FTMK EVENT APPROVAL APPLICATION SYSTEM

NOOR HIDAYAH BINTI SULAIMAN

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

BORANG PENGESAHAN STATUS TESIS

JUDUL : FTMK EVENT APPROVAL APPLICATION SYSTEM

SESI PENGAJIAN : 2015/2016

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FTMK EVENT APPROVAL APPLICATION SYSTEM

NOOR HIDAYAH BINTI SULAIMAN

This report is submitted in partial fulfillment of the requirements for the Bachelor of Computer Science (Database Management)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2016

DECLARATION

I hereby declare that this project report entitled

FTMK Event Approval Application System

(FEAST)

is written by me and is my own effort and that no part has been plagiarized without citations.

STUDENT : _____ Date : 24 Aug 2016

(NOOR HIDAYAH BINTI SULAIMAN)

I hereby declare that I have read this project report and found this project report is sufficient in term of the scope and quality for the award of Bachelor of Computer Science (Database Management) with Honours.

SUPERVISOR : _____ Date : 24 Aug 2016

(PN. SAFIZA SUHANA BINTI KAMAL BAHARIN)

DEDICATION

To my mom and dad, Pn Norlidah Binti Majiri and En. Sulaiman Bin Alang

To my beloved supervisor, Pn Safiza Suhana Binti Kamal Baharin

And to the fellowship friends of BITD, who gives co-operation and knowledge sharing in completing this project.

Thank you so much.

.

ACKNOWLEDGEMENT

Grateful to Allah S.W.T with His gift of His grace, we can also complete this final project of FTMK Event Approval Application System successfully without any problems.

We also wish to express our appreciation and gratitude to the supervisor of this project, Pn. Safiza Suhana Binti Kamal Baharin for their guidance and encouragement given during the period of project implementation.

Thank you also to all the lecturers and colleagues for your help. My gratitude also goes to all the parties involved either directly or indirectly in the success of this project.

Thank you.

ABSTRACT

FTMK Event Approval Application System (FEAST) is a new computerized system to be develop focusing on process to get an approval. The applicant which is the staff by the faculty can easily request a event. In addition, after the paperwork has been submitted, the dean of faculty can view the the full proposal before give their support to the event. Then, the approver also can view the full proposal that has been supported and immedietly can give their approval. So the applicant do no need to wait and waste their time to wait the paperwork back to them to check whether its approve or not and easily know the status of the event. Methodology Software Development Life Cycle (SDLC) used in the development of this project is Database Life Cycle. Software involved in the development of this system is Adobe Dreamweaver CC 2015, Adobe Photoshop CS3, WAMP Server 2.5, Hypertext Preprocessor (PHP) and Oracle 11g, Windows 7 and Google Chrome as web-browser.

ABSTRAK

FTMK Event Approval Application System adalah sebuah sistem berkomputer yang baru yang dibangunkan menumpukan kepada proses untuk mendapatkan kelulusan. Pemohon yang merupakan kakitangan fakulti mudah untuk mendapatkan kelulusan untuk sesebuah *event*. Selain itu, Dekan fakulti boleh melihat kesuluruh kertas kerja yang dikemukakan sebelum memberi sokongan. Selepas kertas kerja disokong oleh Dekan, kelulusan akan diberi pula oleh Naib Canselor atau Timbalan Naib Canselor. Pemohon tidak perlu menunggu lama untuk mengetahui status kertas kerja yang dikemukakan. Metodologi *Software Development Life Cycle (SDLC)* yang digunakan di dalam pembangunan projek ini ialah *Waterfall Backflow Model*. Perisian yang terlibat di dalam pembangunan sistem ini ialah *Adobe Dreamweaver CS3, Adobe Photoshop CC 2015, WAMP Server 2.5, Hypertext Preprocessor (PHP)* dan *Oracle* 11g di dalam pakejnya, *Windows 7* dan *Google Chrome* sebagai pelayar laman sesawang.

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LIST OF ABBREVIATIONS

FTMK	-	Faculty of Communication and Information Technology
DBMS	-	Database Management System
DFD	-	Data Flow Diagram
ERD	-	Entity Relationship Diagram
GUI	-	Graphic User Interface
PHP	-	Hypertext PreProcessor
RAM	-	Random Access Memory
SDLC	-	System Development Life Cycle
UTeM	-	Universiti Teknikal Malaysia Melaka
FEAST	-	FTMK Event Approval Application System

LIST OF ATTACHMENTS

CHAPTER I

INTRODUCTION

1.1 Project Background

"According to John-N Steve (2015) events are refers to something that happens at a given place and time for a reason with someone or something involved". He also state that management means the act of applying necessary skills in all business and all human resourcefull activities to accomplish desired goal and objectives. Joining this two means the explanation of event management is the process of creatively applying necessary professional skills in organizing a focused event for a target audience to archive a desired objective. Every semester there is an event organized by committee in Faculty Information Technology and Communication (FTMK) involved by student and staff. Current issues faced by

applicants of events are is the process of getting the support from dean of faculty and approval from Vice Chancellor (NC) and Deputy Vice-Chancellor (TNC) based on their budget. This happens because of the bureaucracy; for example dean has outstation and the applicant need seek immediate support before can get the approval. Then, the applicant also need to wait long time to know the status of the event, sometimes they have to wait until meet the deadine to carrying out the event. Others restraint that the supporter and approver faced is lack of information about the event has been carried out.

FTMK Event Approval Application System (FEAST) is a new computerized system to be develop focusing on process to get an approval. The applicant which is the staff by the faculty can easily request a event by one click anytime and anywhere without need to print out the paper. In addition, after the paperwork has been submitted, the dean of faculty can view the the full proposal before give their support to the event. Dean can check the request of the event as long as connect to the internet and logging to the system. Then, the approver also can view the full proposal that has been supported and immedietly can give their approval. So the applicant do no need to wait and waste their time to wait the paperwork back to them to check whether its approve or not and easily know the status of the event. Approver and supporter also can view report regarding the event.Another user of this system is administrator that can manage of user of this system and manage committee member.

This application will be of benefit to user which applicant, supporter and approver regarding process approval. Other than that, allows users to practice paperless and can reduce the waiting time.

1.2 Problem statement

i. Lack of communication regarding the process approval

- Problem encountered is the process of getting the support and approval of the event. This is because sometimes encountered bureaucratic problems; Dean went outstation and cannot sign the paperwork for supported then it will slow down the process for approval.

  .

ii. Data are not managed properly and Lots of paper used.

- The paperwork submitted by the general worker to obtain approval for the event organized, but the organizer hard to know the latest status of the event. Besides, negligence also causes the missing of paperwork. Lots of paper are used to prepare the paperwork and report.

iii. Lack of information on events status.

- User are not able to know much about the events have been done, heve been rejected, budget of each event and so on.

1.3 Objective

i. To develop an Online Event Approval Application System

- Develop a new computerized System Application Approval that can be easily used by applicant to get the supported and approval.

ii. To design a Database Management System(DBMS) to store event data.

- Currenly the data about the event are store using tradisional file system. Its make the data are difficult to find. With this system,all the data regarding the event will be safely save in DBMS.

iii. To provide a platform to generate report regarding the event information.

- User will be easily to view a report regarding the event every year.

1.4 Scope

Have are two considerable scopes concern in the development of the FEAST which are the user and module scope. User scope focuses on the system's user and their roles while module scope regulates the details of function that is classify by each module.

1.4.1 User Scope

User in FEAST divides into three which are the system administrator, applicant, supporter and approver. The administrator is in charge of managing user of this system and managing the committee member. Applicant can request the event, check status of the event, manage event, and manage their personal details. Dean of the faculty be the supporter for this system, that need to give support or not to the event request by the applicant. Deputy Vice-chancellor (TNC) or vice Chancellor (NC) is an approver for this system that can view the paperwork after get the support by dean and give their approval for the event. Then, can view report regarding event information.

1.4.2 Modules Scope

i. Login Module

This module aids to authenticating the validity and eligibility of the organizer which are an administrator, applicant or supporter and approver before they can access the system. The user is enforced to log in using username and password. The error message will be prompt out if username and password entered are not authorized.

ii. User Management Module

User can manage their personal details.

iii. Event Module

This module allows applicant to manage their paperwork data efficiently. Applicant need to fill the form provided by the system. Once the paperwork is sent then the applicant can check the status of the event before the event can be proceeding.

iv. Approval Module

This module allows approver and supporter to give approval and support to the event request by applicant.

v. Calculation Module

Calculation module is able to calculate total budget for each event based on budget insert by applicant.

vi. Report module

This module provides the report regarding event information. All the report generated is completed along with the details and data needed.

1.5 Project significance

i. Improves Productivity, Reduces Manual Processes

In previous system process, the used of manpower are very important. Sometimes lack of communication can make the important information are not delivered to the applicant. The system will makes user easy for the applicant to check all the important information regarding the event.

ii. Improve Data Storage Techniques

This system improves data storage techniques by using systematic and efficient database system.

iii. Save Time and reduce use of paper

These systems also will uses less of time during prepare the paperwork and can be reduced uses of paper. At the same time makes the process approval become faster.

iv. To Make the System Management More Efficient and Effective

The database systems are designed with the aim of providing more efficient access to information and improve the management of information storage to be more systematic.

1.6 Expected Output

i. Applicant can easily prepare the paperwork

This system will be provided a form like the real paperwork. Applicant just need to fill the required form regarding the event and submit the paperwork by just one click. They no longer need to print out the paperwork, get supported and approval manually.

ii. Supporter and Approver can easily giving approval and support anytime and anywhere.

The approval of an event become much easier because all the process just used by one platform which is using this FEAST. This is the Online system based that van be used anytime and anywhere as long as the user are connect to the internet.

iii. Applicant easily know the current status of the event

Status of the event are easily known after the request are sent, get support and approve .

1.7 Conclusion

FTMK Event Approval Application System (FEAST) is an efficient system to easily use to get an approval for an event at FTMK. Among the advantages of this system is to facilitate the approval process and view the report regarding the event information. Paper used can be reduced and save time. Event performance can be improved and the probability of human error can also be reduced.

CHAPTER II

PROJECT METHODOLOGY AND PLANNING

2.1 Introduction

Essentially, a database is a fact or data repository that delivers an information system. If the database is designed poorly, one can barely predict that the data or information renewal will not be fortunate, nor is it acceptable to expect profitable and capable management of data and information. It is impossible to carry out good information from poor data and also bad database design is impossible to be applied in a good application programs. To develop system efficiently, it is decided to use Database Life Cycle as methodology for FEAST. Benefit of the Database Lifecycle (DBLC) never

ends because database monitoring, modification, and maintenance are part of the life cycle, and these activities continue long after a database has been implemented.

The transformation of data into information is accomplished through application programs. So, if there are any problems arise, it can refer back to phase that has gone through. It consists of full description on every steps to develop this project including Database Initial Study, Database Design, Implementation and Loading, Testing and Evaluation, Operation, Maintenance and Evaluation. Each phase is completed and the life cycle moves into the next phase. The initial study and maintenance and evolution phases are mainly linked. Client may be determine to look into a database change when database in maintenance and evolution phase. Then, they would move out of the maintenance and evolution phase and return to the starting point of the initial study.

2.2 Project Methodology

The methodology used to actualize this project is Database Life Cycle (DBLC). The DBLC moves legitimately starting with one stage into the next stage until finish. Following are the stages included:

2.2.1 Initial Study

In this phase, the process is to identify problems and constraint, define the objective, scope and boundaries. A planned database system must be draft to support clear up at least the dominant problems determine during the problem analysis process. To complete this phase, interview has been done to President Faculty Information Communication Technology Society (FICTS) and Secretary of Faculty Information Technology (FTMK) who handle about Event Approval process. Interview is done to get the data needs and requirement such as who the user, scope and the issues about the existing system before can carry out the event.

2.2.2 Database Design

Database design focuses on conceptual design. Data analysis and requirement are comprised at this phase which collects data items and characteristics. Decision making are identified while data items are compulsory to process the information and document the characteristics. Then, what does the existing system can do and what the proposed system can be done is the material or data must be focused of the designer. Other than that, developer also needs to make DBMS selection. FEAST chooses to be developing use Oracle 11g. Then, design the Entity Relational Diagram Model (ERD) to define process of business rules and do the normalization. The ERD model must be documented against the proposed system processes in order to collaborate that the planned processes can be backing by the database model.

2.2.3 Implementation and Loading

After DBMS are selected then should be implement with install the DBMS. Then, Implementation and loading take place which are the developer can create database and the data must be loaded into the database tables. This phase of the DBLC also requires that the database performances evaluated security standards set up, backup and recovery procedures put in place, data integrity enforcement. Finally, the database administrator must ensure that the company standards are being followed by implementing and enforcing them in database. Information may have to be imported from non-relational databases, other relational databases, flat files, legacy systems, or even manual paper.

2.2.4 Testing and Evaluation

` Even though it already tested during implementation and loading but it is tested again and fine-tuned. Then, the administrator is required to test integrity, security and multi-user load. This phase are tuning appear in parallel with the testing and performance tuning of the application programs. Frequently, due to the inefficient code in the application program make the database performance deterioration. So how hard the database administrator tries to fine-tune the database parameters, unless and otherwise, the application program logic is changed to a more efficient one, the performance will not improve. Database administrator and application programmer must be work hand-in-hand during this phase and it's very important.

2.2.5 Operation

At this stage the database is considered to be operational and the database, its management, its users and the application programs together form an information system. During the operational phase, the database is accessed by the users and application programs, new data is added, the existing data is modified and some obsolete data is deleted. The database administrators perform the administrative tasks like performance tuning, storage space creation, access control, database back up and so on. It is during the operational phase that the database delivers its usefulness as a critical tool in management decision-making and help in the smooth and efficient functioning of the organization.

2.2.6 Maintenance and Evaluation

Maintenance and evolution or life time stage is the last phase in the methodology. The system developer will perform conventional maintenance to the FTMK Event Approval Application System some of the required periodic maintenance activities included such as follows database backup and recovery, performance tuning, database design modification, access management and audits, usage monitoring, hardware maintenance and lastly is DBMS Software up gradation.

2.3 Project Schedule and Milestone

In this section, actions plan prior from the first to the end of the project activities was explained and listed in a table as shown in Table 2.1. Gantt chart can be referring on Appendix A.

Table 2.1 Project Schedule and Milestone

Date	Activity
22 Feb- 4 Mar	**Initial study (chapter 1)** - Business rules - Identify problems and constraints - Define objective, scope and boundaries
7-13 Mar	**Database Design (Chapter 2)** - Create conceptual design - DBMS software selection - Create the logical Design - Create the physical design
14 Mar – 25 April	**Implementation and Loading (chapter 3)** - Install the DBMS and Create the database - Load and convert the data - Project Demo & Chapter 3
26 April- 23 May	**Testing and evaluation (chapter 4)** - Test and fine-tune database - Evaluate the database and its application - Project Demo & Chapter 4 - Project Demo & Report

Date	Activity
24 May – 27 May	**Operation (Chapter 5)** - Produce the require information flow
28 May- 3 Jun	**Maintenance and Evaluation (Chapter 6)** - Introduce the chance - Make enhancement - Backup and recovery - Final presentation

2.4 Conclusion

To make sure the development goes in the flow until the end than the project methodology is very important. Common was chosen as project methodology because it is flexible and easy to understand. Each developer should determine a lifecycle model to use along the project process and developer itself depends on the features of the specific application currently under development base on strengths and minimizing the weakness.

CHAPTER III

ANALYSIS

3.1 Introduction

Problem of the system, the technical feasibility and implementation are the focus on system analysis. Analyzing systems that have the same characteristics and the system to be developed is the analysis categorized. To identify the needs of the new system then the developer should collect all the relevant information needed from many sources including experienced and new users, other stakeholders, SMEs, and managers.

To develop the tough system then the most important phase is in order to appropriate needs of consumers is design and analysis phase. In this phase, system development costs, the need to develop this system as well as others needs to be determined. This phase is the essential phase to make sure the user know about the system and seek input and output are suitable for the system to be developed

For this analysis phase, ERD that stand for Entity Relational Diagram, DFD which is Data Flow Diagram and flow chart are created to get a brief overview of the database system was established. For producing process, number of table in the database information will be resolve.

3.2 Problem Analysis

Problem analysis phase is where users need to give the best ideas and suggestions abstract solution to the problem and process to understand the real-world problems. It gains better improvement before development begins, of the problem to be solved. When dealing with many technical problems then it is useful of analyzing the problem.

3.2.1 Current System Analysis

Figure 3.1 show the current process to propose an event to the faculty. All the process is done manually by staff and takes a long time to wait the status of the event.

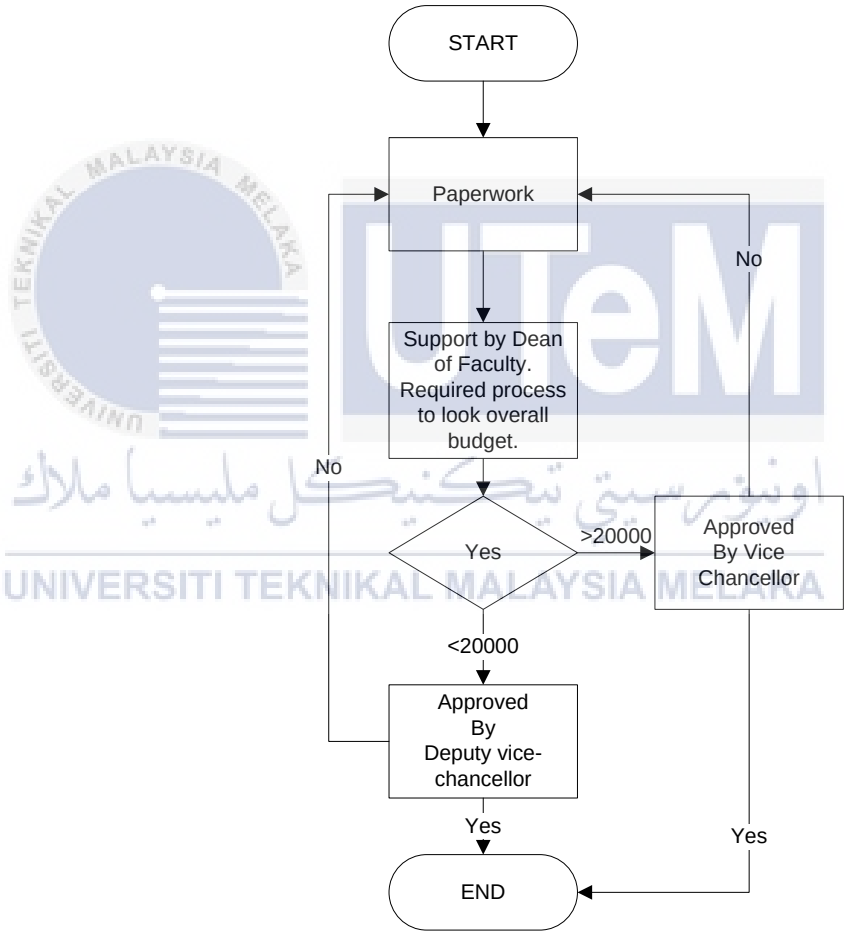

Figure 3.1 Current Process Flow

3.2.2 Flow Chart for the Proposed System

This section illustrates the Flow Chart and Data Flow Diagram (DFD) for the system to be developed. The flow chart below shows the applicant, approver, and supporter and administrator activities regarding the system. Figure 3.2 shows flowchart for login function for the user which is administrator, supporter and approver and applicant.

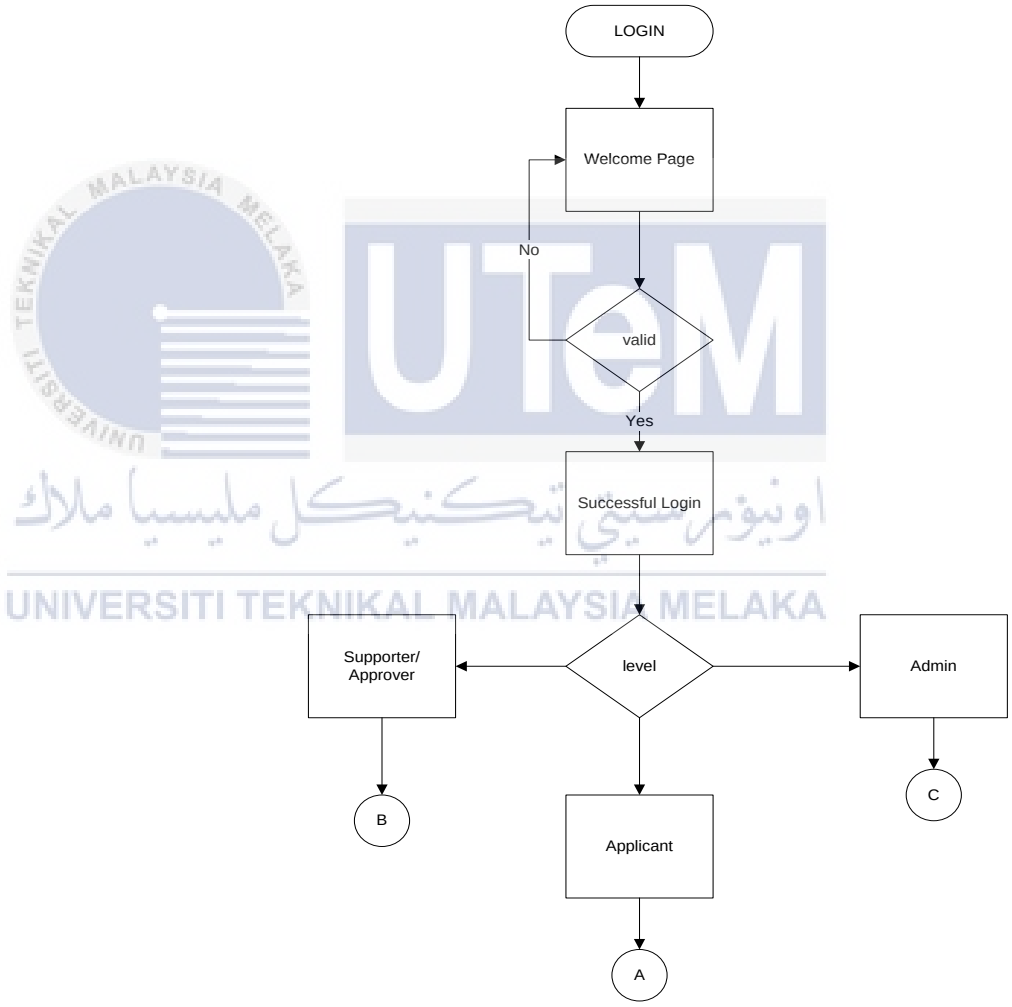

Figure 3.2 : Flow Chart for Login process

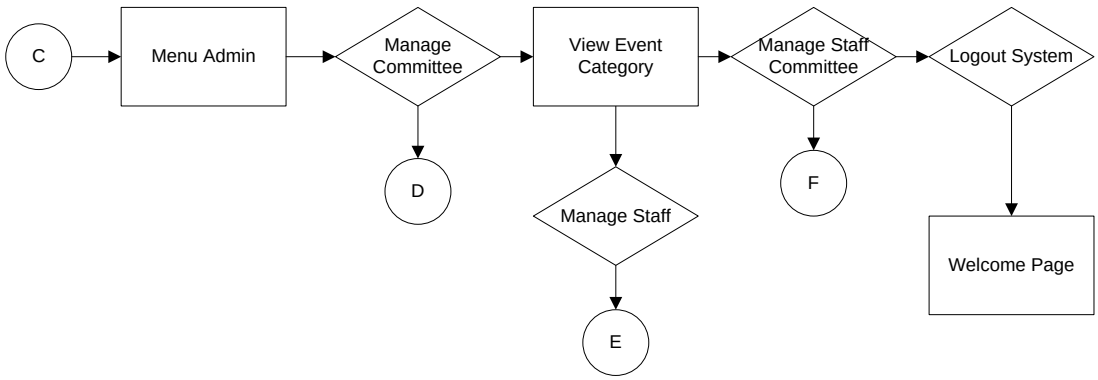

Figure 3.3 Flowchart admin activity

Figure 3.3 show the proses that admin can do after log in into the system. Which is admin can manage committee, manage staff and manage staff committee. This is the proses that admin can do after log in into the system. Which is admin can manage committee as shown in figure3.4 ,figure 3.5 show the process of manage staff which is add new staff in the system and manage staff committee explain in figure 3.6

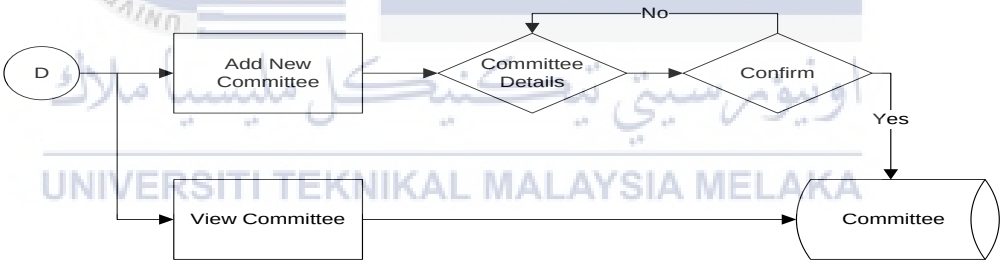

Figure 3.4 Manage Committee

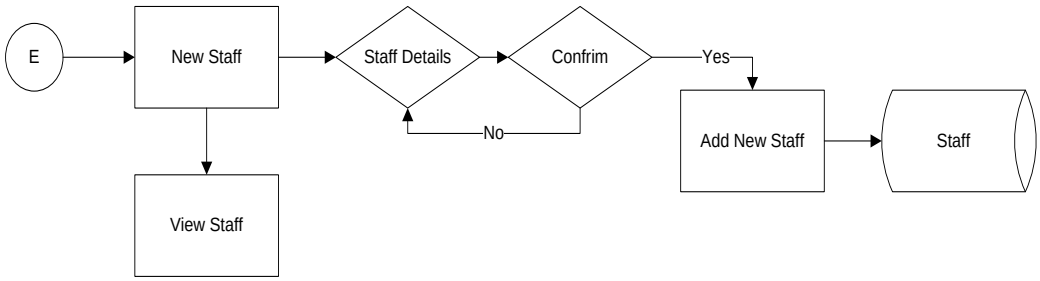

Figure 3.5 Manage Staff

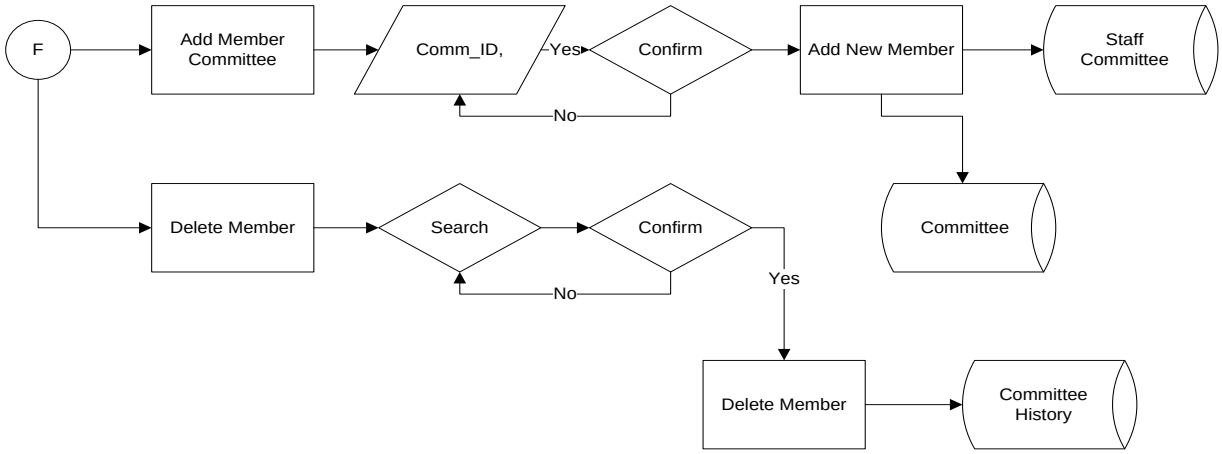

Figure 3.6 Manage staff Committee

Figure 3.7 show the proses that supporter and approver can do after log in into the system. The supporter and approver can give status as a feedback to the event request by an applicant. Other than that, user can view report regarding the event by year and category.

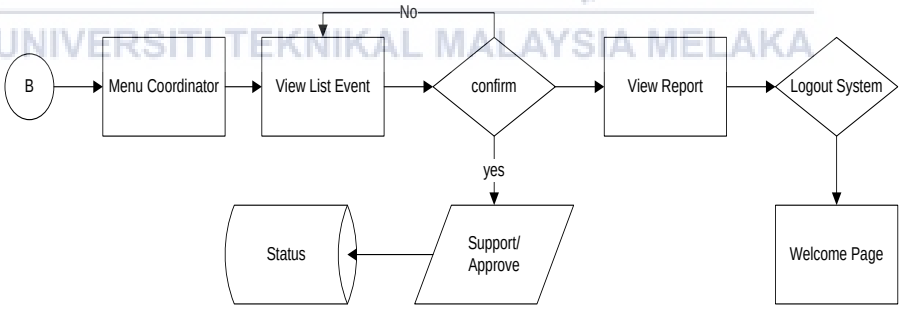

Figure 3.7 Supporter and approver flowchart activity

Figure 3.8 show the proses of an applicant can do after log in into the system. The applicant can give manage their personal details, create an event and view status of the event.

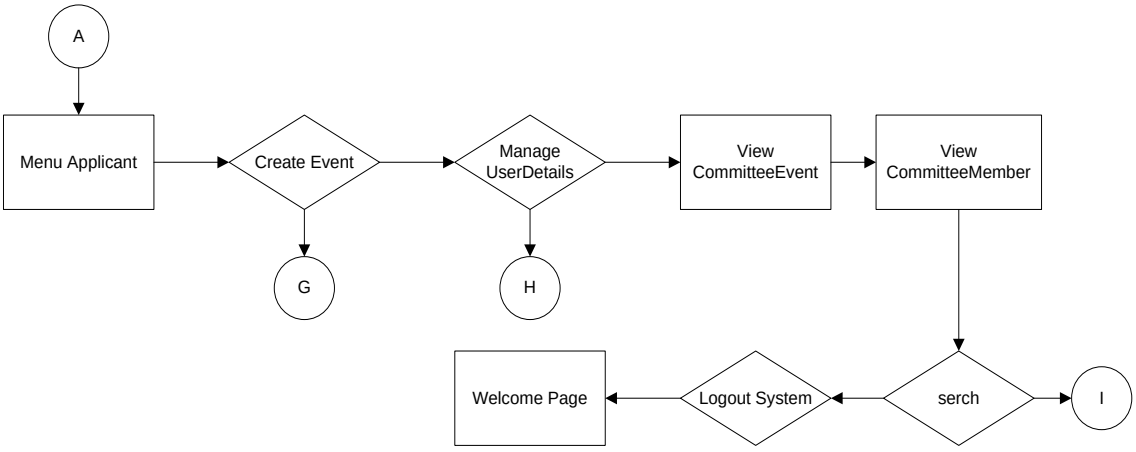

Figure 3.8 Flowchart applicant activity

This is the proses that which user acts as applicant can do after log in into the system. The applicant can manage their user details as shown in Figure 3.9, apply an event explain in Figure 3.10 and view status of the event by search in Figure 3.11.

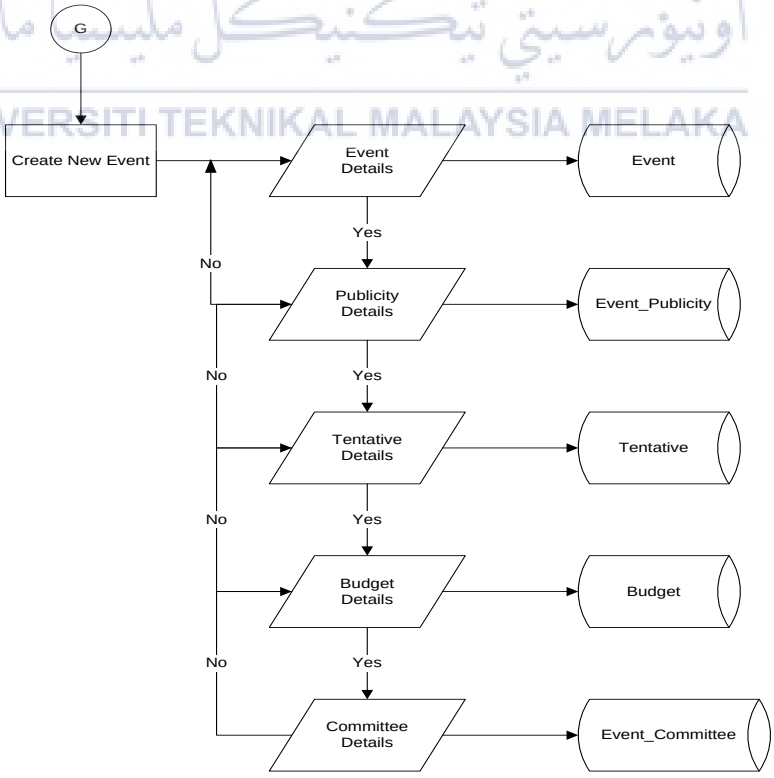

Figure 3.9 Applicant Apply an Event

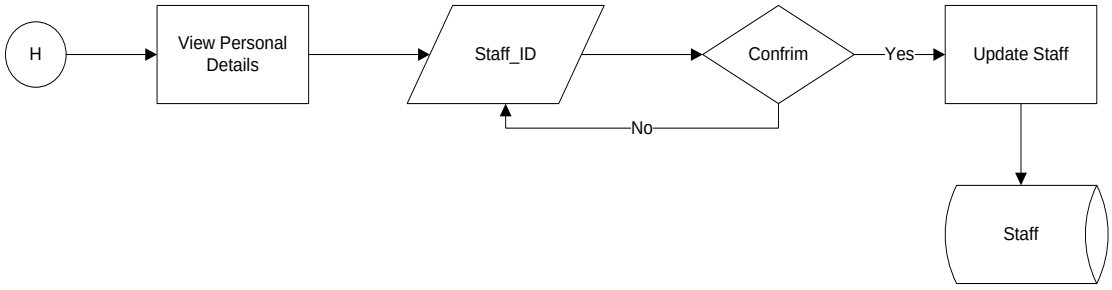

Figure 3.10 Applicant Update User Details

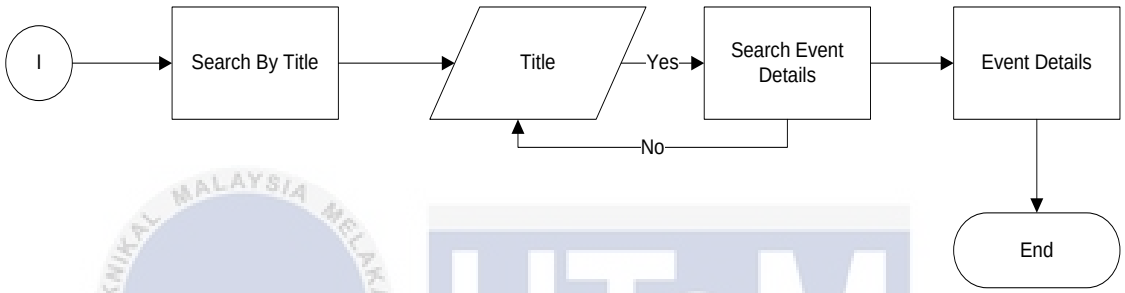

Figure 3.11 Applicant Search an Event

3.3 Data Flow Diagram (DFD) for the Proposed System

DFD is an impression of the movement of data between external entities, the processes and data stores within a system. Figure 3.11 shows the context diagram for FEAST. While Figure 3.12 shows DFD Level 0, and Figure 3.13 until Figure 3.17 is the DFD Level 1 for FEAST.

3.2.1 Context Diagram

Context Diagram is an inspection of an organizational system that shows the system boundaries, external entities that interact with the system, and the entities and the system major information flows. There are three external entity involve into FEAST which are admin, applicant and supporter or approver. Each external entity will send information into the FEAST and the process will be explain in the figure 3.12 which is Context Diagram of FEAST.

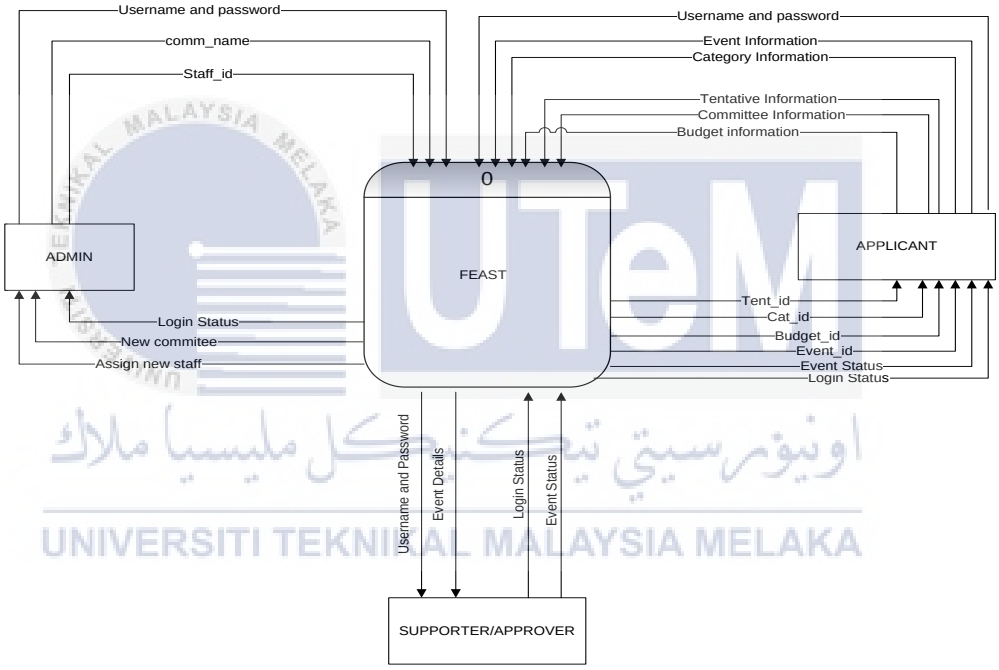

Figure 3.12 : Context Diagram of FEAST

3.3.2 Data Flow Diagram (DFD) Level-0

Data flow diagram level 0 is a data flow diagram that acts as a system's dominant processes, data flows, and data stores at a high level of detail of the FEAST. Figure 3.13 show the DFD Level 0 for FEAST.

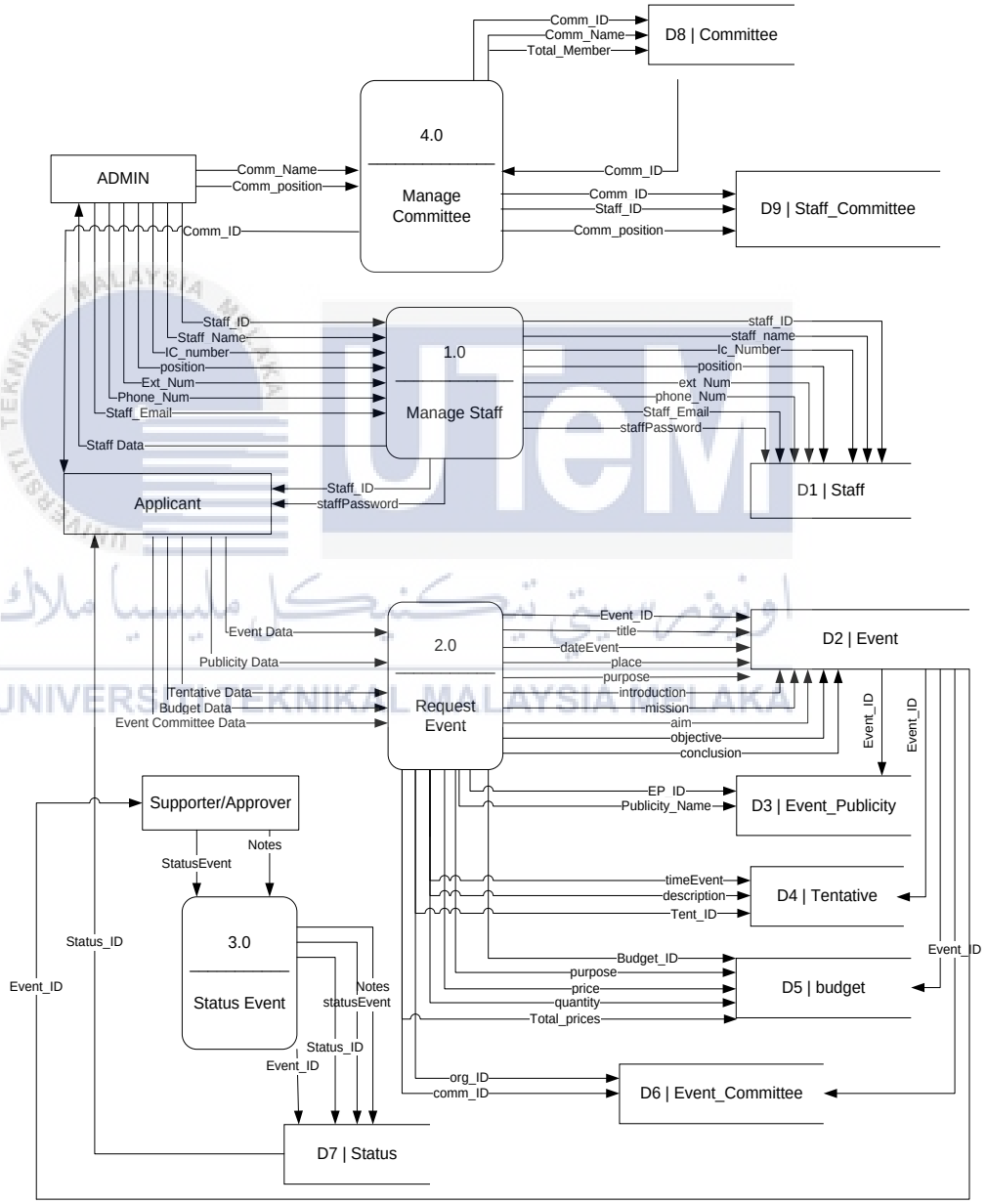

Figure 3.13 DFD Level 0

3.3.3 Data Flow Diagram (DFD) Level-1 for Manage Staff

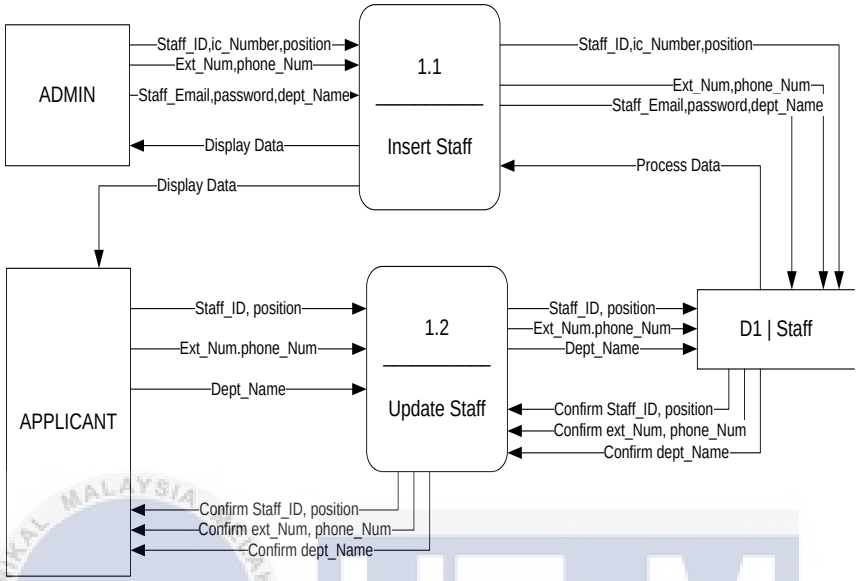

Figure 3.14 Data Flow Diagram (DFD) Level-1 for Manage Staff

3.3.4 Data Flow Diagram (DFD) Level-1 for Request Event

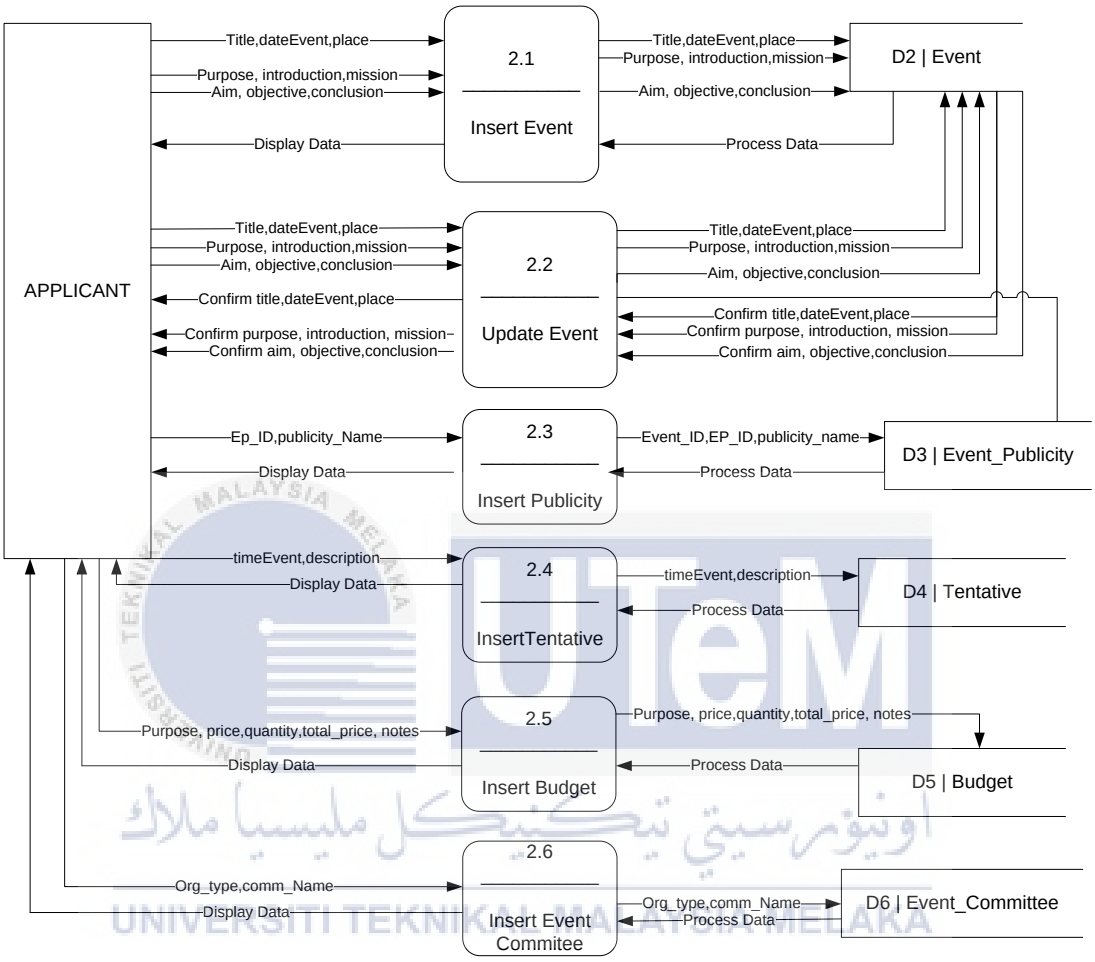

Figure 3.15 Data Flow Diagram (DFD) Level-1 for Request Event

3.3.5 Data Flow Diagram (DFD) Level-1 for Status Event

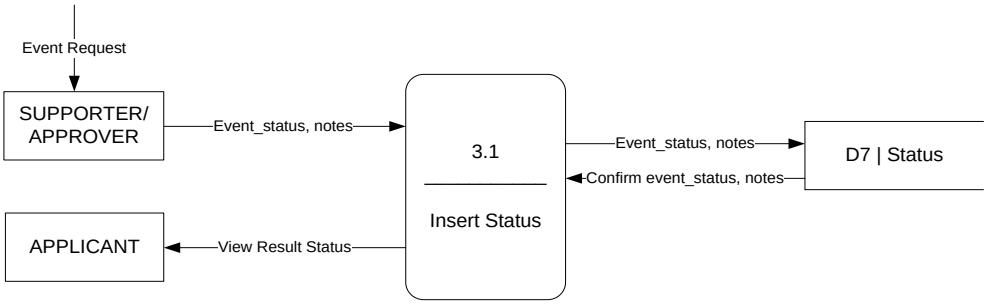

Figure 3.16 Data Flow Diagram (DFD) Level-1 for Status Event

3.3.6 Data Flow Diagram (DFD) Level-1 for Manage Committee

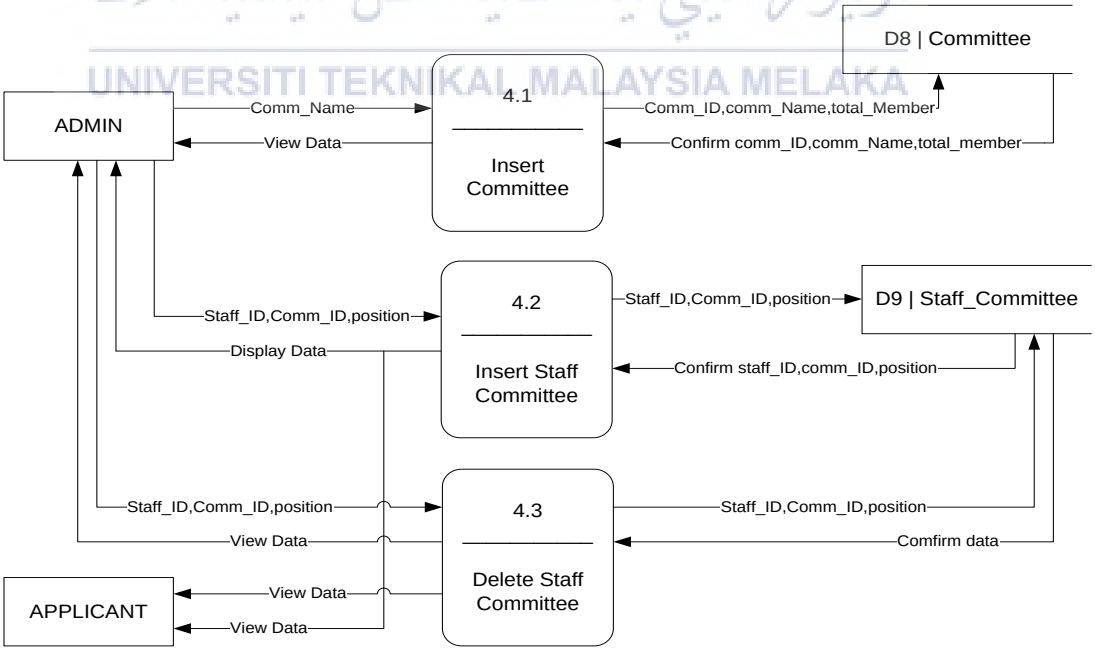

Figure 3.17 Data Flow Diagram (DFD) Level-1 for Manage Committee

3.4 Requirement Analysis

Requirements analysis is a team effort that demands a combination of hardware, software and human factors engineering expertise as well as skills in dealing with people.

3.4.1 Non Functional Requirement

Non-Functional requirement indicate how the system consider act or to judge the operation of system rather than the specific behavior. Table 3.1 shows the non-functional requirement in the FEAST.

Table 3.1 Non-Functional Requirement

NFR _No	Requirement	Description
1	Accuracy	All the required field must be entered
2	Error Handling	Any invalid data or field not filled can be notify using popup message
3	Performance	All the process should be response by system not more than 5 seconds.
4	Security	All the data are protected by level access
5	Usability	The system are easy to use because the system have familiar interface transaction
6	Safety	Not causing harm, injury or damage user
7	Database	Structure, efficiency and integrity of stored data
8	Efficiency	Taking minimal time, cost to create solution

3.4.2 Others Requirement

Justification of usage for software, hardware and network requirements that will be used in this system development will be described.

3.4.2.1 Software Requirement

This entire software is split into two which is for client and server software requirements. Table 3.2 shows the description each of software used in this system development.

Table 3.2 : Software Requirement

SERVER / CLIENT	
Software	**Description**
Adobe Dreamweaver CC 2015	Platform to do the web based. Easier to coded and easier to design interface for the web based system. Dreamweaver CC 2015 has incorporated support for web technologies such as CSS, JavaScript and various server-side scripting languages and frameworks including PHP. It allows users to preview websites in locally installed web browsers helps in design and coding process.
	Operating system as a platform for DBMS and system development installed on it. Windows 7 is new released

Microsoft Windows 7	from Microsoft and has better performance.
WAMP Server	Wampp is free open source apps and a web server like Apache HTTP server, MySQL, FileZilla, Mercury, and Tomcat servers and written in PHP and Perl programming language.
Google Chrome	Google Chrome used as web browser to preview the website. It is recommended for user to using latest version of it.
Microsoft Office 2010	Microsoft Office Word 2010 for document writing. Microsoft Visio 2010 for drawing the Entity Relationship Diagram which is for database design. Meanwhile Context Diagram and Data Flow Diagram are to show functional requirement of the system. Microsoft Office Project 2012 is for making Gantt chart to showing the timeline or milestones for the project development.
CLIENT	
Software	**Description**
Microsoft Window Operating System	Windows operating system whether 32-bit or 64-bit Windows XP or Windows 7
Mozilla Firefox / Google Chrome	Web browser to access and preview the system.

3.4.2.2 Hardware Requirement

The hardware requirements are shown in Table 3.3 is the hardware requirements that needs to develop this system and there are very minimum requirements that can meet client and server needs.

Table 3.3 : Hardware Requirement

HARDWARE	DESCRIPTION	SERVER	CLIENT
Hard disk	Hard disk is main storage in a computer where all the software installed on it.	Minimum 100 GB free disk space	Minimum 300 MB free disk space
Memory (RAM)	Memory is defined as Random Access Memory (RAM) provides space for the computer to read and write data to be accessed by the CPU (central processing unit) or processor.	Minimum requirement of memory required is 2 GB, though 3GB is recommended.	Minimum 512 MB of memory, though 1 GB is recommend
Processor	Processor is the electronic component which is act as 'brain' for of a computer. The higher the processing speed is much better.	Minimum 2.27 GHz speed of CPU processor	Minimum 1.3 GHz speed of CPU processor

Printer	Printer is for print the Booking Confirmation Slip.	Minimum printer required is from deskjet model of any kind of brand.	Minimum printer required is from deskjet model of any kind of brand.

3.4.2.3 Network Requirement

A system to be developed is online based system than it is necessary a network requirement to access the system. Network requirements for both client and server needs will be explained in Table 3.4.

Table 3.4 : Network Requirement

Network	Description
Network	Average speed required is 54.0 Mbps of speed for Local Area Network. This to ensure the website can be access without having any problem such as loading time for accessing or submit the booking and purchasing details.
Modem	Modem is used for connect the computer to the internet. Fast Ethernet modem with average speed 54.0 Mbps is required.

3.5 Conclusion

This chapter analyzes the analysis of the issues in the existing system that has the characteristics blend with the system to be developed. It is related to software, hardware, and network requirements. To improve system requirements that are related to the FTMK Event Approval Application System can be done by collecting all the information related to the associated with the system requirements.

CHAPTER IV

DESIGN

4.1 Introduction

Design phase is focused or discusses system design for FTMK Event Approval Application System after classify all the requirements of the system. This phase will be divided into three which are system, interface and database design. The structure and design of the system to be developed are the long term of the design sketches. How the information is saved by the user in the database structure will be describe in the database design. To yield a computer specifications to solve this problem are based on the results retrieved from the analysis of the design. All results

is system design, including software specification for each function in the FTMK Event Approval Application System and database design to be used.

4.2 High -Level Design

Each model that has been stated in the requirements analysis phase will display an overview of the high-level design. Raw data or input, system design, user design interface and database are involved.

4.2.1 System Architecture

Designing the system is the one of the important action in system architecture is designing the system. System architecture was identified during the first phase of the project development and identifies the needs of analysis. Figure 4.1 shows the design of applications for FEAST that consists of a client, middle, and database tier.

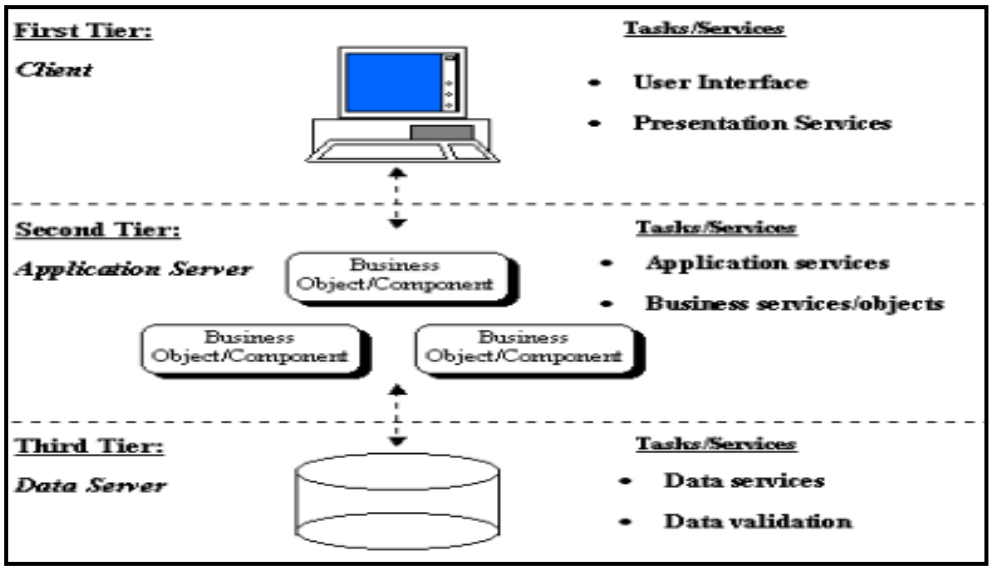

Figure 4.1 : Three tier Architecture

4.2.2 User Interface Design

User interface design is separated into three which is navigation design, input and output design. Input and output design on each interface can be described by the user whether a system is a system can communicate well.

4.2.2.1 Navigation Design

With the old system, users store and access information manually. The new system to be developed is intended to enable user to store and access information on time at anywhere.

Figure 4.2 shows the navigation design for applicant, supporter and approver in using the system. Each user had difference design of methods of finding one's way around the information structure of the FEAST. Navigation design is a part of information architecture.

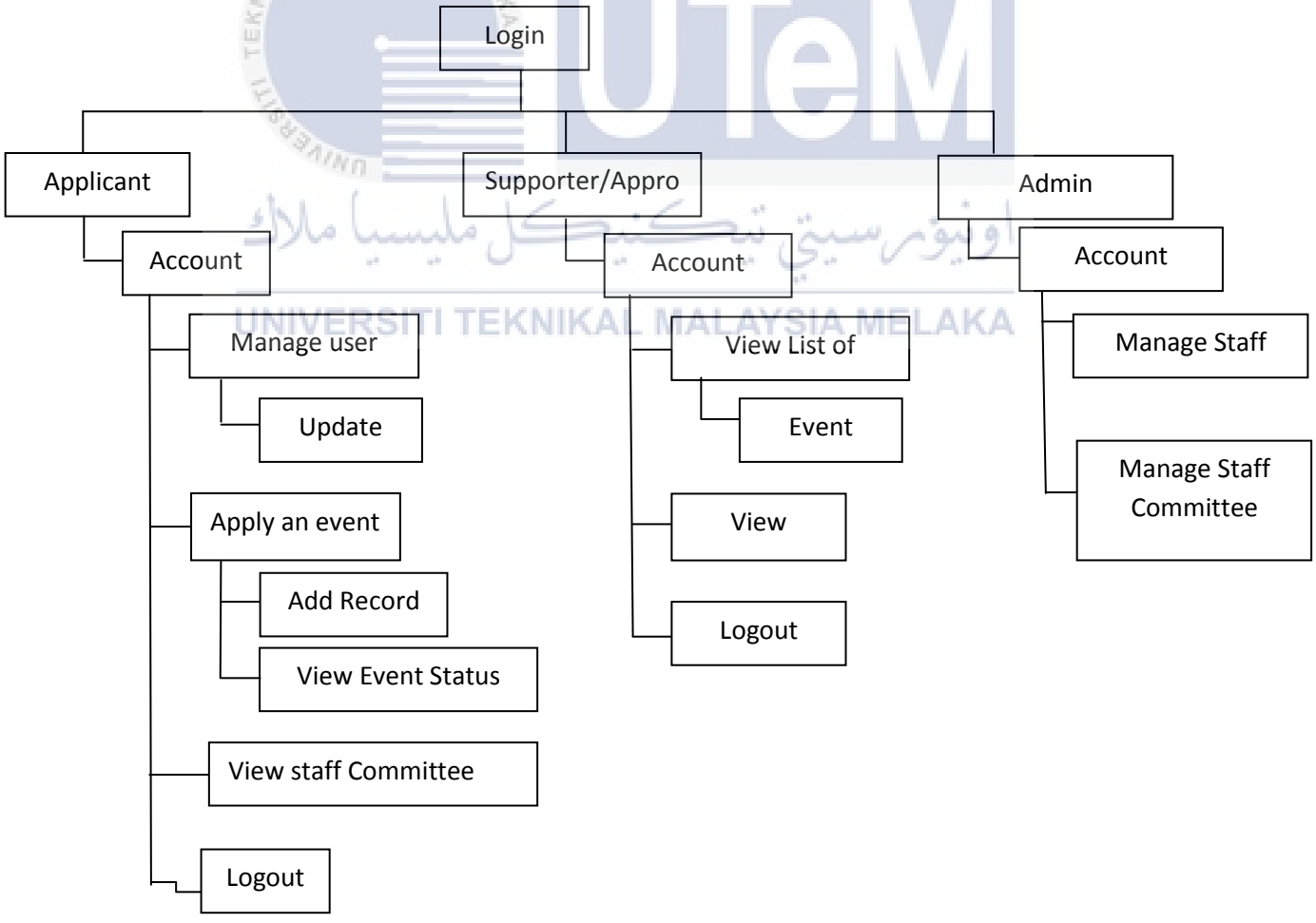

Figure 4.2: Navigation Design for FEAST

4.2.2.2 Input Design (Sample Design)

Input or sample is a design of types of input that will be at user interface. Text, numbers, alphabet, symbol and etc. are the example of input types. Before saving data in the database, certain input is important need to be validated.

4.2.2.2.1 User Authentication Management.

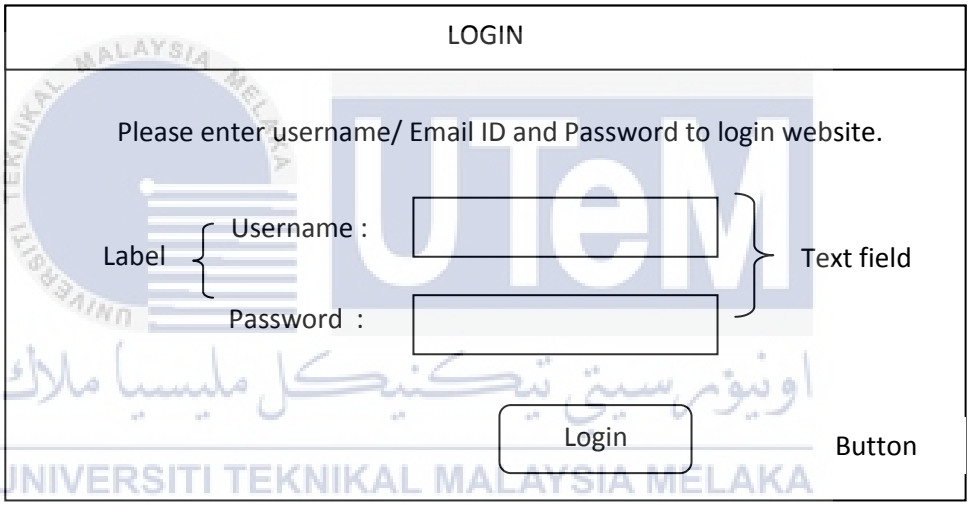

Figure 4.3 : First Design for Login Page

Figure 4.3 is a login design. The login form organized in a box titled ‘Login’. Before login, users must input the Username and Password on the box provided. Username and Password is the text field. 'Login' is a button that validates user to the next page based on their level authentication. If users forget their password, this design not able to assist then it is the weakness.

4.2.2.2.2 Event Management

Design for applicant applies an event page for FEAST will be shown in the figure 4.4.

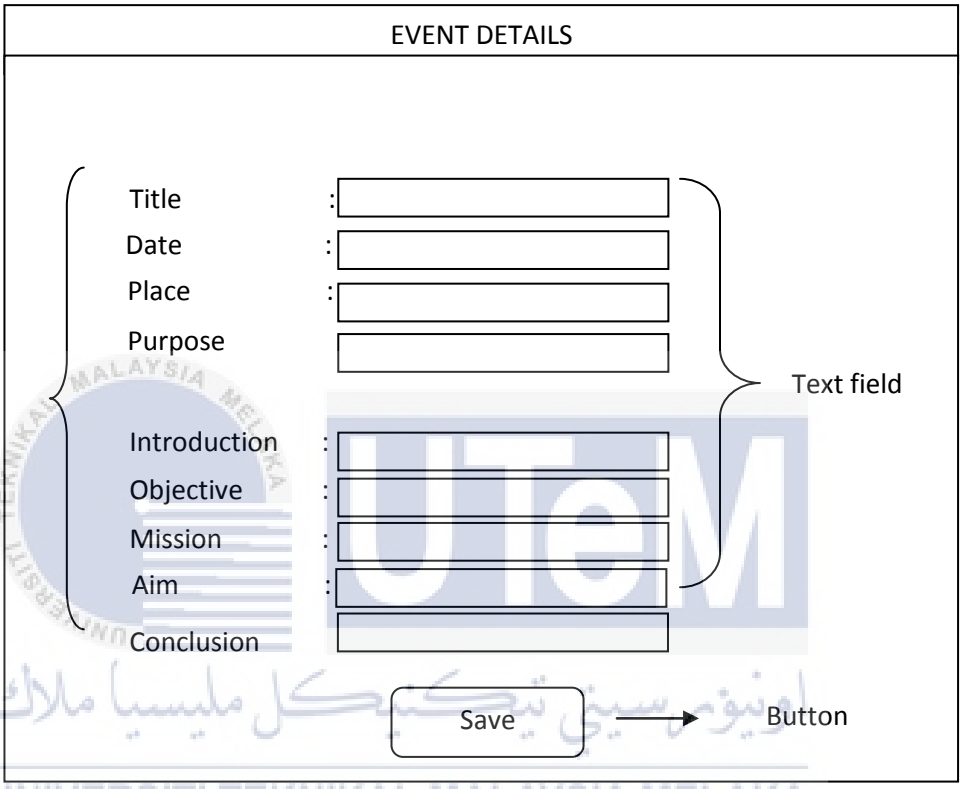

Figure 4.4 : Design for Apply an Event

Applicant must fill all the data that consists of title, date of the event, place, purpose of the event, introduction, aim and etc. Once the applicant click on the save button then then the data are saved and id for the event are auto generate using trigger. After that, applicant must fill the publicity and tentative, budget and committee that organized the event. Based on budget for each event can decide who can give the approval for that event after get supported by dean of faculty. If budget under 2000, the event will approve by Deputy Vice-Chancellor while budget above 2000 will get approve by Vice-Chancellor.

4.2.2.2.3 Support/ Approve Management

LIST OF EVENT

EVENT ID	TITLE	DATE EVENT	Action
Data requirement	Data requirement	Data requirement	Status
Data requirement	Data requirement	Data requirement	Status

Figure 4.5 : First Design for support/Approve Management

Figure 4.5 shows the design that has a list of event apply by applicant. Event has several column such as event ID, title, date. From this view supporter which is dean of faculty and approver which can be NC or TNC can view full proposal by click on event id. Then click on status to give support or approve for the event.

4.2.2.3 Output Design

Design is the after input entered then generates output. This section is very essential to be implemented into data requirement the system because this is the best design has been selected on the input design section.

4.2.2.3.1 User Authentication Management

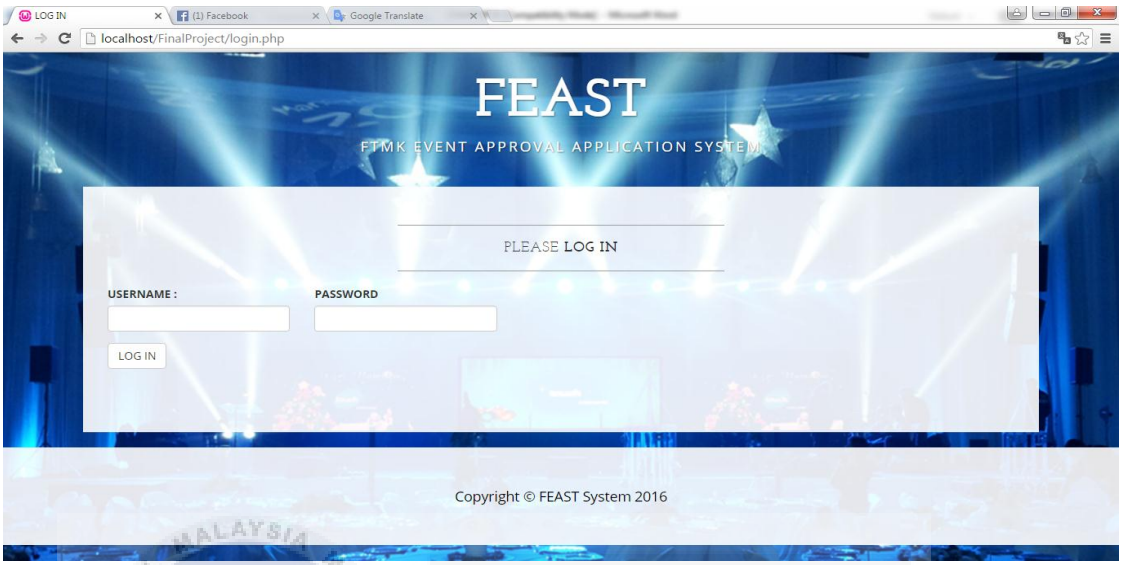

Figure 4.6 : Output Design for User Authentication

Figure 4.6 is the output design was chosen because it more structured and systematic. In addition, Popup message will be show if the user incorrectly or null entered username or password.

4.2.2.3.2 Apply an Event

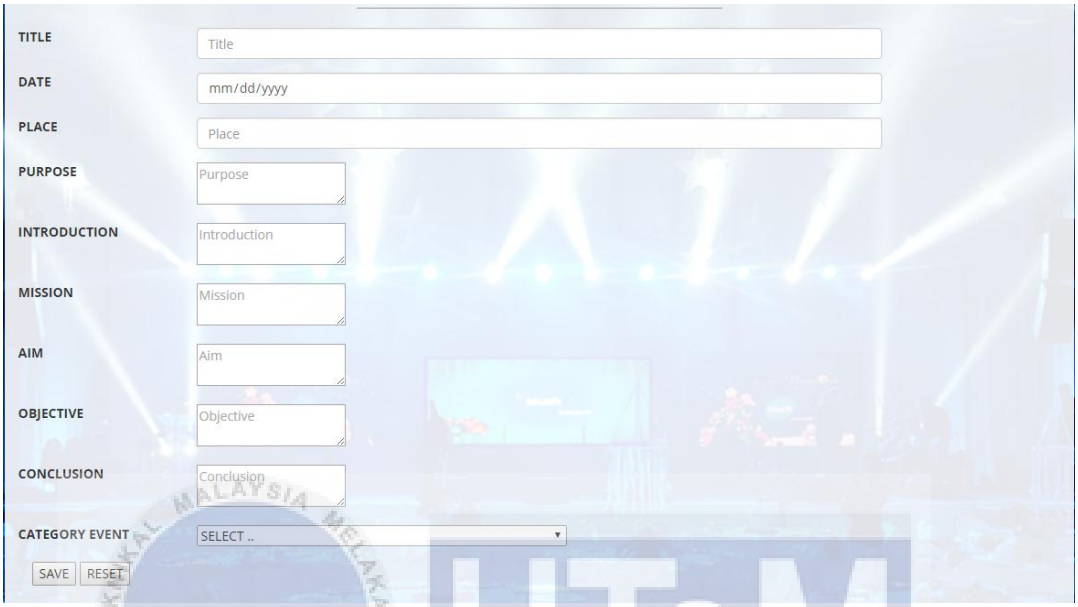

Figure 4.7: Output Design for apply event

Figure 4.7 shows the output design for apply an event. Users are required to complete the field provided. If user not complete enter all data in the required field then this interface design will provide alert message. This will avoid arise of any error.

4.2.2.3.4 Support / Approval Management

Figure 4.8 shows the design of the output for supporter and approver to give status to the event.

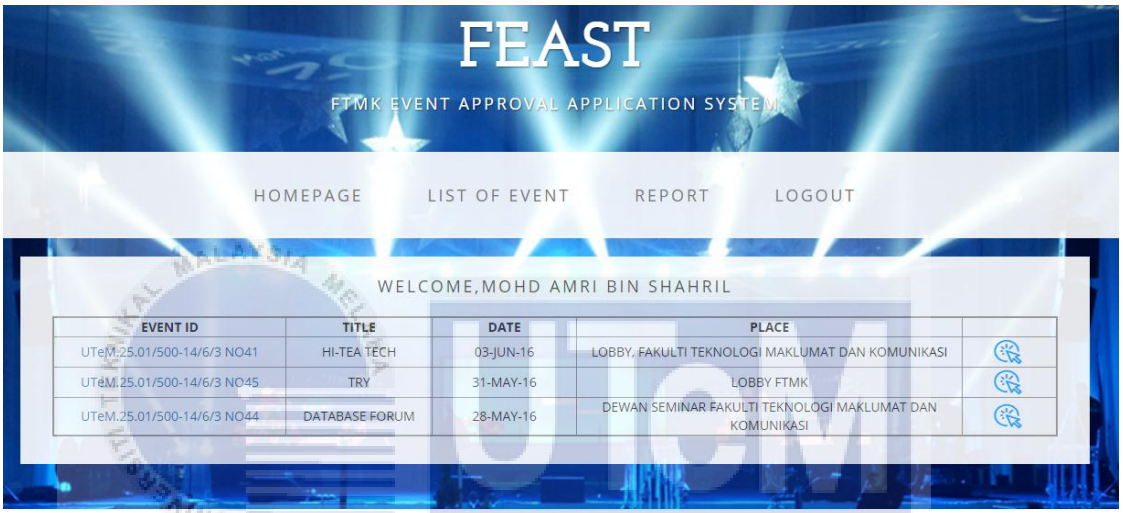

Figure 4.8 : Output Design for support and approve .

4.2.3 Conceptual Database Design

Database design can be describe as a process of bring out a specialty data model of a database. The needs of logical and physical design choice and to achieve a Data Definition Language (DDL) which is physical storage parameter enclosed in the logical data model. Detailed attributes for each entity are involved in a fully attributed data

i. Entity Relationship Diagram (ERD)

ERD is a way of distinctly representing the logical relationships of data in order to create a database by showing the relationships among the entities and the attributes in each entity. The ERD for this system is shown in Figure 4.9.

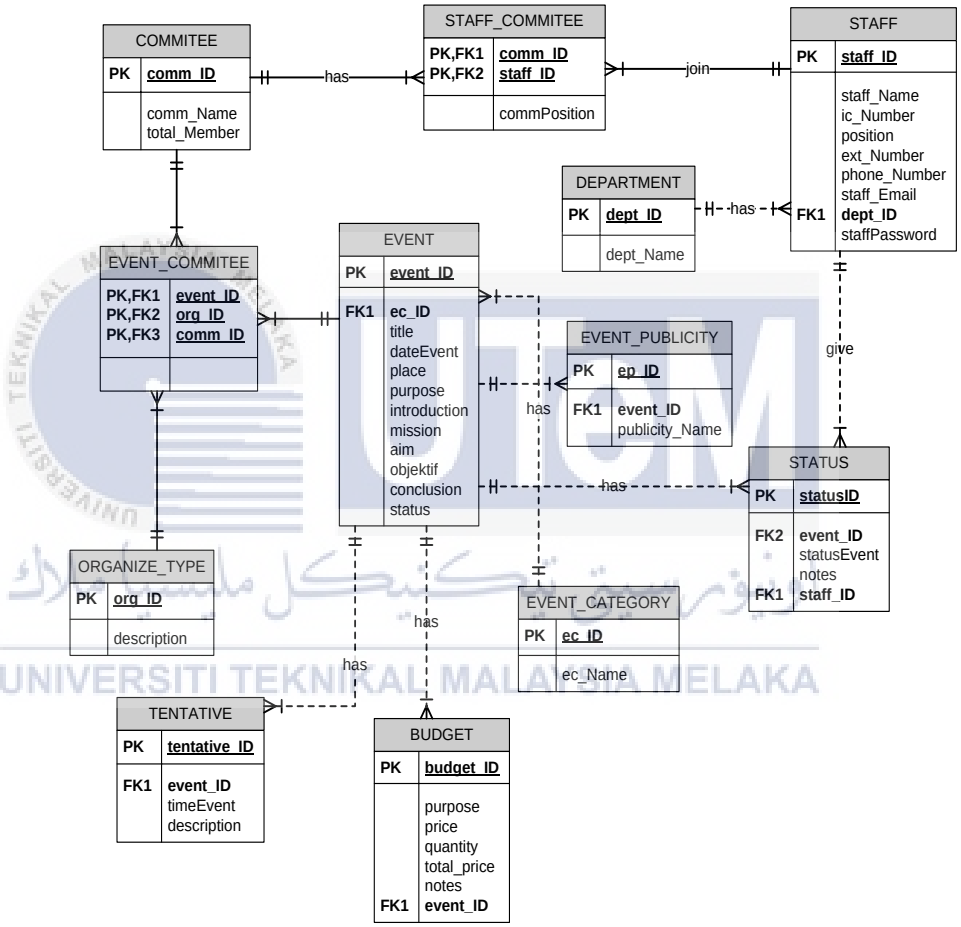

Figure 4.9 : Entity Relationship Diagram (ERD)

ii. Business Rules

Each staff can join one or more committee

Each committee can be join by one or more staff

Staff can give one or more status

Each or more staff can join one department

One department can be join by one or more staff

Each or more committee can create one or more event

One or more event can be create by one committee

Each event committee has one or more categorize type

Each event can have one or more budget

Each event can have one or more tentative

Each event can have one category

Each event can have one or more publicity

4.2.4 Logical Database Design

Logical Database Design is used to convert the conceptual representation to the logical structure of the database and it represents the data dictionary and data normalization. Other than that, it is to master data entities, operational and transactional data entities are now decided. The details of each data entity are developed and the entity relationships between these data entities are established.

i. Data Dictionary

Data Dictionary is the data about the data of tuples in a database. It is important for others users as their implication use for upgration if has any problem. Table 4.1 shows data dictionary for table Budget. The rest of data dictionary can refer to the Appendix B.

Table 4.2 : Table Budget Data Dictionary

Input	Data Type	Length	Constraint	Reference Table
BUDGET_ID	VARCHAR	10	Primary Key	
EVENT_ID	VARCHAR	35	Foreign Key	event
PURPOSE	VARCHAR	50		
PRICE	NUMBER	(7,2)		
QUANTITY	NUMBER			
TOTAL_PRICE	NUMBER	(7,2)		
NOTES	VARCHAR	50		

4.3 Data Definition Language (DDL)

DDL is stands for Data Definition Language used to represent data structures within a database. It is regularly cogitated to be a subset of the Structured Query Language (SQL) or can be refer to languages that define other types of data.

4.3.1 Physical Database Design

```
create table STAFF (staff_ID varchar2(30) PRIMARY
KEY,
staff_Name varchar2(80),
ic_Number varchar2(14),
position varchar2(50),
ext_Number varchar2(10),
phone_Number varchar2(10),
staff_Email varchar2(50),
staffPassword varchar2(10),
dept_ID varchar2(10),
FOREIGN KEY (dept_ID) REFERENCES
department (dept_ID));
```

Figure 4.10 : Coding Create Table for staff

```
create table DEPARTMENT (dept_ID varchar2(10)
PRIMARY KEY,
dept_Name varchar2(80));
```

Figure 4.11 : Coding Create Table for department

```
create table EVENT(event_ID varchar2(10) PRIMARY KEY,
title varchar2(80),
dateEvent date,
place varchar2(100),
purpose varchar2(4000),
introduction varchar2(4000),
mission varchar2(500),
aim varchar2(500),
objective varchar2(500),
conclusion varchar2(4000),
ec_ID varchar2(10),
FOREIGN KEY (ec_ID) REFERENCES event_category (ec_ID));
```


Figure 4.12 : Coding Create Table for event

4.4 Conclusion

Design focal point to the application system and level design, package systems, development and class diagram view. Prototype is the most extensive progress in developing a system and database.

CHAPTER V

IMPLEMENTATION

5.1 Introduction

The implementation phase will review in fine point about the programming; the responsibilities are writing code in PHP programming which a powerful program and implement it to the FEAST. It is separated by parting into two which are system and database development. Other than that, this phase covers the architecture of client and server software also the database that will be used for the system development or to be short it is the software development environment setup. Thus, the configuration of the software that fulfills the system requirement will be cover in software configuration management.

5.2 System Development Environment Setup

A development environment involves everything needed by developer to build and deploy software-intensive systems (where software is an essential and indispensable element).

This section is deal with the initial setup for the software development environment setup for FEAST and also defines the components fundamental for the development environment. The system has two attempts then it is interaction between user and system through GUI, and communication between system and database. Based on authorization setting the database endorses the user to retrieve and manipulate data.

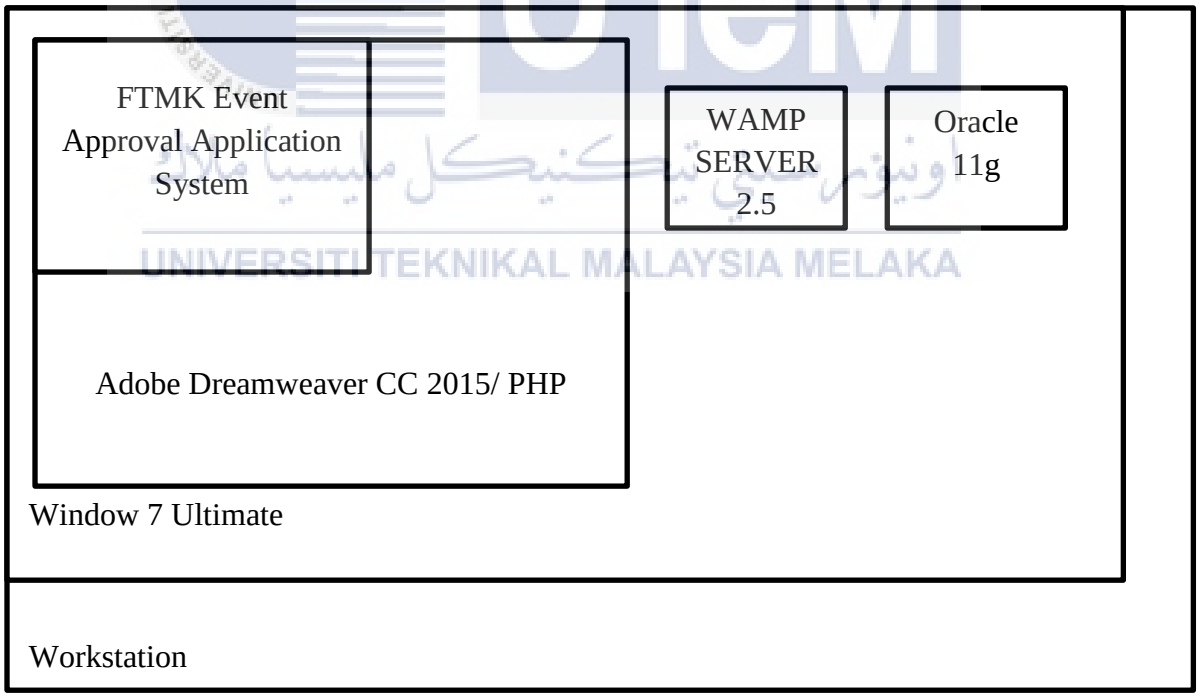

Figure 5.1 : FTMK Event Approval Application System Framework

5.2.1 Software Environment System

The developers need to install an authoring tool that accomplish as a system design. For FEAST, is the best choice to install Adobe Dreamweaver CC 2015 and Oracle 11g as a database in the system because it is compatible and effortless to configure with the Windows operating system. WAMP Server 2.5 acts as server then the root folder "C: \ wamp \ www" automatically created to located this project.

For this system, *"*FinalProject*"* folder was created on the directory "*C:\wamp\www\FinaProject*". The main page of Wamp Server will appear after typing "*http://localhost"* at the web browser and under "Your Projects" has the folder "FinalProject". User will pass over to the Index page of FEAST after clicking on it.

5.2.2 Database Environment Setup

Before allowing the administration to access the database, database connection configuration must be setup. That is the developer must do during the database environment setup.

5.2.2.1 Configure Database Connection

i. Configuration between Oracle Client

In this stage, the connection between server and client server must be configured by the developer. It's allows information to be stored successfully in the provided database. Installation on this step can be referred Appendix C. Type in http://localhost on the browser and the main page of the system will appear but developer must start the wamp server.

5.3 Database Implementation

Database implementation for FEAST will cover database accessing using SQL query. DDL, trigger, and stored procedure are the few codes that use to access data from the database.

5.3.1 Data Definition Language

"According to Tom (2006) DDL statements are used to build and modify the structure of tables and other objects in the database". For FEAST, DDL are used to create table, alter table, drop table. For more examples, refer to the Appendix E.

i. Create Table

Figure 5.2 shows code to create table staff that has staff ID, name, ic number, position, extension and phone number, email password and department which refer to other table.

```
create table STAFF (staff_ID varchar2(30) PRIMARY KEY,
staff_Name varchar2(80),
ic_Number varchar2(14),
position varchar2(50),
ext_Number varchar2(10),
phone_Number varchar2(10),
staff_Email varchar2(50),
staffPassword varchar2(10),
dept_ID varchar2(10),
FOREIGN KEY (dept_ID) REFERENCES department (dept_ID));
```

Figure 5.2 Create Table for STAFF

ii. Alter table

Alter table occur due to the different of data type of staff name from the planning. For example, due to insufficient length of data type alter table query will be used to change the data type from varchar2 (20) to varchar2(80).

```
Alter table Staff
Alter column staff_name varchar2(80);
```

Figure 5.3 Alter Table

5.3.2 Trigger

i. Before Insert Trigger

Before trigger insert are applied in FEAST. They are few before trigger insert in different table for different function. For example, before trigger insert are apply in table event to auto generate event_id before data store in the database. Other example can refer Appendix D.


```
create or replace trigger pk_Event
before insert ON event
for each row
declare
v_id event.event_ID%TYPE;
Begin
select event_seq.nextval into v_id from dual;
:new.event_Id := 'UTeM.25.01/500-14/6/3 NO'|| v_id;
END;
```

Figure 5.4 : Trigger Before Insert

ii. After Insert Trigger

In FEAST, after insert trigger are applied in table budget. This trigger is used to calculate total budget for an event. If any changes on budget table then update the total budget on event table.

```
CREATE OR REPLACE TRIGGER total_budget_trig
AFTER INSERT on budget
FOR EACH ROW
BEGIN
UPDATE event SET total_budget = nvl(total_budget,0) +
:new.total_price WHERE event_id = :new.event_id;
END;
```

Figure 5.5 : Trigger After Insert

iii. After Delete

After delete trigger is applied on table staff_committee. Function of this trigger are calculate total member in a committee.

```
create or replace TRIGGER delete_total
AFTER DELETE ON staff_commitee
FOR EACH ROW
BEGIN
update commitee
set total_member =nvl(total_member,0) -1 WHERE
comm_id =:old.comm_id;
END;
```

Figure 5.6 : Trigger After Delete

5.3.3 Stored Procedure

i. Insert

This procedure is used to insert data in table event.

```
CREATE OR REPLACE PROCEDURE insertEvent
(v_title varchar2,v_dateEvent varchar2,v_place varchar2,v_purpose varchar2,v_introduction varchar2,v_mission varchar2,v_aim varchar2,v_objective varchar2,v_conclusion varchar2,v_ec_ID varchar2)
IS
BEGIN
INSERT into EVENT (title,dateEvent, place, purpose,introduction, mission, aim,objective, conclusion, ec_ID)
VALUES
(v_title,to_date(v_dateEvent,'yyyy-mm-dd'),v_place,v_purpose,v_introduction,v_mission,v_aim,v_objective,v_conclusion,v_ec_ID );
END;
```

Figure 5.7 : Stored Procedure Insert

ii. Update

In FEAST, stored procedure update are used at table staff as shown in Figure 5.8.

```
create or replace procedure updateStaff(v_staffID varchar2,
v_name varchar2,v_ic varchar2,v_position varchar2,v_ext varchar2,v_phone varchar2,v_email varchar2,v_pass varchar2,v_dept varchar2)AS
BEGIN
update staff
set
staff_name = v_name,ic_number = v_ic, position = v_position,
ext_Number = v_ext, phone_Number = v_phone,staff_Email = v_email,staffPassword = v_pass
where staff_ID = v_staffID;
end;
```

Figure 5.8 : Stored Procedure Update

iii. Delete

Stored Procedure update is used in table staff_committee as shown in figure 5.9.

```
create or replace procedure deleteCommittee(v_c varchar2, v_s varchar2, v_p varchar2) IS
BEGIN delete STAFF_COMMITEE where comm_id = v_c and staff_id = v_s and comm_Position = v_p;
END;
```

Figure 5.9 : Stored Procedure Delete

iv. Stored procedure Simple Query (Join one table)

Simple query are apply while to make report based on event category which select title date of event form table event and category name from table category. The code as shown in Figure 5.10.

```
create or replace procedure categoryEvent (rc out sys_refcursor) AS
BEGIN
open rc for select e.title,e.dateEvent,ec.ec_Name from event e, event_category ec
where e.ec_ID = ec.ec_ID and ec_Name LIKE '%AKADEMIK%' ;
END;
```

Figure 5.10 Stored Procedure Simple Query

v. Stored Procedure Complex Query (Join at least two table)

Figure 5.11 shown example of code while join three table which are committee, event and event committee. This is to select event held by committee.

```
create or replace procedure commJPP (rc out sys_refcursor) AS
BEGIN
open rc for select c.comm_Name,e.title, e.dateEvent
from commitee c, event e, event_commitee ec
where c.comm_id = ec.comm_id and e.event_id = ec.event_id and
c.comm_Name like '%PEMBANGGUNAN%' order by dateEvent;
end;
```

Figure 5.11 Stored Procedure Complex Query

5.4 Conclusion

For the conclusion of this chapter, implementation of the system is important and also explain how important the software development environment setup and database implementation. Therefore, to meets user delight while using this system, the developer must more understand about the flow of their system should behave.

CHAPTER VI

TESTING

6.1 Introduction

This chapter will cover the testing phase and the issues have been accomplish on the system. It also displays the system requires to being develop using various types and test techniques and test results. The functionality of the system is managed on this testing phase. This is to guarantee that the functioning in the scope that has been classified earlier has been completely developed in the system. Moreover, this process also ensures that each interface and components in the system operating without failure happens. Testing is a method executed after the work is able to deliver the program and be implemented to recognize failures that happen through the process.

6.2 Test Plan

The test plan documents detailing objective that includes test organization, test environment such as alpha and beta testing, and test schedule. Test organization is judgment the client that incorporates in the testing method. A collection of test inputs and outputs, implementation and the expected results for particular objectives is included in test content.

6.2.1 Test Organization

Test organization is users are required to understand how the process of testing will be conducted. The system is constructed using the same medium which is operating system, software, and hardware to test the full system and help designers to design procedures and functions for FEAST. Test Organization involved the user are as follows:

i. Tester 1 - System Developer

System developer is who develop the system. Who design the user interface and decide the best database should be used for the system.

Responsibilities: Developers involved in alpha testing, recognize any bugs and record the results of test content for any upgrading in present time or adding new requirement by the user. Before the system presented to the end user, the developer must guarantees that the system will run smoothly.

ii. Tester 2 - Administrator

Responsibilities: In FEAST, admin is the secretary of the dean that responsible in manage user, user committee and committee. This tester involved in beta testing which tests on the functionality and user acceptance test.

iii. Tester 3 – Applicant

The applicant is the user involved in a committee in a faculty that can apply an event.

Responsibilities: Applicant can apply or request an event for this system and view the status of the event. User is involved in functionality test, user acceptance test, and error handling test. Test the system module and give their feedback. Their comment on the system can be as a design to improve the system.

iv. Tester 4 - Supporter / Approver

Supporter and approver act as the dean and vice chancellor or deputy vice chancellor.

Responsibilities: Involved in functionality test, user acceptance test and security test to view report and give status to the event request by the applicant.

6.2.2 Test Environment

Test environment has described a setup of software and hardware which going to conduct the test on FEAST. It is an online based system than the system needs to be tested using localhost port and it is consists of all the situations, conditions, and attractions by surrounding and influencing the testing of software.

6.2.2.1 Environment Setup

To guarantee that the system can run successfully, environment setup which is a platform for the FEAST should be manage and configure. FEAST Application workspace is shown in Table 6.1.

Table 6.1 : Environment Setup Specification

Environment Specification	Description
Operating System	Windows 7 Ultimate
Processor	Intel ® Core
Random Access Memory (RAM)	4 GB
Database	Oracle 11g
Server	Wampp Server
Server-scripting	PHP

6.2.2.2 System Software

System software consists of mechanisms that have been executed in the system. Below is the list of software that included in the system development of FEAST.

System Software

1. Windows 7 Ultimate
2. Google Chrome (Web browser)
3. Adobe Dreamweaver CC 2015
4. Oracle 11g
5. WAMP Server 2.5

6.2.2.3 System Hardware

System hardware is the hardware that required during the system development. Below is the associate hardware use to developed FEAST.

System Hardware

1. Personal computer with RAM 4.0 GB
2. Hard Disk
3. Processor Intel® Core i3
4. keyboard and monitor

6.2.3 Test Schedule

The purpose of test schedule is to determine when and by whom activities of testing have been performed. Testing phase in FEAST has three parts which are unit testing, integration testing, and user acceptance testing. All the data collected in the specific time has been set. The developer can do testing on time along the process of project development guide by the schedule. Table 6.2 shows the test schedule for FEAST applicant of this system and Table 6.3 shows the test schedule for FEAST supporter and approver.

Table 6.2 : Test Schedule for FEAST

Module/ Component	Activity	Duration	Start Date	End Date
System Login	Integration testing, unit testing and user acceptance	1 day	05/08/2016	05/08/2016
Manage Event	Unit testing and user acceptance	8 days	05/08/2016	13/08/2016
User Management	Unit testing and User acceptance	2 days	13/08/2016	14/08/2016
Manage Staff	Unit testing and user acceptance	2 days	13/08/2016	14/08/2016
User Interface Design	Unit testing and User acceptance	1 days	15/08/2016	15/08/2016

6.3 Test Strategy

One of the approaches to specify the test design is test strategy, to accomplish the objective of the parties involved in this testing. It is a needed process to do in the development of the system by the developer. In FEAST, it used two testing types:

i. White Box

This test will be done by the developers to an analysis of the external structure of the component of the system. In FEAST, white box has been applied when checking calculation condition on trigger in database.

ii. Black Box

It can be contemplated as user acceptance testing. It involves the end user to give any feedback about the correctness and failure in the system using functional and non-functional.

6.3.1 Class of test

Classes of test are divided into :

i. Security Test

Security test is to make user only the authorize user can access the system.

ii. Error Handling Test

This test is to assure that the system which is FEAST only allows the valid input from the user. Any wrong input or required field can pop up an error message.

iii. Functionality Test

This is to make sure that the functionality of the system runs as expected.

iv. User Acceptance Test

User acceptance is to assure that the system is easy to use to all users. The GUI must be convenient to the user since there will be a kind of IT knowledge level among them.

6.4 Test Design

Test description and test data involved in test design Test description comprise the actions that needed and it is will be recorded for identifying the valid data process. It will define the test cases and expected the result. User acceptance will be covered in test data.

6.4.1 Test Description

Test description is the issue of a recorded output to distinguish the results that are exacted. Table 6.3 and 6.7 shows the causes and expected result for each system modules.

Table 6.3 : Test Description - Login Module

Description	Testing Type	Expected Result	Test Result
Invalid username and Password	Unit Testing/Integration	'Invalid Username or Password' message will appear.	Message 'Invalid Username or Password' appear.
Null username and password	Unit Testing/Integration	'Invalid Username or Password' message will appear	Message 'Invalid Username or Password' appear
Valid Username and Password	Unit Testing/Integration	User can logon successfully	Success to login.
Valid username and invalid password	Unit Testing/Integration	'Invalid Username or Password' message will appear	Message 'Invalid Username or Password' appear

6.4.2 Test Data

Test data is wherever the real data should be added to test most of the features to get the expected results. Table 6.4 shows the test data admin to login to the system. Others test can refer to the Appendix E.

Table 6.4 : Test Data - Login Module

Test Case ID : TCA1_SM00	**Description**	**Username**	**Password**	**Result Test Data**
TCA1_SM001	User insert valid username and invalid password	AD102010	Null	Admin failed to login to the system
TCA1_SM002	User insert valid username and invalid password	AD102010	admin123	Admin successfully login to the system.
TCA1_SM003	User insert invalid username and password	AD202020	12345	Admin failed to login to the system
TCA_SM004	User insert null username and password			Admin failed to login to the system

6.5 Test Result and Analysis

Test results and analysis is the prediction the output from the input entered to ensure the system runs smoothly. To make user satisfied is based on the test conducted to determine the benefit and the crash when using the original data then any failure can be fixed in the next testing. Tables 6.5 below describe the test result and analysis for login module.

Table 6.5 : Test Result and Analysis for Login

Module : Login	**Person**	**Result**		**Class of test**
Test ID		**Failed**	**Success**	
TCA1_SM001	Tester 2, Tester 3 and Tester 4		✓	This test is done to check functionality connection between GUI and database. Also check user authentication
TCA1_SM002			✓	
TCA1_SM003			✓	
TCA1_SM004			✓	

6.6 Conclusion

As outcome in this chapter, to produce a good result then the system should meet end user acceptance. This phase involves different methods of testing to make sure that the system can run without any flaws. Testing has been conducted to recognize errors as much as possible to reduce any software errors before the product is used by end user users.

CHAPTER VII

CONCLUSION

7.1 Introduction

Finally, each problem identified has been overcome in the FEAST at the end of the project. All recommendations and remark by the end user should be considered by the developer. Hence, the use of software and hardware control, particularly the use of the action plan should be considered compatible with the current technology, which requires mastery of any field of endeavor including professional field or not.

Besides, to ensure the requirements of the system can be achieved, several phases will take place throughout the development which are planning, implementation of the system, testing, and maintenance .Some analysis has been conducted to ensure the requirements can be accomplished.

To guide end users on the use of the system should always be done in order to avoid any problems in the present time. For further, the user of the system should also be often keep an eye on so that the end user better understand each of the peripheral system interface.

7.2 Observation on Strength and Weaknesses

In order to make the system more effective and efficient in the future, the inspection of strengths and weakness can analyze the lack and convenience of this system.

7.2.1 System Weaknesses

Weakness found in this system is not having a notification function that can give alert to the user if any news or updates in the system. Other than that, a mobile application cans easier the user to use this system anywhere, everywhere and anytime. The user interface of this system is too simple as the user required a more interactive system to be used.

7.2.2 System Strengthens

The advantages of this system, the user can reduce the usage of paper. Moreover, the user such as the applicant can easily prepare and retrieve the status of paperwork once it is approved by the approver. Therefore this can save the user time to prepare the event. They can easily make it thru online by using this system.

Moreover, the supporter and approver can easily view the paperwork and give the feedback immediately. This system can also generate the report regarding the event have been done throughout the year. The user also finds that this system is efficient and conveniently to used.

7.3 Propositions for Improvement

Based to the advantages and disadvantages found through the system, few things can be considered to improving FEAST which is make notifications that can alert user about any updates. This will make it easier for supporter and approver to check the latest paperwork sent by applicant. Applicant also can get notification about status of the event. Report also need to be improved; can check budget report per semester and monthly.

7.4 Conclusion

As the conclusion, main objectives and scope of the systems that proposed by the developers has been achieved. FEAST can become one of the systems that can be used in future after researches have been made on the existing system in place at present.

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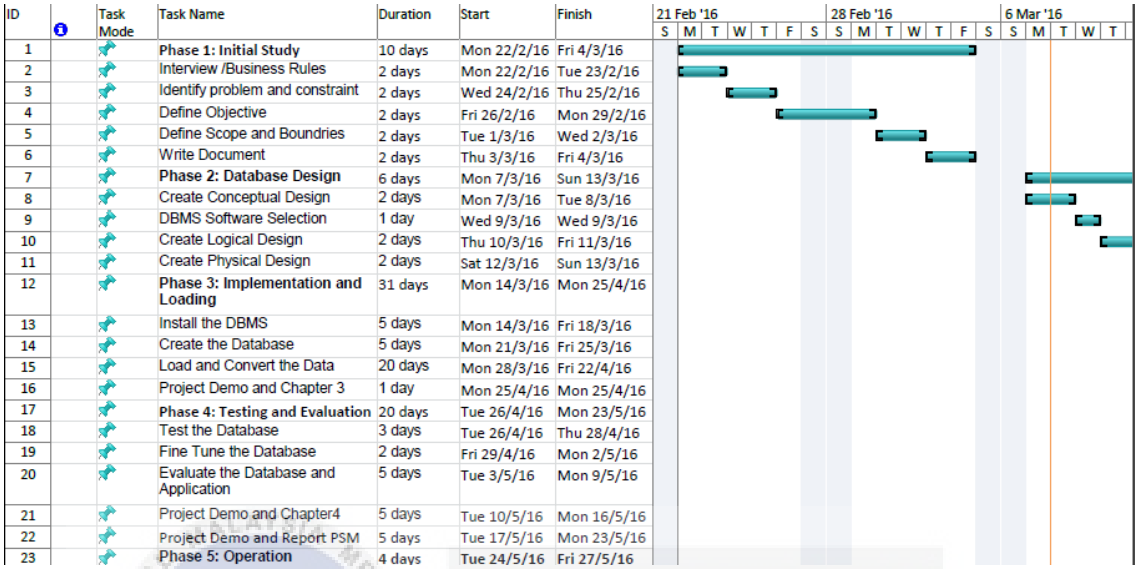
APPENDIX A

(Gantt Chart)

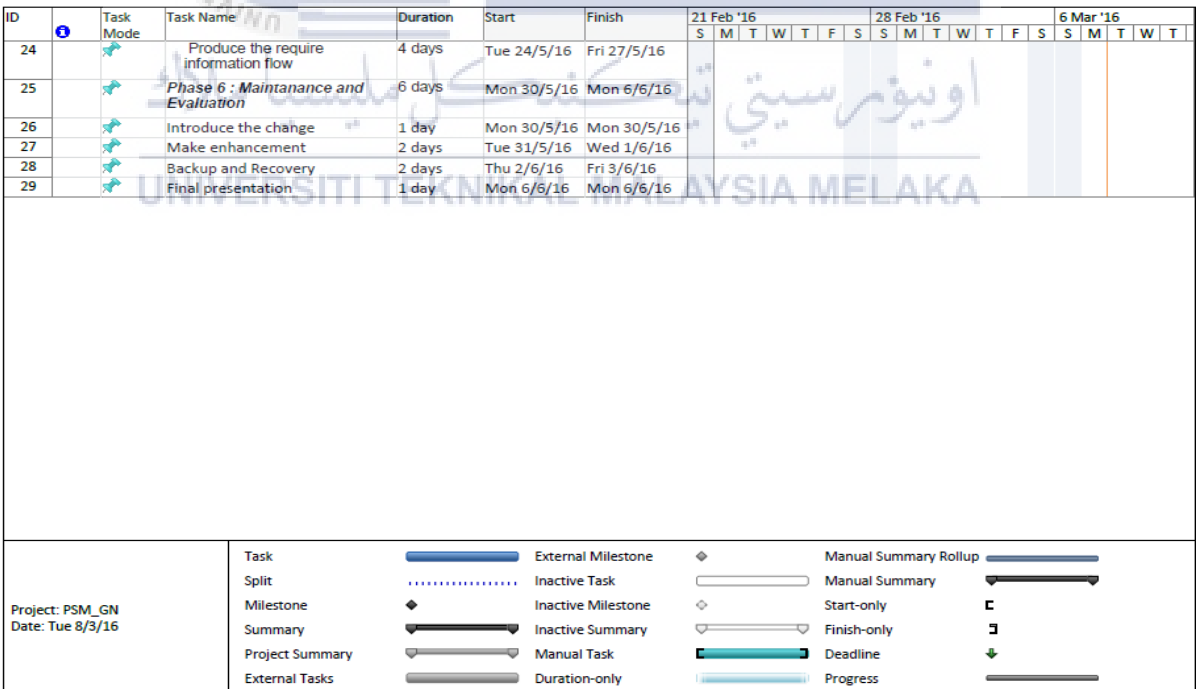
Gantt Chart

ID	Task Mode	Task Name	Duration	Start	Finish
1		**Phase 1: Initial Study**	10 days	Mon 22/2/16	Fri 4/3/16
2		Interview /Business Rules	2 days	Mon 22/2/16	Tue 23/2/16
3		Identify problem and constraint	2 days	Wed 24/2/16	Thu 25/2/16
4		Define Objective	2 days	Fri 26/2/16	Mon 29/2/16
5		Define Scope and Boundries	2 days	Tue 1/3/16	Wed 2/3/16
6		Write Document	2 days	Thu 3/3/16	Fri 4/3/16
7		**Phase 2: Database Design**	6 days	Mon 7/3/16	Sun 13/3/16
8		Create Conceptual Design	2 days	Mon 7/3/16	Tue 8/3/16
9		DBMS Software Selection	1 day	Wed 9/3/16	Wed 9/3/16
10		Create Logical Design	2 days	Thu 10/3/16	Fri 11/3/16
11		Create Physical Design	2 days	Sat 12/3/16	Sun 13/3/16
12		**Phase 3: Implementation and Loading**	31 days	Mon 14/3/16	Mon 25/4/16
13		Install the DBMS	5 days	Mon 14/3/16	Fri 18/3/16
14		Create the Database	5 days	Mon 21/3/16	Fri 25/3/16
15		Load and Convert the Data	20 days	Mon 28/3/16	Fri 22/4/16
16		Project Demo and Chapter 3	1 day	Mon 25/4/16	Mon 25/4/16
17		**Phase 4: Testing and Evaluation**	20 days	Tue 26/4/16	Mon 23/5/16
18		Test the Database	3 days	Tue 26/4/16	Thu 28/4/16
19		Fine Tune the Database	2 days	Fri 29/4/16	Mon 2/5/16
20		Evaluate the Database and Application	5 days	Tue 3/5/16	Mon 9/5/16
21		Project Demo and Chapter4	5 days	Tue 10/5/16	Mon 16/5/16
22		Project Demo and Report PSM	5 days	Tue 17/5/16	Mon 23/5/16
23		**Phase 5: Operation**	4 days	Tue 24/5/16	Fri 27/5/16

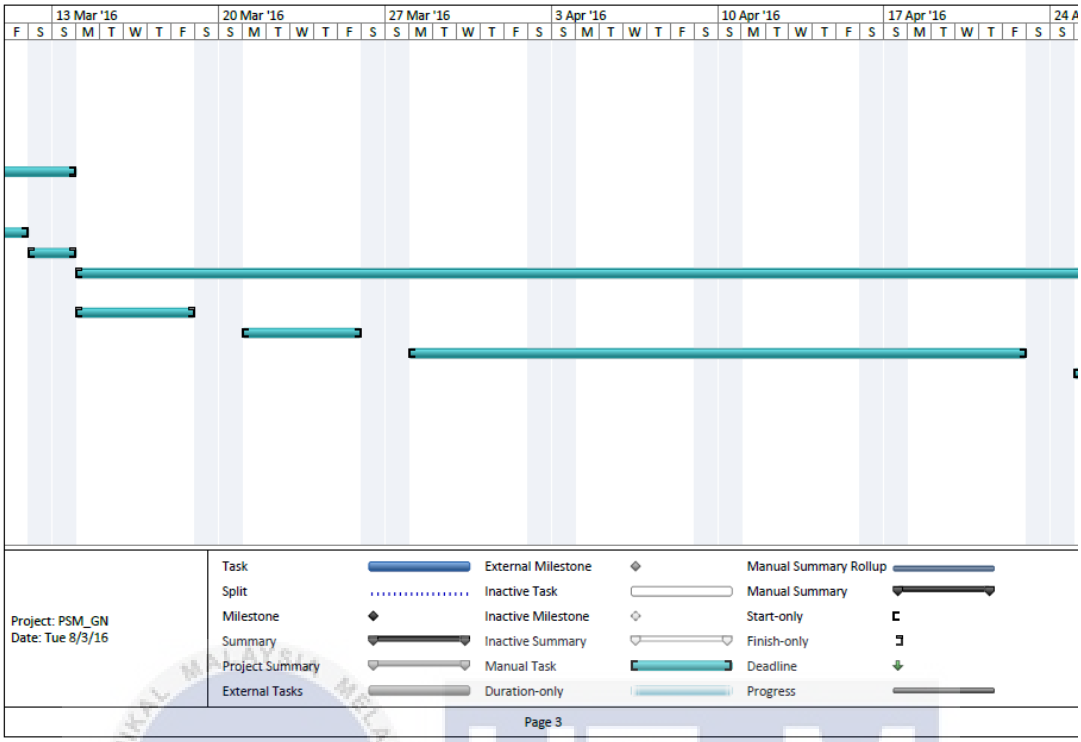


Gantt chart activity

ID	Task Mode	Task Name	Duration	Start	Finish
24		Produce the require information flow	4 days	Tue 24/5/16	Fri 27/5/16
25		***Phase 6 : Maintanance and Evaltiation***	6 days	Mon 30/5/16	Mon 6/6/16
26		Introduce the change	1 day	Mon 30/5/16	Mon 30/5/16
27		Make enhancement	2 days	Tue 31/5/16	Wed 1/6/16
28		Backup and Recovery	2 days	Thu 2/6/16	Fri 3/6/16
29		Final presentation	1 day	Mon 6/6/16	Mon 6/6/16



Gantt chart activity



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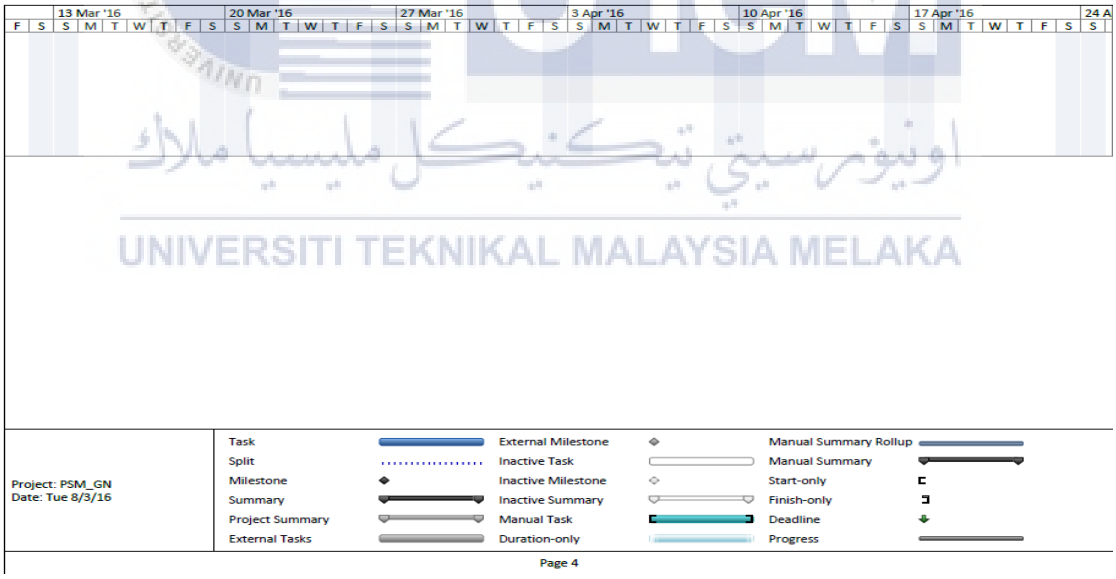

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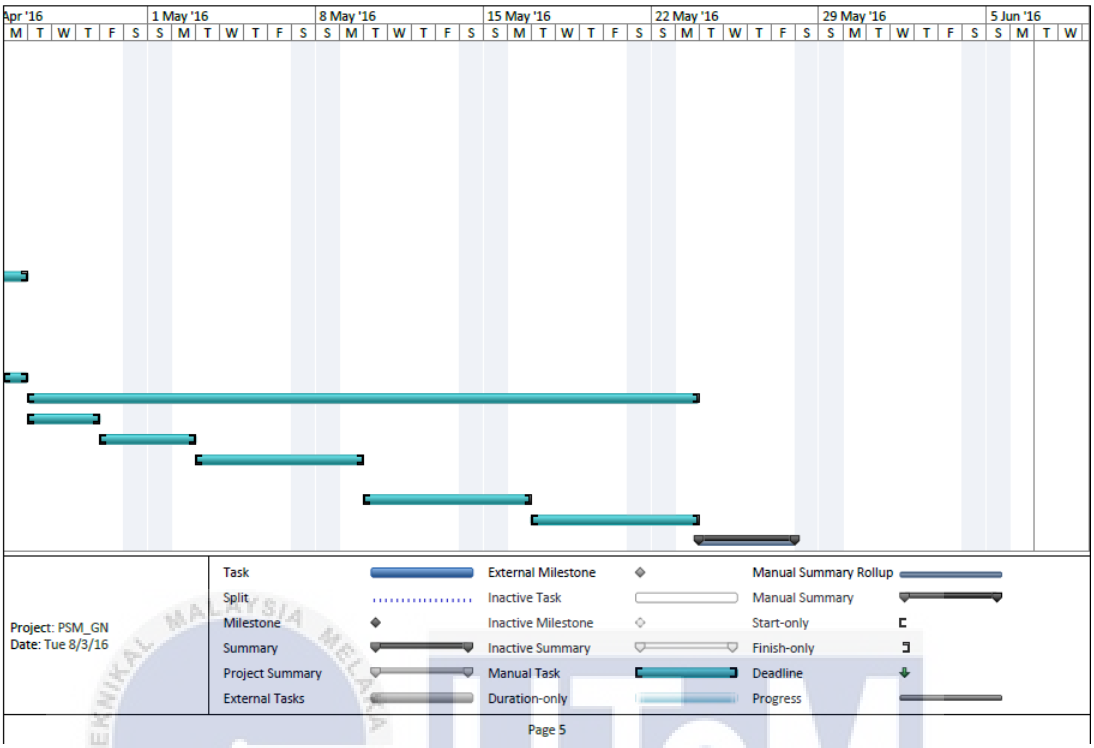

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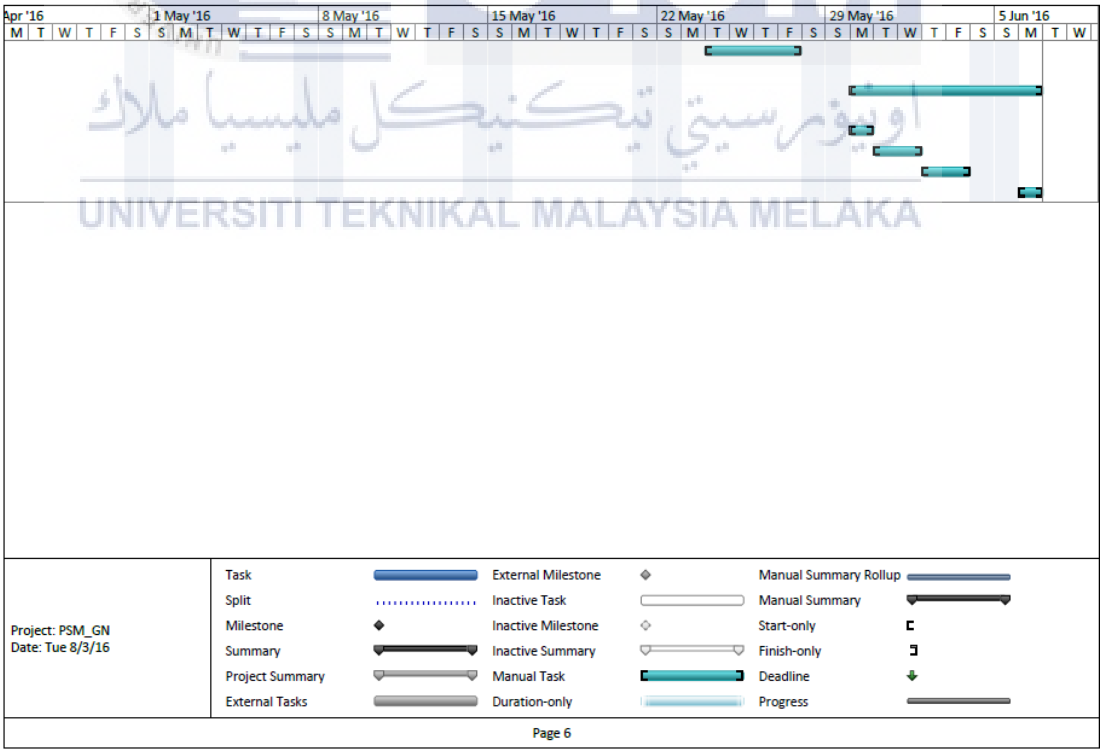


Gantt chart activity

APPENDIX B

(Data Dictionary)

Data dictionary for table Department

Input	Data Type	Length	Constraint	Reference Table
DEPT_ID	VARCHAR2	10	Primary Key	
DEPT_NAME	VARCHAR2	80		

Data Dictionary for table Staff

Input	Data Type	Length	Constraint	Reference Table
STAFF_ID	VARCHAR2	30	Primary Key	
STAFF_NAME	VARCHAR2	80		
IC_NUMBER	VARCHAR2	14		
POSITION	VARCHAR2	50		
EXT_NUMBER	VARCHAR2	10		
PHONE_NUMBER	VARCHAR2	10		
STAFF_EMAIL	VARCHAR2	50		
STAFFPASSWORD	VARCHAR2	10		
DEPT_ID	VARCHAR2	10	Foreign Key	Department

Data Dictionary for table Event

Input	Data Type	Length	Constraint	Reference Table
EVENT_ID	VARCHAR2	35	Primary Key	
TITLE	VARCHAR2	80		
DATEEVENT	DATE			
PLACE	VARCHAR2	100		
PURPOSE	VARCHAR2	4000		
INTRODUCTION	VARCHAR2	4000		
MISSION	VARCHAR2	500		
AIM	VARCHAR2	500		
OBJECTIVE	VARCHAR2	500		
CONCLUSION	VARCHAR2	4000		
TOTAL_BUDGET	VARCHAR2	20		
EC_ID	VARCHAR2	10	Foreign Key	event_category
STATUS	VARCHAR2	50		

Data Dictionary for table Committee

Input	Data Type	Length	Constraint	Reference Table
COMM_ID	VARCHAR2	10	Primary Key	
COMM_NAME	VARCHAR2	80		
TOTAL_MEMBER	NUMBER			

Data Dictionary for table Event Committee

Input	Data Type	Length	Constraint	References Table
EVENT_ID	VARCHAR2	35	Primary Key, Foreign Key	event
ORG_ID	VARCHAR2	10	Primary Key, Foreign Key	organize_type
COMM_ID	VARCHAR2	10	Primary Key, Foreign Key	committee

Data Dictionary for table Event Category

Input	Data Type	Length	Constraint	Reference Table
EC_ID	VARCHAR2	10	Primary Key	
EC_NAME	VARCHAR2	50		

Data Dictionary for table Event Publicity

Input	Data Type	Length	Constraint	Reference Table
EP_ID	VARCHAR2	10	Primary Key	
PUBLICITY_NAME	VARCHAR2	100		
EVENT_ID	VARCHAR2	35	Foreign key	event

Data Dictionary for staff committee

Input	Data Type	Length	Constraint	Reference Table
COMM_ID	VARCHAR2	10	Primary Key, Foreign key	Committee
STAFF_ID	VARCHAR2	30	Primary Key, Foreign key	Staff
COMM_POSITION	VARCHAR2	50		

Data Dictionary for table Organize Type

Input	Data Type	Length	Constraint	Reference Table
ORG_ID	VARCHAR2	10	Primary Key,	Committee
DESCRIPTION	VARCHAR2	50		Staff

Data Dictionary for table Tentative

Input	Data Type	Length	Constraint	Reference Table
TENTATIVE_ID	VARCHAR2	10	Primary Key,	Committee
TIMEEVENT	VARCHAR2	20		
DECSRIPTION	VARCHAR2	50		
EVENT_ID	VARCHAR2	35	Foreign Key	Event

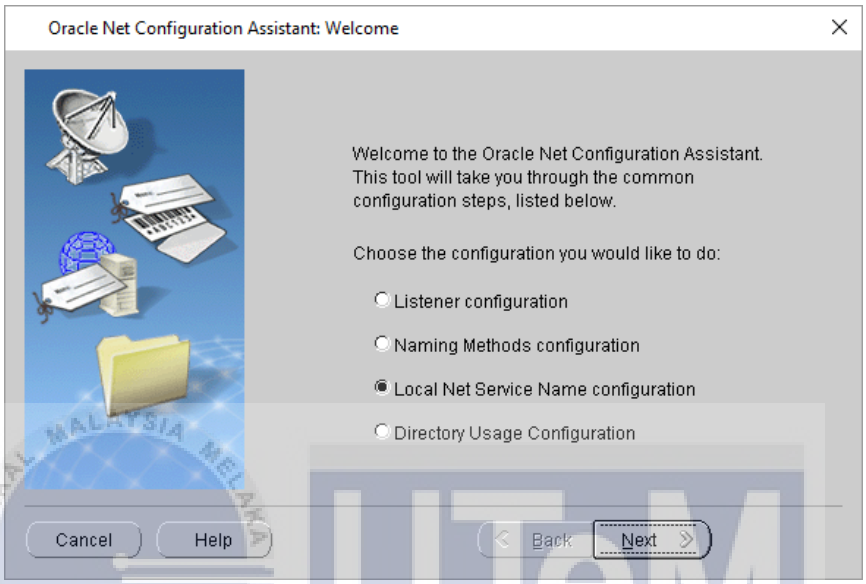
Data Dictionary for table Status

Input	Data Type	Length	Constraint	Reference Table
STATUSID	VARCHAR2	10	Primary Key,	Committee
STAFF_ID	VARCHAR2	30	Primary Key, Foreign Key	Staff
EVENT_ID	VARCHAR2	35	Primary Key, Foreign Key	Event
STATUSEVENT	VARCHAR2	30		
NOTES	VARCHAR2	100		

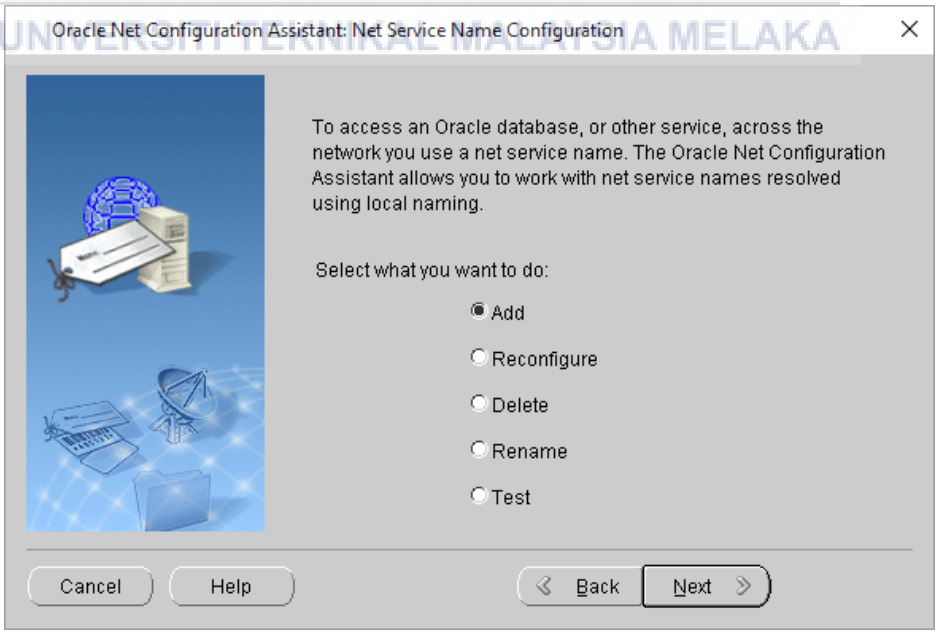
APPENDIX C

(Oracle Net Configuration)

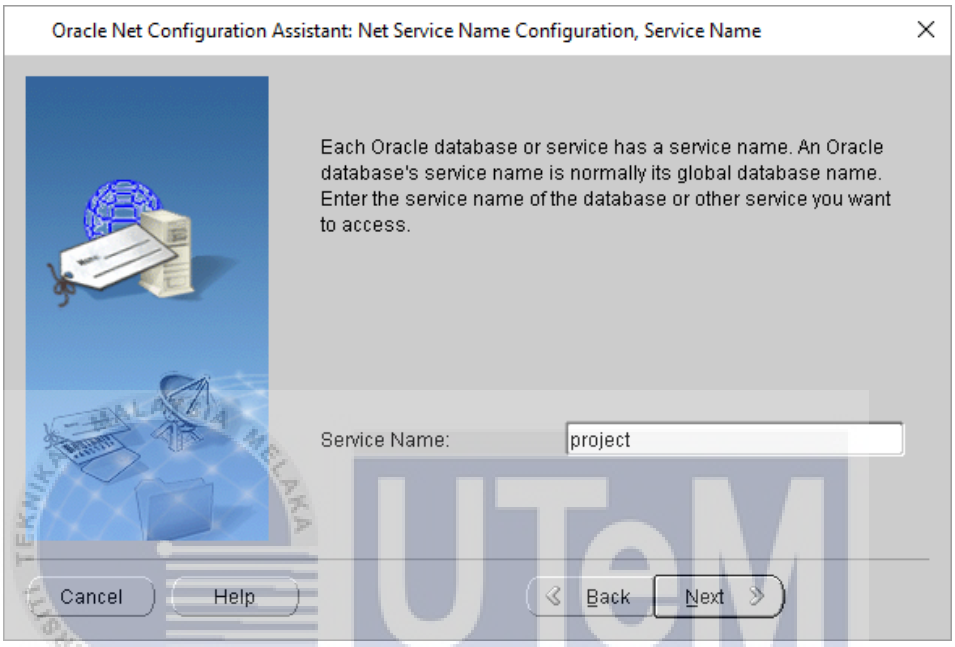
Step 1: From the Start menu, choose Oracle – Oradb11g_Home1, and then click on Net Configuration Assistant. On welcome windows choose Local Net Service Name Configuration and click next button.



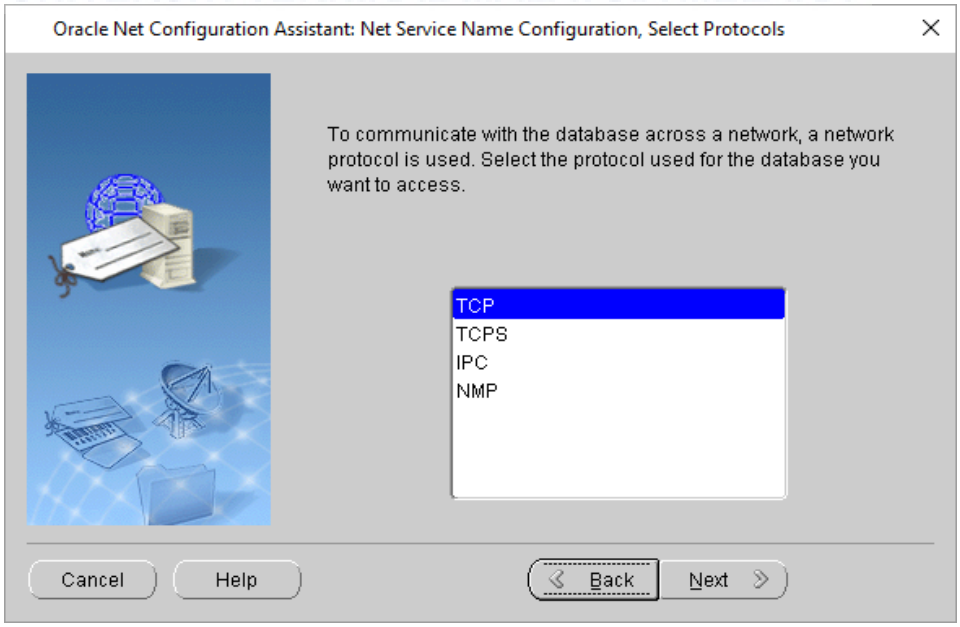
Step 2: In the Net Service Name Configuration window, select Add and click Next.



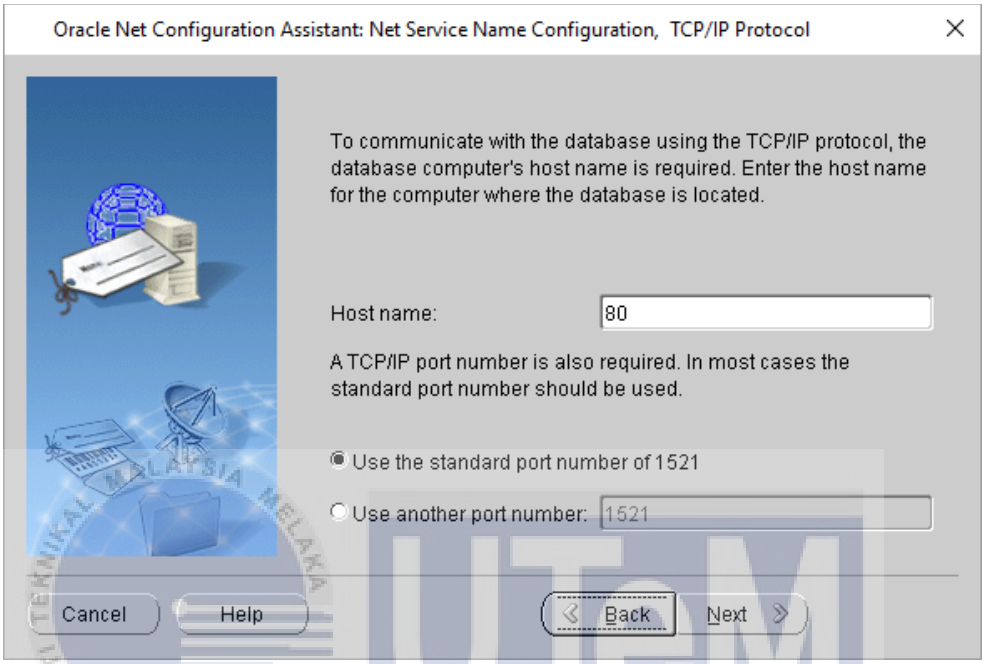
Step 3: In the Service Name window, enter the name of the Oracle database to which you want to connect and click **Next**.



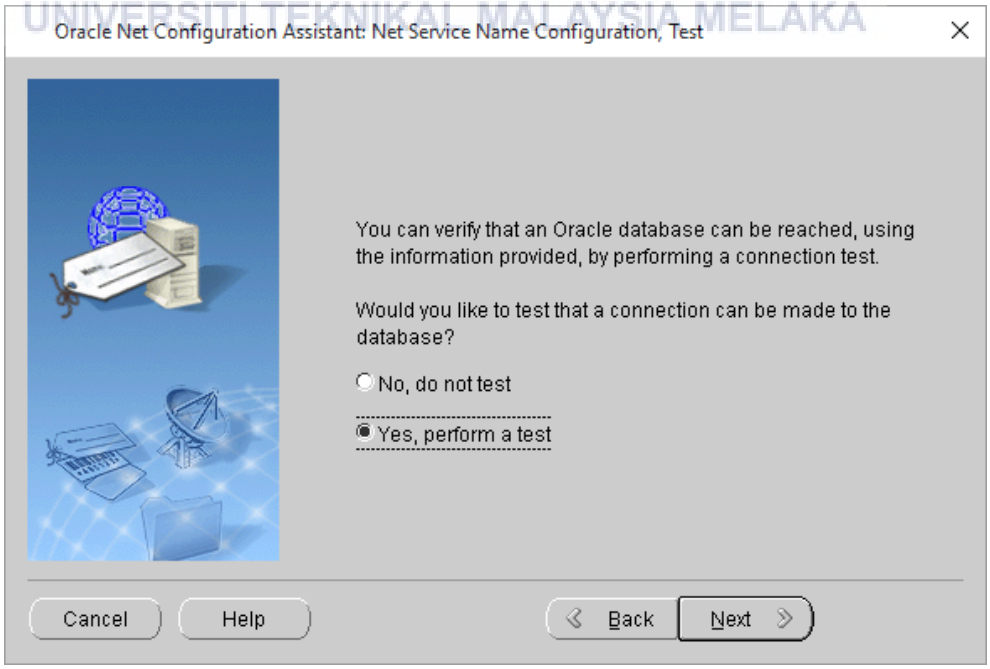
Step 4: In the Select Protocols window, select the protocol you want and click **Next**.



Step 5: In the Protocol window, depending on the protocol you selected, enter the appropriate information and click **Next**.



Step 6 : Then click on yes, perform test until success.



APPENDIX D

(Coding)

CREATE TABLE

Name of Table	**Code**
Department	create table **DEPARTMENT** (dept_ID varchar2(10) PRIMARY KEY, dept_Name varchar2(80));
Event	create table **EVENT**(event_ID varchar2(35) PRIMARY KEY, title varchar2(80), dateEvent date, place varchar2(100), purpose varchar2(4000), introduction varchar2(4000), mission varchar2(500), aim varchar2(500), objective varchar2(500), conclusion varchar2(4000), ec_ID varchar2(10), staff_ID varchar2(10), FOREIGN KEY (ec_ID) REFERENCES event_category (ec_ID), FOREIGN KEY (staff_ID) REFERENCES staff (staff_ID));
Committee	create table **COMMITEE** (comm_ID varchar2(10) PRIMARY KEY, comm_Name varchar2(80), total_Member number);

Event Committee	Create table **EVENT_COMMITEE** (event_ID varchar2(35), org_ID varchar2(10), comm_ID varchar2(10), PRIMARY KEY (event_ID,org_ID,comm_ID), FOREIGN KEY (event_ID) REFERENCES event (event_ID), FOREIGN KEY (org_ID) REFERENCES organize_type (org_ID), FOREIGN KEY (comm_ID) REFERENCES commitee(comm_ID));
Event Category	create table **EVENT_CATEGORY**(ec_ID varchar2(10) PRIMARY KEY, ec_Name varchar2(50));
Event Publicity	Create table **EVENT_PUBLICITY**(ep_ID varchar2(10) PRIMARY KEY, publicity_name varchar2(100), event_ID varchar2(10), FOREIGN KEY (event_ID) REFERENCES event (event_ID));
Staff Committee	create table **STAFF_COMMITEE**(comm_ID varchar2(10), staff_ID varchar2(30), comm_Position varchar2(50), PRIMARY KEY (comm_ID,staff_ID), FOREIGN KEY (comm_ID) REFERENCES commitee (comm_ID), FOREIGN KEY (staff_ID) REFERENCES staff (staff_ID));
Organize Type	Create table **ORGANIZE_TYPE** (org_ID varchar2(10) PRIMARY KEY, description varchar2(50));

Tentative	create table **TENTATIVE**(tentative_ID varchar2(10) PRIMARY KEY, timeEvent varchar2(20), description varchar2(50) event_ID varchar2(35), FOREIGN KEY (event_ID) REFERENCES event (event_ID));
Status	create table **STATUS**(staff_ID varchar2(30), event_Id varchar2(35), total_budget varchar2(20), ec_Name varchar2(50), statusEvent varchar2(30), notes varchar2(100), PRIMARY KEY (staff_ID,event_Id), FOREIGN KEY (staff_ID) REFERENCES staff (staff_ID), FOREIGN KEY (event_Id) REFERENCES event (event_Id));
Budget	create table **BUDGET** (budget_ID varchar2(10) PRIMARY KEY, event_ID varchar2(35), purpose varchar2(50), price number(3,5), quantity number(7,2),\ total_Price number(3,5), notes varchar2(50), FOREIGN KEY (event_ID) REFERENCES event(event_ID),

TRIGGER

Trigger -Before Insert

Auto generate Primary Key for table Event	create or replace trigger pk_Event before insert ON event
	for each row
	declare
	v_id event.event_ID%TYPE;
	Begin
	select event_seq.nextval into v_id from dual;
	:new.event_Id := 'UTeM.25.01/500-14/6/3 NO'|| v_id;
	END;

Auto generate Primary Key for table Budget	create or replace trigger pk_Budget
	before insert ON budget
	for each row
	declare
	v_id budget.budget_ID%TYPE;
	Begin
	select bud_seq.nextval into v_id from dual;
	:new.budget_Id := 'BUDGET'|| v_id;
	END;

Auto generate Primary Key for table Tentative	create or replace trigger pk_Tentative before insert ON tentative
	for each row
	declare
	v_id tentative.tentative_ID%TYPE;
	Begin
	select tentative_seq.nextval into v_id from dual;
	:new.tentative_ID := 'TENT'|| v_id;
	END;

Auto generate Primary key for table Publicity	create or replace trigger pk_Publicity
	before insert ON event_Publicity
	for each row
	declare
	v_id event_Publicity.ep_ID%TYPE;
	Begin
	select pub_seq.nextval into v_id from dual;
	:new.ep_ID := 'PCT'|| v_id;
	END;

Auto generate Primary Key for table Status	create or replace trigger pk_Status before insert ON status
	for each row
	declare
	v_id status.statusID%TYPE;
	Begin
	select status_seq.nextval into v_id from dual;
	:new.statusId := 'STATUS'|| v_id;
	END;

Trigger After Insert

```
create or replace trigger statusE
after insert on STATUS
for each row
begin
update EVENT set status = :new.statusEvent
where event_ID = :new.event_ID;

end;
```

```
create or replace trigger total_budget_trig
after insert on budget
for each row
begin
update event set total_budget = nvl(total_budget,0) + :new.total_price
where event_id = :new.event_id;

end;
```

```
create or replace TRIGGER check_total
AFTER INSERT ON staff_commitee
FOR EACH ROW
BEGIN
update commitee
set total_member =nvl(total_member,0) +1
where
comm_id =:new.comm_id;

END;
```

Trigger After Delete

```
create or replace TRIGGER afterDelete
AFTER delete ON staff_Commitee
FOR EACH ROW
BEGIN
INSERT INTO historyCommittee (comm_ID, staff_ID, comm_Position) values (:old.comm_ID , :old.staff_ID, :old.comm_Position);
DBMS_OUTPUT.PUT_LINE('Record Successfully inserted into historyCommittee table.');
END;
```

```
create or replace TRIGGER delete_total
AFTER DELETE ON staff_commitee
FOR EACH ROW
BEGIN
update commitee
set total_member =nvl(total_member,0) -1
where
comm_id =:old.comm_id;
END;
```

Stored Procedure (DML)

Stored Procedure - Insert

```
create or replace procedure insertEvent(
v_title varchar2,v_dateEvent varchar2,v_place varchar2,v_purpose
varchar2,v_introduction varchar2,v_mission varchar2,v_aim varchar2,v_objective
varchar2,v_conclusion varchar2, v_ec_ID varchar2)  IS
BEGIN
insert into EVENT(title,dateEvent, place, purpose,introduction, mission, aim,objective,
conclusion, ec_ID) values
(v_title, to_date(v_dateEvent,'yyyy-mm-dd'), v_place, v_purpose,v_introduction,
v_mission ,v_aim ,v_objective,v_conclusion,v_ec_ID );
END;
```

```
create or replace procedure insertPublicity(
v_eventID varchar2,v_name varchar2) IS

BEGIN
insert into event_publicity(event_ID,publicity_name) values (v_eventID, v_name);

END;
```

```
create or replace procedure insertCommE
(v_e varchar2,v_c varchar2,v_o varchar2) IS

BEGIN
insert into EVENT_COMMITEE(event_ID,comm_ID,org_ID) values  (v_e,v_c,v_o);

END;
```

Stored Procedure - Update

This is stored procedure update are used to update on table event and staff.

```
create or replace procedure updateEvent(
v_event_Id varchar2,v_b varchar2,v_c varchar2,v_d varchar2,v_e varchar2,v_f
varchar2,v_g varchar2,v_h varchar2,v_i varchar2,v_j varchar2) AS
BEGIN
update event
set
title = v_b, dateEvent = v_c, place = v_d, purpose = v_e,introduction = v_f,mission =
v_g,
aim =v_h,objective=v_i,conclusion=v_j where event_Id = v_event_Id;

END;
```

```
create or replace procedure updateStaff
(v_staffID varchar2,v_name varchar2,v_ic varchar2,v_position varchar2,v_ext
varchar2,v_phone varchar2,v_email varchar2,v_pass varchar2,v_dept varchar2) AS
BEGIN
update staff set
staff_name = v_name, ic_number = v_ic, position = v_position, ext_Number = v_ext,
phone_Number = v_phone, staff_Email = v_email, staffPassword = v_pass
where staff_ID = v_staffID;

END;
```

Stored Procedure - Delete

This is stored procedure delete use to delete staff under committee that stored in table staff_committee .

```
create or replace procedure deleteCommittee (
v_c varchar2, v_s varchar2, v_p varchar2) IS
BEGIN
delete STAFF_COMMITEE where comm_id = v_c and staff_id = v_s and comm_Position = v_p;

END;
```

Stored Procedure - Select

```
create or replace procedure selectSum(myrc out sys_refcursor) as
begin
  open myrc for select sum(total_budget)as grant_total from event;
end;
```

```
create or replace procedure report (rc out sys_refcursor) as
begin
 open  rc for select title, dateEvent, total_Budget from event order by dateEvent;
end;
```

Stored Procedure – Simple Query

```
create or replace procedure categoryEvent (rc out sys_refcursor) AS
BEGIN
open  rc for select e.title,e.dateEvent,ec.ec_Name from event e, event_category ec
where e.ec_ID = ec.ec_ID and ec_Name LIKE '%AKADEMIK%' ;

END;
```

```
create or replace procedure listOf (rc out sys_refcursor) AS
BEGIN
 open  rc for select s.staff_ID,s.staff_Name,sc.comm_position
from staff s,commitee c, staff_commitee sc
where c.comm_ID = sc.comm_ID and sc.staff_ID= s.staff_ID;

end;
```



```
create or replace procedure catSahsiah (rc out sys_refcursor) AS
begin
 open  rc for select e.title,e.dateEvent,ec.ec_Name from event e, event_category ec
where e.ec_ID = ec.ec_ID and ec_Name LIKE '%SAHSIAH%' ;
end;
```

```
create or replace procedure displayEventCommittee (rc out sys_refcursor) as
begin
 open  rc for select e.title, o.description, c.comm_name
from event e,organize_type o, commitee c, event_commitee m where
m.event_ID= e.event_ID AND m.org_ID=o.org_ID AND m.comm_ID= c.comm_ID ;
end;
```

Stored Procedure – Complex Query

```
create or replace procedure commMedia (rc out sys_refcursor) AS
BEGIN
open  rc for select c.comm_Name,e.title, e.dateEvent
from commitee c, event e, event_commitee ec
where c.comm_id = ec.comm_id and e.event_id = ec.event_id and c.comm_Name like '%MEDIA%' order by dateEvent;
end;
```

```
create or replace procedure commJPP (rc out sys_refcursor) AS
BEGIN
open  rc for select c.comm_Name,e.title, e.dateEvent
from commitee c, event e, event_commitee ec
where c.comm_id = ec.comm_id and e.event_id = ec.event_id and c.comm_Name like '%PEMBANGGUNAN%' order by dateEvent;
end;
```

APPENDIX E

(Testing)

TESTING EVALUATION FORM

FTMK EVENT APPROVAL APPLICATION SYSTEM

Status : Tester 2

ATTENTION : Mark in the ☐ provide.

5 : Very Agree 4 : Agree 3 : Fair 2 : Disagree 1 : Very Disagree

Test Result and Analysis for Login

Description	1	2	3	4	5
Valid Username and Invalid Password					
Valid Username and Password.					
Invalid Username and Password					
Null Username and Password					

Test Result and Analysis for Manage Staff

Description	1	2	3	4	5
User filled all data					
User filled half data					
All data are blank					

Test Result and Analysis for Search

Description	1	2	3	4	5
User filled the Staff ID					
Blank Staff ID					
Staff ID does not exist					

Comment :

Suggestion and Enhancements :

TESTING EVALUATION FORM

FTMK EVENT APPROVAL APPLICATION SYSTEM

Status : Tester 3

ATTENTION : Mark in the ☐ provide.

5 : Very Agree 4 : Agree 3 : Fair 2 : Disagree 1 : Very Disagree

Test Result and Analysis for Login

Description	1	2	3	4	5
Valid Username and Invalid Password					
Valid Username and Password.					
Invalid Username and Password					
Null Username and Password					

Test Result and Analysis for Manage Details

Description	1	2	3	4	5
User update selected data					
Staff ID, IC Number and emails is the data that user can't update					

Test Result and Analysis for Create New Event

Description	1	2	3	4	5
User insert all data					
User insert half of data					
Blank Data					
User can't choose the past date					

Test Result and Analysis for Manage Event

Description	1	2	3	4	5
Click on Button 'Add'					
Click on check box and 'Delete' button					
Insert many data					

Test Result and Analysis for Calculation Module

Description	1	2	3	4	5
Insert total Price update total budget					

Comment :

Suggestion and Enhancements :

TESTING EVALUATION FORM

FTMK EVENT APPROVAL APPLICATION SYSTEM

Status : Tester 4

ATTENTION : Mark in the ☐ provide.

5 : Very Agree 4 : Agree 3 : Fair 2 : Disagree 1 : Very Disagree

Test Result and Analysis for Login

Description	1	2	3	4	5
Valid Username and Invalid Password					
Valid Username and Password.					
Invalid Username and Password					
Null Username and Password					

Test Result and Analysis for GUI

Description	1	2	3	4	5
Appropriate Response Button					
Appropriate Colour and Image					
Performance					

Comment :

Suggestion and Enhancements :

TEST DATA

Test Case ID : TCA2_SM00

Test Case Name : Manage Staff - Insert New Staff

ID	Description	Test Data	Expected Result	Actual Result
TCA2_SM001	User filled all data	**ID : S0506** **Name:** Lukman **IC** : 102010918809 **Position** : Staff **Ext No** : 8990 **Phone No**: 0133578990 **Email**: lukman@utem.edu.my **Department** : Interactive Media	Message box 'Data are saved'. Click OK button and new staff data will appear in a list of staff	Message box appear and new staff data insert in the list of staff
TCA2_SM002	User filled half data	**ID : S0506** **Name:** Lukman **IC** : 102010918809 **Position** : Staff **Ext No** : 8990 **Phone No**: **Email**: **Department** :	Message box 'Please fill the email'. Click OK button and go to the same register staff.	Message box appear and go to the register staff page
TCA2_SM003	All data are blank	**ID :** **Name:** **IC** : **Position** : **Ext No** : **Phone No**: **Email**: **Department** :	Message box 'Please fill the ID'. Click OK button and go to the same register staff.	Message box appear and go to the register staff page

Test Case ID : TCA3_SM00

Test Case Name : Assign Staff Commitee

ID	Description	Test Data	Expected Result	Actual Result
TCA3_SM001	User filled all data	**ID :** 10 **Staff ID :** S0506 **Position :** President	Message box 'Data are saved'. Click OK button and new staff add total member will increase.	Message box appear and new staff data insert because the number increase.
TCA3_SM002	User filled not exist staff ID	**ID :** 10 **Staff ID :** S098 **Position :** President	Integrity Constraint Error	Integrity Constraint Error
TCA2_SM003	All data are blank	**ID :** **Staff ID :** **Position :**	Integrity Constraint Error	Integrity Constraint Error

Test Case ID : TCA4_SM00

Test Case Name : Search Member Committee

ID	Description	Test Data	Expected Result	Actual Result
TCA4_SM001	User filled the staff ID	**Staff ID :** S0506	Go to page that contain list of committee that the Staff join.	Go to page that contain list of committee that the Staff join.
TCA3_SM002	Blank Staff ID	**Staff ID :**	Message box will appear to 'Filled the Staff ID"	Message box will appear
TCA2_SM003	Staff ID does not exist.	**Staff ID : S2**	Page didn't show any result	Page didn't show any result

***This test case have the same process to check event status for Tester 3**

Test Case ID : TCP_MD00

Test Case Name : Manage Details - Update Personal Details

ID	Description	Test Data	Expected Result	Actual Result
TCP_MD001	Update selected data	**Staff ID :** S0102010 **Ext No. : 4557**	Message box data 'Your Data Updated'.	Message box data 'Your Data Updated' appear.
TCP_MD002	Staff ID, IC number and email is data that user can't update.	**Staff ID :** **IC Number :** **Email:**	The field of the staff ID, IC Number and Email are read-only.	Can't update the data.

***This test case has the same process for update on table Event .**

Test Case ID : TCP1_ME00

Test Case Name : Manage Event – Create New Event

ID	Description	Test Data	Expected Result	Actual Result
TCP1_ ME001	Insert All data.	**Title :** Merdeka **Date :** 30/08/16 **Place:** Dewan Besar **Purpose:** Raikan Hari Patriotik **Inroduction:** Raikan Hari Patriotik **Mission:** Raikan Hari Patriotik **Aim:** Raikan Hari Patriotik **Objective:** Raikan Hari Patriotik **Conclusion:** Raikan Hari Patriotik **Category:** Program Staff dan Pelajar	Message box data 'Your data are save !' and click on OK button then go to the next page with the new event ID .	Message box data 'Your data are save !and go to the next page with the event ID .
TCP1_ ME002	User Insert half of the data	**Title :** Merdeka **Date :** 30/08/16 **Place:** Dewan Besar **Purpose:** Raikan Hari Patriotik **Inroduction:** Raikan Hari Patriotik **Mission:** **Aim:** **Objective:** **Conclusion:** **Category:**	Message box data 'Please filled out the mission !'	Message box appear ask to filled out the data

TCP1_ ME003	Blank data	**Title :** **Date :** **Place:** **Purpose:** **Inroduction:** **Mission:** **Aim:** **Objective:** **Conclusion:** **Category:**	Message box appear to filled out the data. Data cannot be save if data is null	Message box appear to filled out the data.
TCP1_ ME004	User can't choose the past date.	**Title :** Merdeka **Date :** 07/05/16	User can't click the past date on the calendar.	User can't click the past date on the calendar.

***This test case has the same process for table event_publicity and event committee.**

Test Case ID : TCP2_ME00

Test Case Name : Manage Event – Insert for Tentative and Budget

ID	Description	Test Data	Expected Result	Actual Result
TCP2_ME001	Click on Button 'Add' Button	-	New row to add data will appear.	Row added.
TCP2_ME002	Click on check box and 'Delete' Button	-	Row will be delete	Row delete.
TCP2_ME003	Insert many data	**Time:** 8:00 AM **Description :** Registeration **Time :** 9.00 AM **Description :** Talk By Dean **Time :**10.30 AM **Description :** Break	Message box ' Data are save' will be appear and go to the next page.	Message box ' Data are save' will be appear and go to the next page.

Test Case ID : TCP3_CM00

Test Case Name : Calculation Module – Insert for on Budget Update on Event

ID	Description	Test Data	Expected Result	Actual Result
TCP2_ME001	Insert Total Price in Budget Page for each purpose	**Purpose :** Lunch **Total Price :** 300 **Purpose :** souvenir **Total Price** : 200	Total budget on event table update 500	Total Budget Update.

Test Case ID : TCS3_CM00

Test Case Name : Calculation Module – Insert for on Budget Update on Event

ID	Description	Test Data	Expected Result	Actual Result
TCP2_ME001	Insert Total Price in Budget Page for each purpose	**Purpose :** Lunch **Total Price :** 300 **Purpose :** souvenir **Total Price** : 200 *Total Budget : Should be 500	Total budget on event table update 500	Total Budget Update.

TEST RESULT AND ANALYSIS

Test Result and analysis in Manage Staff – Insert New Staff

Module : Login	**Person**	**Result**		**Class of test**
Test ID : TCA2_SM00		**Failed**	**Success**	
TCA2_SM001	Tester 1 and Tester 2		✓	This test is done to check connection between GUI and database and system functionality.
TCA2_SM002			✓	
TCA2_SM003			✓	

Test Result and analysis in Manage Staff – Assign Staff Committee

Module : Login	**Person**	**Result**		**Class of test**
Test ID : TCA3_SM00		**Failed**	**Success**	
TCA3_SM001	Tester 1 and Tester 2		✓	This test is done to check system functionality and user acceptance.
TCA3_SM002			✓	
TCA3_SM003			✓	

Test Result and analysis in Manage Staff – Delete Staff Committee

Module : Login	**Person**	**Result**		**Class of test**
Test ID : TCA4_SM00		**Failed**	**Success**	
TCA4_SM001	Tester 2		✓	This test is done to check system functionality.
TCA4_SM002			✓	
TCA4_SM003			✓	

Test Result and analysis in Manage Details – Update Personal Details

Module : Login	**Person**	**Result**		**Class of test**
Test ID : TCP_MD00		**Failed**	**Success**	
TCP_MD001	Tester 3		✓	This test is done to check system functionality and user acceptance.
TCP_MD002			✓	

Test Result and analysis in Manage Event – Create New Event

Module : Login	**Person**	**Result**		**Class of test**
Test ID : TCP1_ME00		**Failed**	**Success**	
TCP1_ME001	Tester 1 and Tester 3		✓	This test is done to check system functionality, error handling and user acceptance.
TCP1_MD002			✓	
TCP1_MD003			✓	
TCP1_MD004			✓	

Test Result and analysis in Manage Event – Insert for tentative and budget

Module : Login	**Person**	**Result**		**Class of test**
Test ID : TCP2_ME00		**Failed**	**Success**	
TCP2_ME001	Tester 1 and Tester 3		✓	This test is done to check system functionality.
TCP2_ME002			✓	
TCP2_ME003			✓	

Test Result and analysis in Manage Event – Insert for tentative and budget

Module : Login	**Person**	**Result**		**Class of test**
Test ID : TCP3_CM00		**Failed**	**Success**	
TCP3_CM001	Tester 1 and Tester 3		✓	This test is done to check system functionality.

Test Result and analysis in Calculation Module – Insert for on Budget Update on Event

Module : Manage Event	**Person**	**Result**		**Class of test**
Test ID : TCP2_ME00		**Failed**	**Success**	
TCP2_ME001	Tester 3		✓	This test is done to check system functionality.

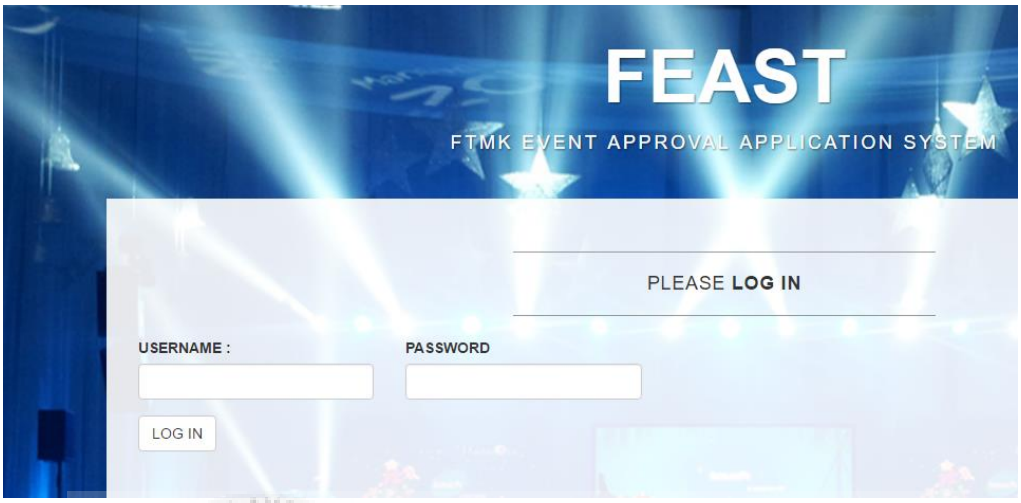
Test Result and analysis for GUI

Module : Login	**Person**	**Result**		**Class of test**
Test ID : TCS_GUI		**Failed**	**Success**	
TCS_GUI1	Tester 4		✓	This test is done to check user acceptance about the interface of the system.
TCS_GUI2			✓	
TCS_GUI3			✓	

USER MANUAL

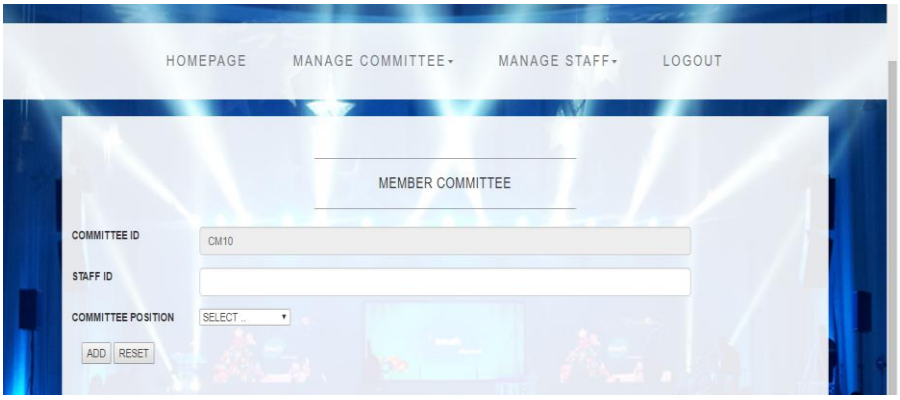
Manual Administrator

Insert username which is **staff ID and password**



Admin Homepage : Click on **Manage Committee** and choose **Committee Member** to add new member of Committee. Click on (+) to add member and (x) to delete staff based on committee name .

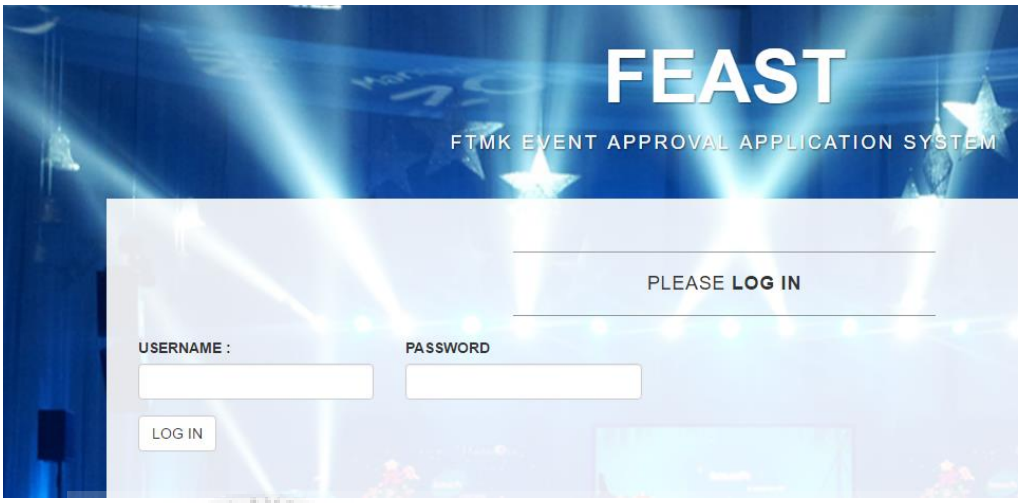
Insert **staff ID** and click add.



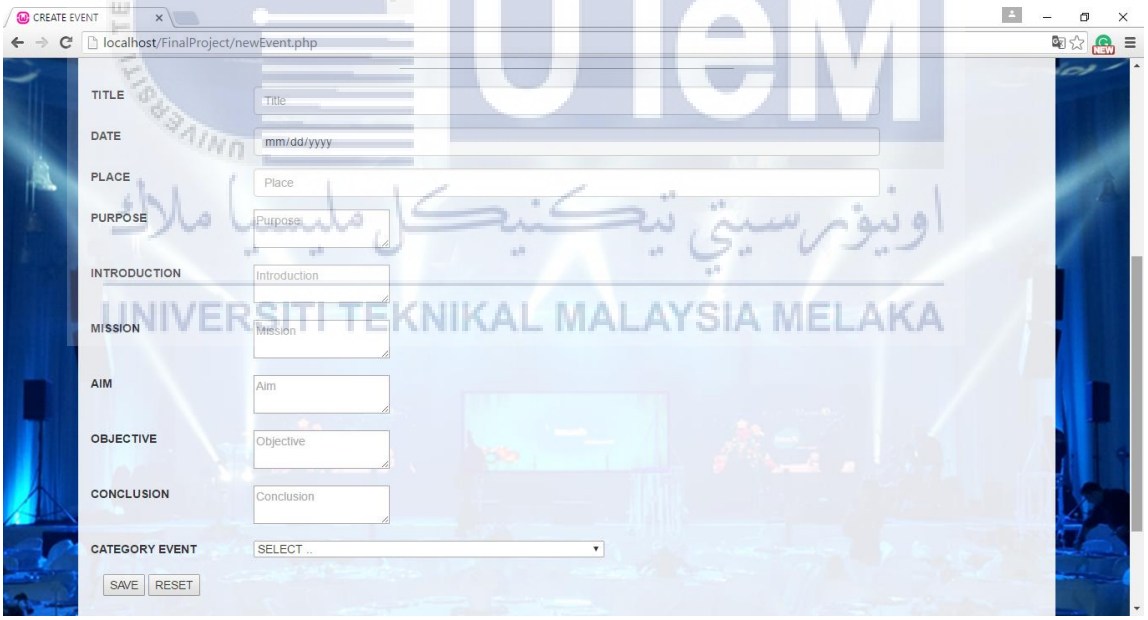
On menu bar click on Manage Staff and choose Add Staff to add new staff. Filled all the details of staff and save.

Manual Applicant

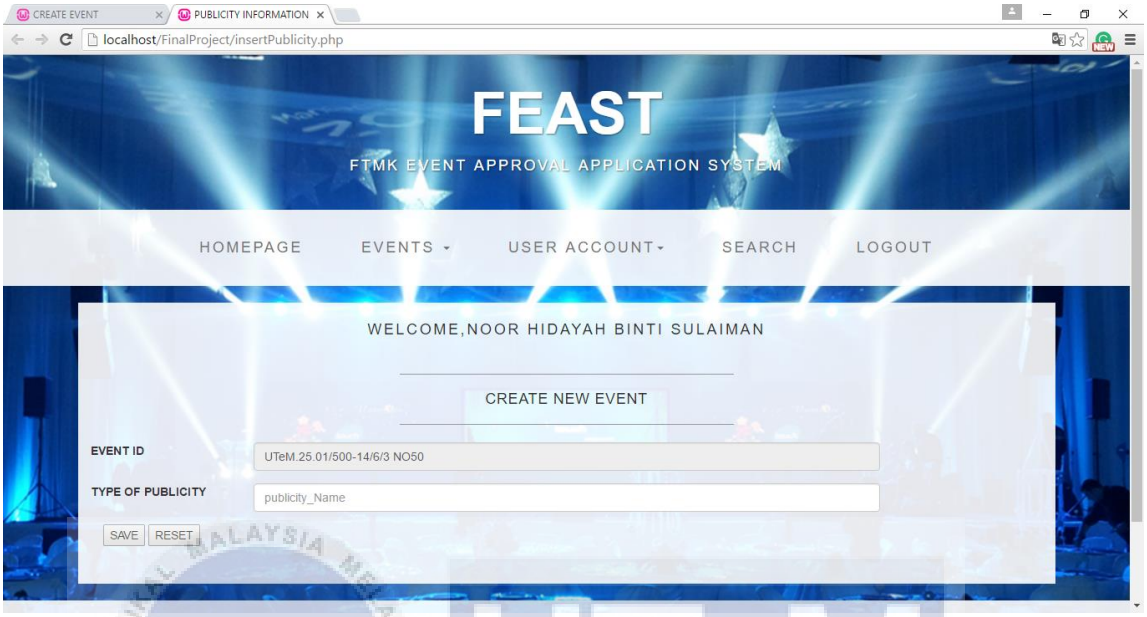
Insert username which is **staff ID and password**



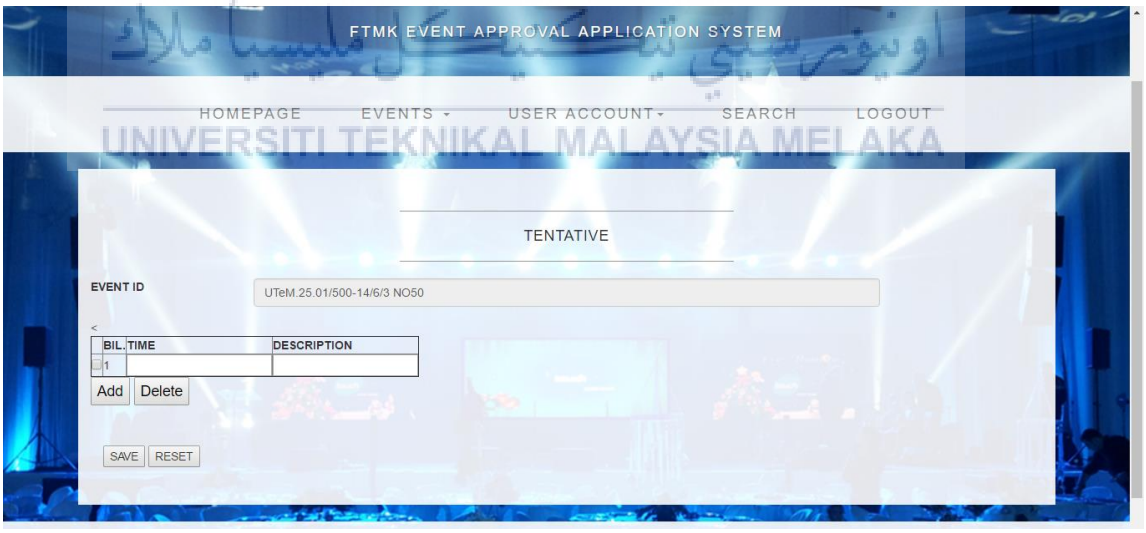
In Menu bar click on **Events** and choose **Create Event** to apply new event. Fill all the event information.



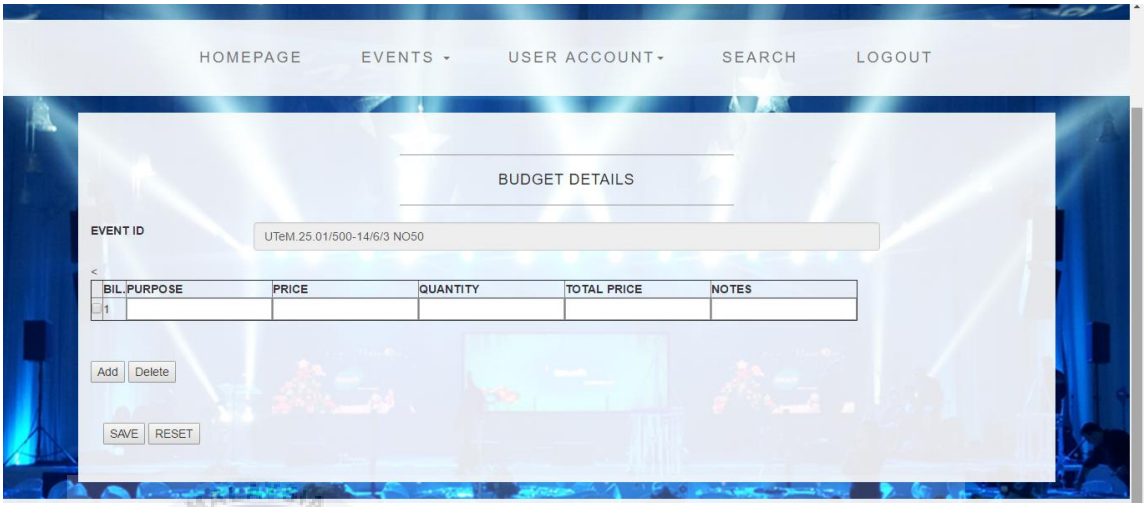
After that click save to fill the publicity name, event id automatically after filled the event information. Then click on button save.



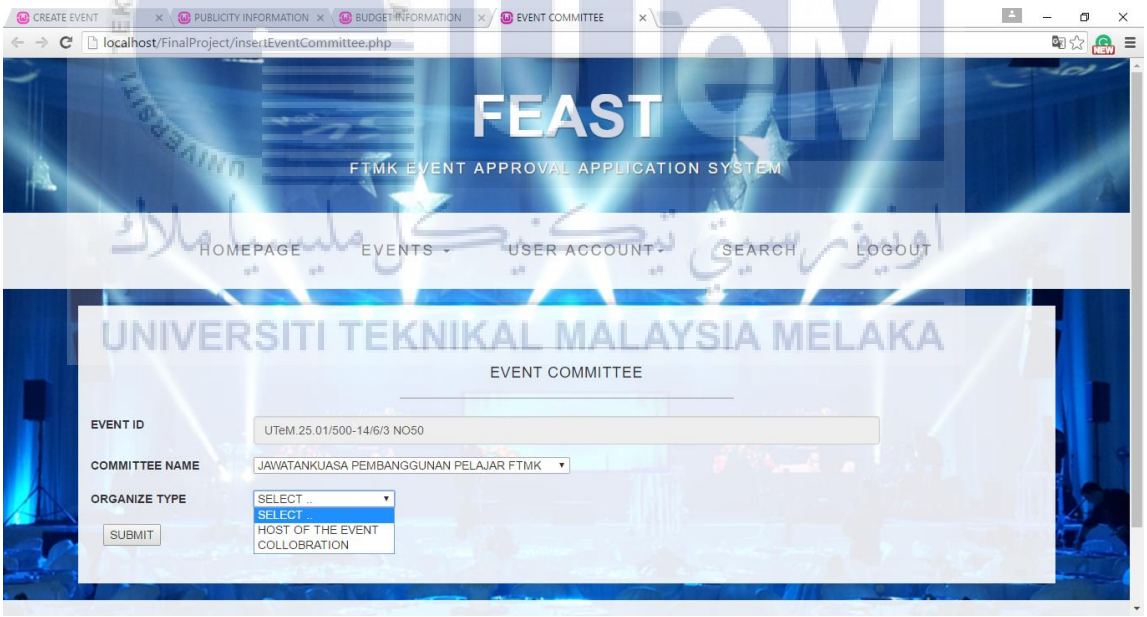
This tentative page will appear after publicity is save. Fill the time and description of the tentative. Click on Add button to add new row of time and description. Delete Button to delete row but need to click at the check box. After done, click save button or reset to clear textbox.



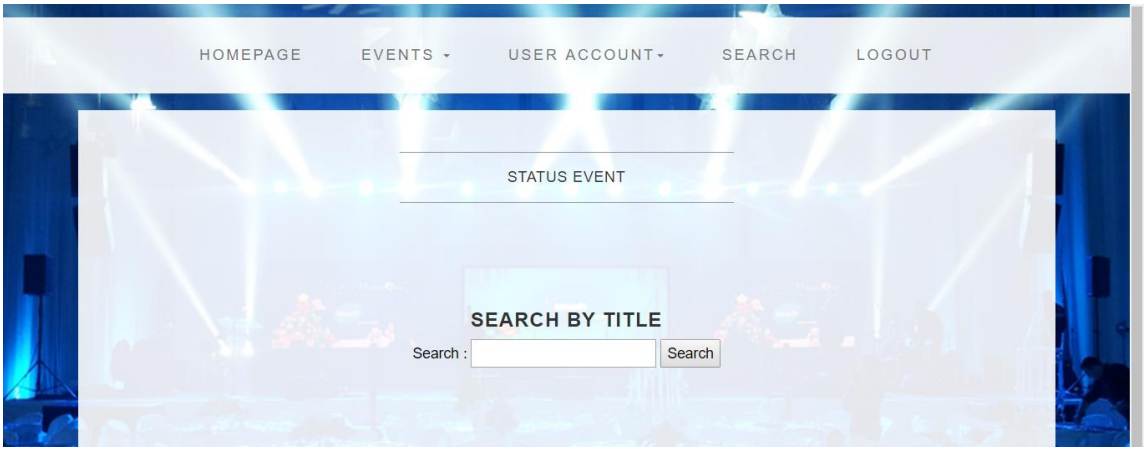
This budget page will appear after tentative is saved. Fill all the information. Click on Add button to add new row of time and description. Delete Button to delete row but need to click at the check box. After done, click save button or reset to clear textbox.



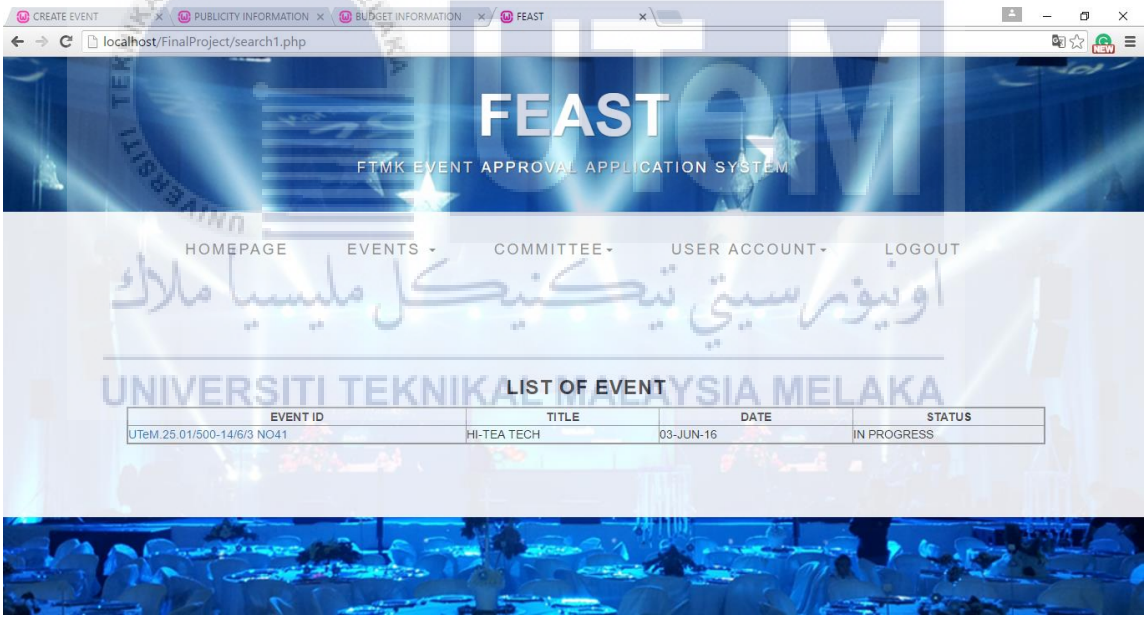
Then fill the committee information. And submit button to send the information.



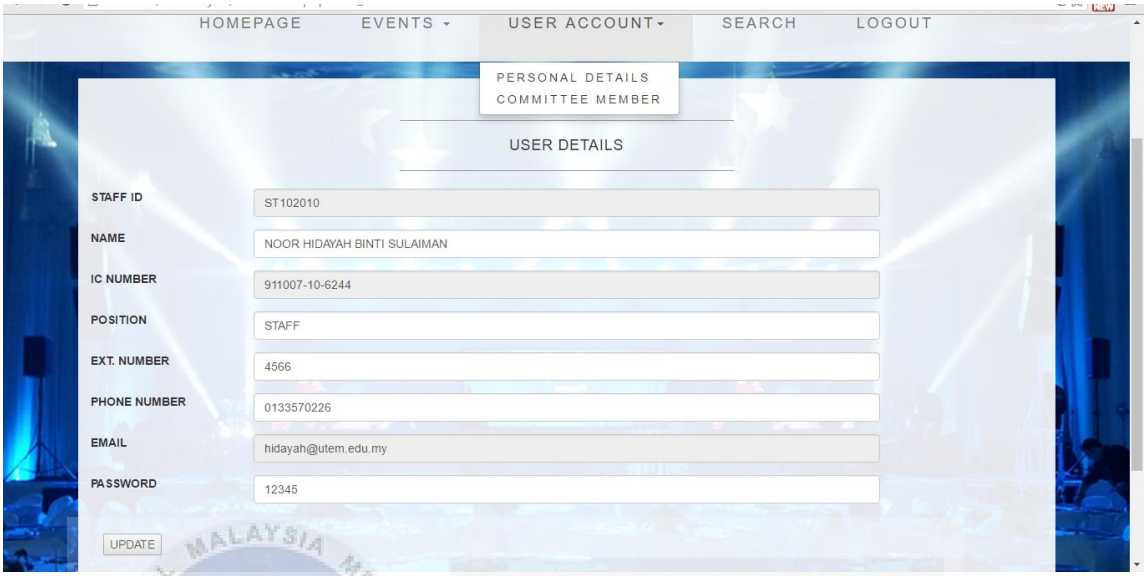
On **Events** click on **Event Status** to check status of event. Insert the title of event and click on **search button.**



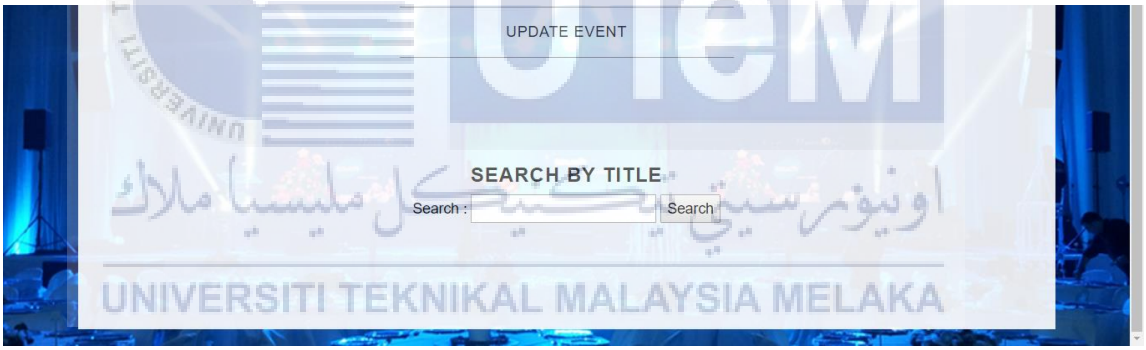
This page will appear. User can know the status of event and **click on event id** to view the proposal of event.



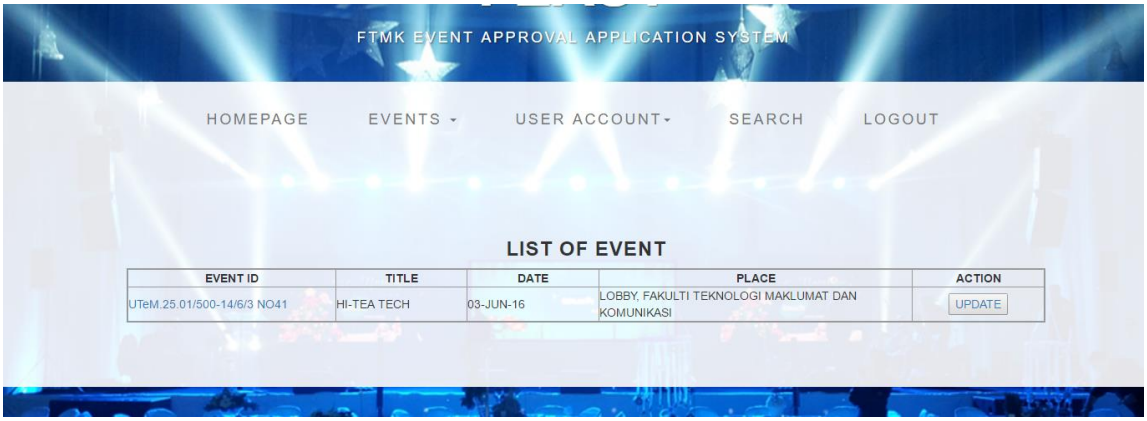
In menu bar, click on **User Account** choose **Personal details** to update data personal and click on **Update button**.



Click on **Search** to update data of the event. Insert title of the event.

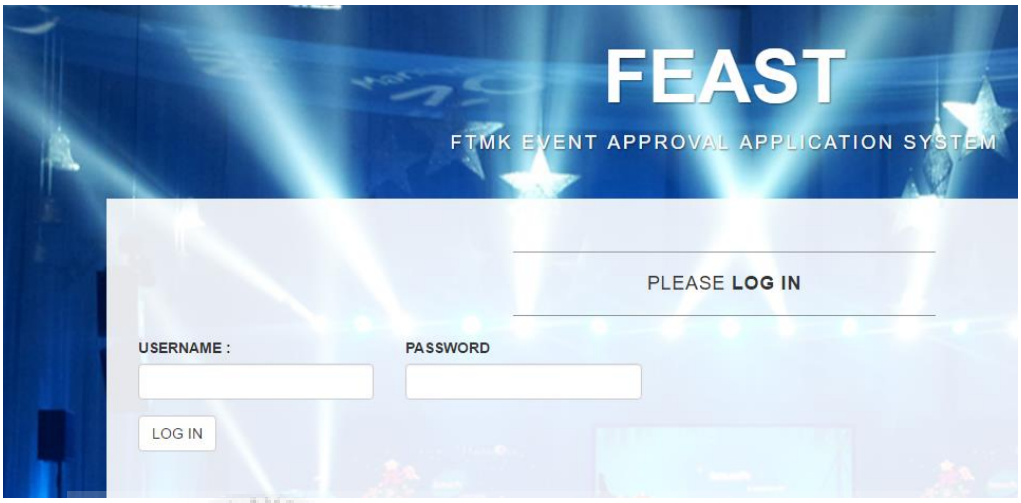


Click **Update Button** to update the event.



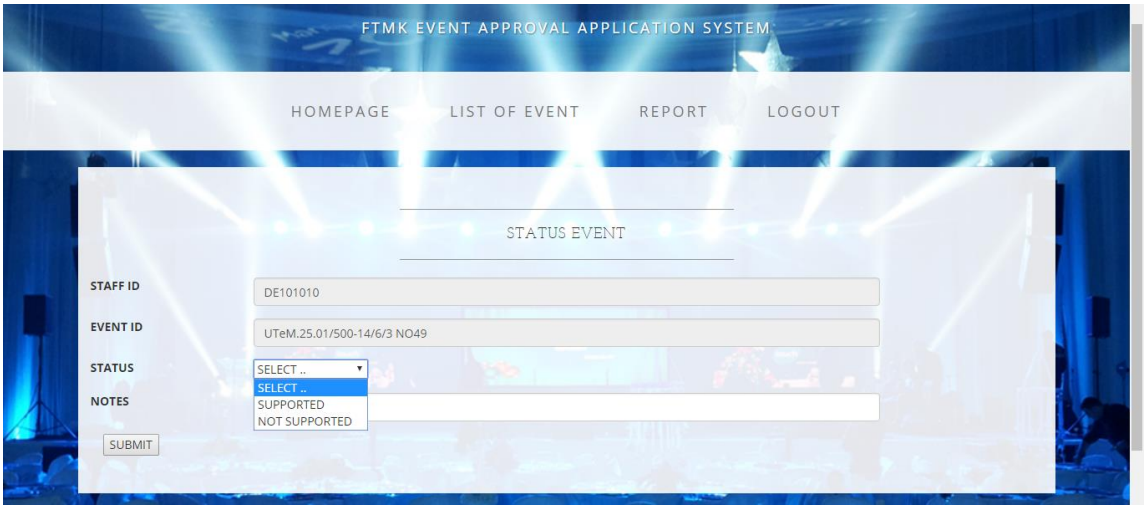
Manual of Supporter and Approver

Insert username which is **staff ID and password**

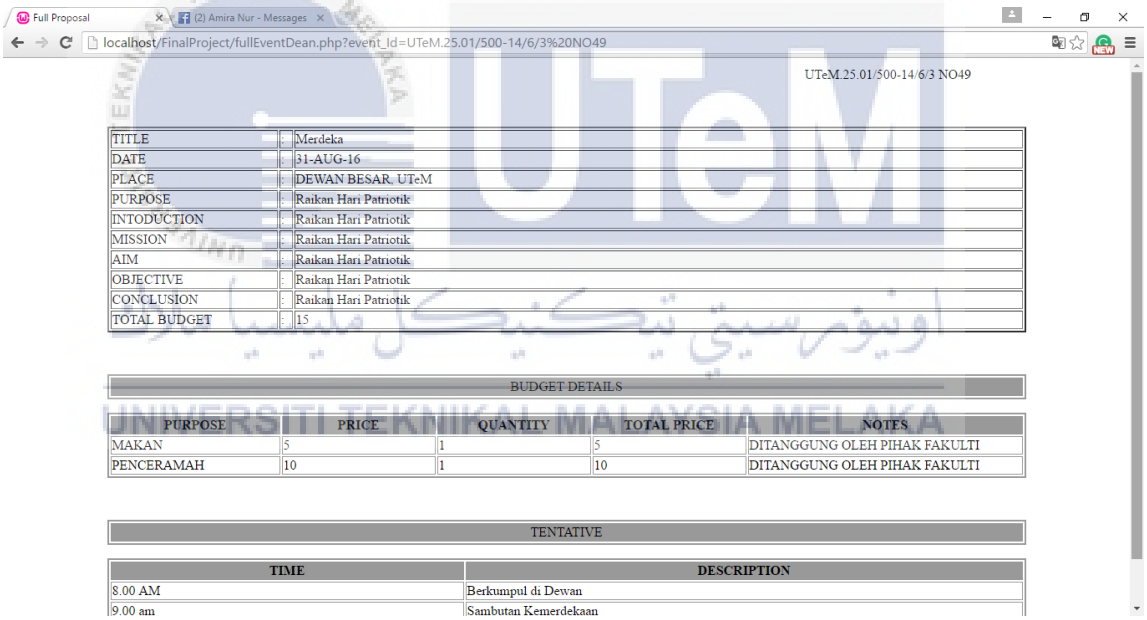


In Menu Bar click on **List of Event** to know the entire event needs to be approved or support. Click on the **blue arrow.**

Give Status . And click on **Submit** Button



Or **click on the Event ID** to view full Proposal



In Menu bar click on **Report** to view report .