



**UNIVERSITY MALAYSIA TERENGGANU**  
**FACULTY OF COMPUTER SCIENCE & MATHEMATICS**

**Web Based Application Development**  
**CSM 3023**

**FINAL REPORT PROJECT:**  
**MODULE - 3 : PROGRAM OFFERING**

Prepared by:

Group 3

NAME	MATRICS NUMBER
NUR ARIFAH BINTI MOHD HANAFIAH	S66428
NURHAZIRAH BINTI ABDULLAH	S68144
MARLIANTI BINTI MUF PIARLIS	S66353

Prepared for:

DR MOHAMAD NOR BIN HASSAN

**BACHELOR OF COMPUTER SCIENCE (MOBILE COMPUTING) WITH HONORS**  
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## **1. EXECUTIVE SUMMARY**

The purpose of the Programme Offering system is to expedite the documentation, evaluation, and approval of academic programme proposals in educational institutions. The programme leader sends out suggestions, which are subsequently assessed by committees and departments at different levels in an organised process. The responsible person thoroughly considers each idea and records it before granting final approval.

This system's primary duties include submitting new programme proposals, scheduling and revising meetings with relevant parties including JPPU, SENAT, and LPU, evaluating KPT proposals, and updating proposal statuses at every meeting. Every one of these tasks is necessary to have a strong and organised procedure in place. Furthermore, the proposal must be updated and provided by the Head of the Programme, and it will be sent by the PPPK to the JPPU, SENAT, and LPU, who will arrange and lead meetings to debate the suggestions. The proposal will then be reviewed by the KPT, who will make sure all requirements are satisfied before providing comments or approving it.

In addition to increasing management efficiency for academic programme ideas, our programme offering system guarantees openness at every stage of the procedure. Having this approach in place will occasionally make controlling the offering program's papers function easily and harmoniously.

## 2. USE CASE DIAGRAM

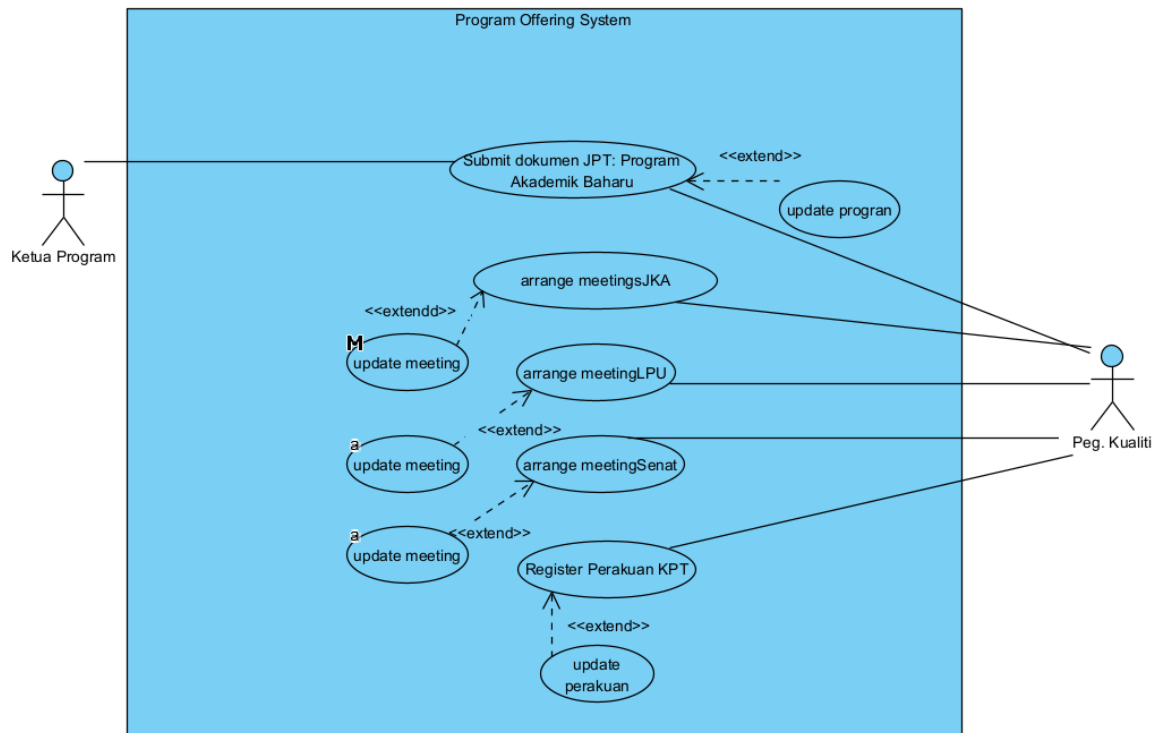


Figure 1: Use Case diagram

Figure 1 above shows the use case diagram for the Program Offering system. This diagram explains what the actions of each actor in this system are. It can be seen more clearly about this system working.

### 3. CLASS DIAGRAM

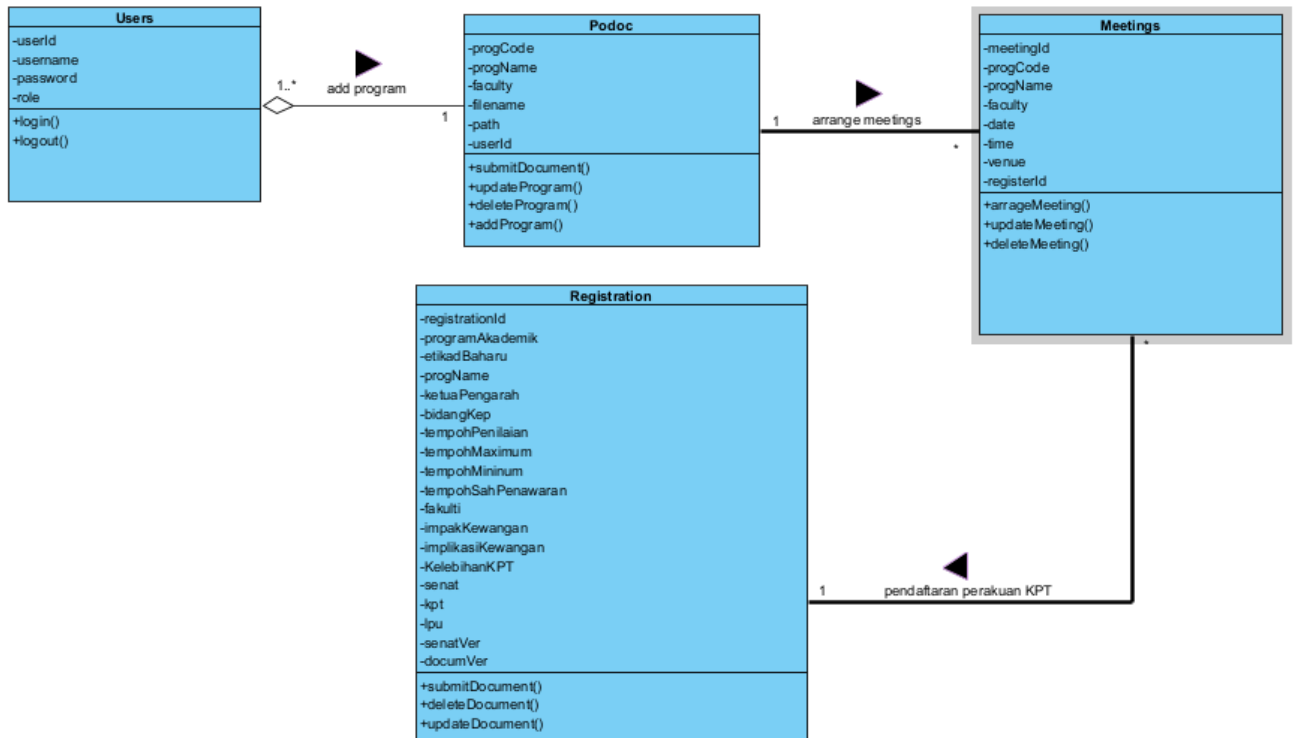


Figure 2: Class Diagram

Figure two above shows the class diagram for the Program Offering system. This system shows that users will add the program first and send a document proposal to the KPT. After that, the LPU, SENAT and JPPU will arrange the meeting and finally after the meeting, the consumer will register the KPT certificate.

#### 4. USER TRACEABILITY MATRIX

ID	User Role	Use Case	Entities	Database Tables	Description
UC1	Ketua Program	Submit dokumen JPT: Program Akademik Baharu	User, Podoc	User, podoc	Ketua Program submits a new academic program document.
UC2	Ketua Program	Arrange meeting (JPPU, SENAT, LPU)	User, Meetings	User, meetings	Ketua Program arranges meetings for different committees.
UC3	Ketua Program	Update meeting	User, Meetings	User, meetings	Ketua Program updates details of arranged meetings.
UC4	JPPU	Arrange meeting	User, Meetings	User, meetings	JPPU arranges meetings specific to their committee.
UC5	JPPU	Update meeting	User, Meetings	User, meetings	JPPU updates details of their meetings.
UC6	SENAT	Arrange meeting	User, Meetings	User, meetings	SENAT arranges meetings specific to their committee.
UC7	SENAT	Update meeting	User, Meetings	User, meetings	SENAT updates details of their meetings.
UC8	LPU	Arrange meeting	User, Meetings	User, meetings	LPU arranges meetings specific to their committee.
UC9	LPU	Update meeting	User, Meetings	User, meetings	LPU updates details of their meetings.
UC10	Kualiti	Daftar Perakuan KPT	User, Registrations	User, registrations	Kualiti registers the program with KPT and maintains status.

## 5. ER DIAGRAM

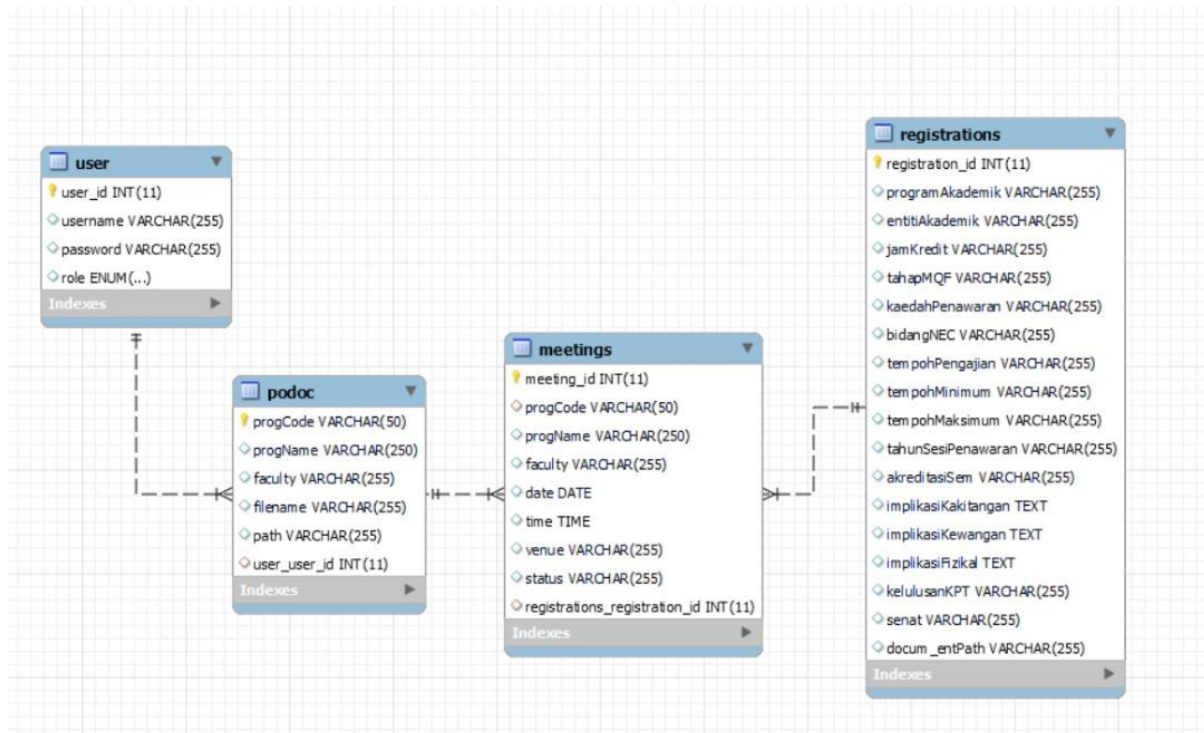


Figure 3: ERD Diagram

This figure shows ERD Diagram of Program Offering System where the relationship of user that contains of SENAT, LPU, KPT and Quality people have one to many relationship to podoc which is proposal document. It then have a relationship with meetings. Next, meetings will have many to one relationship with registrations.

## 6. MVC MODEL



Figure 6 shows how the system work in MVC way

Figure 6 above is the MVC Model flow for the Program Offering system. The user will interact with the view then will request the process to the controller and the controller will ask the model to provide the data then the model will request the to database. After that, the database will responses the model to return the data to the controller again and then the controller will render the content for the final view once the final view will interact with the user again.



## 7. INTERFACES

- **Login.jsp**

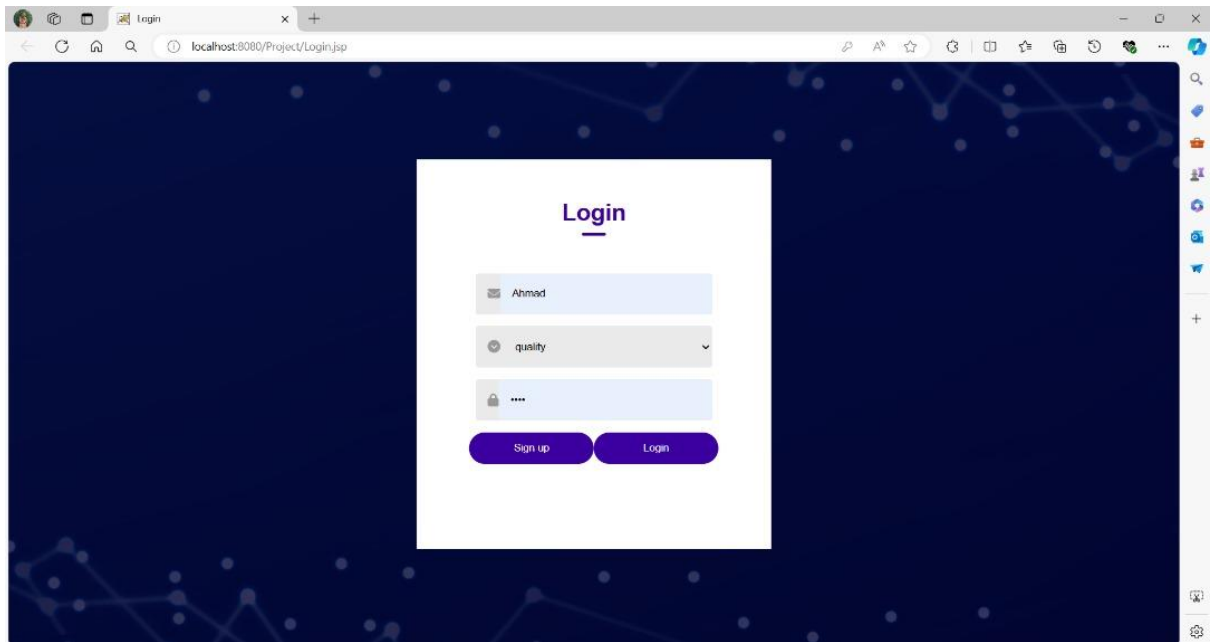
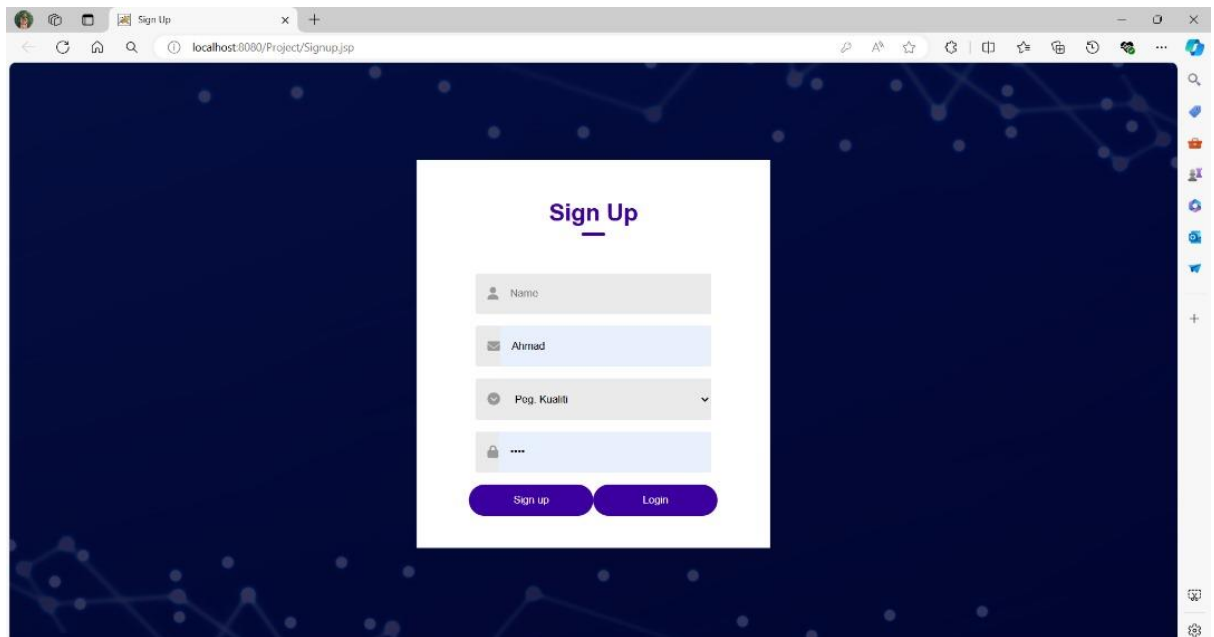


Figure 7.1 interface of Login page for this system

This figure shows the first page that user need to login before they want to using this system. This page asked an user to insert the email, what their role head of program or quality and the last one is type the password.

- **SignUp.jsp**



The screenshot displays a web browser window with the address bar showing 'localhost:8080/Project/Signup.jsp'. The page features a dark blue background with a subtle network pattern. In the center, there is a white rectangular form titled 'Sign Up' in purple. The form contains four input fields: 'Name' (with a person icon), 'Email' (with an envelope icon and the text 'Ahmad'), 'Peg. Kualiti' (a dropdown menu with a checkmark icon), and a password field (with a lock icon and masked characters '....'). At the bottom of the form are two purple buttons labeled 'Sign up' and 'Login'.

Figure 7.2 interface for Sign Up for the new user

This figure 7.2 above shown that the interface of Sign Up page for user who is not register yet in this system. They have to insert their name, email, choose their role and lastly insert the password. After the user sign up, they can click the button login to login into this system.

- **Proposal.jsp**

**UMT Academic Program Development Tracking System**

Home Program List Contacts Manage Application Profile

### PROGRAM OFFERING

KERTAS CADANGAN PERMOHONAN PROGRAM AKADEMIK BAHARU UNTUK MESYUARAT JAWATANKUASA PENDIDIKAN TINGGI (JKPT)

Program Code:

Nama Program:

Fakulti:

PERKARA	DOKUMEN
<input type="checkbox"/> UNIVERSITI AWAM <input type="checkbox"/> TUJUAN <input type="checkbox"/> VISI MISI & MATLAMAT PENDIDIKAN UNIVERSITI <input type="checkbox"/> BIDANG TINJAUAN UNIVERSITI <input type="checkbox"/> ENTITI AKADEMIK YANG MEMOHON <input type="checkbox"/> LOKASI PENAWARAN <input type="checkbox"/> PROGRAM AKADEMIK YANG DIPOHON <input type="checkbox"/> TAHAP KERANGKA KELAYAKAN MALAYSIA (MQF) <input type="checkbox"/> NATIONAL EDUCATION CODE (NEC) <input type="checkbox"/> PENGIKHTIRAFAN BADAN PROFESIONAL <input type="checkbox"/> INSTITUSI ORGANISASI KERJASAMA <input type="checkbox"/> SESI PENGAJIAN PROGRAM AKADEMIK DIMULAKAN <input type="checkbox"/> MOD PENAWARAN <input type="checkbox"/> KREDIT BERGRADUAT <input type="checkbox"/> KAEDAH DAN TEMPOH PENGAJIAN <input type="checkbox"/> KAEDAH PENYAMPAIAN PROGRAM <input type="checkbox"/> JUSTIFIKASI MENGADAKAN PROGRAM AKADEMIK <input type="checkbox"/> KELESTARIAN PROGRAM <input type="checkbox"/> OBJEKTIF PENDIDIKAN PROGRAM <input type="checkbox"/> HASIL PEMBELAJARAN PROGRAM <input type="checkbox"/> STRUKTUR KURIKULUM <input type="checkbox"/> UNJURAN PELAJAR <input type="checkbox"/> SYARAT KEMASUKAN <input type="checkbox"/> PERMOHONAN PROGRAM AKADEMIK YANG DIPOHON DENGAN UNIVERSITI LAIN DALAM NEGARA/PERTINDIHAN PROGRAM <input type="checkbox"/> PERBANDINGAN DENGAN PROGRAM AKADEMIK DI UNIVERSITI LUAR NEGARA <input type="checkbox"/> IMPLIKASI PERJAWATAN FIZIKAL DAN KEWANGAN <input type="checkbox"/> PERJUMUDAN PEMBEKUAN PELUPUSAN PROGRAM <input type="checkbox"/> KOS PELAKSANAAN PROGRAM <input type="checkbox"/> KEAHLIAN JAWATANKUASA PENGAJIAN FAKULTI PROGRAM (BOARD OF STUDIES) <input type="checkbox"/> TARIKH PROGRAM AKADEMIK DILULUSKAN	<input type="button" value="Choose File"/> No file chosen

NOTA: [Link ini](#) memberikan keterangan lebih lanjut setiap perkara yang ingin di upload

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Figure 7.3 Proposal interface of Program Offering

Figure 7.3 shows the interface for submit the documents for Program Offering. This page is for the UMT Quality Division to keep the proposal paper for the application of the new academic programme for the Higher Education Committee meeting according to the documents that need to be submitted.

- **Display Program for user Quality**

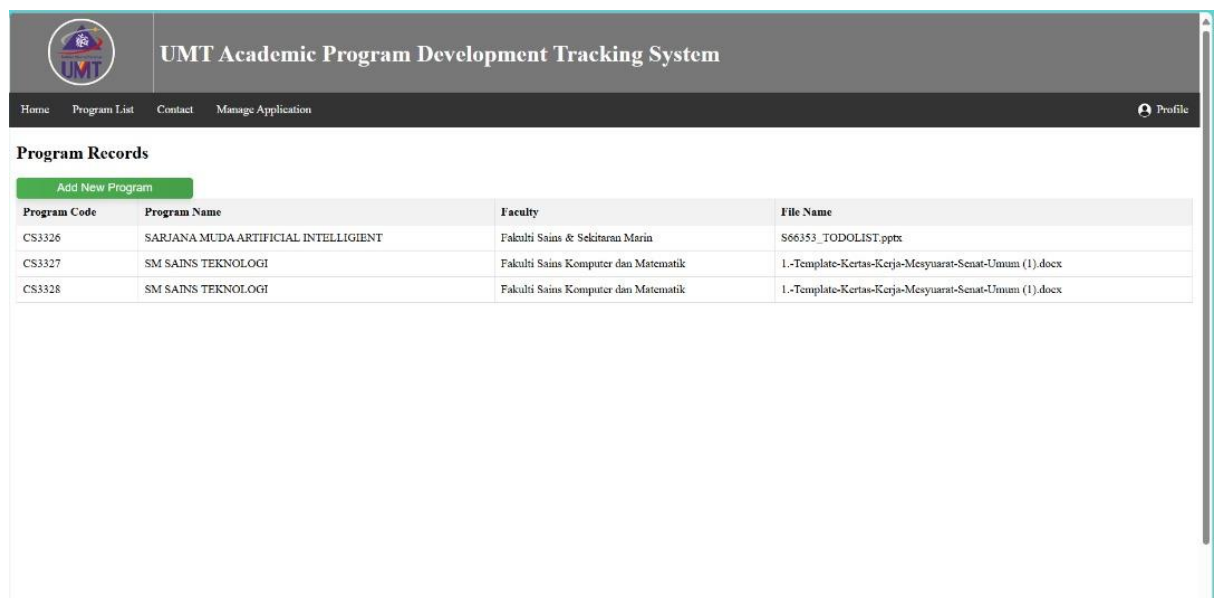


Program Code	Program Name	Faculty	File Name	Edit	Delete	Arrange Meeting
CS3326	SARJANA MUDA ARTIFICIAL INTELLIGENT	Fakulti Sains & Sekitaran Marin	S66353_TODOLIST.pptx	<a href="#">Update</a>	<a href="#">Delete</a>	<a href="#">Arrange Meeting</a>
CS3327	SM SAINS TEKNOLOGI	Fakulti Sains Komputer dan Matematik	1.-Template-Kertas-Kerja-Mesyuarat-Senat-Umum (1).docx	<a href="#">Update</a>	<a href="#">Delete</a>	<a href="#">Arrange Meeting</a>
CS3328	SM SAINS TEKNOLOGI	Fakulti Sains Komputer dan Matematik	1.-Template-Kertas-Kerja-Mesyuarat-Senat-Umum (1).docx	<a href="#">Update</a>	<a href="#">Delete</a>	<a href="#">Arrange Meeting</a>

Figure 7.4 interface Program Records

Figure 7.4 above shows all data and documents stored securely in this system. This page also provides additional functionality if the user wants to add documents for a new program. Others, they can delete the program and the information too in this page. This interface for quality only, so they can arrange the meeting after that with LPU, KPA and SENAT.

- **Display Program for user Head of Program**



Program Code	Program Name	Faculty	File Name
CS3326	SARJANA MUDA ARTIFICIAL INTELLIGENT	Fakulti Sains & Sekitaran Marin	S66353_TODOLIST.pptx
CS3327	SM SAINS TEKNOLOGI	Fakulti Sains Komputer dan Matematik	1.-Template-Kertas-Kerja-Mesyuarat-Senat-Umum (1).docx
CS3328	SM SAINS TEKNOLOGI	Fakulti Sains Komputer dan Matematik	1.-Template-Kertas-Kerja-Mesyuarat-Senat-Umum (1).docx

Figure 7.6 Interface of display od add program by Head of Program

The figure above shown that an interface of after Head of Program add the program. This display only for the user (Head of Program). They just only can add the program but can edit or do any function.

- **Edit Program**

The screenshot shows a web browser window with the URL `localhost:8080/Project/pdoController?action=edit&progCode=UKS%203001`. The page title is "UMT Academic Program Development Tracking System". The navigation bar includes "Home", "Program List", "Contact", "Manage Application", and a "Profile" link. The main content area is titled "Edit Program" and contains the following fields:

- Program Code:** A text input field containing "UKS 3001".
- Nama Program:** A text input field containing "Sarjana Muda Marketing dengan kepujian".
- Fakulti:** A dropdown menu with "--Pilih Fakulti--" selected.
- Upload Document:** A section with a "Choose File" button and the text "No file chosen".
- Edit:** A large green button at the bottom of the form.

Figure 7.7 interface for edit program added

The image above 7.7 shows the edit page for the saved program. This page allows users to make edits to the program code of their choice. They can only edit the faculty and upload new documents.

- **Form Meeting**

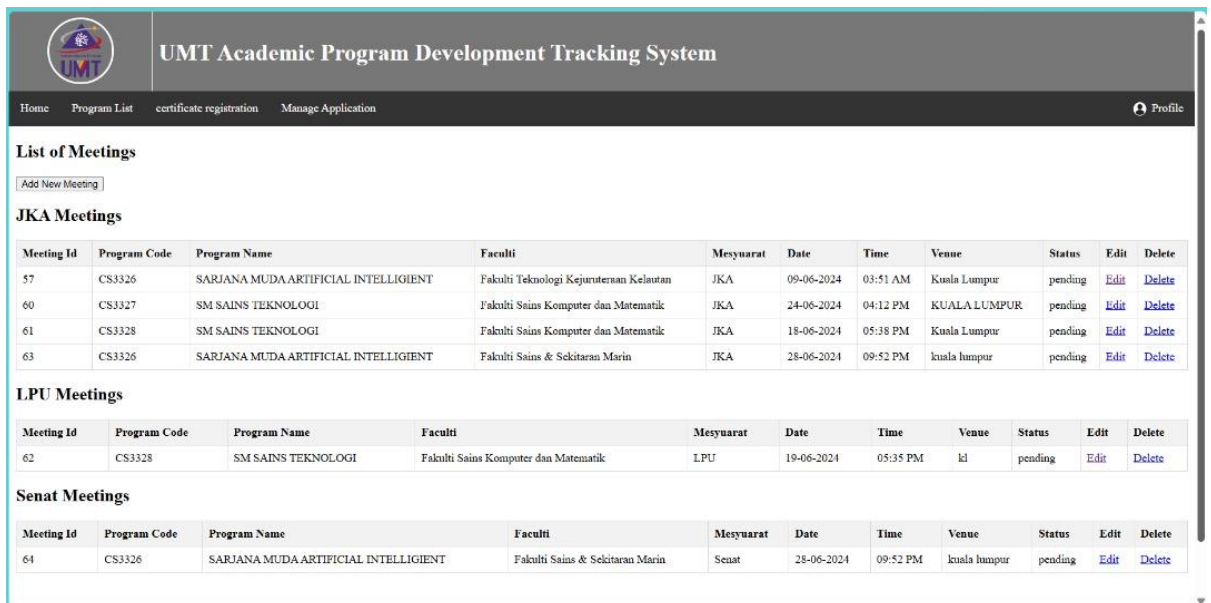
The screenshot shows a web browser window with the URL `localhost:8080/Project/FormMeeting.jsp`. The page title is "UMT Academic Program Development Tracking System". The navigation bar includes "Home", "Program List", "Contact", "Manage Application", and a "Profile" link. The main content area is titled "Arrange Meeting Details" and contains the following fields:

- Program Code:** A text input field.
- Program Name:** A text input field.
- Faculty:** A dropdown menu with "--Pilih Fakulti--" selected.
- Meeting Type:** A dropdown menu with "JKA" selected.
- Date:** A date input field with a calendar icon, showing "dd/mm/yyyy".
- Time:** A time input field with a clock icon, showing "--:--:--".
- Venue:** A text input field.
- Current Status:** A dropdown menu with "Pending" selected.
- Submit:** A large green button at the bottom of the form.

Figure 7.8 interface for add new meeting with LPU, SENAT and JPPU

Figure 7.8 above shows the page that manages the meeting between LPU, SENATE and JPPU with UMT quality department. They can also see the current status for this meeting.

- **ListMeeting**



**UMT Academic Program Development Tracking System**

Home Program List certificate registration Manage Application Profile

**List of Meetings**

[Add New Meeting](#)

**JKA Meetings**

Meeting Id	Program Code	Program Name	Faculti	Mesyuarat	Date	Time	Venue	Status	Edit	Delete
57	CS3326	SARJANA MUDA ARTIFICIAL INTELLIGENT	Fakulti Teknologi Kejuruteraan Kelautan	JKA	09-06-2024	03:51 AM	Kuala Lumpur	pending	<a href="#">Edit</a>	<a href="#">Delete</a>
60	CS3327	SM SAINS TEKNOLOGI	Fakulti Sains Komputer dan Matematik	JKA	24-06-2024	04:12 PM	KUALA LUMPUR	pending	<a href="#">Edit</a>	<a href="#">Delete</a>
61	CS3328	SM SAINS TEKNOLOGI	Fakulti Sains Komputer dan Matematik	JKA	18-06-2024	05:38 PM	Kuala Lumpur	pending	<a href="#">Edit</a>	<a href="#">Delete</a>
63	CS3326	SARJANA MUDA ARTIFICIAL INTELLIGENT	Fakulti Sains & Sekitaran Marin	JKA	28-06-2024	09:52 PM	kuala lumpur	pending	<a href="#">Edit</a>	<a href="#">Delete</a>

**LPU Meetings**

Meeting Id	Program Code	Program Name	Faculti	Mesyuarat	Date	Time	Venue	Status	Edit	Delete
62	CS3328	SM SAINS TEKNOLOGI	Fakulti Sains Komputer dan Matematik	LPU	19-06-2024	05:35 PM	kl	pending	<a href="#">Edit</a>	<a href="#">Delete</a>

**Senat Meetings**

Meeting Id	Program Code	Program Name	Faculti	Mesyuarat	Date	Time	Venue	Status	Edit	Delete
64	CS3326	SARJANA MUDA ARTIFICIAL INTELLIGENT	Fakulti Sains & Sekitaran Marin	Senat	28-06-2024	09:52 PM	kuala lumpur	pending	<a href="#">Edit</a>	<a href="#">Delete</a>

Figure 7.9 interface List of Meetings between LPU, SENAT and JPPU

Figure 7.9 above is the meeting list page after the added. On this page, users can also see all the information filled in and the status for the meeting.

- **EditMeeting**

The screenshot shows a web browser window with the URL `localhost:8080/Project/MeetingController?action=edit&meetingid=20`. The page title is "UMT Academic Program Development Tracking System". The navigation bar includes links for Home, Program List, Contact, and Manage Application, along with a Profile icon. The main content area is titled "Edit Meeting Details" and contains a form with the following fields:

Meeting Id:	20
Program Code:	62
Programme Name:	Informatics Maritim
Fakulti:	--Pilih Fakulti--
Meeting Type	JKA
Date:	dd/mm/yyyy
Time:	--:--:--
Venue:	DSM
Current Status:	Pending

At the bottom of the form is a green "Update" button.

Figure 7.10 interface for edit meeting page

The page for figure 7.10 above allows the user to edit the information if there is a change according to the selected program code.

- Register

Pendaftaran Perakuan KPT	
Perkara	Keterangan
Program Akademik	<input type="text" value="Masukkan Program Akademik"/>
Entiti Akademik	<input type="text" value="Masukkan Entiti Akademik"/>
Jam Kredit	<input type="text" value="Masukkan Jam Kredit"/>
Tahap MQF	<input type="text" value="Masukkan Tahap MQF"/>
Kaedah Penawaran	<input type="text" value="Masukkan Kaedah Penawaran"/>
Bidang NEC	<input type="text" value="Masukkan Bidang NEC"/>
Kaedah Pengendalian / Tempoh Pengajian	<p><b>Tempoh Pengajian:</b>  <input type="text" value="Masukkan Tempoh Pengajian"/></p> <p><b>Minimum:</b>  <input type="text" value="Masukkan Tempoh Minimum"/></p> <p><b>Maksimum:</b>  <input type="text" value="Masukkan Tempoh Maksimum"/></p>
Tahun/ Sesi Penawaran	<input type="text" value="Masukkan Tahun/Sesi Penawaran"/>
Implikasi	<input type="text" value="Implikasi Kakitangan"/>
	<input type="text" value="Implikasi Kewangan"/>
	<input type="text" value="Implikasi Fizikal"/>
Tarikh Kelulusan	<p>Kelulusan Saringan Awal KPT:  <input type="text" value="mm/dd/yyyy"/></p>
	<p>Perakuan Akreditasi Sementara:  <input type="text" value="mm/dd/yyyy"/></p>
	<p>Senat:  <input type="text" value="mm/dd/yyyy"/></p>
	<p>LPU:  <input type="text" value="mm/dd/yyyy"/></p>
Upload Document	<input type="button" value="Choose File"/> No file chosen

Figure 7.11 interface of Register Certificate for KPT

Figure 7.11 above explains the registration page of the certificate after obtaining approval from the JPPU, LPU and SENAT.



- **Display**

Maklumat Pendaftaran Perakuan KPT																			
Id	Program Akademik	Entiti Akademik	Jam Kredit	Tahap MQF	Kaedah Penawaran	Bidang NEC	Tempoh Pengajian	Tempoh Minimum	Tempoh Maksimum	Tahun Sesi Penawaran	Implikasi Kakitangan	Implikasi Kewangan	Implikasi Fizikal	Kelulusan KPT	Akreditasi Sementara	Senat	LPU	Dokumen	Action
1005	CSF3003	Dummy Data	3	lulus	2U2I	DUMMY	3 tahun setengah	3 TAHUN	3TAHUN	2021/2023	DUMMY	DUMMY	DUMMY	2024-06-25	2024-06-25	2024-06-26	2024-06-27	<a href="#">Download</a>	<a href="#">Delete</a> <a href="#">Edit</a>
1006	CSF3003	Dummy Data	3	lulus	2U2I	DUMMY	3 tahun setengah	3 TAHUN	3TAHUN	2021/2023	DUMMY	DUMMY	DUMMY	2024-06-25	2024-06-25	2024-06-26	2024-06-27	<a href="#">Download</a>	<a href="#">Delete</a> <a href="#">Edit</a>

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Figure 7.12 interface for display from Register

This figure 7.12 show the information about proposal certificate KPT that user insert from register page before. This page can delete and edit the information or data based on the Id.

## 8. DATABASE CONNECTION, CRUDE, JAVABEANS ETC

### Proposal

```
CREATE TABLE podoc(  
  progCode VARCHAR(50) PRIMARY KEY,  
  progName VARCHAR(250),  
  faculty VARCHAR(255),  
  filename VARCHAR(255),  
  path VARCHAR(255) NOT NULL  
);
```

### Registration

```
CREATE TABLE registrations (  
  id INT PRIMARY KEY AUTO_INCREMENT,  
  programAkademik VARCHAR(255),  
  entitiAkademik VARCHAR(255),  
  jamKredit VARCHAR(255),  
  tahapMQF VARCHAR(255),  
  kaedahPenawaran VARCHAR(255),  
  bidangNEC VARCHAR(255),  
  tempohPengajian VARCHAR(255),  
  tempohMinimum VARCHAR(255),  
  tempohMaksimum VARCHAR(255),  
  tahunSesiPenawaran VARCHAR(255),  
  implikasiKakitangan TEXT,  
  implikasiKewangan TEXT,  
  implikasiFizikal TEXT,  
  kelulusanKPT VARCHAR(255),  
  akreditasiSementara VARCHAR(255),  
  senat VARCHAR(255),  
  lpu VARCHAR(255),  
  documentPath VARCHAR(255)  
) AUTO_INCREMENT = 1000;
```

### meetings

```
26 CREATE TABLE meetings(  
27   meetingid INT PRIMARY KEY AUTO_INCREMENT,  
28   programCode VARCHAR(255),  
29   progName VARCHAR(255),  
30   faculty VARCHAR(255),  
31   meetingType VARCHAR(255),  
32   date date,  
33   time time,  
34   venue VARCHAR(255),  
35   status VARCHAR(255)  
36 );
```

## 9. INDIVIDUAL CONTRIBUTION

Person	Role	Responsibility
NUR ARIFAH BINTI MOHD HANAFIAH	Front-end and back-end	<ul style="list-style-type: none"><li>• Design the interface and implement database schema</li></ul>
NURHAZIRAH BINTI ABDULLAH	Front-end and back-end	<ul style="list-style-type: none"><li>• Design the interface and implement database schema</li></ul>
MARLIANTI BINTI MUF PIARLIS	Front-end and back-end	<ul style="list-style-type: none"><li>• Setup and maintain project repository</li><li>• Debug and compile</li></ul>

## **10. CONCLUSION**

To sum up, the Programme Offering System has shown to be a very useful instrument for organising the submission and assessment of proposals for academic programmes. The technology streamlines the process of submitting new proposals, scheduling and editing meetings, and rating proposals by implementing a systematic workflow that involves relevant departments and committees. The system makes sure that all stakeholders are regularly informed and involved in the decision-making process by offering real-time updates and status tracking. There is less chance of mistakes and oversights because every step of the proposal evaluation process is documented, ensuring accountability and openness.

To maintain the calibre of academic offerings, KPT's systematic evaluation process also makes sure that all proposals adhere to the required criteria. Improved workflow organisation, clarity at all levels, and management efficiency have all resulted from the installation of this system. This methodical and open approach not only speeds up the clearance process but also encourages careful planning and ongoing development in educational establishments.

## 11. REFERENCE

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(n.d.).[https://ebook.um.edu.my/ASPC/Garis\\_Panduan\\_Pembangunan\\_Program\\_Akademik\\_Universiti\\_Awam\\_Edisi\\_Kedua/mobile/index.html](https://ebook.um.edu.my/ASPC/Garis_Panduan_Pembangunan_Program_Akademik_Universiti_Awam_Edisi_Kedua/mobile/index.html)
2. eLearning. (n.d.). *E-Pembelajaran UMT : Oceania.*  
[https://epembelajaran.umt.edu.my/oceania/pluginfile.php/393848/mod\\_resource/content/1/Chapter%206%20-%20JSTL.pdf](https://epembelajaran.umt.edu.my/oceania/pluginfile.php/393848/mod_resource/content/1/Chapter%206%20-%20JSTL.pdf)
3. *JSP - Standard Tag Library (JSTL) Tutorial.* (n.d.).  
[https://www.tutorialspoint.com/jsp/jsp\\_standard\\_tag\\_library.htm](https://www.tutorialspoint.com/jsp/jsp_standard_tag_library.htm)