SYSTEM ANALYSIS AND DESIGN
SECD2613-03

Group: Tech Brothers

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Topic:

Campus Resource Management System

(Academic Management System)

Project Proposal:

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1.0 Overview of the project

Postgraduate education is crucial for advancing specialized knowledge, enhancing career opportunities, and driving innovation. However, effectively managing and supporting postgraduate students is challenging. The rapid increase in the number of students makes tracking academic progress more difficult, leading to a lack of personalized support, hinders academic growth, causing disengagement, and diminishes educational quality, ultimately impacting students' future opportunities.

In our project, Figma.com serves as a foundational reference point, providing crucial insights and benchmarks against which we compare and refine our strategies for enhancing academic management systems. We also interviewed Dr. Sean to understand the current workflow and conditions of academic management systems, using his insights to validate our enhancement ideas through targeted questions and a questionnaire. His expertise in AI-powered systems and Design Science Research at UTM helped align our proposals with user needs effectively.

After gathering all relevant information, we analyze it to ensure clarity in defining the scope for constructing context diagrams and data flow diagrams for the TO-BE system. Our team then creates the context diagram, level 0 diagram, and level 1 diagram to visualize the business flow for Figma.com. These diagrams depict how information flows between Figma.com and external entities like students and supervisors, providing a clear framework of system interactions and dependencies.

After completing the context diagram, we proceed to develop Parent and Child Data Flow Diagrams for the TO-BE system. We have evolved the postgraduate supervisor system into a more functional framework by implementing additional features identified in earlier stages. The transition from the AS-IS system, which comprised nine processes, to the TO-BE system with twelve processes signifies an expanded functionality. Certain processes depicted in the context diagram will be detailed further in child diagrams, also known as level 1 diagrams. It's crucial that these level 1 diagrams maintain consistency with their parent diagrams, ensuring they handle the same inputs and outputs while retaining corresponding identifiers.

Having completed these tasks, we now have a clear roadmap for the next phase: innovating and enhancing academic management systems for postgraduate education. Guided by insights from Figma.com and Dr. Sean's expertise, our focus is on improving support for students and supervisors, enhancing educational quality, and empowering postgraduate success through strategic refinement and thorough analysis.

2.0 Problem Statement

1. **Challenges In Data Security and Management**:

   Inadequate security measures for user registration and login data expose universities to risks like data breaches and identity theft, potentially leading to data breaches and legal consequences. Fragmented systems worsen these issues by creating data silos and duplicating efforts, increasing costs and hindering effective data management, thereby intensifying security risks and operational inefficiencies.

2. **Inaccessible and Inaccurate Academic Information**:

   Inefficient search capabilities hinder research efficiency and academic quality, as students and faculty struggle to access relevant information quickly. Inaccuracies in tracking academic progress data also complicate student success and increase the workload for advisors who rely on accurate, timely data for guidance.

3. **Incapability to Differentiate and Manage Events and Resources**:

   The lack of differentiation in event management between students and advisors leads to scheduling conflicts and resource mismanagement, disrupting coordination and causing inefficiencies in resource allocation. Poor handling of scheduling conflicts results in underutilization of campus facilities, compromising operational effectiveness.

4. **Dependency on Manual Administrative Processes**:

   Dependence on manual administrative processes exacerbates communication breakdowns and delays in scheduling, undermining operational efficiency across university departments. These inefficiencies hinder effective collaboration and decision-making, as administrative staff and faculty struggle to streamline processes and maintain clear communication channels.

5. **Accessibility Challenges in Campus Facilities and Services for Certain Users**:

   Challenges in accessing campus facilities and services, particularly for users with disabilities, highlight critical gaps in accessibility measures. Universities must proactively address these issues to ensure equitable access for all community members, fostering an inclusive environment where every individual can participate fully in academic and campus life.

3.0 Proposed Solutions

1. Implement robust encryption protocols and multi-factor authentication for user registration and login processes to enhance data security and mitigate risks of breaches and identity theft.

2. Consolidate data management systems to eliminate silos and reduce duplication efforts, thereby lowering operational costs and improving overall data security and management efficiency.

3. Enhance search capabilities with advanced algorithms and indexing techniques to ensure accurate and efficient retrieval of academic information, promoting research productivity and academic quality.

4. Implement a centralized academic progress tracking system to provide timely and accurate data, supporting student success and reducing the workload on advisors.

5. Develop differentiated event management tools for students and advisors to minimize scheduling conflicts, optimize resource allocation, and improve overall coordination efficiency.

6. Digitize administrative processes to streamline communication and scheduling, fostering collaboration and timely decision-making across university departments.

7. Invest in accessible infrastructure and services to ensure inclusivity for users with disabilities, addressing critical gaps in campus accessibility measures and promoting equitable participation in academic and campus life.

8. **Profile page for supervisors and students that showcases their achievements, qualifications, research interests, publications, and academic background.**

9. **Collaborative tools such as video meet and whiteboards.**

10. **Document sharing functionality to enable students to share documents such as research proposals and papers with supervisors securely through the platform.**

Technical Feasibility

1. **Enhance Data Security and Privacy Measures**

   Adopting advanced security protocols such as multi-factor authentication (MFA), encryption, and regular security audits to ensure sensitive data protection and compliance with legal requirements like GDPR and HIPAA.

2. **Upgrade Search Capabilities and Automated Data Verification**

   Investing in advanced search technologies, such as AI-powered search engines, and deploying automated tools for data verification to improve the accuracy and accessibility of academic information.

3. **Automated Resource Scheduling**

   Using advanced scheduling software to handle conflicts, optimize resource use, and allocate campus resources based on demand, availability, and priority, ensuring efficient utilization and avoiding scheduling conflicts.

4. **Digital Workflow Automation**

   Implementing workflow automation tools to digitize and streamline administrative processes such as staff management, course registration, and student enrollment, allowing administrative staff to focus on strategic tasks and reducing errors.

5. **Collaboration Platforms and Communication Tools**

   Using integrated collaboration platforms to improve communication and decision-making among departments, faculty, students, and administrators. This includes feedback mechanisms, event notifications, and messaging systems.

6. **Implement Assistive Technologies**

   Integrating assistive technologies such as screen readers, Braille displays, and voice-activated systems to enhance accessibility for campus facilities and services.

Operational Feasibility

1. **Implement Real-time Data Tracking and Resource Utilization Dashboard**

   This involves using real-time data tracking systems to monitor academic progress, facility occupancy, peak usage, and demand forecasts. Operational changes include new workflows for data monitoring, enabling administrators to optimize resource allocation and identify underutilized areas.

2. **Differentiated Event Management Systems**

   Developing or implementing an event management system that differentiates between student and advisor events, ensuring efficient utilization and avoiding conflicts. This involves creating new processes and training users.

3. **Training and Change Management**

   Providing comprehensive training and ongoing support for users, including training courses, user guides, online tutorials, and dedicated support channels. This ensures staff and users adapt to the new system effectively.

4. **Conduct Accessibility Audits**

   Regularly conducting comprehensive audits of campus facilities and services to identify and address accessibility issues. This includes training staff on inclusive practices and providing resources to support students and faculty with disabilities.

5. **Digitize and Automate Workflows**

   Implement digital workflows in the system for staff management, course registration, and student enrollment to reduce errors, speed up processes, and free up administrative staff for strategic duties. This includes creating digital forms, integrating approval processes, thus ensuring data consistency, and providing ongoing support to enhance operational efficiency.

Economic Feasibility

A cost-benefit analysis will assess the system's economic feasibility, weighing development and maintenance costs against potential benefits for students and supervisors.

CBA Analysis Table

Estimated Costs	
Hardware	RM 50000
Software	RM 12500
Training	RM 10000
Consulting	RM 20000
Data Conversion	RM 12500
Supplies	RM 10000 per year
IS Salaries	RM 40000 per year
Upgrades	RM 15000 per year

Estimated Benefits	
Customer Service	RM 100000 per year
Productivity	RM 95000 per year

Assumptions	
Discount rate	10%
Sensitivity factor (costs)	1.1
Sensitivity factor (benefits)	0.95
Annual change in production costs	7%
Annual change in benefits	10%

CRITERIA	YEAR			
	0	1	2	3
1. COST				
A. DEVELOPMENT				
Hardware	RM 55000			
Software	RM 13750			
Training	RM 11000			
Consulting	RM 22000			
Data Conversion	RM 13750			
Total Development Cost	RM 115500			
B. PRODUCTION				
Supplies		11000	11770	12593.90
IS Salaries		44000	47080	50375.60
Upgrades		16500	17655	18890.85
Total Production Cost		71500	76505	81860.35

Present Value (PV)		65000	63227.27	61502.63
Accumulated Costs		180500	243827.27	305329.9

2. BENEFITS				
Customer Service		95000	104500	114950
Productivity		90250	99275	109202.50
Total Benefits		185250	203375	224152.50

Present Value (PV)		168409.09	168078.51	168409.09
Accumulated Benefits		168409.09	336487.60	504896.69

Gain / Loss		-12090.91	92660.33	199566.79
Profitability Index	1.7279			

Conclusion for Economic Feasibility

The Cost-Benefit Analysis indicates that the project is economically feasible, with a profitability index of 1.7279. This suggests that the benefits significantly outweigh the costs, making the project a sound financial investment.

4.0 Current Business Process

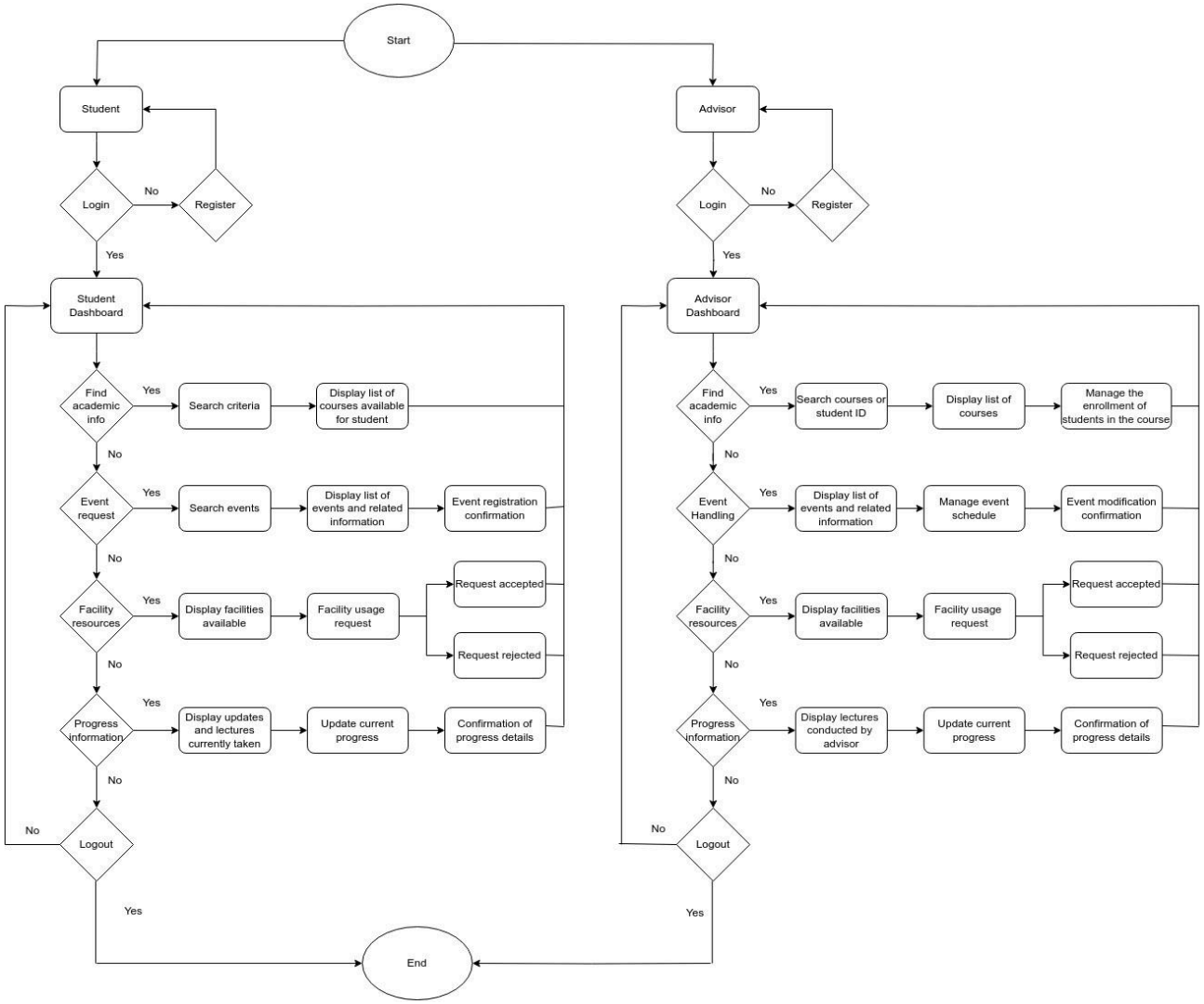


Figure 1: Workflow of current system

1. The user (either a student or an advisor) starts by logging in if they are already registered or registering if they are a new user.
2. Once logged in, the user is taken to their respective dashboard (Student Dashboard or Advisor Dashboard).
3. Find Academic Info:
    - For Students: They can search using specific criteria and view a list of courses available to them.
    - For Advisors: They can search for courses or student IDs and view a list of courses. Advisors can also manage the enrollment of students in these courses.
4. Event Handling:
    - For Students: They can search for events, view event details, and confirm their registration for an event. They will receive a notification about whether their event request has been accepted or rejected.
    - For Advisors: They can view a list of events and related information, manage the event schedule, and confirm modifications to events. Advisors will also handle requests for event participation, notifying whether they have been accepted or rejected.
5. Facility Resources:
    - For Students: They can view available facilities, submit a usage request, and receive a notification about whether their request has been accepted or rejected.
    - For Advisors: They can view available facilities, submit a usage request, and receive a notification about whether their request has been accepted or rejected.
6. Progress Information:
    - For Students: They can view updates and lectures they are currently taking, update their progress, and receive confirmation of their progress details.
    - For Advisors: They can display the lectures they have conducted, update student progress, and confirm the details of this progress.
7. After completing their tasks, the user (student or advisor) can log out.

5.0 Logical DFD AS-IS System

Context Diagram

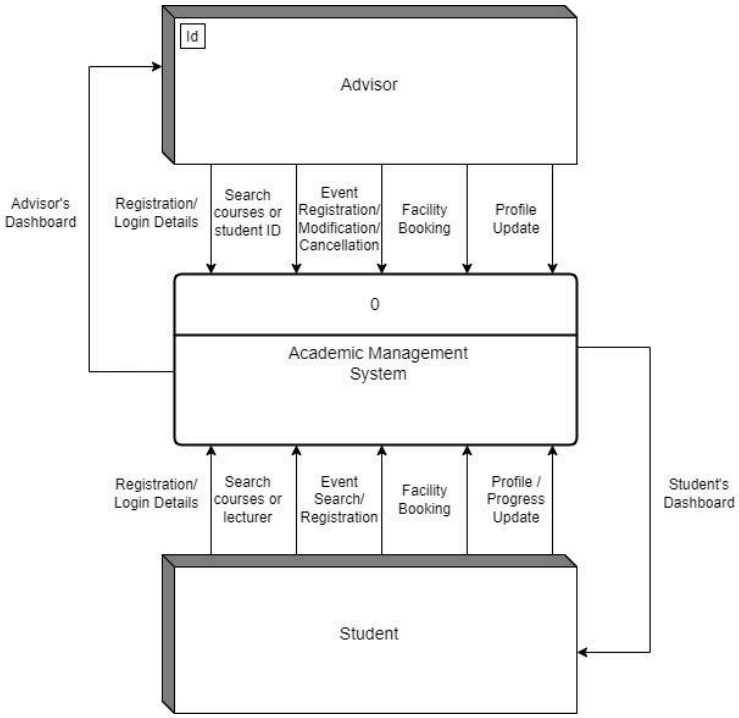


Figure 2: Context diagram of current system

Level 0 Diagram

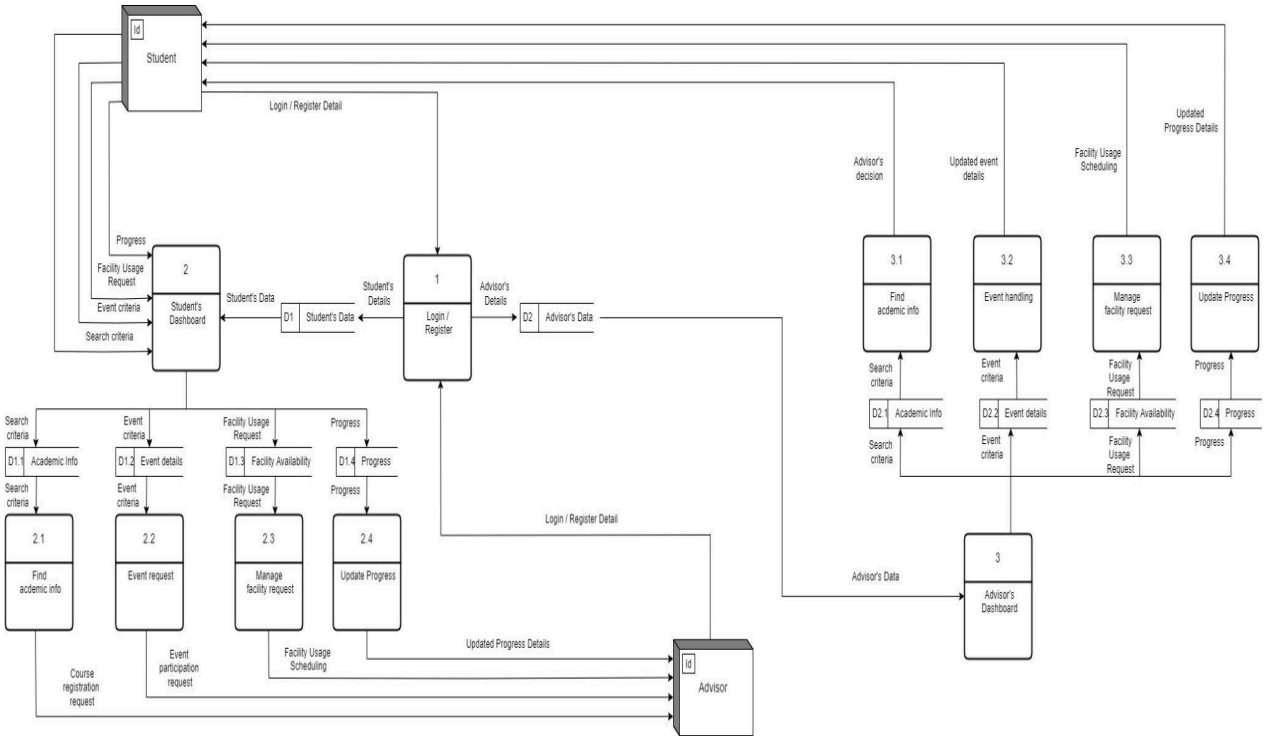


Figure 3: Level 0 diagram of current system

Child Diagram

1. Login / Register

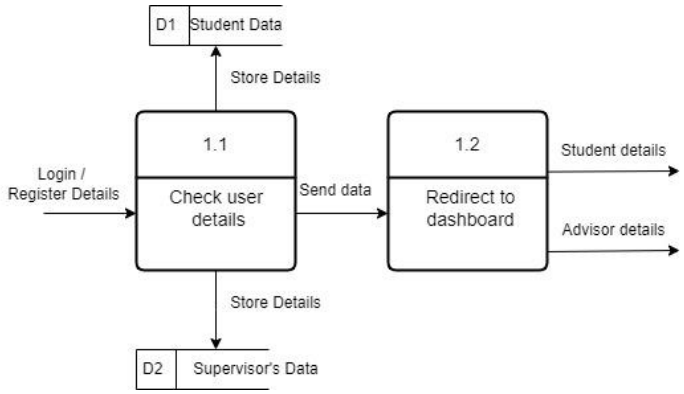


Figure 4: Child Diagram for Find Academic Info

2. Student Dashboard

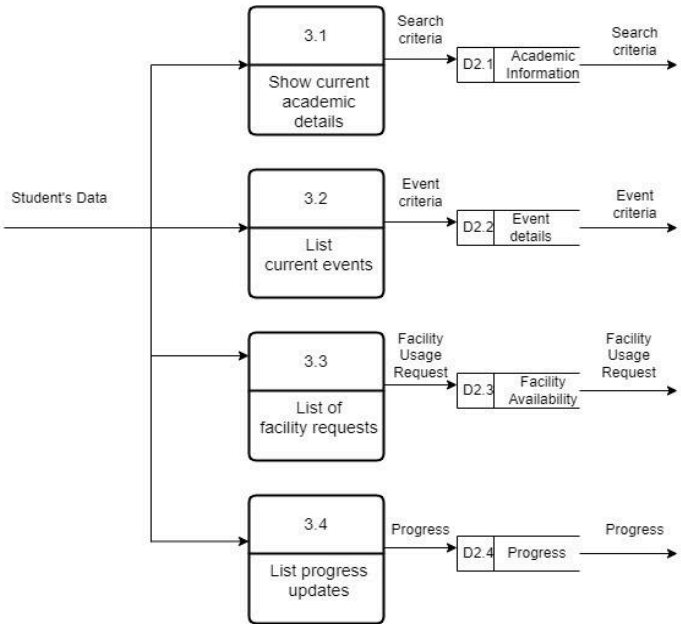


Figure 5: Child Diagram for Student Dashboard

2.1. Find Academic Info

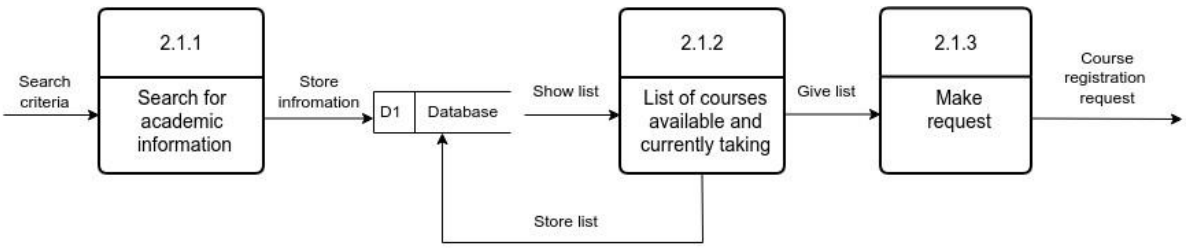


Figure 6: Child Diagram for Find Academic Info

2.2 Event Request

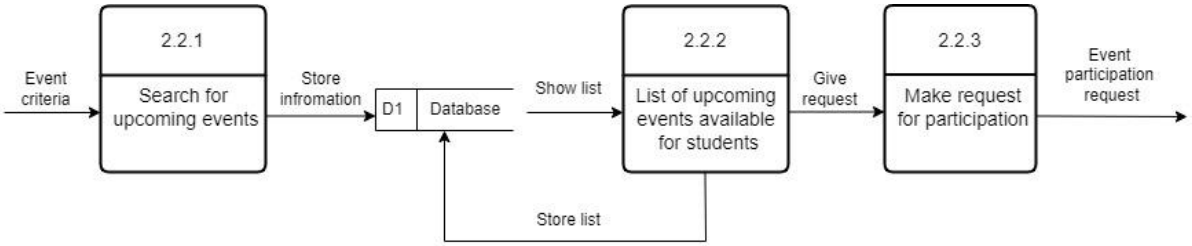


Figure 7: Child Diagram for Event Request

2.3 Facility Request

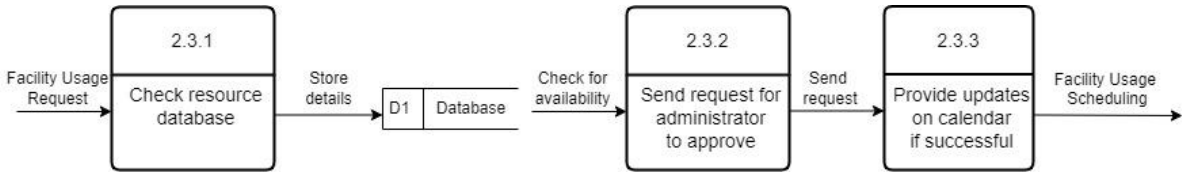


Figure 8: Child Diagram for Facility Request

2.4 Update progress

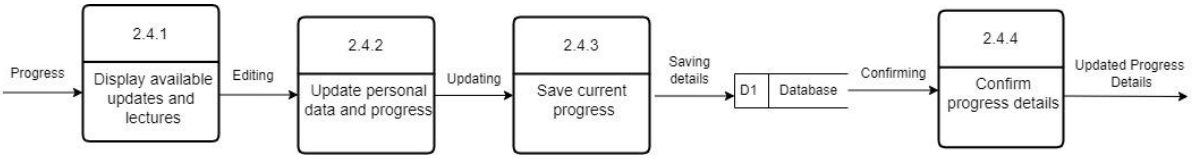


Figure 9: Child Diagram for Update progress

3. Advisor Dashboard

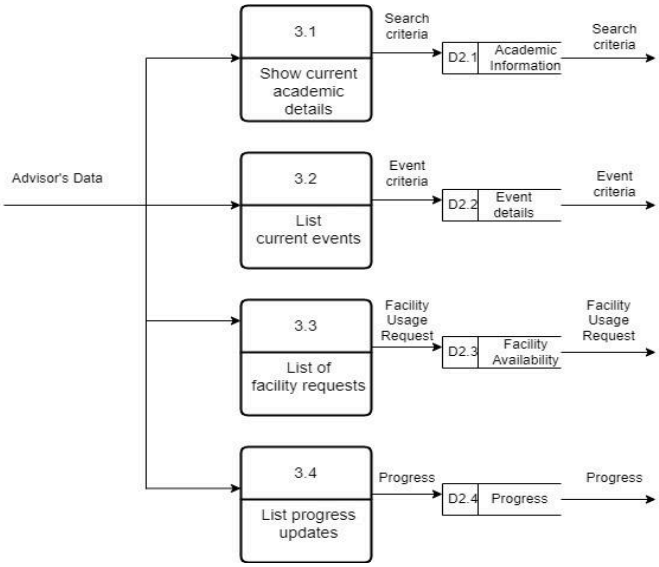


Figure 10: Child Diagram for Advisor Dashboard

3.1 Find Academic Info

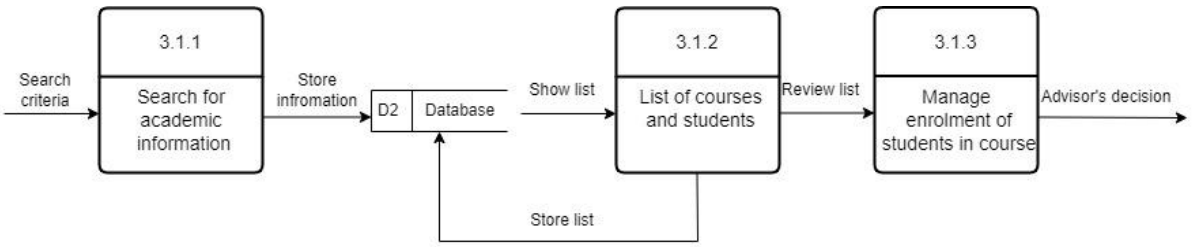


Figure 11: Child Diagram for Find Academic Info

3.2 Event Handling

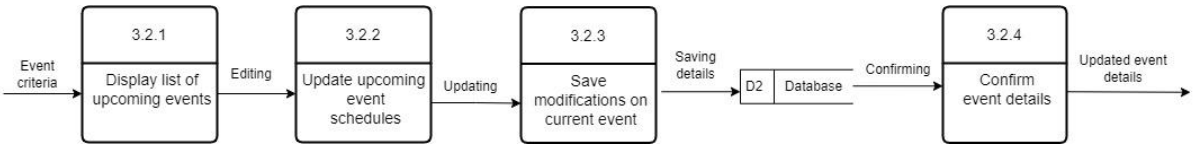


Figure 12: Child Diagram for Event Handling

3.3 Facility Request

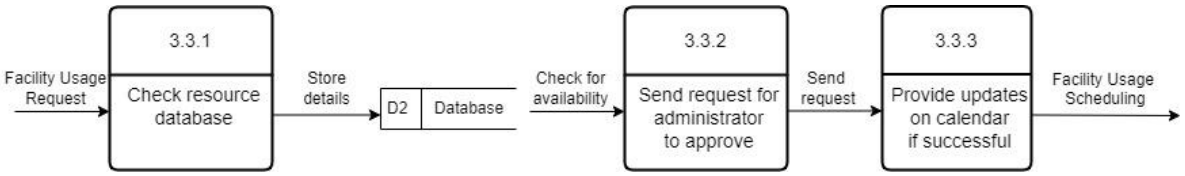


Figure 13: Child Diagram for Facility Request

3.4 Update progress

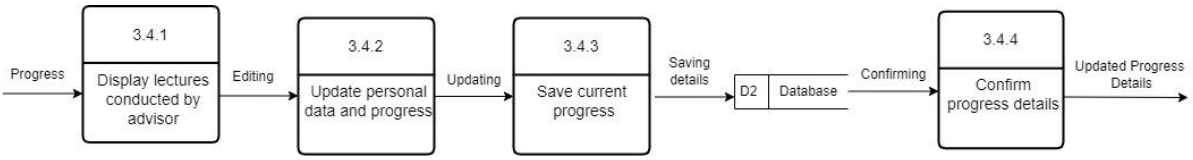


Figure 14: Child Diagram for Update Progress

6.0 System Analysis and Specification

6.1 Logical DFD TO-BE system

Context Diagram

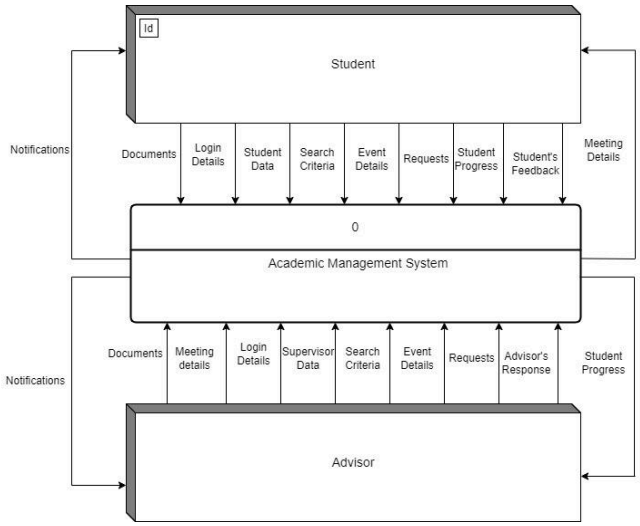


Figure 15: Context diagram of logical DFD TO-BE System

Level 0 Diagram

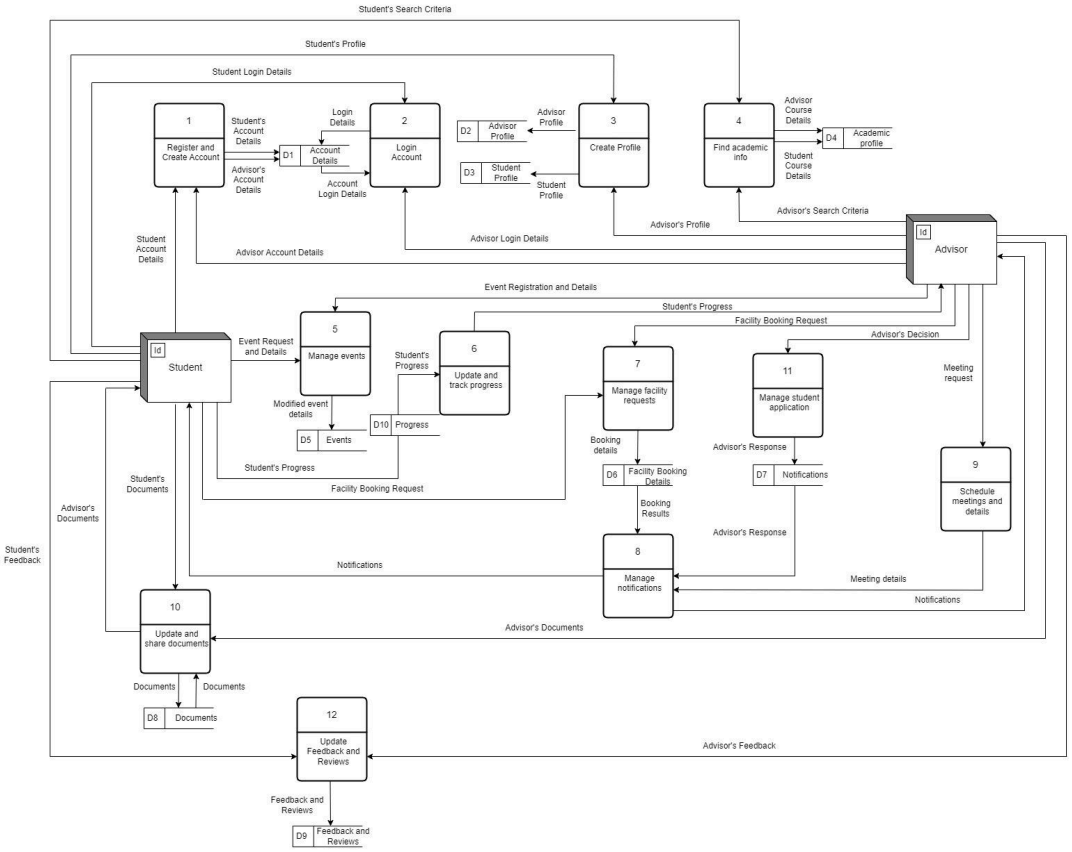


Figure 16: Level 0 diagram of logical DFD TO-BE System

Child Diagram

1. Register and Create Account

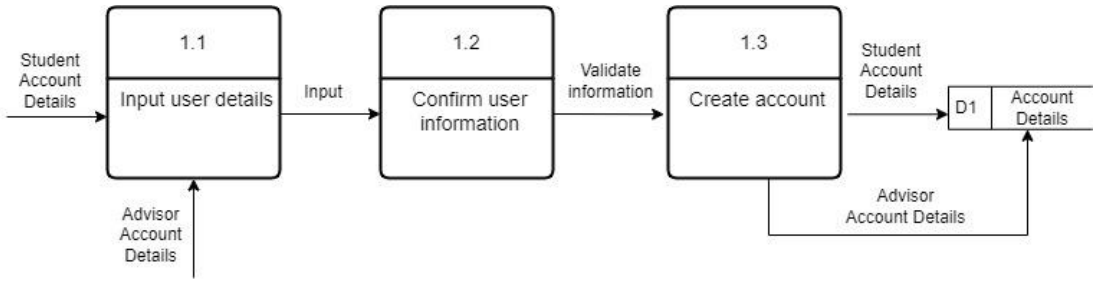


Figure 17: Child diagram of registering and creating account

2. Login

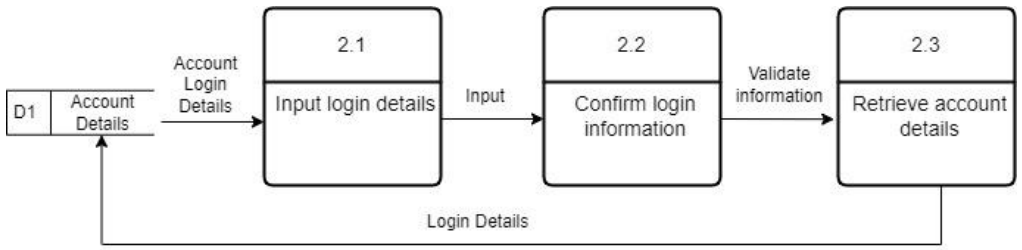


Figure 18: Child diagram of login

3. Create profile

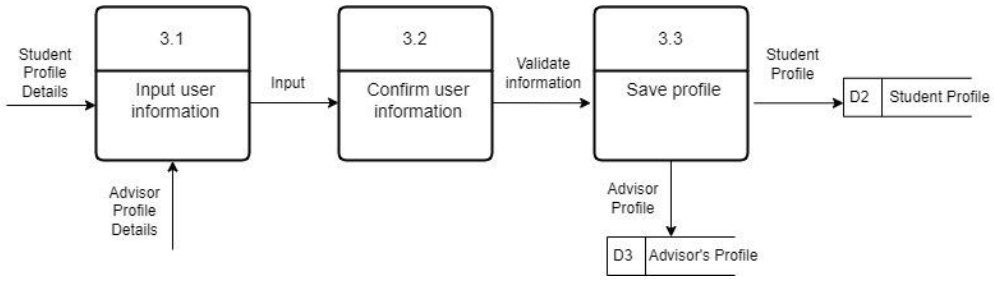


Figure 19: Child diagram of create profile

4. Find Academic Info

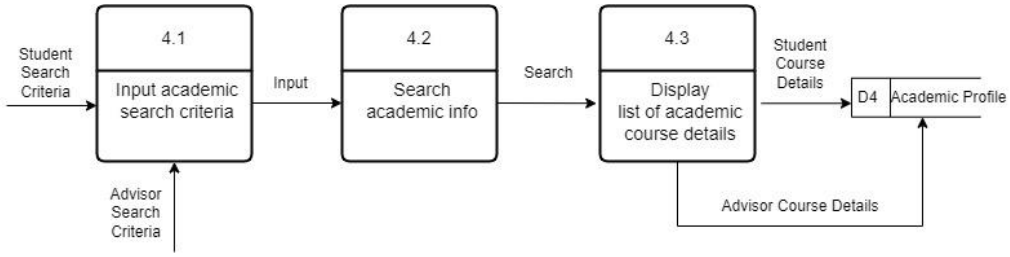


Figure 20: Child diagram of find academic info

5. Manage events

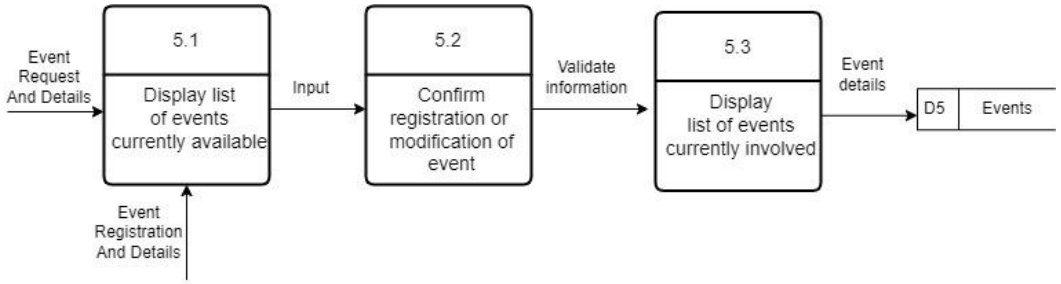


Figure 21: Child diagram of manage events

6. Update and track progress

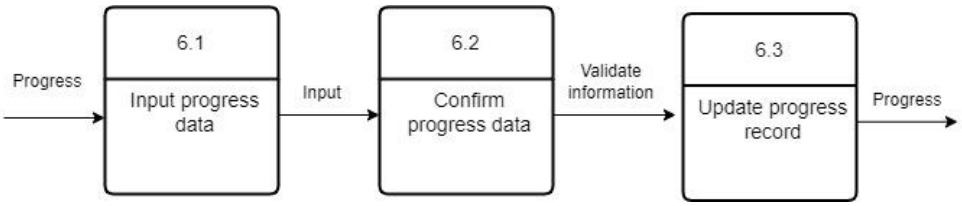


Figure 22: Child diagram of update and track progress

7. Manage facility requests

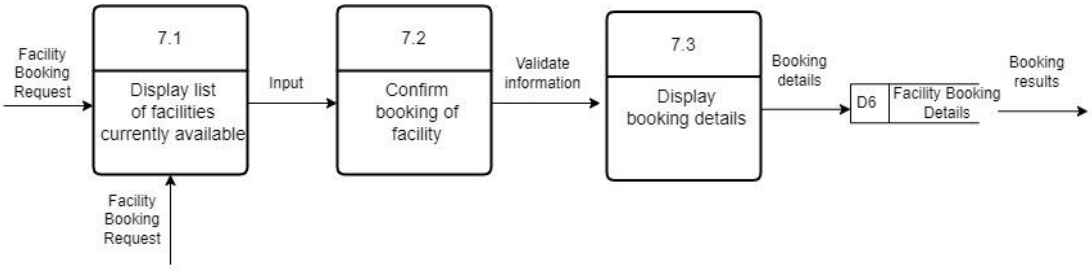


Figure 23: Child diagram of manage facility requests

8. Manage notifications

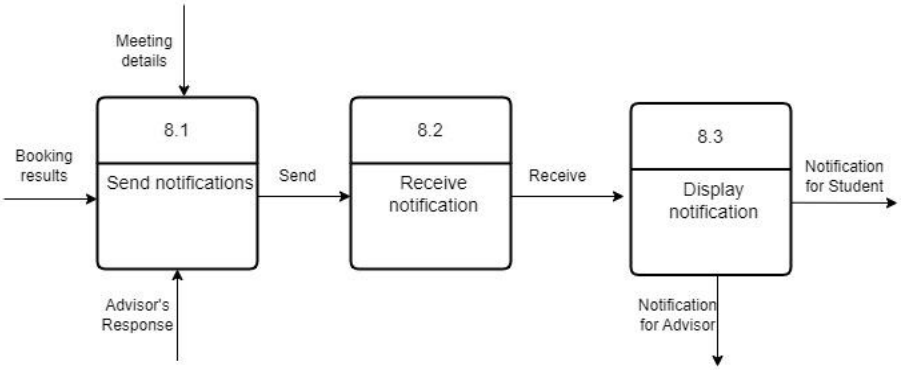


Figure 24: Child diagram of manage facility requests

9. Schedule meetings and details

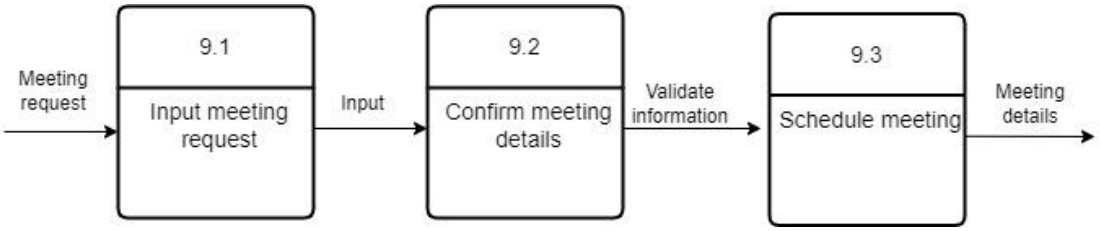


Figure 25: Child diagram of schedule meetings and details

10. Upload and share documents

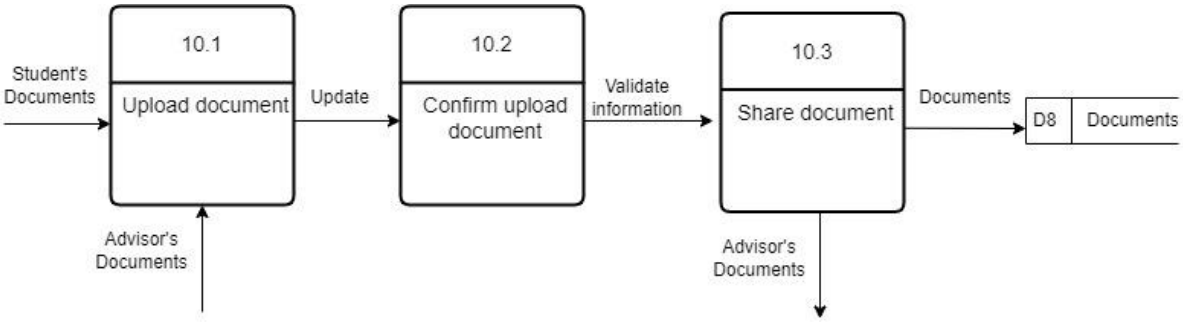


Figure 26: Child diagram of upload and share documents

11. Manage student application

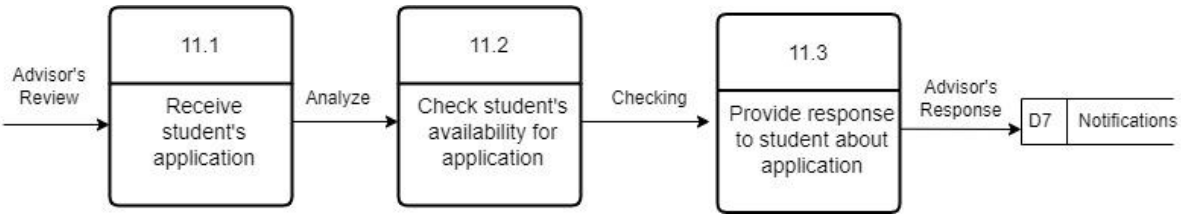


Figure 27: Child diagram of manage student application

12. Update feedback and reviews

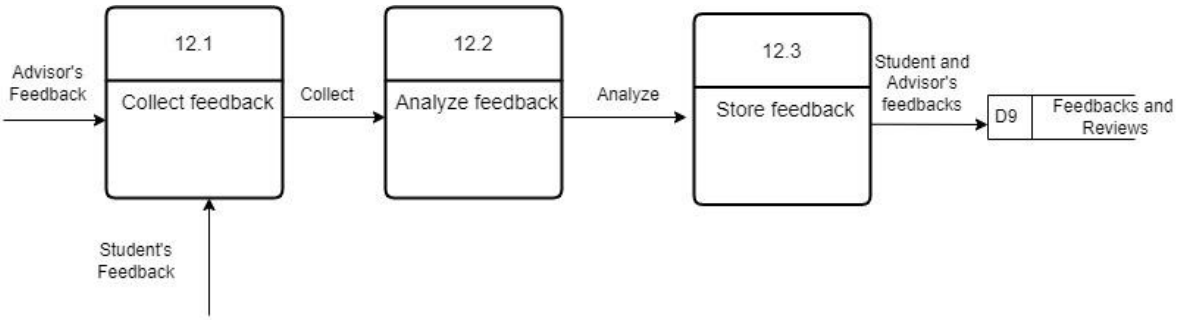


Figure 28: Child diagram of update feedback and reviews

6.2 Process Specification

Structured English is used to model and illustrate the process of the Logical TO-BE system based on the Logical DFD TO-BE.

1. **Register and Create Account**

```
DO
    GET student and advisor account details
    VALIDATE account details
    IF details are valid
        CREATE student account
        STORE account details in database
    ELSE
        DISPLAY error message
END
```

2. **Login**

```
DO
    GET account login details
    VALIDATE account login details
    IF details are valid
        PROVIDE access to student or supervisor
        STORE session info into database
    ELSE
        DISPLAY error message
END
```

3. **Create profile**

   DO

   GET supervisor profile details

   VALIDATE profile details

   CREATE supervisor profile

   STORE profile details in database

   END

4. **Find Academic Info**

   DO

   GET search criteria from student and advisor

   SEARCH for academic info with matching criteria

   DISPLAY list of matching academic course details to student

   STORE student and advisor course details in database

   END

5. **Manage events**

   DO

   DISPLAY list of events available for students and advisor

   GET registration or modification details

   VALIDATE registration or modification of event

   UPDATE list of events currently involved

   DISPLAY list of events currently involved

   STORE student and advisor course details in database

   END

6. **Update and track progress**

   DO

   GET progress details from student

   UPDATE progress records

   TRACK student progress

   NOTIFY supervisor of updated progress

   END

7. **Manage facility requests**

   DO

   GET facility booking request from student or advisor

   VALIDATE booking request

   DISPLAY booking details

   STORE booking details in database

   NOTIFY student or advisor of booking confirmation

   END

8. **Manage notifications**

   DO

   GET notifications for user

   DISPLAY notifications to user

   ALLOW user to manage notifications

   END

9. **Schedule meetings and details**

DO

GET meeting request from supervisor

VALIDATE meeting info

SCHEDULE meeting based on availability

NOTIFY student and supervisor of meeting details

END

10. **Upload and share documents**

DO

GET documents from user

VALIDATE document format and size

UPLOAD documents to server

STORE document details in database

SHARE documents with relevant students

END

11. **Manage student application**

DO

DISPLAY student’s applications by advisor

CHECK student's availability for application

UPLOAD response to students regarding application

STORE advisor’s response in database

NOTIFY student regarding application response

END

12. Update feedback and reviews

DO

GET feedback and review from student and advisor

STORE feedback and review in database

UPDATE supervisor's and student’s profile with feedback

END

7.0 Physical System Design

7.1.1 Physical DFD TO-BE System

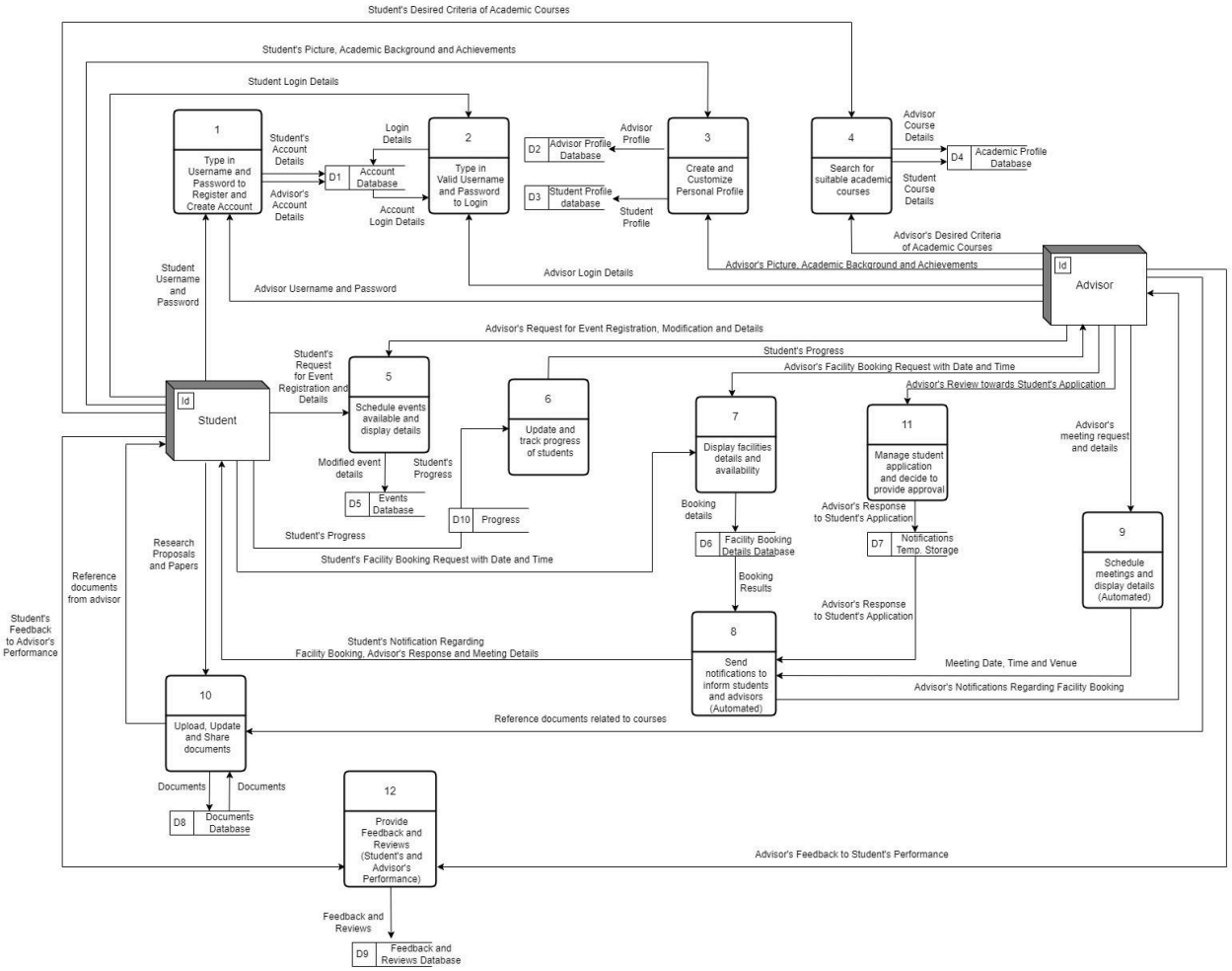


Figure 29: Level 0 Diagram of Physical TO-BE system

7.1.2 Child Diagram

1. **Register and Create Account**

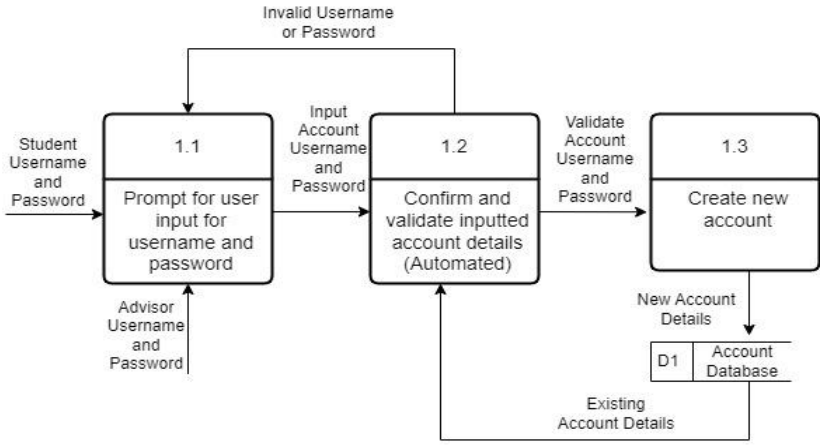


Figure 30: Child diagram of registering and creating account process

2. **Login**

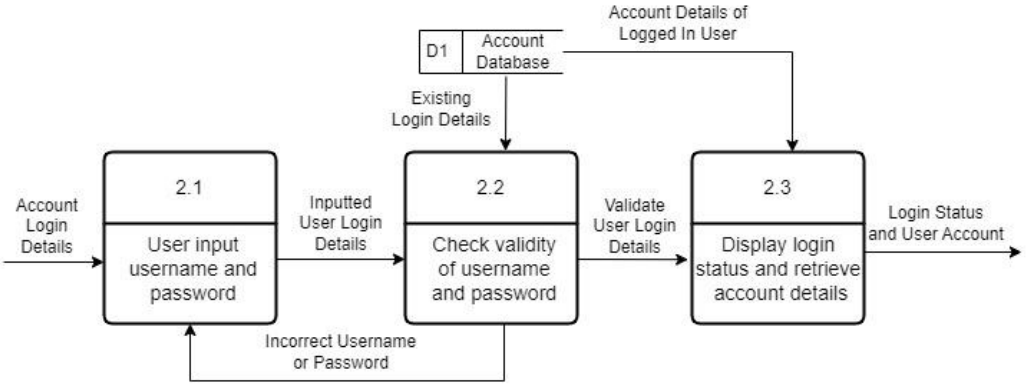


Figure 31: Child diagram of login process

3. **Create profile**

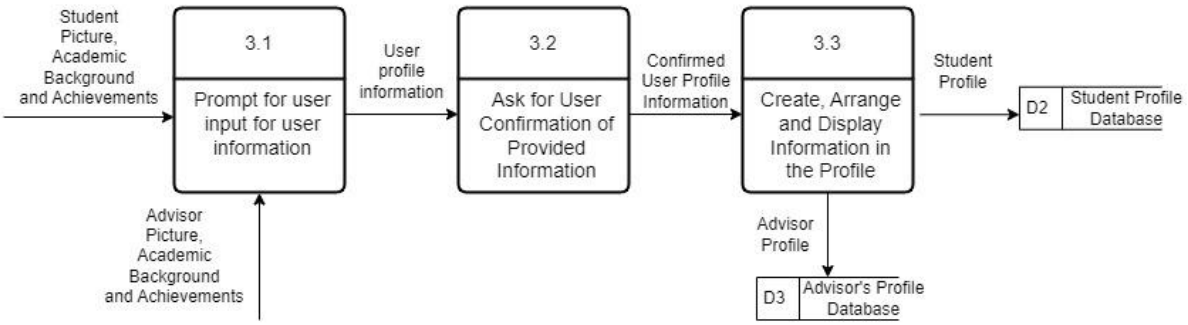


Figure 32: Child diagram of create profile process

4. Find Academic Info

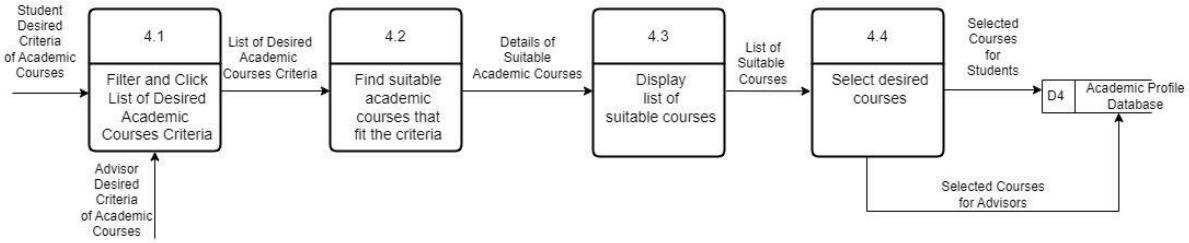


Figure 33: Child diagram of find academic info process

5. Manage events

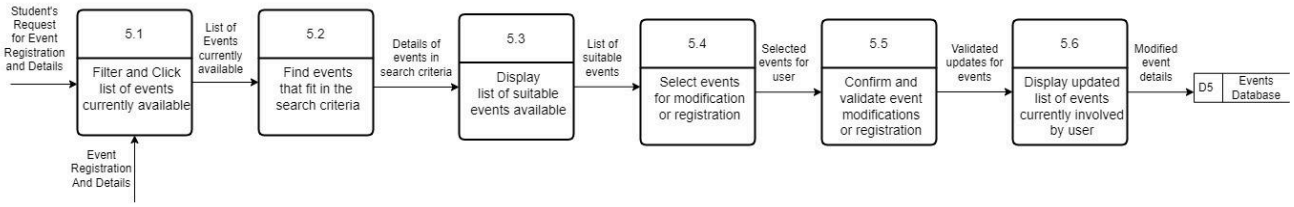


Figure 34: Child diagram of manage events process

6. Update and track progress

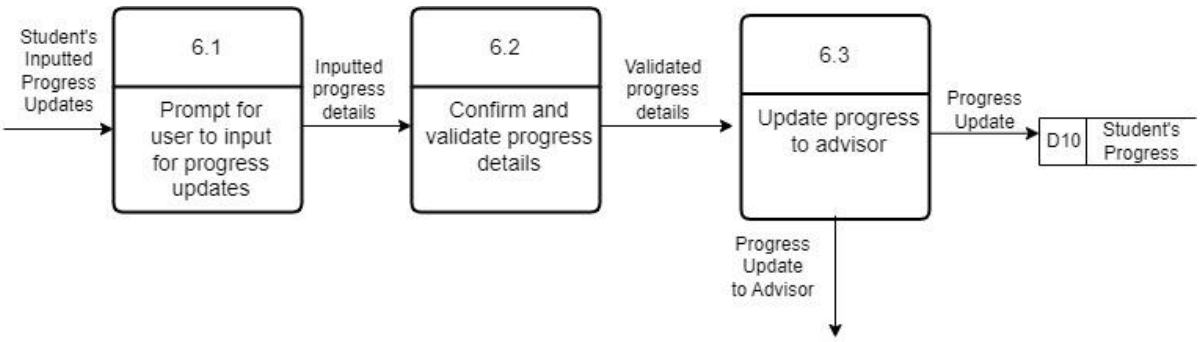


Figure 35: Child diagram of update and track progress

7. Manage facility requests

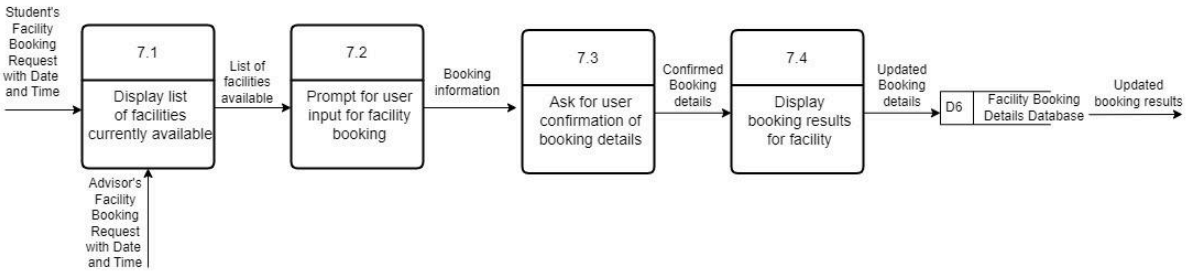


Figure 36: Child diagram of manage facility requests process

8. Manage notifications

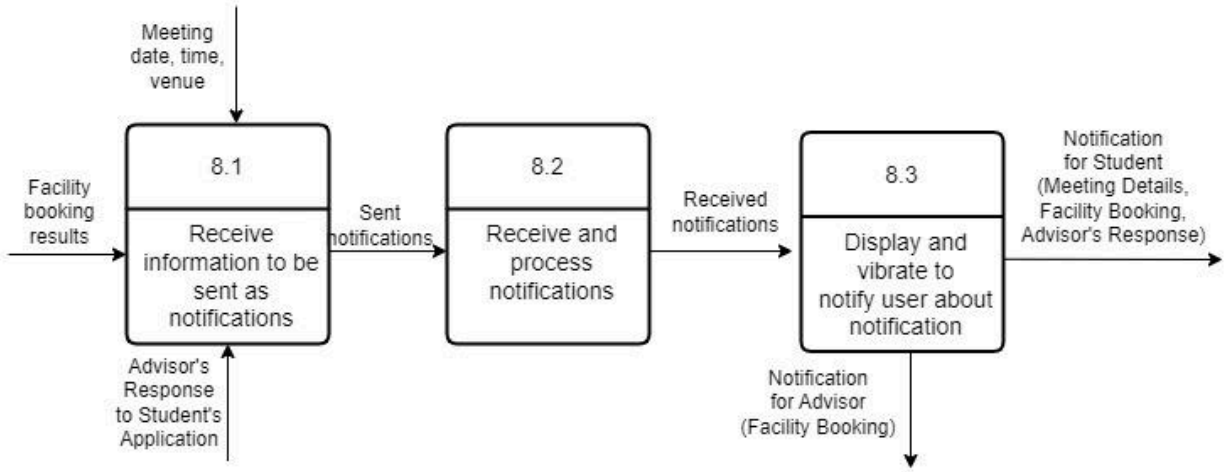


Figure 37: Child diagram of manage facility requests process

9. Schedule meetings and details

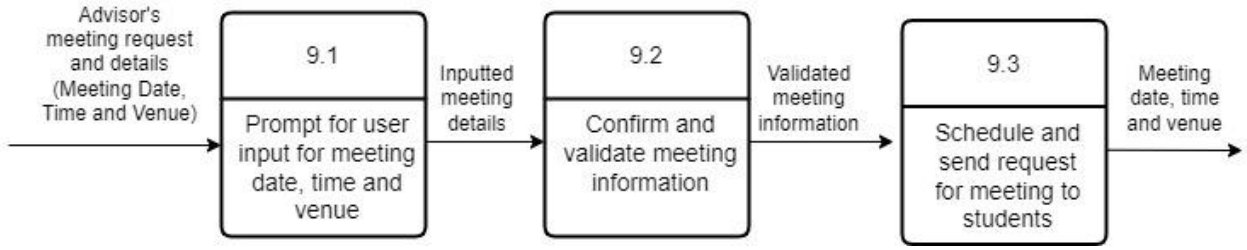


Figure 38: Child diagram of schedule meetings and details process

10. Upload and share documents

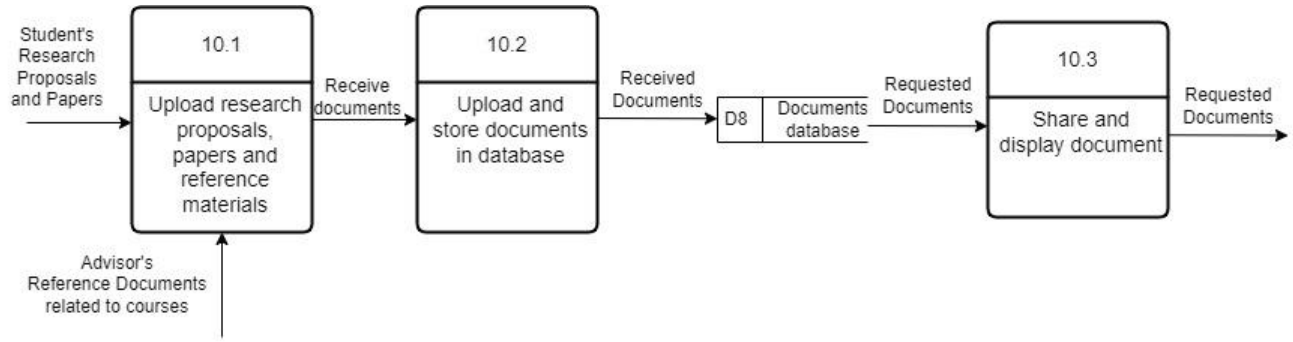


Figure 39: Child diagram of upload and share documents process

11. Manage student application

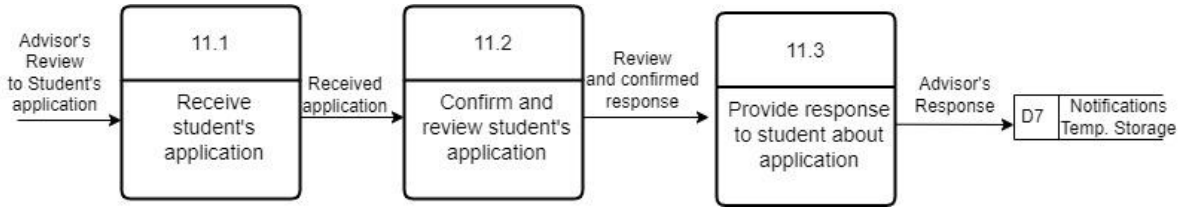


Figure 40: Child diagram of manage student application process

12. Update feedback and reviews

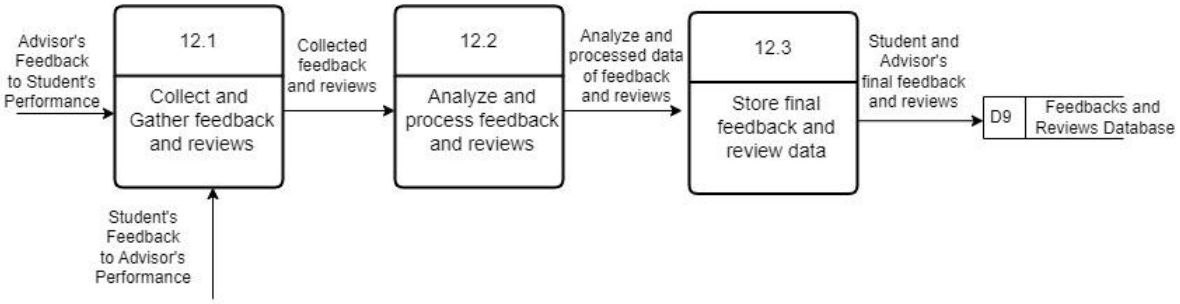


Figure 41: Child diagram of update feedback and reviews process

7.1.3 Partitioning - Wilson

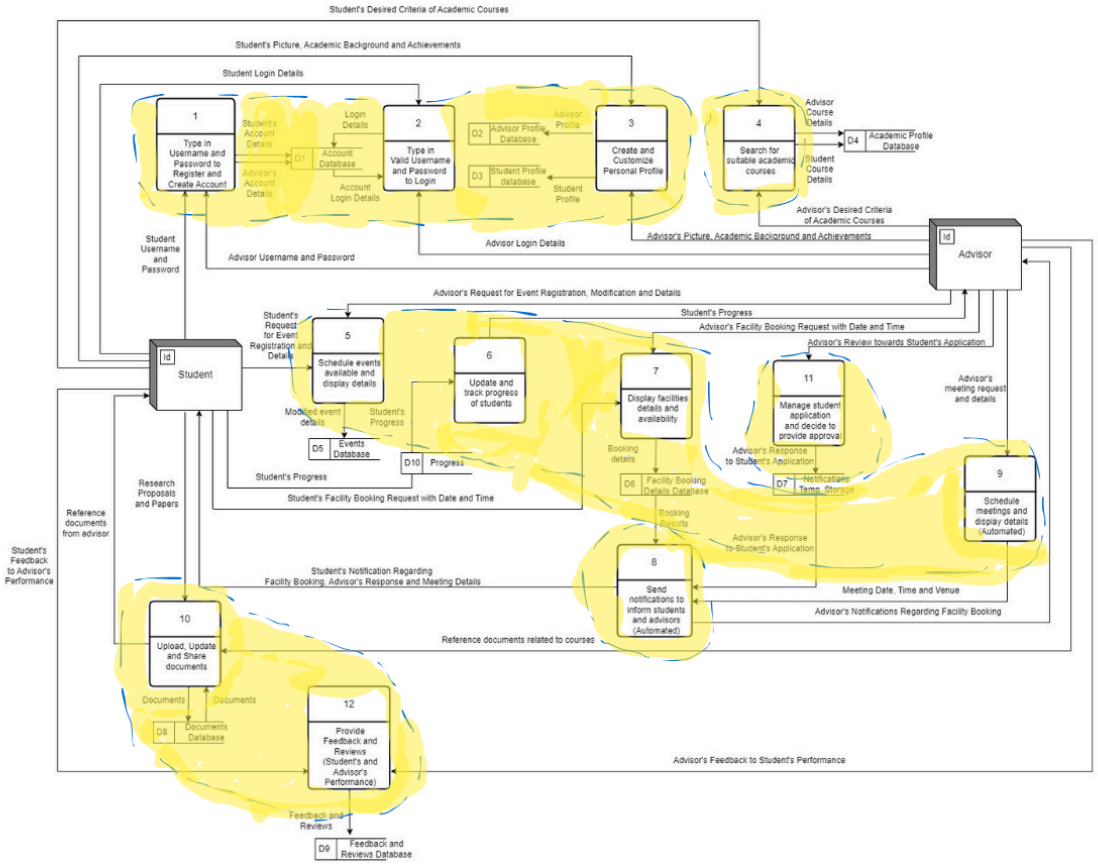


Figure 42: Partitioning diagram

In the workflow diagram, Wilson partitioning can be applied by organizing related processes into specific modules. One module focuses on "User Onboarding and Profile Management," which includes steps related to account creation, login, and profile customization. This grouping facilitates streamlined access for students and advisors, making it easier to set up profiles and engage effectively with the system.

Besides, the Event and Facility Management module is applied, covering event scheduling, facility booking, and availability display. By centralizing these tasks, the system efficiently manages resources and events, ensuring that users can view and book options seamlessly. This organization helps in handling scheduling complexities and maintaining clear communication about resource availability.

Lastly, the applied Feedback and Documentation module encompasses document uploads, sharing, and feedback processes. This area fosters collaboration between students and advisors, promoting efficient document management and clear channels for feedback. By consolidating these functions, the system enhances the overall academic experience, supporting effective communication and resource sharing.

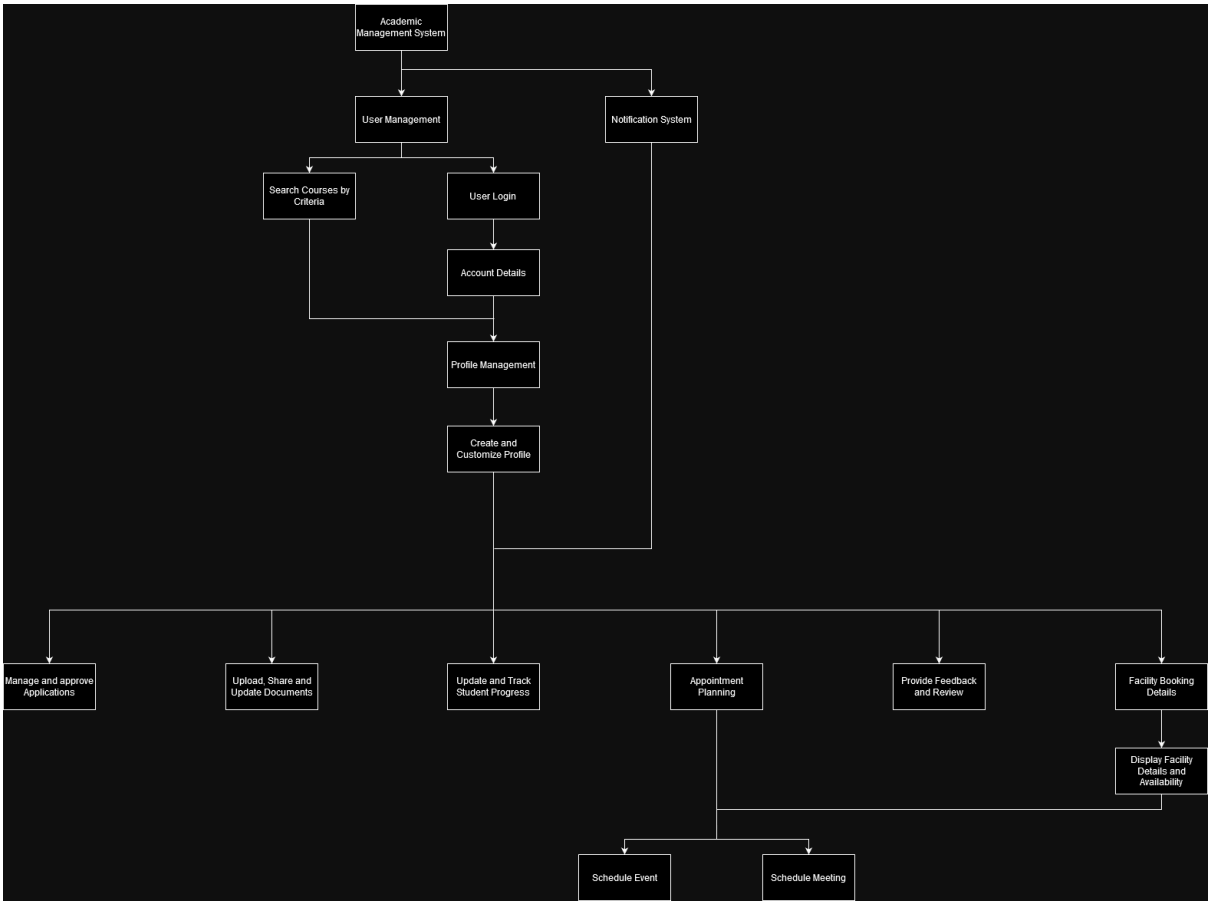
7.1.4 CRUD Matrix

Data Store / Activity	Account Database (D1)	Supervisor Profile Database (D2)	Student Profile Database (D3)	Academic Profile Database (D4)	Events Database (D5)	Facility Booking Database (D6)	Notifications Temporary Storage (D7)	Documents Database (D8)	Feedback and Reviews Database (D9)	Student's Process Database (D10)
Create account	C									
Login	R									
Create Profile		C U	C U							
Find Academic Info				R						
Manage events					C R U					
Update and Track Progress										C R U
Manage facility requests						R				
Manage notifications							C			
Schedule meetings and details							C			
Upload and share documents								C R U D		
Manage student application							C R U			
Update feedback and reviews									C R U D	

7.1.5 Event Response Table

Event	Source	Trigger	Activity	Response	Destination
Account Creation	Student	Entering username, password	Register and create account	Create student account	Student
Account Creation	Advisor	Entering username, password	Register and create account	Create advisor account	Advisor
Login	Student	Entering username, password	Authenticate user	Login to system	Student
Login	Advisor	Entering username, password	Authenticate user	Login to system	Advisor
Logout	Student	Request to logout	Terminate session	Logout confirmation	Student
Logout	Advisor	Request to logout	Terminate session	Logout confirmation	Advisor
Event Registration	Student	Request for event	Schedule events and display details	Update events	Student
Progress Update	Student	Submission	Update and track student progress	Display progress	Student
Facility Booking	Student	Request	Display facilities details and availability	Booking details shown	Student
Advisor Response	Advisor	Student application	Review application and decide approval	Notification sent	Student
Document Upload	Student	Upload documents	Upload, update, and share documents	Store documents	Student
Feedback/Reviews	Advisor	Performance review	Provide feedback on student and advisor	Store feedback	Student
Notifications	System	Any relevant event	Send notifications to students and advisors	Notify users	Student/ Advisor

7.1.6 Structure Chart

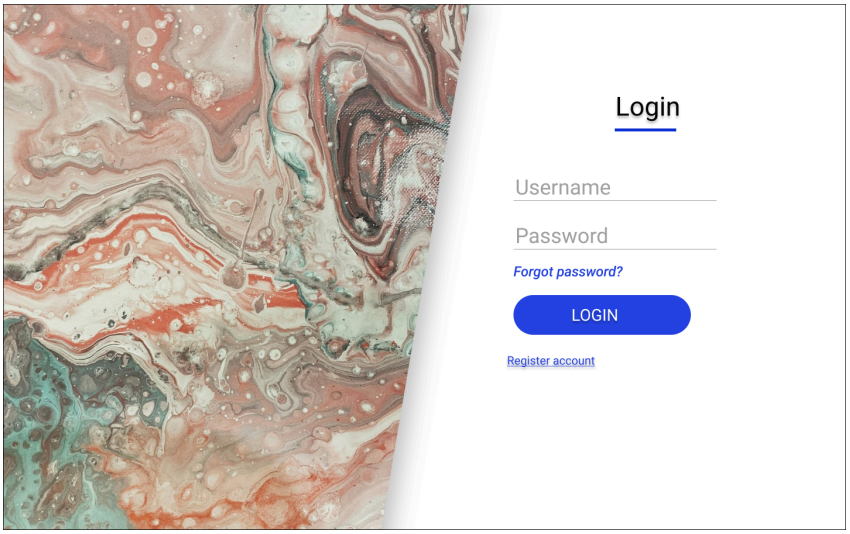


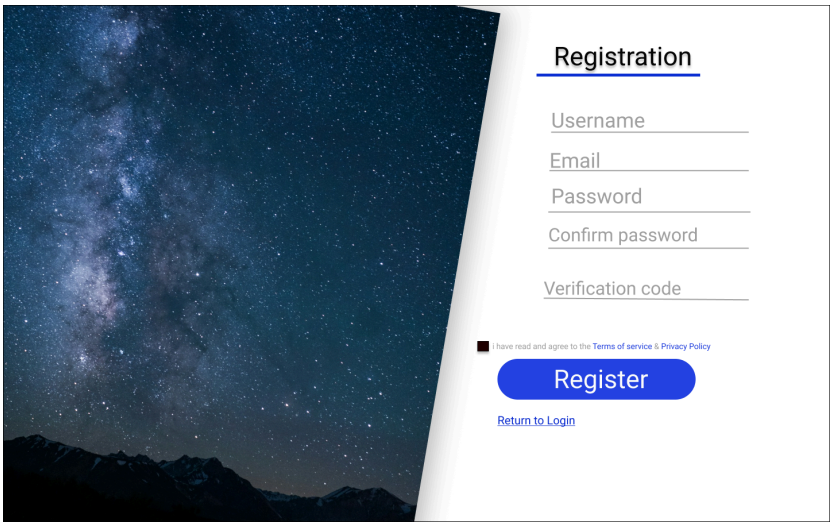
7.1.7 System Architecture

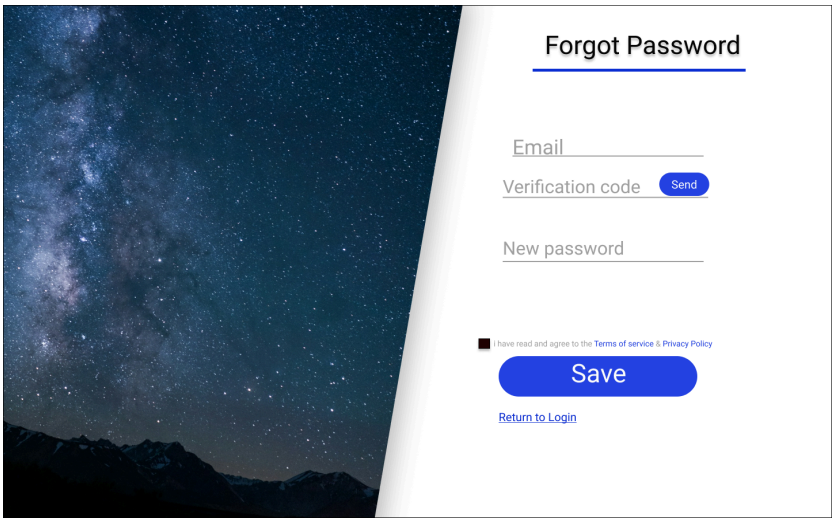
Layer	Components	Details
Presentation	User Interface (UI)	Web and mobile interfaces for students, faculty, and administrators; responsive design.
	Authentication	Login, registration, and role-based access control.
	Notifications	Alerts and notifications through email and SMS for deadlines, announcements, etc.
Application	Business Logic	Core processing for course management, registration, grading, scheduling, etc.
	Workflow Engine	Manages academic workflows, approvals, and task automation.
	API Gateway	Facilitates communication between the UI and backend services; handles API requests.
Data Access	Data Access Layer (DAL)	Interfaces with the database, manages CRUD operations, and ensures data integrity.
	Reporting Module	Generates reports for performance, attendance, and academic records.
Integration	External Services	Connects to external systems like library management, financial systems, and third-party APIs.
	Message Queue	Handles asynchronous communication for notifications and task processing.
Data Storage	Database	Relational database for structured data (e.g., MySQL, PostgreSQL).
	File Storage	Storage for documents, syllabi, and other academic resources.
Infrastructure	Servers	Application and database servers; cloud or on-premises deployment options.
	Network Security	Firewalls, VPN, and encryption for secure data transmission.
	Backup & Recovery	Data backup solutions and disaster recovery planning.

8.0 System Wireframe

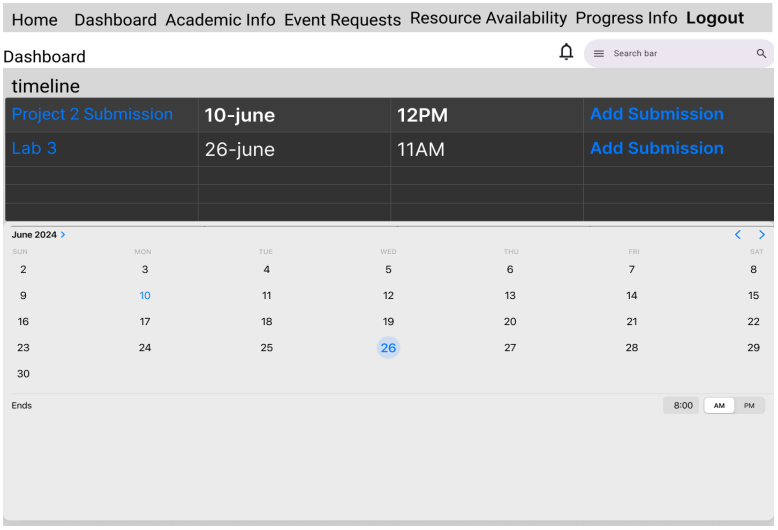
8.1 Login/Register Screen

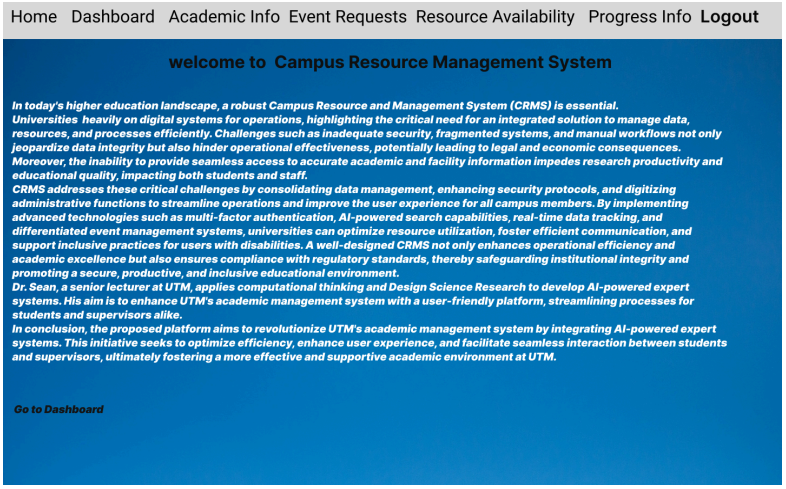




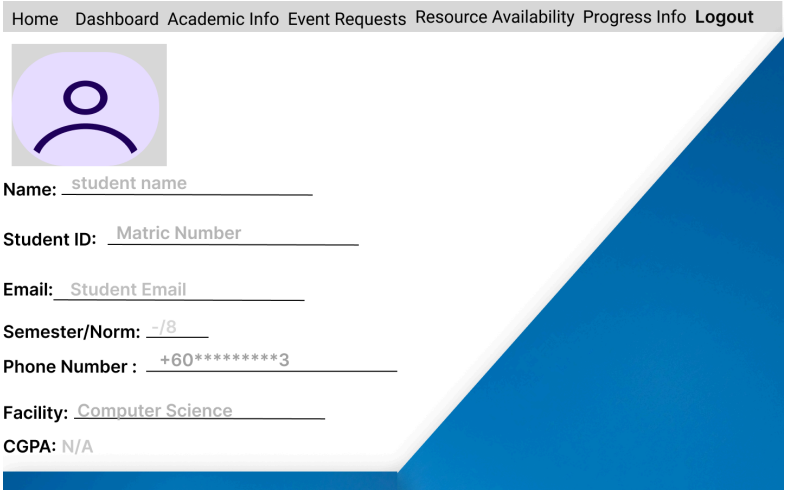


8.2 Home/Dashboard Screen



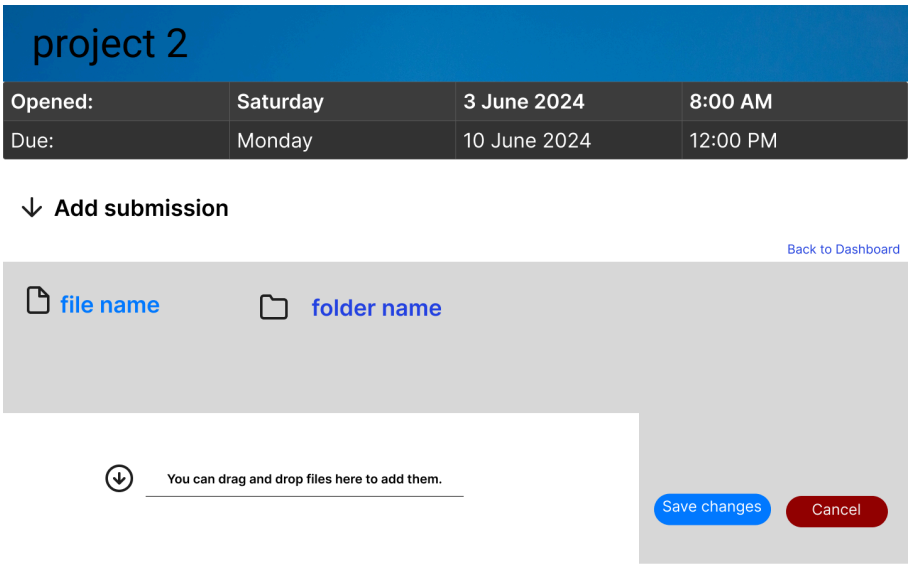


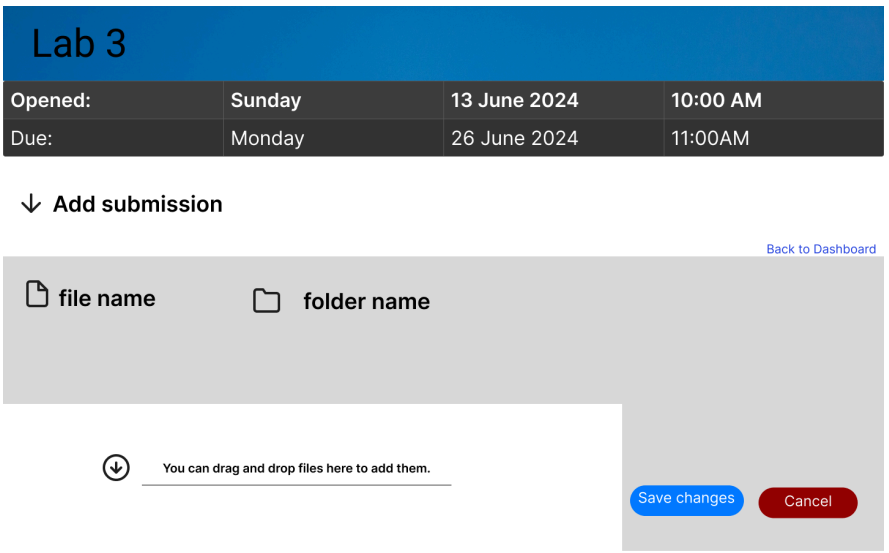
8.3 Academic Info

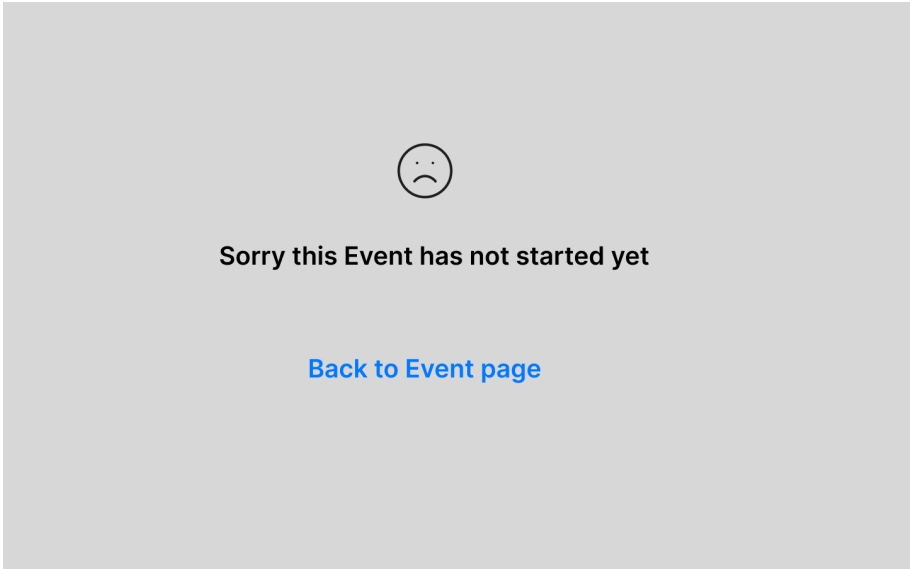


8.4 Event Requests

Course Code	Event name	Event type	points%	Location	Submit Request
SECD2613	project 2	Team	15%	N28A	Add Submission
SECI1113	Assignment 2	Individual	5%	N28A	Add Submission
SECI1143	Assignment 4	Team	5%	N28A	Add Submission
SECJ1013	Lab 3	two members	10%	N28A	Add Submission
SECR1013	project 1	Team	20%	N28A	Add Submission
UHKM1012	Quiz 1	Individual	20%	DO7	Add Submission







8.5 Resource Availability

Home Dashboard Academic Info Event Requests Resource Availability Progress Info **Logout**

Lecture Name	Subject name	Availability
Lecture Name	Discrete Structure	NOT Available
Lecture Name	SYSTEM ANALYSIS AND DESIGN	Available
Lecture Name	COMPUTATIONAL MATHEMATICS	Available
Lecture Name	PROBABILITY & STATISTICAL DATA ANALYSIS	Available
Lecture Name	PROGRAMMING TECHNIQUE I	Available
Lecture Name	DIGITAL LOGIC	Available
Lecture Name	MALAY LANGUAGE FOR COMMUNICATION 2	Available
Lecture Name	PROGRAMMING TECHNIQUE 2	NOT Available

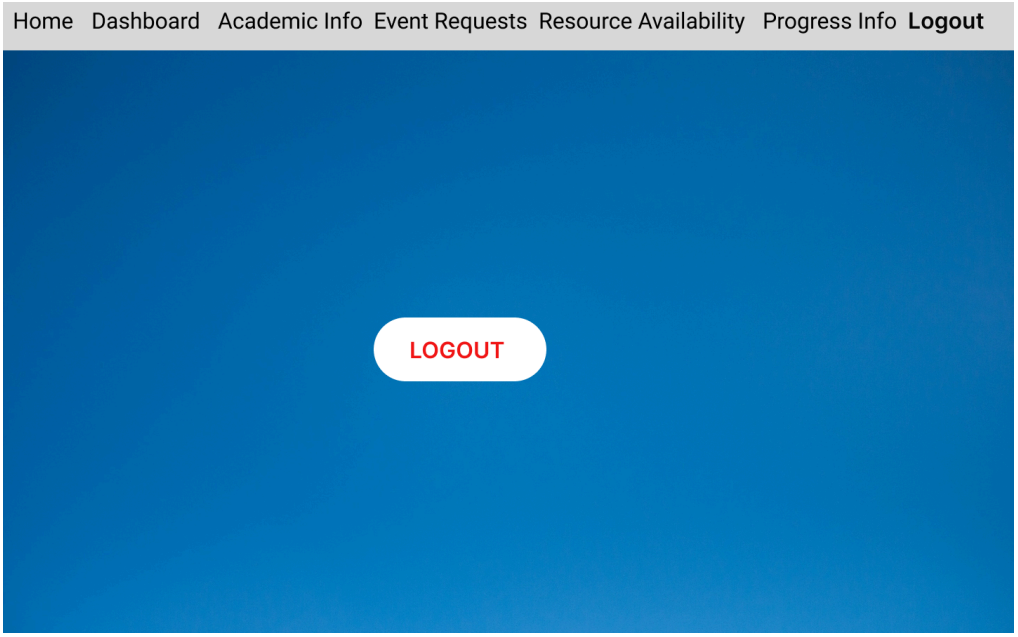
8.6 Progress Info

Home Dashboard Academic Info Event Requests Resource Availability Progress Info **Logout**

student name

Current Lectures	Progress Updates
Lecture name	Current progress
Lecture name	Current progress
Lecture name	Current progress
Lecture name	Current progress
Lecture name	Current progress
Lecture name	Current progress

8.7 Logout


Home
Dashboard
Academic Info
Event Requests
Resource Availability
Progress Info
Logout
LOGOUT

9.0 Summary of Proposed System

In conclusion, the proposed Academic Management System (AMS) aims to revolutionize the current management processes at UTM by leveraging modern technology to address existing issues and improve overall efficiency. The project focuses on enhancing various aspects of campus resource management, including secure communication, profile management, collaborative tools, progress tracking, and access to resources.

Firstly, the system will tackle the critical issue of secure and encrypted communication. By implementing robust security measures, such as encrypted direct messaging, the system will ensure confidential communication between students and supervisors. This addresses concerns related to identity verification and data security, providing a secure platform for sensitive information exchange.

In addition, the AMS will streamline profile management for both students and supervisors. Detailed profile pages displaying achievements, qualifications, research interests, and academic backgrounds will facilitate the process of finding suitable supervisors. This feature will make the supervision process more efficient and ensure that students are matched with supervisors whose expertise aligns with their research interests.

Moreover, the integration of collaborative tools, such as video meetings and whiteboards, will foster real-time collaboration and interaction. These tools will bridge the gap between students and supervisors, enabling seamless communication and effective supervision. Real-time collaboration ensures that students receive timely guidance and feedback, essential for the successful completion of their research projects.

Furthermore, the AMS will provide tools to track and monitor the progress of research activities. This feature will help supervisors and students stay on top of deadlines and milestones, ensuring timely completion of research projects. Additionally, the ability to search and filter potential supervisors based on specific criteria, such as research interests and availability, will make the process of finding a suitable supervisor more efficient and effective.

Lastly, the system will offer a resource library containing guides, templates, and tips related to postgraduate studies. This library will serve as a valuable resource for students, assisting them in their academic journey. The inclusion of feedback and reviews will further enhance the decision-making process for future students, allowing them to benefit from the experiences of their peers.

In summary, the proposed Academic Management System (AMS) addresses several critical issues and incorporates various features to improve the overall supervision process at UTM. By focusing on secure communication, efficient profile management, real-time collaboration, progress tracking, and access to resources, the system aims to enhance the experience for both students and supervisors. Supported by modern web technologies and cloud services, the AMS ensures scalability and robustness, significantly improving the postgraduate supervision process and fostering a more efficient and user-friendly environment for academic success.

10.0 Github

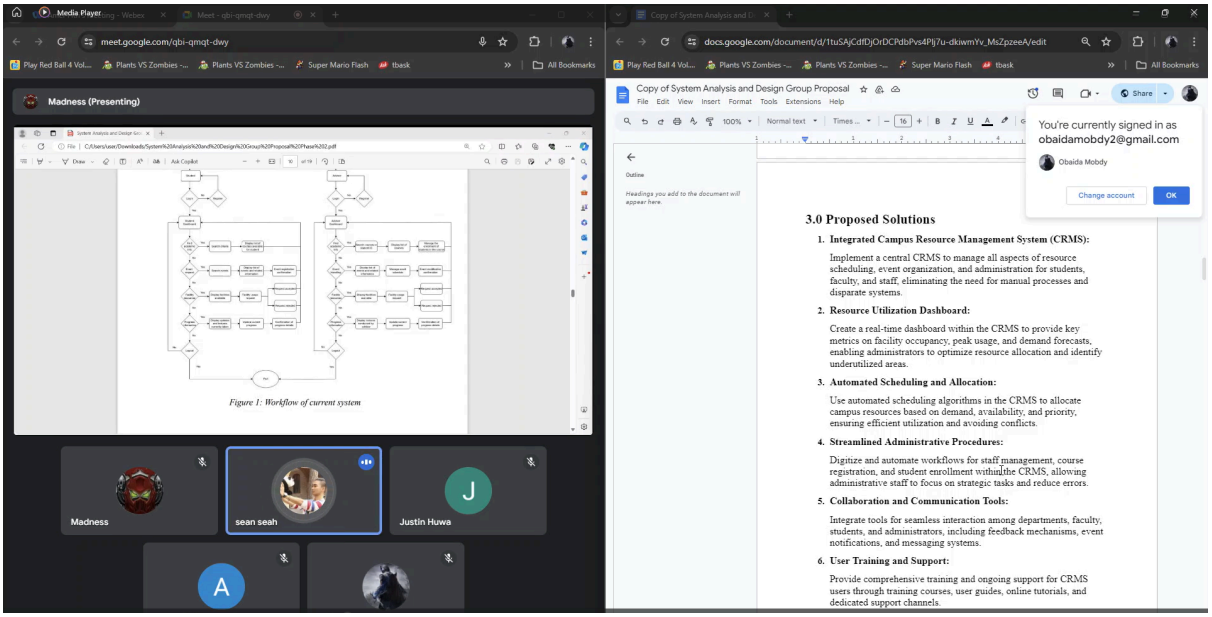
10.1 Github repository Link

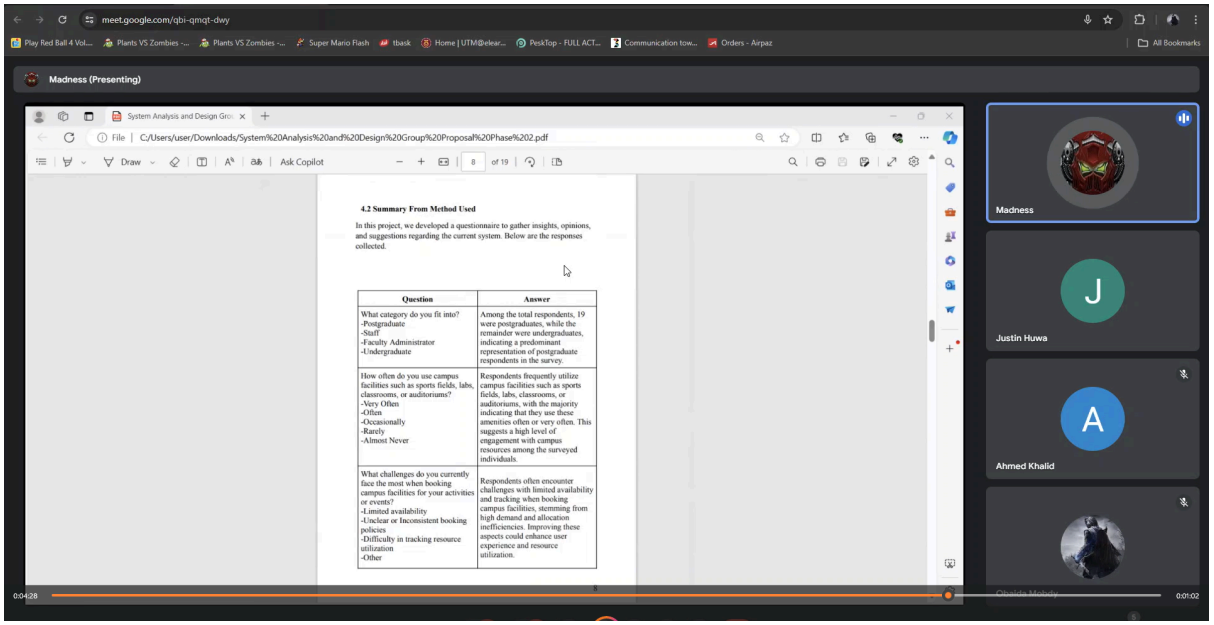
https://github.com/madlorddarkness/TechBrothers_Project1_SAD_20232024/tree/main

10.2 Repository Snapshot

8.0 Addendum

8.1 Screenshots of the Interview with the Lecturer : Sean Seah.


meet.google.com/qbi-qmqt-dwy
Madness (Presenting)
Figure 1: Workflow of current system
Madness
sean seah
Justin Huwa
docs.google.com/document/d/1tuSAjCdfDjOrDCPdbPvs4Plj7u-dkiwmYv_MsZpzeeA/edit
Copy of System Analysis and Design Group Proposal
You're currently signed in as obaidamobdy2@gmail.com
Change account
OK
3.0 Proposed Solutions
1. Integrated Campus Resource Management System (CRMS):
Implement a central CRMS to manage all aspects of resource scheduling, event organization, and administration for students, faculty, and staff, eliminating the need for manual processes and disparate systems.
2. Resource Utilization Dashboard:
Create a real-time dashboard within the CRMS to provide key metrics on facility occupancy, peak usage, and demand forecasts, enabling administrators to optimize resource allocation and identify underutilized areas.
3. Automated Scheduling and Allocation:
Use automated scheduling algorithms in the CRMS to allocate campus resources based on demand, availability, and priority, ensuring efficient utilization and avoiding conflicts.
4. Streamlined Administrative Procedures:
Digitize and automate workflows for staff management, course registration, and student enrollment within the CRMS, allowing administrative staff to focus on strategic tasks and reduce errors.
5. Collaboration and Communication Tools:
Integrate tools for seamless interaction among departments, faculty, students, and administrators, including feedback mechanisms, event notifications, and messaging systems.
6. User Training and Support:
Provide comprehensive training and ongoing support for CRMS users through training courses, user guides, online tutorials, and dedicated support channels.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Madness (Presenting)
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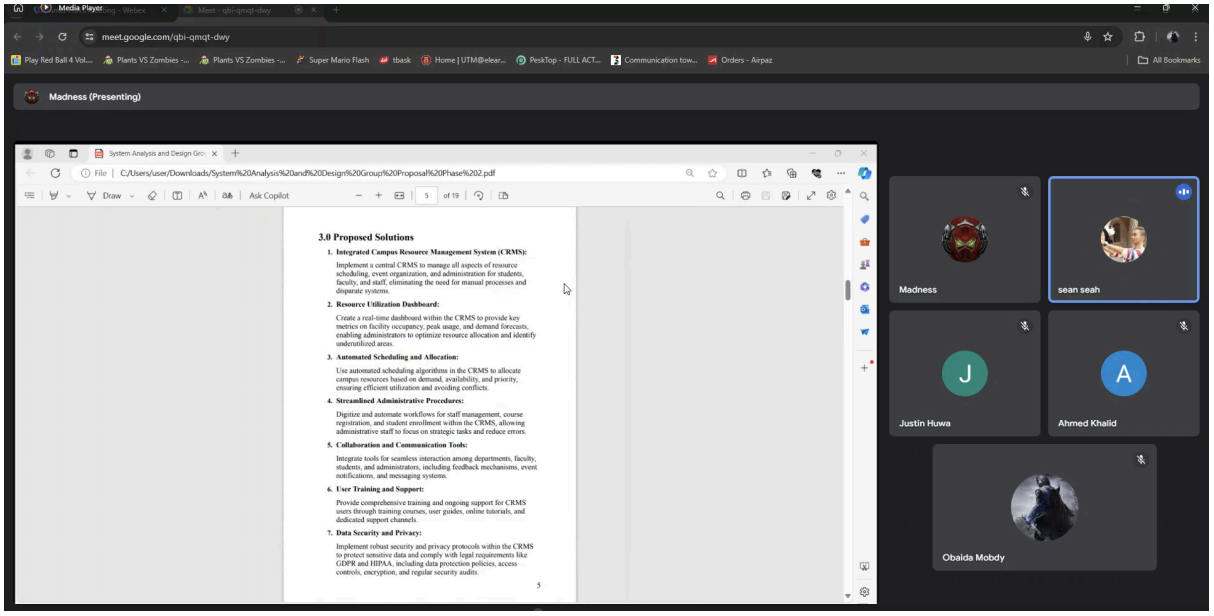
4.2 Summary From Method Used
In this project, we developed a questionnaire to gather insights, opinions, and suggestions regarding the current system. Below are the responses collected.
Question
Answer
What category do you fit into? -Postgraduate -Staff -Faculty Administrator -Undergraduate
Among the total respondents, 19 were postgraduates, while the remainder were undergraduates, indicating a predominant representation of postgraduate respondents in the survey.
How often do you use campus facilities such as sports fields, labs, classrooms, or auditoriums? -Very Often -Often -Occasionally -Rarely -Almost Never
Respondents frequently utilize campus facilities such as sports fields, labs, classrooms, or auditoriums, with the majority indicating that they use these amenities often or very often. This suggests a high level of engagement with campus resources among the surveyed individuals.
What challenges do you currently face the most when booking campus facilities for your activities or events? -Limited availability -Unclear or Inconsistent booking policies -Difficulty in tracking resource utilization -Other
Respondents often encounter challenges with limited availability and tracking when booking campus facilities, stemming from high demand and allocation inefficiencies. Improving these aspects could enhance user experience and resource utilization.
Madness
Justin Huwa
Ahmed Khalid


meet.google.com/qbi-qmqt-dwy
Madness (Presenting)
C:/Users/user/Downloads/System%20Analysis%20and%20Design%20Group%20Proposal%20Phase%202.pdf
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Use automated scheduling algorithms in the CRMS to allocate campus resources based on demand, availability, and priority, ensuring efficient utilization and avoiding conflicts.
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Digitize and automate workflows for staff management, course registration, and student enrollment within the CRMS, allowing administrative staff to focus on strategic tasks and reduce errors.
5. Collaboration and Communication Tools:
Integrate tools for seamless interaction among departments, faculty, students, and administrators, including feedback mechanisms, event notifications, and messaging systems.
6. User Training and Support:
Provide comprehensive training and ongoing support for CRMS users through training courses, user guides, online tutorials, and dedicated support channels.
7. Data Security and Privacy:
Implement robust security and privacy protocols within the CRMS to protect sensitive data and comply with legal requirements like GDPR and HIPAA, including data protection policies, access controls, encryption, and regular security audits.
Madness
sean seah
Justin Huwa
Ahmed Khalid
Obaida Mobdy