District Education Office (PPD MUAR), Muar Johor. During the practical training, trainee had been exposed to the real industrial working environment at ICT Unit and various unit at PPD Muar Johor. The first chapter of the report is the introduction which is about the background of PPD Muar that included the profile, mission and PPD Muar logo, location and organization structure. The second part of the report is about the organization or the department that trainee was placed for the practical training which is ICT Unit. This part contains of departmental structure that explained about department vision, mission and goals, department organization chart and roles of the department. The third part of this report contain of trainee industrial activities. It detailed explained trainee industrial training daily activities and special project which is Meeting Room Booking System (MRBS) for PPD Muar. The last part of the report contain the conclusion consists of application of knowledge and skills during practical training, personal thoughts and opinions, lesson learnt and limitations and recommendations.

Keywords: ict, information management department, pejabat pendidikan muar, ppd muar, uitm machang, human development unit

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My outmost appreciation to my industrial supervisors, Sir Mohd Hairin Bin Ajis (Penyelia Teknologi Dan Maklumat) and all staffs of PPD Muar in all department whose have helped me during my practical training at PPD Muar. My utmost appreciation and gratitude is extended to my faculty supervisor, Lecturer of Faculty of Information Management (FIM), Pn. Nur Shaliza Binti Sapiai for a dedication of her time and effort in ensuring my project and report of practical training excellently complete. All the kindness given is greatly appreciated.

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### **CHAPTER 1: INTRODUCTION**

### 1.1 Background History of the Organization

Muar District Education Office (Pejabat Pendidkan Daerah Muar – PPD Muar)

In 1883, the Melayu Padang School, in Parit Bakar Laut, now known as SK Parit Bakar Tengah, was the first school to be established in Muar under the leadership of Professor Daud bin Mohamad. In 1884, Bandar Maharani Melayu School was opened. His first Headmaster was Omar bin Amboh. The original building is at Masjid Jamek Muar site. Then the school moved to Jalan Maharani by the Bentayan River, and then moved to Jalan Abdullah and now on Jalan Arab. The development of English school began in 1904 with the formation of "English School Muar" (Muar High School) which is now known as Muar High School. A Teaching Force was appointed to oversee and manage schools in the Muar district and in 1957, the Education Office The Muar District was established and operated in government buildings at the Sultan Abu Bakar Building, Muar until 1970.

In 1971 began a more organized management when the Muar District Education Office was set up and placed in the master building of the Bandar Maharani Malay School led by Assistant Muar Schools Managers together with 8 staff. In 1980, in the same building, the Ministry of Education of Malaysia upgraded the Muar District Education Office building with new extra building and equipment. The Muar District Education Office is magnificent and majestic with the head of Muar District Education Officer M Zin bin Sham. Currently, the Muar District Education Office has been led by the 12th Regional Education Officer, Mr. Puniran bin Denan from September 2014 to the present.



Figure 1 : Pejabat Pendidikan Daerah Muar

The District Education Office is set up to ensure that any dimensions or elements of quality assurance in the designated education system are adhered to and implemented within each educational organization, particularly in schools. The dimensions are encompassing aspects of Organizational Management and Leadership, Curriculum Management, Student Affairs Management, Co-curriculum Management and other aspects of support such as Financial Management, Environmental Management and Physical Facilities, Human Resource Management and Development, Community Relations Management and reinforced with the approach which innovates and improves programs in education management systems.

### 1.1.1 Mission and Organization's Logo Mission

### **Vision**

Quality Education Educated People Prosperous.

### Mission

Preserving Quality Education System to Develop Individual Potential to Meet Country **Aspirations** 

Moto

Muar Sustainable Education

### **Tagline**

"Great Place to work"

Logo



Figure 2 : Pejabat Pendidikan Daerah Muar Logo

### 1.1.2 Unit Roles and Function

### **School Management Unit**

- Supervise the management and administration of primary, secondary schools including educational institutions under the jurisdiction of PPD;
- 2. Placement and Exchange of teachers in the area;
- 3. Placement and admission of pupils in the area;
- 4. Managing, managing data entry, processing reports and generating teacher data analysis through eOperation system;
- 5. Manage training for staff and staff;

### **Information Management Unit**

- Managing computer systems and hardware handling and office application software, PPD network system (LAN) and KPM network system (WAN);
- Manage, handle data entry, process reports and analysis of Education
   Management Information Systems;
- 3. Build, manage, update and maintain PPD Official Portal and security supervision relating to data intrusion;
- 4. Designing, building and supervising online and offline software or applications for the management of units;
- Provide technical support services of KPM and NRD online applications that are downgraded from time to time;
- Manage and monitor the use of 1GovUC Integrated Email System accounts project integration of public sector communications;
- Manage, monitor and implement the operation of PPD ICT equipment and schools;
- 8. Manage, monitor and coordinate Line 1BestariNet and SchoolNet operations;

### **Human Development Management Unit**

- Manage, manage data entry, process reports and generate student data analysis through APDM system;
- Plan, implement, coordinate and monitor student discipline and safety programs;
- 3. Monitor and manage hosted management programs;
- Implement, coordinate and monitor Text Book Loan Schemes, scholarships and assistance, student welfare and health;
- 5. Implement, coordinate and monitor students' motivation, guidance, counseling and career programs and drug prevention;

### **Account And Finance Unit**

- 1. Manage and coordinate PPD and day-to-day financial administration matters;
- 2. Monitor PPD financial management, PTJ schools and Non-PTJ schools;
- Manage checking and monitoring paid payments vouchers comply with financial procedures;
- 4. Manage and monitor the management of staff salaries and allowances;
- 5. Manage and monitor PPD Account Receivables, daily schools and PTJ schools:

### **Quality Management Unit**

- 1. Plan, coordinate and implement a uniform quality management system:
- Coordinate the collection, maintenance, publication, storage and distribution of reports and various quality documents within the organization;
- Plan, coordinate and perform internal audits throughout the work processes in order to meet quality requirements;
- Assist school managers to resolve constraints in management and administration;
- 5. To be a permanent secretariat of the PPD management meeting and to manage management meeting minutes at the PPD level;

### Assessment Unit And Examination

- 1. Manage various Public Exams
- 2. Manage the registration of candidates for public examinations
- 3. Monitoring the execution of assessment and course work
- 4. Appointment of Public Examinations officers at Regional level
- 5. Vessel Pengurussan

### **Unit Services**

- 1. Manage and coordinate general and financial administration matters;
- 2. To manage the services of teachers and non-teachers;
- 3. Manage Government Service Book (CPC);
- Managing and managing the Integrated Assessment of Education Services
   Officers;
- 5. Manage purchases, procurement, services for performing PPD activities and payments can be explained on time;

### 1.1.3 Location



Figure 3: Location of PPD Muar

### 1.1.4 Address

Pejabat Pendidikan Daerah Muar, JKR 242, Jalan Arab, Muar, 84000 Muar, Johor

### 1.1.5 Contact

➤ Phone: 06-951 1780

> Fax: 06-951 1780

# 1.2 Organization Structure

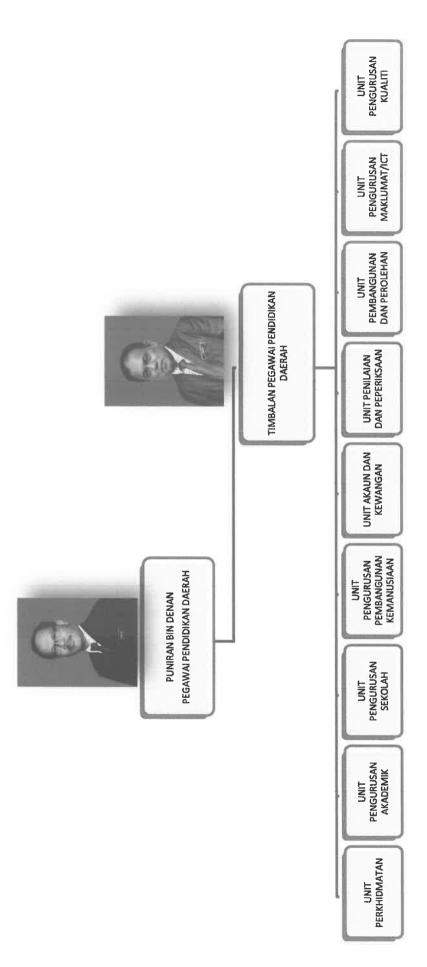


Figure 4: Organization Structure PPD Muar

# **CHAPTER 2: ORGANIZATION INFORMATION**

# 2.1 Departmental Structure

2.1.1 Department Chart: ICT Unit

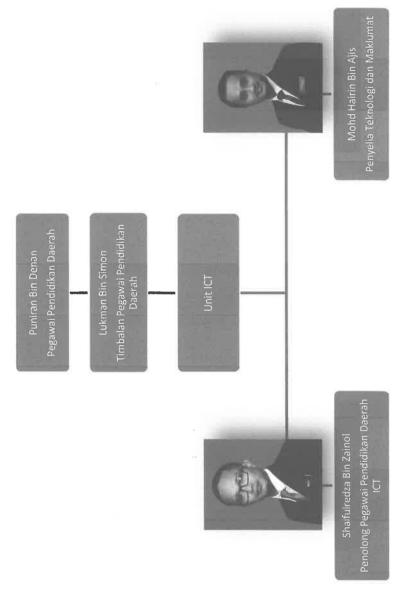


Figure 5: ICT Unit Department Chart

### 2.2 Department Function Information Management / ICT Unit\

Information and Communication Unit is responsible for the dissemination and sharing of the information from Malaysia Ministry of Education or Head of Regional Education Officer and other officer through the official website and social media (Facebook and Telegram). This unit strive to ensure that the contents published through these various information channels are current and relevant in order to enhance the District Education Office image and reputation at national and international levels.

Other than that, ICT Unit also implementing District & State Level Meetings such as website committee meeting of Muar District Education Office / Muar Education Department, Muar District Education Office ICT committee meeting, Attended to Muar District Education Office staff meeting, and attends the State Education Department's ICT & Information Management meeting. ICT Unit officer also responsible in the registration of ICT equipment. The officer need to record all ICT equipment in a computerized system developed by JPNJ ICT Sector and also briefing and monitoring system records and files of ICT equipment management for each School and PPD Muar.

These units also handle the maintenance of ICT equipment by implementing ICT equipment for primary schools under the Muar District Education Office and implementation of ICT equipment maintenance at Muar District Education Office. Besides, this unit also monitoring of ICT maintenance project, supervise and monitor ICT maintenance at PPD Muar, monitor the ranking / placement of ICT equipment at school and monitoring the status of capital equipment in schools.

ICT unit also responsible in carry out the disposal of ICT equipment at the Muar District Education Office and help implement the disposal of ICT equipment in Muar district primary schools such as computer lab management. Assist in investigating / inspecting supplied ICT equipment. Helps to deal with matters related to supplies and equipment such as troubleshoot computer or printer installation. The ICT unit also builds and retains the website of the company. They may also be responsible for the internal network and website problem and uses that is only accessible to employees of the company.

### **CHAPTER 3: INDUSTRIAL TRAINING ACTIVITIES**

### 3.1 Training Activities

The industrial training was begun on 3<sup>rd</sup> February 2019 and it was completed on 30<sup>th</sup> June 2019. The practical training took placed at Information Management/ICT Unit of Muar District Education Office (PPD) located at JKR 242, Jalan Arab, Muar, 84000 Muar, Johor. There are five months of practical training duration that need to be completed. The industrial training activities related to information technology, information system management, documentation and media social. The organization supervisor is En Mohd Hairin Bin Ajis, who is the Technology and Information Supervisor at PPD Muar and the pratical student was closely supervised by all the staff here. During industrial training with ICT Unit, trainee has gone through few training and event activities inside and outside the organisation provides by PPD Muar. It helps internship student in developing their working skills and professionalism. By getting involved with these event and training activities, trainee could build his own existing knowledge such as that syllabus that trainee have learnt during his study. Trainee also received supports, challenges, and mentoring from the department and organization.

### Industrial training objective:

- > To gain experience in real working environment in the industry
- > To gain knowledge, learn new things and apply the theory that already learned in the working environment
- Develop interpersonal and soft skills in oral and writing
- > To develop understanding of working in organization with professional and nonprofessional

Below are listing of industrial training activities within 5 month.

### 3.1.1 Recordkeeping

### 3.1.1.1 File Management

File room at PPD Muar is one of the rooms that contain a documents and file of PPD and government information. Therefore, it is very important to manage the file and document in a systematic and orderly ways in accordance with the regulations of Ministry of Education in order to ensure that the information is being protected from any unauthorized person and can be retrieve quickly when needed by the officers. Failure to properly manage all of the files may affect everyday tasks and might have a negative impact on the organization. File management process at PPD Muar were opening personal file for officers and teachers of PPD.

During internship period at PPD Muar, trainee being taught by Sir Hanafiah on how the method to opening files and closing files. The method and activities involve during opening of files is create a new files, temporary files, manage the contents of an attachment, write minute details in the minute meeting paper, and controls the movement of files in and out.

Opening New File steps and regulations

First of all trainee need to check and make sure the file is already open or not. It is important to avoid the following;

- i. The title and reference number that already exists
- ii. The file that are create have same title but different classification number
- iii. The file that are have same classification number but different title

In order to avoid the problem, applicable measures should be implemented as following:

- Make sure to read the contents of the letter/correspondence and the title carefully
- Make sure to check the file classification number available and not available to determine the title and classification number and files.

After all of the following rules has been follow, punch the paper for hole in the top left of the files and letter. Insert the green rope and the minutes inside of the files. After that add a new file information is into the Register File to make sure that there are no duplicated files.

### Closing the files steps

Method or steps for the closing of files is including identifying files that should be closed that has reach the limit or the files management regulation such as the thickness of the files and disposition method of the files that are no longer support the transaction of the business.

During the practical training, trainee learn that a file should be closed when it meets the following conditions:

- i. When the thickness of the files is reaches the thickness which is 4sm or
- ii. It contents already reached 100 attachments the file need to be closed
- iii. When files are considered lost and cannot be found
- iv. When the documents inside of the file is no longer support the business transactions.
- v. When the file is no longer required for the transaction or not used within 5 years.



Figure 6: Record Room PPD Muar

### 3.1.1.2 Manual/Paper Filing

Small or big companies collect different kinds of data, such as revenue and expenditure-related economic information and employee, customer, vendor data and etc. Traditional or manual filing defines storing data in a form of paper files, within a folder and file cabinets or file racks. At PPD Muar, all of the information such as organization assets, officers information detail, financial status, correspondence from Ministry of Education, school, or any organization that related with PPD Muar were being kept and stored in form of paper file because at PPD Muar they does not have any electronic record management or filing. The entire file was being kept at the Record Room PPD Muar. During the internship at PPD Muar, trainee has learned on how to do a paper filing. All of the correspondence or information was placed at a file that contains a classification number such as JPA5007.600-2/3/2 JLD.6, all of this file have their own classification number and title that will describe the information that have inside of the file.



Figure 7: Example of Letter PPD Muar

This file and record room were being manage and handle by Sir Hanafiah a general assistant officer the responsible person for classification number for the file in PPD Muar. The trainee were given a task by Sir Hanafiah to filing and assign a correspondence and printed information inside of the file based on the classification number and title. As we know that information is very important for any organization in order for the transaction to run smoothly. Trainee also help in filing of school information or detail by collect all paper or forms in one place and then, sort document by name and categorize according to the school that have in Muar. Once all of the collection completed, the correspondence will be punch and insert into a file that has been provided by Sir Hanafiah and the file will be insert into the locker that already provide as shown below.



Figure 8 : Storage Drawer in Record Room PPD Muar

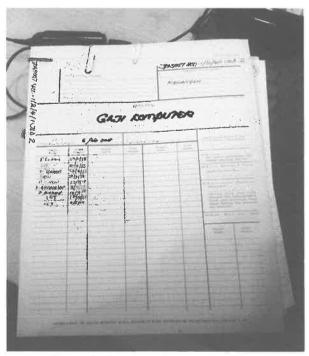


Figure 9 : Example of File in PPD Muar



Figure 10 : Example of Register Form

### 3.1.1.3 Data entry for website SPL KPM

During practical training, the officer from Quality management unit, Sir Yusri Bin Masdar ask trainee to key-in data online in the website SPL KPM or known as Training Management System Ministry of Education Malaysia (Sistem Pengurusan Latihan Kementerian Pendidikan Malaysia) for every week or month. SPLKPM or Training Management System Ministry of Education Malaysia is one of the most important sites or portals for teachers. The portal was developed to facilitate and smoothly the training process, courses, seminars and workshops that have been accompanied by teachers. Through this SPL KPM teachers can login in the Individual Module to view the list of courses that have been participated. However, this course must be updated or in key by the Secretary of Course or course organizer. So the data that will be key-in in SPL KPM website are the names of employees who have undergone PPD courses, meetings, workshops and other formal activities that have been finish successfully. This information is important to act as an evidence of the officer already attended courses successfully and as a PPD officer work ethic that has been required for every job that has been determined.

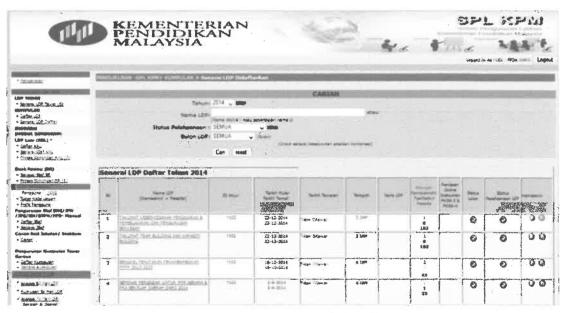


Figure 11 : Data display in SPL KPM

### 3.1.2 Electronic Publishing/Design

# 3.1.2.1 Brochure, Poster and Banner Design for Program held inside and outside of PPD Muar

During practical training, trainee were given a task by ICT Unit and other officer to used any computer software to design page layouts for brochures, poster, banner invitation card, wishes card and other items that are need to be printed out, deliver through telegram or put online. Before the design were create, trainee will gather all of the existing materials or work with officer to create the design and to know the information that they want to be put in the graphic design. Trainee learns and able to polish his skill in using the adobe photoshop and lightroom to edit graphic such as photographs or illustrations. Trainee also learn on how to be a make a better graphic design using all of the software from online based software and work with both text and images. All of the design were create to portray the massages that officers request.



Figure 12: Banner design for PVATM Meeting

Trainee also learn on how to choose a proper color and sentences for the design because basically all of the event were being involved by a upper management officer or ministry of Malaysia. After the design were complete trainee will present the design to officer that

request the poster/banner/brochure. Trainee also need to review the design first for errors before printing or delivered them. By this task trainee learn that through the use of text, color and images, it can transform statistical data into diagram or visual graphic that are more understandable. Below a the few of design that were create by a trainee:



Figure 13: Invitation Card design for APC 2019



Figure 14: Poster design for Badminton Tournament



Figure 15 : Poster for Digital Classroom



Figure 16: Banner for Futsal Day



Figure 17: Banner for Work Visit by Ministry of Education



Figure 18: Poster for Blood Donation



Figure 19: Poster for Football Friendship Game



Figure 20: Design for Eld Fitri Wishes Card



Figure 21 : Design for Eid Fitri Invitation Card



Figure 22: Banner for Teachers Day



Figure 23: Eid Fitri Wishes Card



Figure 24: Backdrop for Leader Talk



Figure 25: Poster for Education Fun Run Ride

#### 3.1.2.2 Infographic for PPD Muar websites and Facebook

At PPD Muar, trainee also given a task to make a infographic design to post at website, PPD Muar facebook or to be shared via telegram. Trainee learn that making a infographics that are understandable require us to collect relevant data, text and graphic to present them in efficient and visual pleasing way. As a research shows that visual graphic can increase person memorability of the information. So by making inforgraphic trainee sure it's a best way for the reader to understand and enjoy the content more. As we know print can't can be digitalized but a digital format can be printed, so trainee learn that while making an infographics it can be easily export to be as a poster, presentations, brochures, leaflets when needed for example as a giveaways for the guests or participant. Below are the example of infographic that are create by trainee:



Figure 26: Infographic NPQEL



Figure 27: Infographic Score Board



Figure 28 : Infographic Table Distribution



Figure 29: Infographic Social Media Use



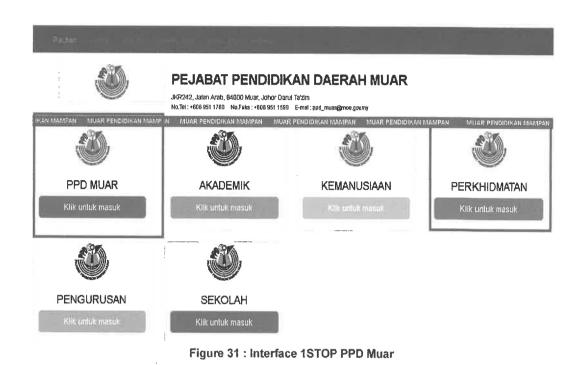
Figure 30: Infographic Media Social Rules

#### 3.1.3 System Development

At PPD Muar system also play an important part in managing the information and data. During the internship the trainee also involved in system development and maintenance tasks for PPD Muar system and website which is 1STOP PPD Muar. The system were develop by using a PHP programming language. This system is basically an intergrated system that have many sub system that are uses by PPD Muar officers, teachers and schools staff around Muar. This system was developed by Sir Ikhwan Goh Bin Abdullah, an Officer from School Management unit. Through his entire service as officer at PPD Muar, he developed this system and contributes it to PPD Muar in order to PPD Muar business productivity and efficiency. It is also to reduce the operation cost and reduce of using paper in the transactions between school and PPD Muar. System also can provide a continuous of availability of access everywhere and anytime.

#### 3.1.3.1 Maintain & troubleshoot existing system

During practical training, the trainee had been given the responsibility to access, evaluate and maintain the system which is 1STOP PPD Muar. The access given by Sir Ikhwan Goh is to manage and maintain the information in 1STOP PPD Muar. The access given only restricted to certain sub system only such as PPD Muar system that consist of "Keberadaan Pegawai/Staff" tracking system and Perkhidmatan system consist of "Tempahan Bilik Mesyuarat PPD" system. Other than that sub system, trainee was not given a permission to access because it contains the confidential information about PPD Muar officers, schools, teachers and etc. If the system is slowdown or have any problem trainee will access the CPanel software and check whether the system has reach the limit of CPU usages or the server need to be restart in order for the system to be working back. Below are the interface of the 1STOP PPD Muar sub system after being access by the trainee which is "Keberadaan Pegawai/Staff tracking system and "Tempahan Bilik Mesyuarat PPD" system.



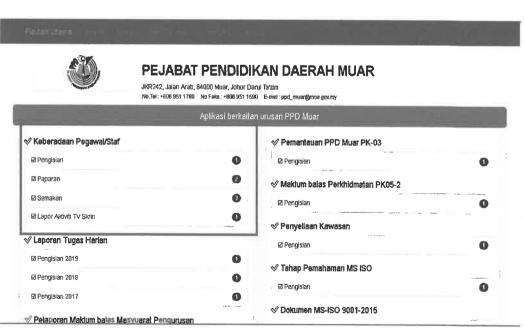


Figure 32 : Officer Availability System

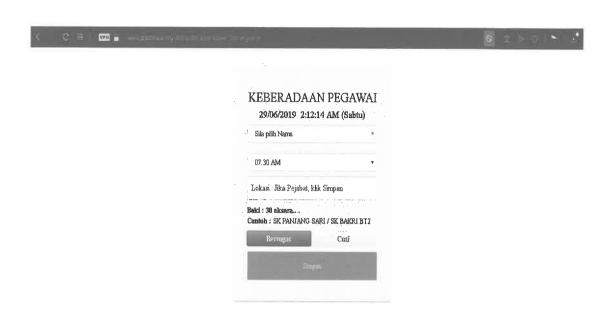


Figure 33 : Data entry officer availability

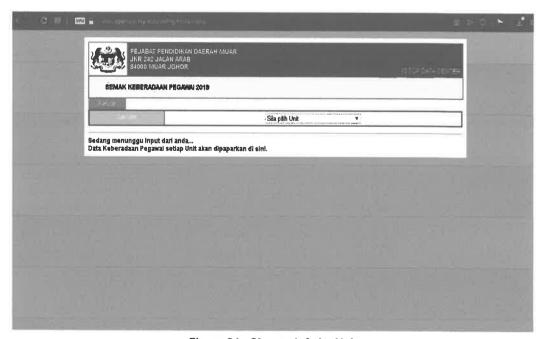


Figure 34 : Choose info by Unit

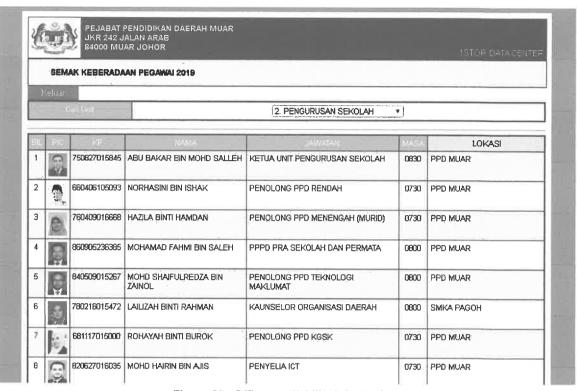


Figure 35 : Officer availability information



Figure 36: Availability of Officer view

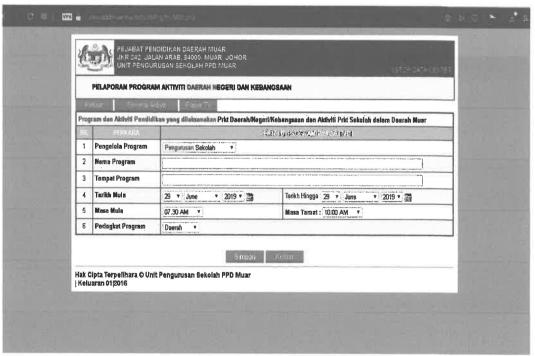


Figure 37 : Data entry for event organize

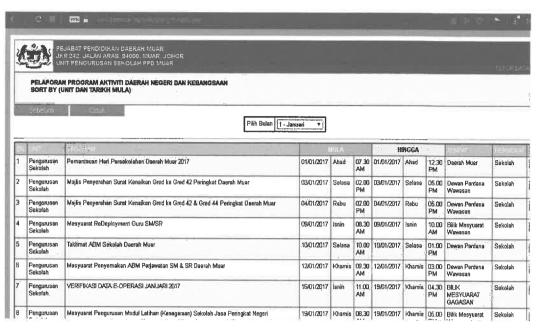


Figure 38 : Data show month order



Figure 39: Meeting Room Booking System 1STOP PPD MUAR





# PEJABAT PENDIDIKAN DAERAH MUAR

JKR242, Jalan Arab, 84000 Muar, Johor Darul Ta'zim No.Tel: +606 951 1780 No.Faks: +606 951 1590 E-mel: ppd\_muar@moe.gow.ny

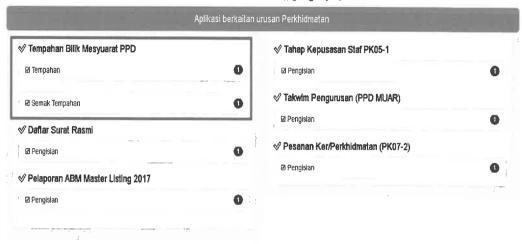


Figure 40 : Room Booking Interface



Figure 41: Login room booking 1STOP PPD Muar



#### Tempahan Bilik

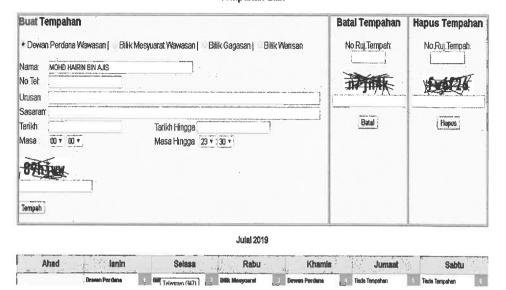


Figure 42: Data entry for booking room



Semakan Tempahan Bilik

Julai 2019

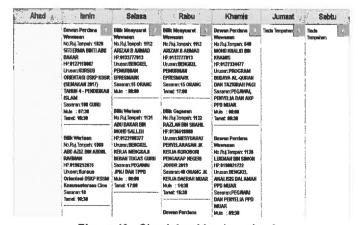


Figure 43 : Check booking by calendar

#### 3.1.4 New system development: Meeting Room Booking System (MRBs)

Meeting Room Booking System (MRBs) is one of the main tasks for the trainee during the practical training at PPD Muar. MRBs is a booking system that develop as comprehensive, a web based system and solution which helps officers to effortlessly manage their bookings and events for all types of meeting rooms in PPD Muar. MRBs will saves officers time, maximize the resources available and to improve the efficiency throughout PPD Muar. Besides, once a room is booked, it will automatically reserved in the system so that other officers can know whether the room is available or not and it also can reduce the risk of double booking and errors. The detail information regarding this project can be found in next section (3.2 Special project). Below is the example of interface for MRBs System:



Figure 44: MRBs Interface

## 3.1.5 Extra activities/task/event management

#### 3.1.5.1 Endorsement and signature obtain for officer correspondence/letter

During practical training, trainee also learn on how letter need to be endorsed with a cop of PPD Muar and the letter also need to have signature from upper management, such as Sir Puniran Bin Denan who is Pegawai PPD Muar (Officer of PPD Muar), Sir Hj. Lukman Bin Simon (Assistant Officer of PPD Muar) and other Unit Chief available if the two of the upper officer not available at PPD Muar. Trainee learn that endorsement and signature from upper management is important because before the letter will be delivered or send out to school or any organization related it must be check first by upper management to make sure that the letter meets the format and it does not contains any fault or mistaken information.

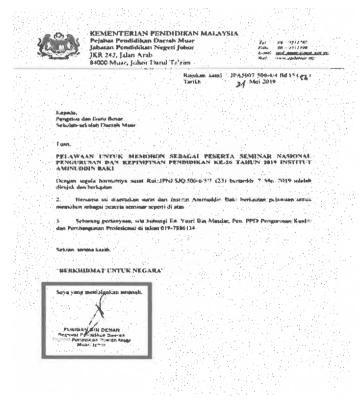


Figure 45: Example of letter

#### 3.1.5.2 Troubleshoot/fix a faulty software and hardware

At PPD Muar trainee also help in troubleshooting the computer that have problem such the computer can't be turn on, because problem was derived from the faulty of power source or other problem because of the CPU of the computer. Besides, trainee also fixed a hard disk problem for example the hard disk need to be replaced because of the hard disk is failing or already failed or officer need more space for their storage in their computer. Other than that trainee also troubleshoot the networking connection problem such as wifi problem or server problem. If this problem happen, trainee will restart all of the wifi in PPD Muar or troubleshoot the problem by using troubleshoot software inside of the computer itself or trainee will restart the server in PPD Muar in order the network connection can be fully utilized.



Figure 46: Troubleshooting computer hard disk



Figure 47 : Server Rack at PPD Muar

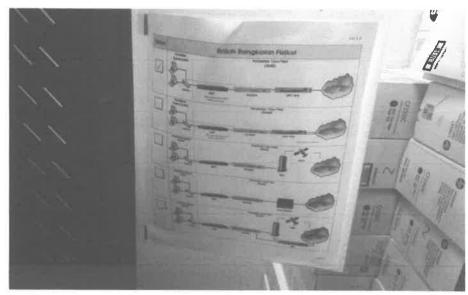


Figure 48 : Server data flow

#### 3.1.5.3 Formatting and Installation a driver and software computer

Trainee also learn and given a task to format a computer/laptop of the officers. To simply explain, formatting a laptop or computer is procedure of preparing the hard disk or hard drive to be used and remove all of the content that contain in it. Usually the laptop or computer need to format because of the laptop is from the retire officer and need to be given to the new officer or officer that need to use a laptop or computer. Basically, by formatting laptop the system will removes all the files and errors from the laptop and computer. It also restores the computer to a blank state which means that officer would be able to use a new and fresh system without any errors. After the formatting process complete trainee make installations for the new driver, such as audio, wireless LAN, and touch pad. Besides, trainee also took part in installation of software and driver for officers computer and laptop such as printer driver, adobe photoshop software, filmora video editing software, and antivirus. All of this software were install for the officers to use for their work and to learn more about how to use the software. Trainee also teaches and guides some of the officers on how to use the software so that they can use the software by themselves.

#### 3.1.5.5 Make a photocopying, fax and phone call

Trainee also given a task to make a copy of letter or information by using Photostat machines. This task was given by all officer in different unit in PPD Muar need internship student to help them make a copier of letter or any information material. Photostat machine are machine that capable of emulate either a copy or original of letters, documents and images. The purpose photocopier is to allow officer to make a copy of letter, poster or any original document as evidence and recordkeeping so that the document or information can be retrieve letter in the future. With the photocopier machine works can be more simplified. Trainee also given a task to fax a letter from PPD Muar to school. Using a fax is more reliability because all we need just to successfully send a fax

with a right recipient fax number. Fax also save from viruses and does not require any software or technical knowledge to open and print it such as email. If faxes are delivered to right number it will guarantees to appear at recipients fax machine. It also provides a speed and convenience of information delivery and if using email for example, it might take times to scan the document one by one and then delivered to the recipients.

# 3.1.5.4 Involve in event management and technical assistant for event held inside and outside of PPD Muar

As a Internship student at PPD Muar in ICT Unit. ICT unit not also cover for the system use, graphic design and information management. ICT unit also responsible in PA system management and installations during event that held inside and outside PPD Muar. Trainee also being involved in these activities of installations and preparations for the PA system be used in order for the event to run smoothly. During the event, trainee need checked and double checked everything on the PA system require by the officer who are the event organizer. A checklist will be notes and create by the trainee itself is to make sure the pa system equipment available to be used by the event organizer. After all the equipment need available trainee will make the installations such as setup the wire/cordless microphone, speakers, LCD projector, and sound system. Trainee also learns to know what are the other tricks or techniques use to get a great sound and a LCD projector use with transmitter so that can be fully utilized by two different laptop or computer. The important part when install and manage the PA system is to make sure that the PA system can be adjust to changes, trainee need to make sure that the system equipped can handle based on the size of the event.

Besides, trainee also need to know the power sources location to make sure the system can be installed easily without need any extra power sources. Trainee also needs to keep track for all of the device use and where it's plugged in. This is important to prevent the

mistake of losing equipment and who's responsible for the equipment use. During big event that involve Ministry of Education for example, trainee and ICT officer need to schedule time to set up and testing the PA system early before the event to prevent any non-functional equipment at an inopportune time. Other than that, during event, trainee given task to remind the presenter to mind their microphones. Some of the presenters sometimes may be seasoned speakers and aware of common microphone issues but some presenter also may not know the uses and how to handling a microphone such as cordless microphone and headband microphone that need to be placed at their body where the position of it won't interfere with the sound's clarity and transmission. Below are the example of the event require for PA system from PPD Muar:



Figure 49: Trainee as technical assistant event held



Figure 50 : Audio system use to conduct event

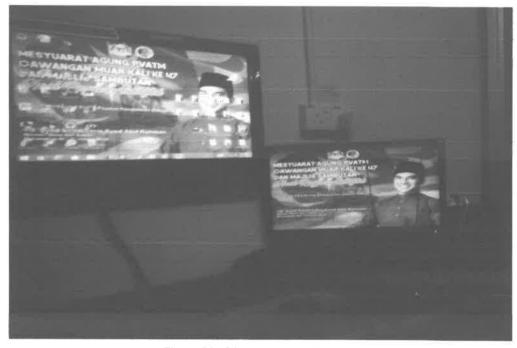


Figure 51 : PA system handling in event

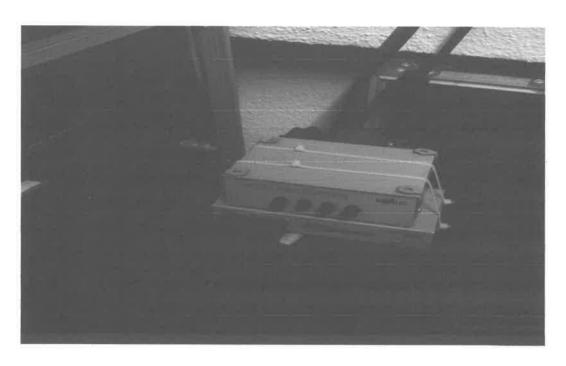


Figure 52 : VGA switcher

## 3.1.5.6 Participating and making video for retire officers

Another task for the practical student need to do is, trainee need to create video for retirement wishes and memorial for officer that will be retired. Trainee internship supervisor Sir Mohd Hairin Bin Ajis assigned trainee to make 2 series video retirement wishes which the duration around 5 to 8 minutes. The wishes came from different unit or officer in PPD Muar and trainee need to recorded by meet the officer from variety of unit. Trainee also need to meet the retirement officers to obtain his/her information regarding their detail name, background studies, achievement, services and etc. All of need to be included in the video. After the video editing is complete, the video will be show during the retirement event of the officer. Below are examples of video retirement wishes for Sir Yusoff bin Abdul Majid and Dr Muhammad Kassim bin Basir. The video were create by using a Filmora software.



Figure 53: Retirement video for retire officer



Figure 54 : Filmora Software

# 3.2 Special Project

# 3.2.1 Meeting Room Booking System - MRBs

Information and Communication Technology Unit is one of the Organizational Sub-Unit, Muar District Education Office which is led by two (2) officers;

- Assistant Regional Education Officer of Information and Communication
   Technology
- 2. Technology and Information Supervisor

This unit is responsible in coordinate and implement application systems scheduled at the district level. ICT unit also need to managing data entry, report printing and data analysis and managing things handling hardware and application software. Apart from that, they also need to provides input and provides reviews of computer equipment acquisition and technical support services regarding any problem and issues. Coordinate and maintain the website also one of the responsibilities of this ICT unit and supervise the safety of PPD information systems from being access or stole from any outsiders.

#### 3.2.2 Project Description

Meeting Room Booking System (MRBs) is a project that is developed to solve certain problem faced by all officers at the PPD Muar. It is inspired by the problem itself where the ICT officer afraid that the currently system that they used will be no longer available and up to date to record and save the booking placement for meeting room in PPD Muar because the developer of the system itself is already retired from PPD Muar which Sir Ikhwan Goh Bin Abdullah, the officer that develop and maintain the system before this. As a internship student at the PPD Muar the officer want a system that can replace the current system that are easy to manage, maintain and does not require a complicated programming languages. They also want the systems that are friendly user, easy to understand and use by all of the officer because most of the officer was an old in age.

The current system can be login by the Services Unit only if any officer want to make a

booking for room that available in PPD Muar such as Perdana Wawasan hall, Wawasan room, Gagasan room and Warisan room. All of the room can be used for any event such as meeting, workshop, talk and etc. The current system include the event information such as name of the room for booking, no and name of the booker, phone number, purpose of event, target audience, start and end time of the event. All of the information is actually functioning as an evidence to show the availability through calendar that have inside of the system so that other officer can make a preparation and aware about the availability of the room before make any booking.

As time passes, the changes from manual to electronic management method has become widely implemented in most of the academic institution. Muar District Education Office (PPD Muar) is also not left behind. Usually this implementation is adapted when there is a problem occurs that cannot be solving by manual method. One of the example is, the tracking availability of the officer and any other system that have in 1STOP PPD Muar. It was easy for teacher and officer to create a report and check the availability of the officer that are available and attend to work at PPD Muar through the system. Same goes to the Meeting Room Booking System (MRBs) for PPD Muar, one of the crucial problem that always haunted by the staffs when the current system used to booking the room in 1STOP PPD Muar will be obsolete. If the system no longer support and available for the officer to used it cause a problem to them because they need to change the way of management from using a system that are easy and save time to a manual way by using a book instead of system

Meeting Room Booking System (MRBs) has all the dynamic versatile features required to run a better management in a systematic way. MRBs offers an operational integration between reservations, booking history, availability of the room and reporting modules. This system has facility to generate report for analyzes officer booking, room availability and

status. MRBs is the best suit for managing their booking or reservation in very simple but effective manner with minimal efforts or time so that it improve their management in efficient ways. MRBs help to manage the all of the booking information from being lost or misplaced. These MRBs is also design to help officer at PPD Muar to manage their booking and use the gathered data in reports to help analyze which of room that are frequently used, and an officer that make a booking for the room. This information can be used as a evidence and to make sure officer will use the room for a right event and be responsible when using the room. This system is a complete system suite consisting of integrated modules for various aspects of management.

#### 3.2.3 Project Objective:

- To design a system that will allow all of the officer to browse their meeting room booking information and make reservation via the Internet in order to improve their work and efficient management.
- ii. To develop a system that can generate reports and make information available through online and as backup also evidence information of successful reservations.
- iii. To test and evaluate the acceptability of the system in terms of availability, functionality and reliability by gathering feedback from prospective users and experts.
- iv. To reduce time taken for officer in searching for their booking information.

#### 3.2.4 Problem Statement

According to Ceptara (2009), problem statement is a clear concise description of the issue(s) that need(s) to be addressed by a problem solving team. It is used to center and focus the team at the beginning, keep the team on track during the effort, and is used to validate that the effort delivered an outcome that solves the problem statement. There are

three problem statement identified for this project, which are:

# Only staff at Services Unit can access the 1Stop PPD Muar Room Booking

By developing Meeting Room Booking System (MRBs) developers will be able to learn and analyze the importance of the existence of the system to the Muar District Education Office (PPD Muar). Basically, this system will help the officer in managing their records and booking room management. For example, availability of room, choose a suitable date and time of booking, approve and any other. With the development of this system, a proper record and booking management in PPD Muar will improve. All officer from various type of unit can access through this system by using id and password to login.

#### ii. Unable to generate and support record searching and report process

Generally, records and information need to be manage properly and systematically. If the records are not managed properly, it will cause too many problems such as records missing, records misplace and many more. It is important to manage records properly because it contains evidence. MRBs is one initiative for officer at PPD Muar used to improve their record and information management process. By developing this system, process of handling the records or reports will become easier and this development will enhance staffs work in managing the record and report at Services Unit. This system also allow officer to easily update information in system regarding their booking status whether they need to cancel the booking or else, so that everyone will notice about the availability of the meeting rooms. This system also available to generate report based on available information.

# iii. To design a new online system that's capable of handling reservation of meeting room

This system are able to record and keep the detail of various event or activities held. It will simplify the task and reduce the paperwork. Besides, this system also provide the officer in seeking meeting room with correct information about availability status, it will provide excellent comparative information about available meeting rooms. This also allow a booking of meeting room without any errors and conflicts. It will be easy for the officer to make a bookings because of the provide information such as date and information about the status of the bookings the will provide a efficiency of booking.

iv. Time consuming in searching for information through current system

Staff can easily search the needed information in short period of time. If there is no system be implement, staff need to search for information one by one through the book or files. So, the process of searching for the needed information will take times. Besides, it can affect staff's time to do other work. By developing this system, it will reduce the time consuming to search for information. This will lead to the improvement of record management by using a system rather than manual ways because ease of information gathering in MRBs.

#### 3.2.5 Project Timeline

The project had been started on 3<sup>rd</sup> February 2019 until 30<sup>th</sup> June 2019. It is important to ensure that the project completed according to planning to ensure the project will be used on early July 2019. There is about six stage phases involve.

- ldentification phase (1st phase): 3/2/2019-16/2/2019
- Design phase (2nd phase): 17/2/2019 18/3/2019
- Development phase (3rd phase): 19/3/2019 17/5/2019
- > Testing phase (4th phase): 18/5/2019 31/5/2019
- Deployment phase (5th phase): 1/6/2019 15/6/2019
- Maintenance phase (6th phase): 16/6/2019 30/6/2019

Table 1: Project Timeline

FEB 2019	MAC 2019	APR 2019	MAY 2019	JUN 2019
2 Week				
1 Month	100			
		2 months		
			2 weeks	
				2 weeks
				2 weeks
	2 Week	2 Week	2 Week 1 Month	1 Month 2 months

## 3.2.6 System Development Life Cycle (SDLC)

The system development life cycle (SDLC) is the platform that been use in develop Meeting Room Booking System (MRBs). By using SDLC, all requirements and understanding of system can be well studied and structured. SDLC is the best platform to implement this system project because in identification phase is where the developer will understand more depth what the system is about by doing several methods to fulfill the system requirement. Besides that, in this part also the developer can get overview of the organization process workflow and how information processing work in order to support organization function. Moreover, by using SDLC it can give description on the current system and where problems or opportunities are with a general recommendation on how

to fix, enhance or replace the current system or making new system for that organization/department. There are sixth phases involve in developing MRBs for Muar District Education Office which they are includes Identification phase, Design phase, Development phase, Testing phase, Deployment phase and Maintenance phase.

#### Identification phases

This was the first phases where collecting, managing and categorizing information was happen. Then all the idea will be sketch and show the process flow start from beginning until store in server. In this phase it will be more on focusing, analyzing, generate and collect the data from user. The objective of this phase is to produce and generate the new idea on how the system that will develop look like which it gives overview about the system. To make easier for developer, all idea need to be detail which it can help the developer to generate an idea. Besides that, a discussion and meeting need to been conducted among the user and developer and during the discussion all list of idea, requirement need by the user should be documented. There also other thing need to be highlighted which is to define the time required to develop the system. The finalized work, it will document and the system named as Meeting Room Booking System (MRBs). This identification phases cover few important items below which they are:

#### i. Determine user requirement

Determining system requirement is the process that we search and gathering all information while conducting an investigation to get as many as possible the sources in order to get the specific user requirement. For MRBs system, developer have go through the meeting and conducting interview approach with the person in charge at Information Management / ICT Unit. From the interview, developer are able to gather perspectives and get requirements needed for system that user request. This is the best way how to collect the data and get the accurate information is to talk to the user directly. Developer are

posed a few open, close-ended and specific questions to get more information about user requirement through proposal for developing the system so that the system can be fully utilized later. As developer need to precisely understand the user requirements which can help on develop a proper system to Muar District Education Office for the purpose to help the organization work flow to be more efficient.

#### ii. User requirement collected from conversation or observation

Developer will use a traditional method which is conducting an interviewing session with the person in charge at the ICT Unit and a few of user that request the system in order to determine their requirements. Other than that, developer also conducted a group meeting for brainstorming idea. During the conversation, developer found that some problem occurs in this Services Unit regarding to their work.

- Difficult to request a booking because need to inform staff at Services Unit first that only can access the current system.
- Wasted of time to sort and filter the data manually.
- Require system that can help them to manage and filter and store data.

All of these problems had been found through interview session where their requirements are essential in helping developer in developing new system to be used by the officer. By developing of the new system, these problems can be solved effectively and efficiently as the system able to manage all the data systematically.

Based on this interview session, here is the interview outline that being used to obtain the required information:

# **User Requirements**

#### Interview Outline

Table 2: Interview outline

Interview Outline		
Interviewee:	Interviewer:	
Sir Mohd Hairin Bin Ajis Sir Shaiful Redza Bin Zainol	Muhammad Noor Abdullah Abdullah Bin Abdul Razak	
Sir Yusri Bin Masdar		
Sir Khalid Bin Khamis		
Location/Medium:  ICT Unit in Muar District Education Office	Appointment Date: 6 <sup>th</sup> February 2019 Start Time: 11.00 a.m. End Time: 1.00 p.m.	
Objectives:	Reminders:	
Identify what kind of system that officers want to use.	Sir Mohd Hairin Bin Ajis Sir Shaiful Redza Bin Zainol	
<ul><li>Figure out the function of system.</li><li>Identify requirement to include in</li></ul>	Sir Yusri Bin Masdar Sir Khalid Bin Khamis	
the system.  • Figure out a benefits, estimation and implementation on the future system.	and all staff from Muar District Education Office	
Collect important and necessary data.		
Agenda:	Approximate Time:	
> Introduction	30-45 minutes	
Background on Project		
> Overview of Interview		
> Topic 1 Questions		
<ul><li>Topic 2 Questions</li><li>Topic 3 Questions</li></ul>		
> Topic 4 Questions		
> Summary of Major Points		
> Questions from Interviewee		
> Closing		

# **General Observations:**

The data inside of the 1STOP PPD Muar room booking system does not have any sorting function because the data only will be preview by the calendar view after officers make a booking and officers also afraid if the current system will be obsolete to be used in the

future and it will difficult for the officers to make a booking because officers already accustomed in using system for booking room. The officers require a system that are simple to maintain.

Unresolved Issues, Topics Not Covered:

room booking system?

The officers have facing difficulties in obtaining the data to be as report or evidances in the future from the 1STOP PPD Muar room booking system, because the system are not able to print out the data and sorting the data.

tuture from the 1STOP PPD Muar room booking system, because the system are not able to print out the data and sorting the data.				
Interviewee:	Date:			
Sir Mohd Hairin Bin Ajis Sir Shaiful Redza Bin Zainol Sir Yusri Bin Masdar Sir Khalid bin Khamis	8 <sup>th</sup> February 2019			
Question: 1	Answer			
Why officer need a system to do the booking request?	It is because the current system might be obsolete in the future and it will be unable to get the information and make reservation via the Internet. It also important to have system in order to improve officers work at all unit, transactions and management. It is also difficult to list all the booking in the current system where these data only shown in calendar of system and does not have any sorting functions. The system also might help to retrieve and get the information quickly rather than manual method.  Observations: Seemed he and other officers really need the system in order for better management, coordination, minimizing costs rather than use manual method such as log book.			
Question: 2	Answer:			
What are the advantages if your organization having new system?	System will helps us in organize and filtering the data from all event and room more effective.			
	Observations:			
Question: 3	System can manage the data faster and sorting according to what they are required.			
Question: 3	Answer:			
Is there any problem occur when filter and sorting the data using 1STOP PPD Muar	Yes there is lot of problem one of it is the computer start lack because the data too			

many and certain ram of computer is low.

	Besides that, it lead to information overload and confusion when handling the big data and the date are not able to be printed out.
	Observation:
	Seem they faced lot of problem and require a system to help them solve the issues.
Question: 4	Answer:
If the any problem if officers make a booking using a manual method which is log book than using a system?	Yes, it might have a problem with double bookings because this situation is annoying and it might lead to information misleading. Therefore two or three officer might end up booking the same room without knowing it.
	Observation:
	MRBs system will help them to avoid the double booking by checking the room information from the calendar view in this system. It also help officers to cancelled the booking if they want so that the room are available to be used by another officers.

#### Design phases

The second phases, design phase which it explained on how the interface or specification that included in the system when user used it. Besides that, in design phases also it determine on how the specification will be work when the system is operate. In this phase, all the idea that been generated during first phase which identification phase; it should be used as the base for the initial design of system. This phase also to illustrate the function and flow of the Meeting Room Booking System (MRBs) through the diagram. There are a few part discussed such as Contextual Diagram, Data Flow Diagram and Entity Relationship Diagram is illustrated. After that in this chapter also, show the metadata of each tables is execute to clearly understand what type of data used for each attributes in the tables. Not only that, interface design for each process of the MRBs is shown in the part of interface design. The process is properly discussed with the example of the

screenshot interface. After that, interface design of each pages of the MRBs is showed to illustrate how the system look like. In the last part, database design show is to illustrate and view clearly how data in the database is managed by the developers.

#### i. Business rule

Table 3: Business rules

ENTITY	RELATIONSHIP	CONNECTIVITY	ENTITY
User	Create	1-M	Booking
Booking	Belong	M-1	User

- 1. A user can create many booking
- 2. A many booking can belong to one user

# ii. Contextual Diagram

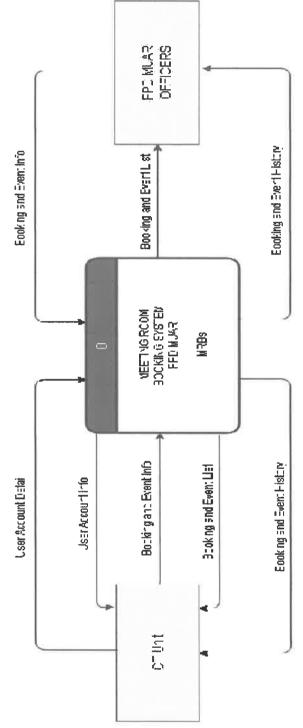


Figure 55 : Contextual Diagram



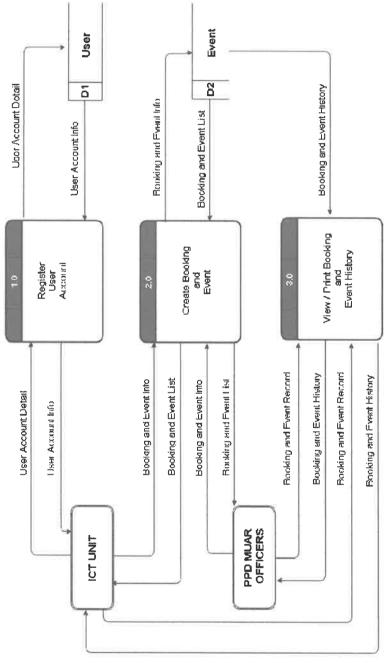


Figure 56: Data Flow Diagram MRBs

iv. Entity Relationship Diagram

event	-	_	room_name	booker	start_date	end_date	phone_no	event	target	time_start	time_end	photo	room_status	status	
	Y W	Ŧ							_						
6															
Figure 57 : Entity Relationship Diagra					7										

# v. Metadata

Table 4: Metadata for MRBs User Table

Table Name	Attribute Name	Content	Data Type	Length	Required PK or FK	Labei	References
user	admin id	ld of the user	Integer	11	Yes	X	
	name	Name of the user	Varchar	40	Yes		
	unit	Unit/Department	Varchar	50	Yes		
		Involved					
	password	Password created	Varchar	24	Yes		

Table 5: Metadata for MRBs Event Table

Attribute Name	Content	Data Type	Length	Required PK or FK	Label	References
event_id	ld of the event	Integer	11	Yes	Ą X	
admin_id	ld of the admin	Integer	17	Yes	¥	
room name	Name of room	Tiny Text		Yes		
booker	Name of booker	Text		Yes		
start date	Date start of event	Date		Yes		
end date	Date end of event	Date		Yes		
phone_no	Organizer phone number	Char	12	Yes		
event	Event name	Text		Yes		
target	Target Audience	Text		Yes		
time start	Time start of event	Time		Yes		
time_end	Time end of event	Time		Yes		
photo	Photo of banner/poster/letter	Text		Yes		
room status	Status of room	Text		Yes		
status	status	tinyint	_	Yes		

#### vi. Workflow

Workflow to register new user (ICT Unit)



Figure 58 : Register workflow (ICT Unit)

#### Workflow to edit User account info (ICT Unit)



Figure 59 : Edit Account User Workflow (ICT Unit)

#### Workflow to delete User account info (ICT Unit)



Figure 60 : Delete User Acoount Workflow (ICT Unit)

#### Workflow to create event and booked room (ICT Unit)

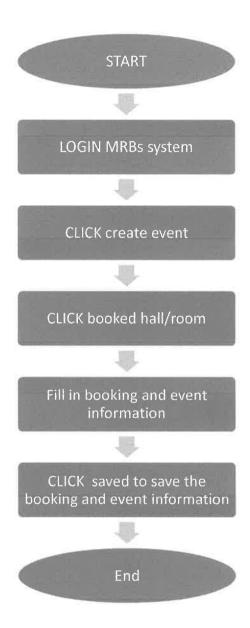


Figure 61 : Create User Account Workflow (ICT Unit)

#### Workflow to edit event and book room (ICT Unit)

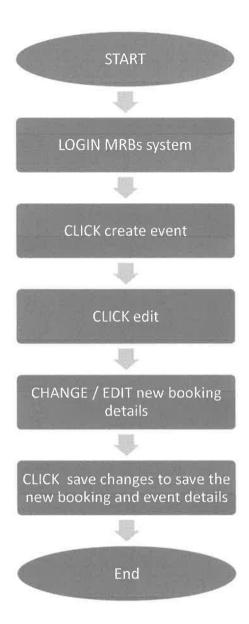


Figure 62: Edit Event and Book Room Workflow (ICT Unit)

Workflow to delete event and book room details (ICT Unit)



Figure 63 : Delete Event and Book Room Detail Workflow (ICT Unit)

Workflow to generate pdf/print event and booked room details (ICT Unit)

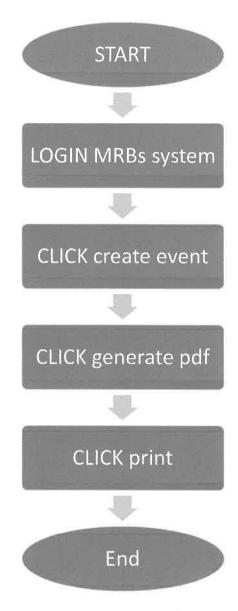


Figure 64 : Generate Report Workflow (ICT Unit)

#### Workflow to check reservation of event and booked room (ICT Unit)

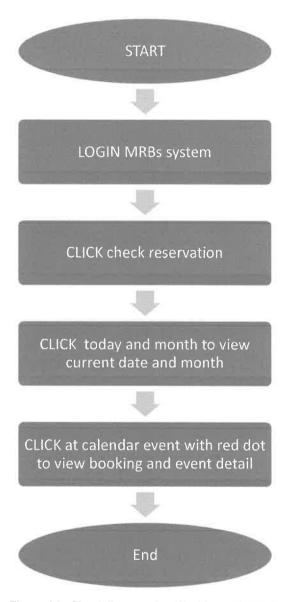


Figure 65 : Check Reservation Workflow (ICT Unit)

Workflow to create event and booked room (User all Unit)

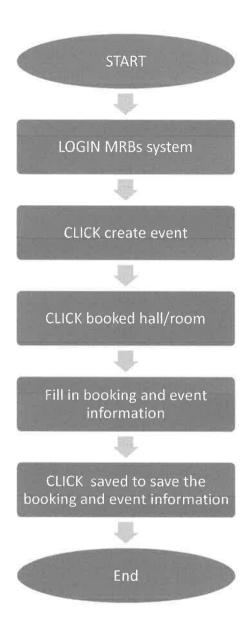


Figure 66 : Create Event And Book Room Workflow (All Officers)

Workflow to edit event and booked room (User all Unit)

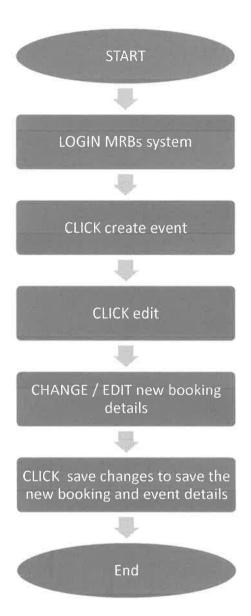


Figure 67 : Edit Event and Book Info Workflow (All User)

Workflow to delete event and booked room details (User all Unit)



Figure 68 : Delete Event and Book Room Info (All Officers)

Workflow to generate pdf/print event and booked room details (User all Unit)

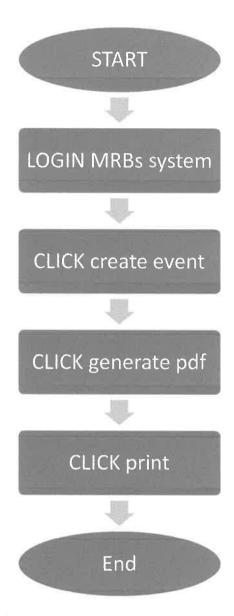


Figure 69 : Generate Report Workflow (All Officers)

Workflow to check reservation of event and booked room (User all Unit)

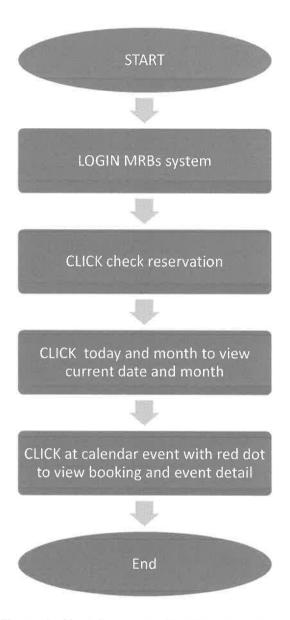


Figure 70 : Check Reservation Workflow (All Officers)

#### vii. Proposed Design of System

Proposed design system is the draft of this system. It just the temporarily interface before the actual design been applied. The draft had been done by following the user requirement including features and it only sketching by drawing only. Below the proposed design of Meeting Room Booking system (MRBs).

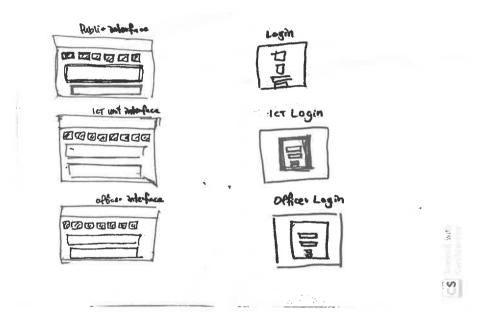


Figure 71: Proposed Sketch Design MRBs

#### viii. Actual design of system

The actual design system is the actual user interface. This actual design is different from the proposed design because the template that will be using is already complete which is bootstrap. However, for the features it will still remain which based on user requirement. The actual designs of MRBs system are shown below.



Figure 72: Actual Interface MRBs

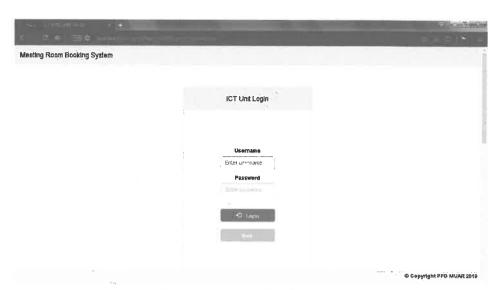


Figure 73 : Interfcae Login ICT Unit

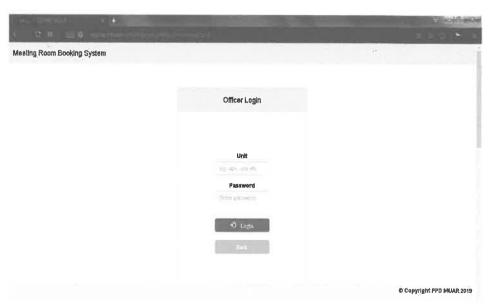


Figure 74 : Interface Login All Officer



Figure 75: Interface for All Officer



Figure 76: Interface for ICT Unit

#### Implementation phases

The third phase, developing the system by using the user interface designed in design phase. This phase is more focusing on developing each page and features that must have on this system. The development process involves two stages which are coding for functional requirements and coding for UI requirements. For the user interface it using Bootstrap template which is web responsive and can be support in any browser platform. The development phase is documented and forwarded to the next phase. In this development phase consists few important items which they are:

#### i. Choosing platform and tools in development of MRBs

For the platform it used Bootstrap while applied the SDLC approach while for the programming language are hypertext markup language (HTML), PHPmyadmin, Java script, PHP, cascade style sheet (CSS) and MySQL.









Figure 77: Platform and Tools in MRBs Development

#### **Testing phases**

This forth phase is testing which are one of the important phase of development life cycle model. During testing phase, all the features will be test whether it function or not. Usually it will involve the user itself and also the developer. In this case, it will be performed on emulator where the system is already in completed and user will experience using the system in real situation. To testing the system, testing plan document must also be prepared. Below is the testing plan.

#### i. Testing plan

This document identifies the test criteria, the requirements being tested, the acceptance criteria, and the mechanism for reporting problems as they occur during testing MRBs System. The objective of the plan is to ensure that the delivered Meeting Room Booking system satisfies the detailed requirements, functional and specifications. The test plan describes the scope of the test effort and outlines the test cases that will be used to carry out testing of MRBs System.

The purpose of the Test Plan is to achieve the following:

- Define testing strategies for each area and sub-area to include all the functional and quality (non-functional) requirements.
- 2. Define bug-tracking procedures.
- 3. Identify testing risks.
- 4. Identify required resources and related information.

#### ii. Scope

The scope of the MRBs System test activity covered in this document is limited to testing the functionality of MRBs System. This section describes what is being tested, such as all the functions of a specific product, its existing interfaces, integration of all functions such as:

- 1. Login to System
- 2. Logout of System
- 3. View booking, event, time and date
- 4. Add New user, unit and event
- 5. Edit booking, event and date
- 6. Change Password
- 7. Export report in PDF format
- 8. Database connection

#### iii. Testing strategy

The following outlines the types of testing that will be done for unit, integration and system testing. While it includes what will be tested, the specific use cases that determine how the testing is done will be detailed in the test design document. Below is example of template used for test design document.

**Table 6: Testing Strategy Plan** 

Tested	Ву:	Muhammad Noo	or Abdullah Bin Abdul Razak
Date		5 June 2018	
Test Ca	se Number	1	
Test Ca	se Name	Meeting Room E	Booking System
Test Ca	se Description		d to analyze whether the data display was ble in database or not.
ltem(s)	to be tested Event and Boo	oking calendar vie	w information (all and different Unit)
Specific	cations		
Input			Expected Output/Result
_			Expected the data will display event and booking data which categorized by the

#### iv. Participants

Below is the list of the individuals that will be responsible and conducting for test plan activity.

Table 7: Responsible Person for Conducting Test Plan

NAME	POST
Muhammad Noor Abdullah Bin Abdul Razak	Senior Programmer

#### v. User acceptance testing

The purpose of acceptance test is to confirm that the system is ready for operational use. During acceptance test, end-users (all Unit in PPD Muar) of the system compare the system to its initial requirements. List the names of individuals who will be responsible for User Acceptance Testing

Table 8: Responsible Person for User Acceptance Testing

NAME	FUNCTION
Sir Mohd Hairin bin Ajis	End user
	(Officer at ICT Unit)

#### vi. Hardware requirements

- 1. Computers
- 2. Server

#### **Deployment phases**

This fifth phase is deployment phase which are the final phase of the development process. The system is ready to be use after testing is completed which also been tested by and approved by the user. This system is uploaded to the PPD Muar server after it fully completed. There no fees apply in deploying this system.

#### **Maintenance phases**

This is final phase where it is maintenance phase. This phase will ensure and keep the system in good condition so that it wills continuous use. This system can be added a new features if the user wants to add new requirements which may require changes for other or future enhancement. For the server, they also will monitor it well and keep maintain it in order to system to operate efficiently.

#### 3.2.7 Conclusion

As conclusion, training activities and special project are different things. Training activities is more to daily task given by organization. While the special project is the special task proposed to the company and provides a benefit for them. It is to measure that ability in doing something new or something that applied from university. Industrial training planner is the timeline to measure and to achieve the target timeline according to the task given by Sir Mohd Hairin Bin Ajis and all officers at PPD Muar.

#### **CHAPTER 4: CONCLUSION**

## 4.1 Application of Knowledge, Skills and Experience in Undertaking the task

During the 5 month period of practical training at ICT Unit in Muar District Education Office (PPD Muar), as internship student a few of knowledge, skills and experience were being implies in undertaking the task given by officers at PPD Muar. There are many skills and experience of trainee during this industrial training had been applies in undertaking the office environment. Basically during degree level, trainee learn all the knowledge and skills theoretically and been exposed on the technical part. During practical training, trainee able apply all the knowledge and skill practically which during degree and diploma studies trainee have enough practical skill and experiences learn. All the experiences and skill gain helps a lot in undertaking the task given by the PPD Muar officers. Below is knowledge, skills and experience being applies during the internship at PPD Muar.

#### 4.1.2 Able to use and understand PHP Programming

The experiences and skill that had been gain in the website development, system development, during degree and diploma studies in information system management help a lot for trainee to able understand and know that 1STOP PPD Muar were develop by using a PHP programming language. Trainee able to fix and issues regarding the 1STOP PPD Muar. During the industrial training, ICT Unit has offered the trainee to apply the knowledge learn in class to an actual work field. Trainee also able to develop a new system for the PPD Muar officers using PHP programming language. Beside, trainee obtained the opportunity to explore more about PHP programming language because the system develop were using PHP programming language.

#### 4.1.3 Applies System Development Life Cycle Method

Trainee able to applies SDLC knowledge and understanding in development of MRBs. By using the method trainee able to obtain and understand the user requirement for the system. Trainee learn this method during his studies in Degree level at System analysis and Design 1 and 2 subject. SDLC also important because it can deliver and good product quality and software for the user.

#### 4.1.4 Able to adapt with new environment

Usually a internship student in a new environment, it need to take time to adapt with the business nature of the department. At PPD Muar, trainee able to adapt with the environment because before this trainee were already being exposed to the real working environment with different task and responsibilities. Thus, for the trainee, the practical training at ICT Unit make the trainee want to be more motivated and encourage to gain a new knowledge and experiences. At the same time, trainee also has been given a chance to work with other department because there also few task that trainee need to do. For trainee opinion, the life of working is totally different from study life.

#### 4.1.5 Communication and teamwork skills

The communication skill is the one of the important element in this organization especially when requesting something to be done in any project and assessment. As a trainee, during first month here, trainee does not feel shy and nervous when it comes to meet or consult with officer regarding to the project that need to be handle by the trainee. This is because during studies at UiTM trainee already involve in a lot of event and activities by joining the Society of Information System Managemet (SISMA) and as a Exco of Entrepreneurship. Trainee has become more comfortable and knows how to spoke to them more properly. For example, when trainee meet and want to consult with the officer also as trainee supervisor during internship from PPD Muar ICT unit, trainee having trouble in understanding his requirement. To help in understanding his

requirement, he told trainee to meet one of his friend which is Sir Ikhwan Goh Bin Abdullah one of the officer in PPD Muar at Academic Unit, his friend was an expertise in system development field and was a developer for the PPD Muar website and system. After meet his friend and having discussion, finally trainee could understand the requirement he ask for. This shown that, the communication among the staff or with top management is really important.

Besides that, at here they also teach and advice the internship student to implement a teamwork skill to achieve a better result in doing a task or assessment. For example when all the practical training and officer need to do a big event for Anugerah Perkhidmatan Cemerlang that start from 7.30 am until 1.00pm that will involve a Chief Minister of Johor. So all officer having a discussion among them and internship student and decide who are supposedly will be master of ceremony also known as MC, reciting a prayer and etc. Trainee able to give a cooperation and team work skill because during studies trainee already handle and manage and event such as User Training Workshop and Public Speaking Day.

#### 4.1.6 Experienced in handling and making media graphic design and website

Since trainee have been join ICT Unit, during internship period at ICT Unit not only cover for website of PPD Muar but also making or create a graphic design such as poster, infographic banner and video. Thus, trainee applies his skill to create a graphic design by using adobe photoshop and lightroom, filmora video studio and online software for graphic and video design. By using all of this graphic design software, trainee also can improve more on his skills in media graphic design.

#### 4.1.7 Experienced in troubleshooting and fix hardware and software

Furthermore. trainee also have experience on how to troubleshoot a computer, technology device use and a PA system. A public address system or known as pa is an

electronic system that includes microphones, amplifiers, loudspeakers and associated devices. In any public venue, PA systems are used that require an announcer, performer, etc. to be sufficiently audible at a distance or over a wide area. Typical requests include sports stadiums during school sports events, and any events at PPD Muar that require a PA system inside or outside of PPD Muar. Multiple microphones or other sound sources may be included in a PA system, trainee learn on how to mixing console for combining and modifying various sources, and various amplifiers and loudspeakers for larger volume or distribution. As a trainee learn on how to used all of this device practically during his studies and learn how to faced also overcome the situation when the device install does not function properly. From it trainee knows how to choose a suitable microphone, amplifier for event either for small event or a big event.

#### 4.2 Personal Thoughts and Opinion

Based on what trainee have experienced through this practical training, PPD Muar has helps and given internship students a lot of new things and knowledge on how to work in a government sector. The officers are really friendly and caring which they willing to help and assists internship student when they have a problem regarding the task given. Besides that, there lots of knowledge, experiences and skill that had been gained through practical training and act as a platform for internship students experience in real working environment.

Usual the knowledge that internship students learn during degree study might not same with the knowledge that they gain from real work environment which something this kind of knowledge we never learn before. In trainee opinion, the practical training with industrial, non-profit or governmental organization given them a valuable experiences for both who is the internship student and the hosting organization. The internship program should be continuous compliance for the students to finish their study. In

addition, the duration of the internship should be sustained as the five months is the enough time for the students to get the preparation before they joined the real industry world.

Other than that, the practical place of students played the important role for their internship program. If they managed to join the suitable company that related to their course of study, it can help them in gaining the new significant knowledge practically. In addition, they also can apply the knowledge and skills that they had learnt during the study to enhance it more. However, if they are just slightly choosing the company for the sake of internship to complete their study, it might be a waste. For example, if the students doing an intern at the small company, plus the company core business none related to their field of study, they might just ended doing a clerical work such as photocopies or filing.

Besides that, at PPD Muar, they also concern about religious knowledge. This is because every Thursday in every week there will be reciting for yassin and tazkeerah which is will lead by the selected officer. Trainee also been given to reciting a prayer in every Sunday for weekly meeting at PPD Muar. There were two meeting held at PPD Muar which is for every Sunday in every week called weekly meeting and a meeting once a month which is called monthly meeting. During Ramadhan, PPD Muar also does an event for Khatam Al-quran which all officer participate in this program.

Other opinion is the allowances for the practical students should be considered in doing internship at government sector. There are some company such as government sector which didn't give any allowance to internship students. If the student who stays with their family, it might not be a big deal, but for those who had to rent a house for the internship, without the allowance they might have to struggle to do extra working in order to gain a money to paid their rental cost. The company must consider the cost for transportation, daily use, rented house and other cost. However, trainee felt thankful

because although PPD Muar does not provide any allowance they always support internship student in terms of providing and buy a food for lunch hour and etc.

The organization's expectation from the students must be realistic. In trainee thoughts, the internship program is the learning process. So, the internship students will always making a mistake, as they are still in the learning process. However, the organization itself expected the students know everything like their coworkers. It was a normal for the students to make a mistake, so as an experience person the officer should show them and teaches on how to do it. However, trainee realized that is in the real world or working environment that students must be prepared mentally and physically to faced any problem regarding the work done.

#### 4.3 Lesson Learnt

During practical training in PPD Muar within 5 month, trainee have learnt a lot of new things and also exposed trainee to the real working experience. Basically, at PPD Muar all the knowledge that learn theoretically, can apply it into practical process.

#### 4.3.1 Time management

The first thing that trainee learnt during the practical training is the time punctuality in all aspects. Whether it's arriving early in the morning or getting tasks done on time, punctuality is essential. As a lesson, this practical training at PPD Muar had taught internship student to manage their time effectively. When there are multi-tasking, internship student will divide their time to do all task and try to complete it before the dateline. Besides that, when there is event for example weekly and monthly meeting every Sunday, the officer on duty must come before 7.50 am. As internship student for ICT Unit, trainee need to come early before 7.40 because the PA system and meeting room need to be setup in order for the event run smoothly. When it come to work duty, internship student need to managed and discipline theirself to arrive there punctually.

Moreover, when they have project management to be handling, trainee can see that officer here will always follow the timeline set up to ensure the project will not be delayed. Trainee learnt that the meeting between team members and top management was important to keep updated the project progress to ensure it follow the timeline. So, the punctuality in time management in all aspects is really important in real work environment.

#### 4.3.2 The important of team work

As internship student, trainee has learnt the important of team work. It is help lots when there are many task that need to be done. For example when ICT Unit and PPD Muar have the event such as Anugerah Perkhidmatan Cemerlang such as Lawatan Kerja YB Menteri Pendidikan and etc that involve relation with all officers in order to making preparation for the event. From here, trainee can see the importance to work as team in order to make the events successful. Besides that, during the event, it will consist of many job responsibilities such as who will be person in charge as MC, recite a prayer, handle a pa system, protocol and etc. Besides, trainee also need to handle multimedia counter during the event because every guest need to scan a QR code and login into system to submit their attendance. It is quite challenging as an internship student because it is not easy to work with team as everyone have their own opinion and ways. However it important to have a team work skill because to ensure the event conduct were success. In working environment either government or non-government we need to support and each help each other in variety of aspect. These are the important lesson that internship student have learned in practical training period.

#### 4.3.3 Sharpen soft skill, communication and self-confidence

Another lesson that gained through practical training was trainee able to improve the soft skill, communication skill and boost up self-confidence. Trainee found that, internship period at PPD Muar really help in improving both skills that require in working environment. For example when trainee conducting the system project for ICT Unit, trainee do a consultation with a lot of officer. From here, trainee learnt on how to

seeking other people views and opinion. At the same time, trainee also get new skill and knowledge from the senior which they guide internship student on how to survive in working environment. Along this 5 months, it really inspire trainee to become a better person for example trainee have become more positive in problem solving and making decision.

Besides that, trainee also learned about how to interact with other staff and at the same time it helped in building the self-confidence to interact with other people more. In addition, trainee realized that the social skills played important role in the working environment as we might need our staff help in assisting and completing our task. Moreover, this practical training has also enhanced trainee English language communication skills. In PPD Muar, English was not their main language. However, they still applied it and indirectly it help trainee improved English either verbally or non-verbally.

#### 4.3.4 Self-learning

As a trainee, during internship period trainee were assigned to develop system for PPD Muar and also doing other side task such as documentation, report, filling management, minutes a meeting and etc. For example, even though trainee are just are a beginner in using the Bootstrap template and other language, but trainee has explore and learned it by himself. It might be difficult and take time but the impact is it will help build self-learning in trainee life as worker soon. However, trainee still have and receive a supervision and guide from other officer. The important of this can be considered as the best lesson that as an internship student have learnt which adding value to trainee and also give advantage to the organization.

#### 4.4 Limitations and Recommendations Limitations

The practical training had given trainee many experience and learning process. As a new internship student here, there a few limitation that trainee had to face during practical training. But trainee need to take this as a new challenge because trainee can't get this kind of experience during study period in university.

#### 4.4.1 Not familiar with the platform use by the unit

The first limitation that trainee faced when was assigned to ICT Unit is limitation of knowledge about the website developing and application. During trainee study at university, trainee only learn a basic and a few software that used for development of website such as wamp/xammp server and etc. Thus when come to this unit, trainee became not so familiar with new software they used which was Cpanel. So, to overcome the problem trainee had to study a lot about the Cpanel software and it takes time to understand it within 5 month trainee still in the process of learning. Besides that, officers only give a few basic steps and explanation about Cpanel and the rest trainee need to discover it by his own.

#### 4.4.2 Less training and workshop

As internship student here, there a lot of skill and knowledge that trainee lack of. Trainee expecting there was a lot of training and workshop which is can help enhanced trainee knowledge regarding the information system management. However, there only few training and workshop conducts within this unit. As a result, trainee only have a few chance to expose to the many things regarding information system. To overcome it, trainee had to conduct his own study and research if he want to discover and obtain a few new skill. As a trainee, there are still a lots of other training, workshop and event that related to his field work in ICT unit such as Digital Classroom event.

#### 4.4.3 Difficult to understand user requirement

From trainee observation, there are difficulties in understanding user requirements in order to develop a system. It is because they do not know what are they want and basically they are just a teacher before they become an officers at PPD Muar. So they only know on how to use a system but does not know how the system was develop based on user requirement. During practical training, trainee need to develop the system that can be use by all of the unit in PPD Muar. The user from various unit in PPD Muar is not from IT background and they don't know a lot about system development. They just keep asking to develop the system and provide the features that they want in the system so that they can use the system to help them in completing their task. Then, after the development is done, the some of the user was not satisfied with the system and they wanted developer to change the features to be easier to use and access. For trainee, it just was one of the limitations that need to be faced because of lack of understanding in concept of system development from the user and they are the user, developer must listens and apply any user requests because the system will be used by them.

Besides that, there not enough officers that can assists and monitor the progress of the system, because as trainee mention before most of them are not from an IT background and at ICT unit the officer itself only know how and expert in using a media graphic software and tools only and only one officer which is Sir Ikhwan Goh Bin Abdullah, a officer that are from IT background and was the developer of the PPD Muar website and system. Trainee only had a few times and consultations with him because he was already on his way to retired after a few weeks of practical training. To overcome the user needs, trainee need to make a change and improvement of the system.

#### 4.4.4 Not meet timeline or milestone

Next limitation was, during trainee handling the project which developing the system for PPD Muar, the project was not able to follow the dateline and milestone. Before the system was developed, trainee already discussed with the user and give the specific date on when the system can be completed. However, during the progression of the system, the user want it to be completed earlier. As impact, it give a little burden to trainee because need to hurry and try hard to completed the system. Besides that, there were also other problem arise regarding to the system functionality because the system was not properly developed and need to be complete based on user request date. It was quite challenging to complete the system in short period of time.

#### 4.4.5 Give the last minute task which is need to be complete on that day

The next problem or limitation that trainee faced is during the practical training is when trainee was handle the event for PPD Muar, usually any officer will assign internship student to do task two or one day before an event. Sometimes during the event there a few officers wanted internship student to complete a task for them, for example write a minute meeting report, endorse a letter, troubleshoot a computer, fixed a printer device and restarting the server room. Some of the event will held from morning until the evening so it will disturb the internship student to focus and handle the event because the task was given in last minute to be complete. As the consequences, it give trainee a pressure because need to solve many problem in the middle of the event that need to be handle for.

#### 4.5 Recommendation

#### 4.5.1 Provide more seminar and workshop for student practical training

There are recommendations that trainee would like to suggest for the better improvement to the organization. The first recommendation that trainee would suggest is PPD Muar, ICT unit or any unit available should provide more seminar and workshop for student practical training because this was a time for them to exposed and learn many things. This can act as their learning process and to be able to adapt with working environment. Besides that, any industry either government or non-government should not limit the internship student on doing the special project only but also exposed to them the technical part.

### 4.5.2 Should consider a collaboration/teamwork between student practical that are in different course in implement the project

The next recommendation is the any organization should consider pair collaboration between student practical in handling project in any department. For example when there a system which it will be used by the whole officer in PPD Muar, it is better to do collaboration or group compare to do it individually. This is because when the internship student develop such a big project, it might consumed a lot of time and effort because they need to do by themselves which only been assist and monitor by officers. The officers couldn't help that much in implement and planning part because they also have their work that need to be done. Besides, when there is collaboration between a internship students, they can share their knowledge and skill to each other. For example, collaboration between Information Management (IM) student and Computer Science (CS) student or any student from different courses. From here we know that the IM student good in planning and documentation while the CS student good in their programming skills.

#### 4.6 Conclusion

In conclusion, a good system will contribute to a good and proper management of any organization. Not only for government organization, but also to the non-government organization. Nowadays, people live in globalization era where the technology become one of the crucial need. People tend to used smart phone, tablet or laptop and the usage of this device in the industry is already implement widely. To cope with this change in technology era, most of the organization also has implement system in their organization. Usually the system will cover the management of the organization like the record details, information management and event financial of the organization itself.

As a trainee and developer of Meeting Room Booking system or known as MRBs, this system will give a benefit and impact to the Muar District Education (PPD Muar) in improvement of their management, record and report process. Based on the pilot study, MRBs had meet staff at PPD Muar requirement. This system is will going well and the objectives of the system have been achieved. Trainee also hopes that MRBs can all officers at PPD Muar in gain the record or information in easiest way.

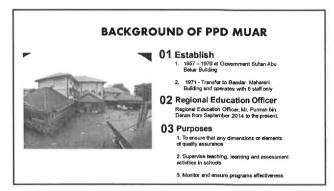
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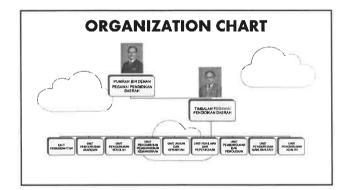
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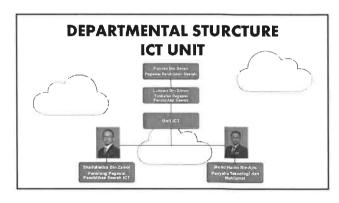
### **Appendices**

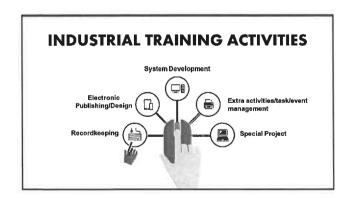
Appendix 1 : Form and certificate

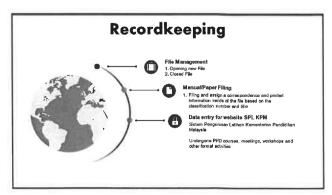


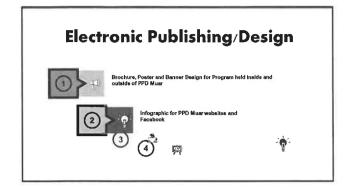


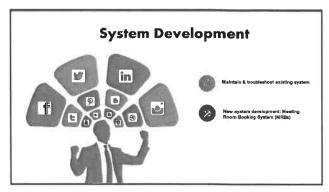






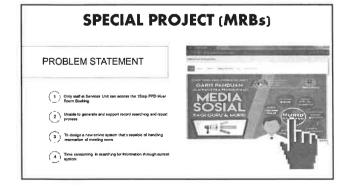


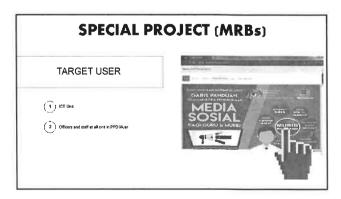


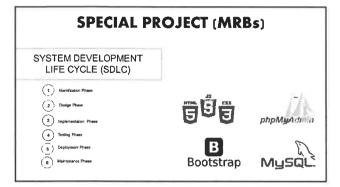


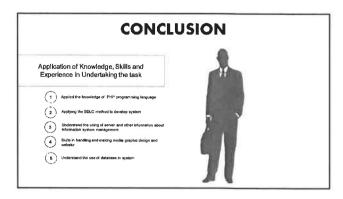


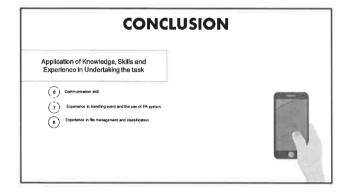


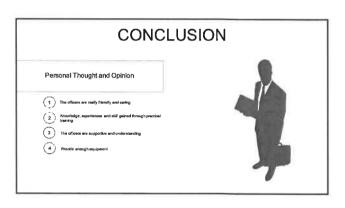


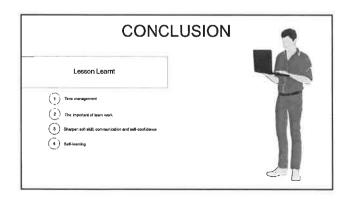


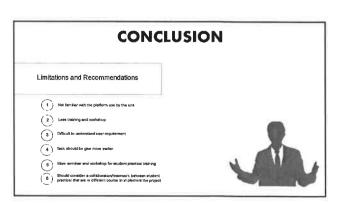












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CERTIFICATE

