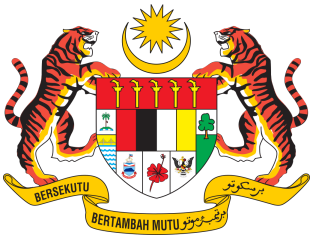

POLITEKNIK MALAYSIA
SEBERANG PERAI

JABATAN TEKNOLOGI MAKLUMAT DAN KOMUNIKASI
POLITEKNIK SEBERANG PERAI

DIPLOMA TEKNOLOGI MAKLUMAT
(TEKNOLOGI DIGITAL)

FINAL YEAR PROJECT ARCHIVE SYSTEM

TEAM MEMBERS:

SOLOMON RAJ PHILIP	**10DDT21F1056**
MUHAMMAD FARHAN BIN RIDZUAN	**10DDT21F1119**
ANBUARASI A/P CHANDRAN	**10DDT21F2001**

SUPERVISOR:

PUAN IZZIANI BINTI AZIZAN

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1. Introduction

The rapid advancement of digital technologies has transformed education at Politeknik Seberang Perai, prompting a need to leverage digital platforms for an enriched learning experience. This proposal outlines the development of an "FYP Archive System" to empower students and administrators in Information Technology (IT) education.

The system allows students to upload their Final Year Project (FYP) reports, undergoing verification by administrators before publication. The idea of archiving FYPs is inherently rooted in the broader concept of open access to educational materials, a notion that has gained increasing prominence in the world of academia.

Extensive research studies, exemplified by the work of Obuh and Bozimo (2012), underscore the significance of open access resources, particularly in the context of education. Open access not only democratizes access to knowledge but also enhances the overall quality of the learning experience. Our proposed FYP Archive System aligns seamlessly with this philosophy, promoting knowledge sharing, collaboration, and continuous improvement in IT education and related fields.

In upcoming sections, we'll explore objectives, features, benefits, cost planning, and a comprehensive literature review. Our goal is to enhance IT education, fostering collaboration, innovation, and knowledge dissemination.

This FYP Archive System aims to provide a valuable resource for students and streamline administrative processes at Politeknik Seberang Perai, advancing the institution's IT education.

2. Problem Statement

The completion and management of Final Year Projects (FYPs) pose significant challenges for both students and educational institutions. Empirical studies conducted by Bouvki (2007) and Leung et al. (2015) have identified several key issues, highlighting the urgent need for improved systems and tools in this context.

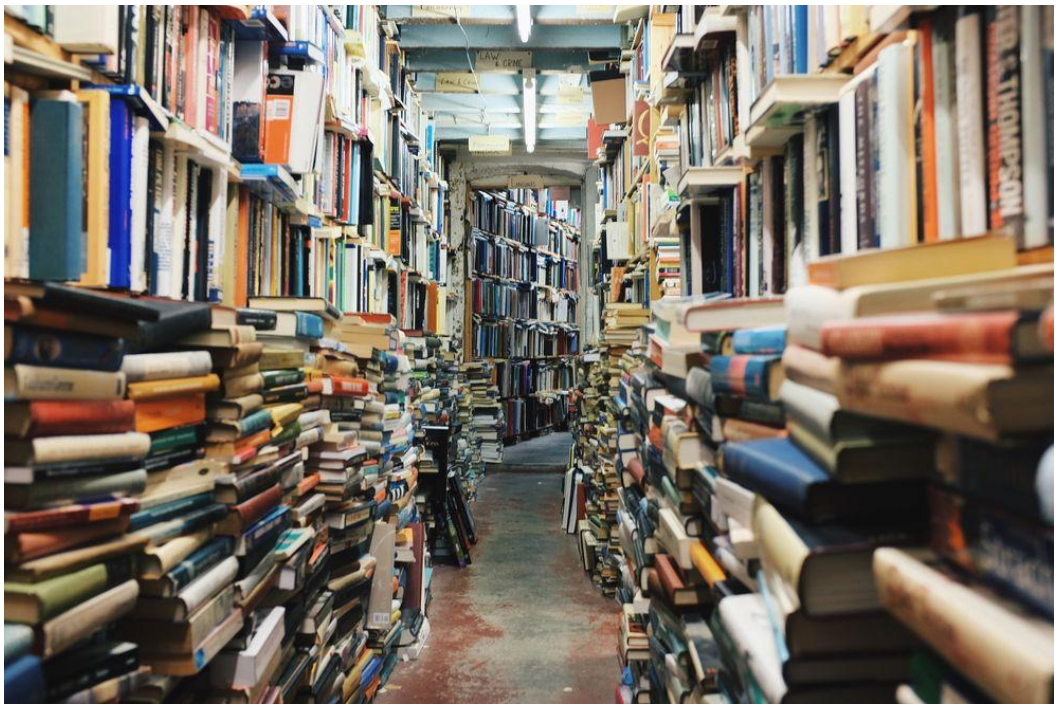
I. Lack of Effective Organization: Many universities and colleges rely on manual, disorganised systems to store and manage FYPs. These projects are often arranged haphazardly in storage rooms, without clear categorization by authors, courses, or titles.
II. Inefficient Retrieval: The absence of a well-structured organisation system makes it difficult for students, faculty, and staff to efficiently search for and retrieve specific FYPs. This inefficiency can lead to frustration and time wastage.
III. Risk of Data Loss: Softcopies of FYPs stored on compact disks (CDs) further compound the problem. Human error and mishandling of these physical storage media

increase the risk of FYP projects being damaged or lost, potentially resulting in unrecoverable data.

IV. Increasing Student Numbers: The yearly influx of students translates into a growing volume of FYPs being submitted. Coordinators and faculty members face mounting challenges in monitoring and managing the increasing number of FYP topics and titles, leading to potential oversight and duplication.

V. Hindered Progress: Burdensome administrative processes and difficulties in accessing past FYPs hinder the progress and productivity of both students and academic staff. This situation can negatively impact the overall educational experience.

VI. Need for Efficient FYP Archive: Given the above challenges, there is a pressing need for the development and implementation of an efficient and dependable FYP archive system. Such a system would streamline project organization, enhance accessibility, reduce data loss risks, and ultimately facilitate the successful completion and management of students' Final Year Projects.



3. Objective of Project

The objectives of the project are described as below:

- Develop a user-friendly and secure FYP Archive System for Politeknik Seberang Perai.
- To develop a system that makes it easy for students to view/download project documents.
- Enable administrators to review and verify the quality and appropriateness of FYP reports.

4. Project Scope

This project can be applicable for areas such as:

1. Supervisors/ Administrators

Administrators are the head of the FYP project. They can verify students' registration through the system . They can organize and manage students' projects over the years and also the system. Supervisors will receive students' submissions and verify and publish the student's projects. Once the project is allowed to be published, then all the students can access the final year project.

2. Students

This system helps the students to understand the FYP project requirements by browsing the previous year projects and by accessing important guidelines, templates and milestones. They can also upload their final year project .

3. System Scope

The FYP Archive System represents an enhancement of the current system, encompassing a wide range of features and functionalities. It includes user authentication for secure access, well-defined user roles and permissions, a secure FYP submission process, administrative tools for efficient management, a supervisor review and approval workflow, publication control, the establishment of a comprehensive resource repository, powerful search and discovery capabilities, robust security measures, and a scalable architecture that can accommodate future enhancements. This system aims to elevate the management and sharing of Final Year Projects (FYPs) at Politeknik Seberang Perai, fostering collaboration and knowledge sharing while ensuring data integrity and intellectual property protection.

5. Project Significance

This project holds significant value within the academic community and for students by addressing critical challenges related to archiving and accessing research materials. The project's significance is outlined as follows:

I. Enhancing Academic Efficiency: The primary objective of this project is to develop an efficient archive system tailored for Politeknik Seberang Perai. It aims to identify and fulfil the specific requirements needed to facilitate the storage of students' theses and projects in a unified system. This, in turn, streamlines the process of archiving and retrieval, contributing to improved academic efficiency.
II. Online Reference Accessibility: Another key aspect of this project is the design of a system that combats common challenges faced by students, such as time constraints

and geographical distance. By implementing online methods for reference searches, this project empowers students to access valuable research materials conveniently, irrespective of their location or schedule.

III. Preservation and Safety: Additionally, this project emphasizes the importance of preserving academic work. Through the development of a secure system, it ensures the safety of projects, minimizing the risk of physical damage or loss. This preservation not only safeguards valuable research but also fosters a culture of academic integrity and knowledge sharing.

In summary, this project's significance lies in its ability to revolutionize the academic archiving process, making it more efficient, accessible, and secure. By addressing these key objectives, it aligns with the evolving needs of students and academic institutions in the digital age.

6. Literature Review

An archive serves as a repository for storing a wide range of documents, both published and unpublished, which are often unique, specialised, or rare in various formats, such as PDFs and Docs (Edzan, 2015). Archives typically consist of records compiled and preserved by individuals or institutions, chosen to be safeguarded as evidence of completed tasks undertaken by those entities.

I. Knowledge Transfer: Studies (Shahzadi, U. & Hussain, B. (2019)) highlight how exchange of ideas and project documentation contributes to a richer educational experience. Our FYP archive system has potential to facilitate knowledge transfer between student generations.

II. Reference Material: An FYP archive provides a valuable repository of reference materials for students embarking on their own projects. (Marini Abu Bakar (2010)) found that access to previous FYPs can assist students in project planning, problem-solving, and concept development.

III. Data Privacy and Security: Ensuring the security and privacy of student data within the archive system is a critical concern. Usman Tariq (2023) in his article that emphasises the need for robust security measures to protect sensitive information.

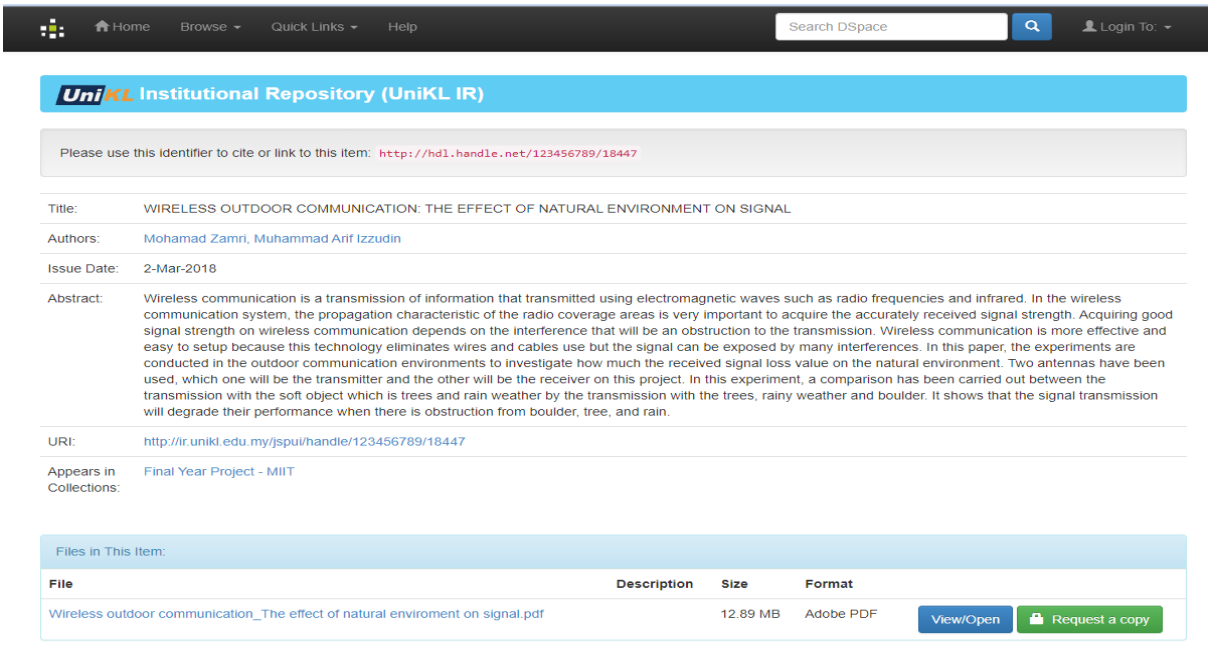
IV. Sustainability: Maintaining and updating the archive system over time requires a sustainable approach. Research by Orlando Durán (2020) explores strategies for long-term system maintenance and resource allocation.

V. Importance: Archiving plays a pivotal role in effectively managing informational records, particularly when information collected by an individual or institution requires meticulous organisation and monitoring to ensure proper utilisation. Failure to archive records can result in difficulties in locating them, inadequate security, and challenges in disseminating the information, especially if it is stored solely on local

devices like students' laptops. According to Securedatamgt (2015), the top three key reasons for archiving are to prevent data loss, meet legal requirements for records retention, and enhance security management.

6.1 Comparison of Existing Website :

UniKL FYP



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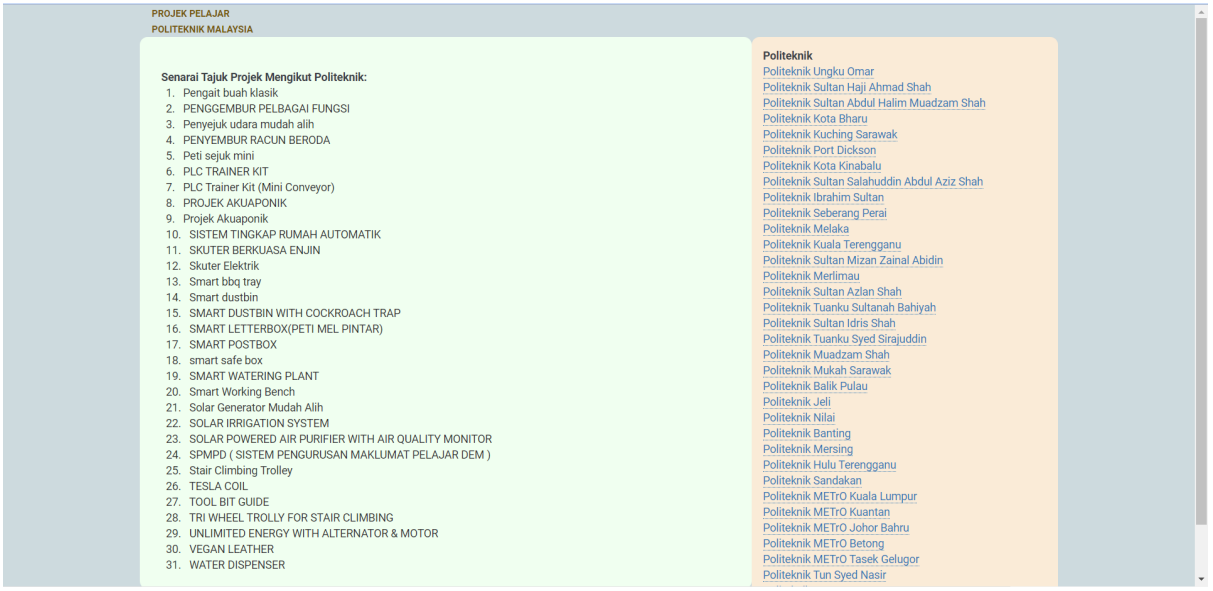


6.2 Comparison Table

Website Name	Final Year Project Archive System	Projek Pelajar Politeknik Malaysia-Mypolycc	Final Year Project - UniKL MIMET
Type Of System	Web System	Web System	Web System
Language	Php , Html	Html	Php , Html , Java
Sign Up And Login	Yes	No	Yes
Database	Yes	No	Yes
Anyone Can Download	Yes	No	No
Search By Course	Yes	No	Yes

7. Cost Planning

Costs are not required for the implementation of this project because the project is developed using software only. The software used includes xampp, Notepad++, and other relevant free softwares, so additional costs are not necessary. Furthermore, this system will be uploaded for free online. Additionally, this system can be categorized as portable because it can be used through computers and phones. Other costs that may be required are for materials used for printing and reporting purposes only.

ITEM	RM
Software	Free
Domain	
Printing	30.00
Total	RM 30.00

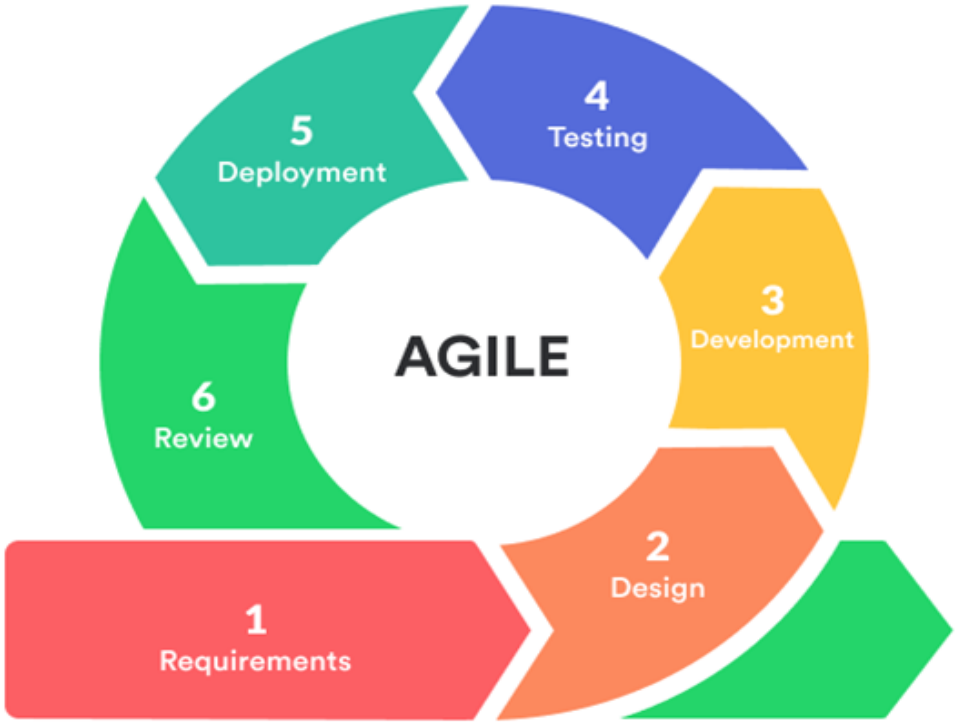


Diagram 7.0 Agile Methodology

8. Methodology

Diagram 8.0 is a methodology that shows our steps in implementing our website. There are 6 phases that we use to make the FINAL YEAR PROJECT ARCHIVE SYSTEM website. In each phase, we will explain the details of the steps.

8.1 Requirement Phase

The first stage in the Agile approach is to gather requirements, which is the first step in gathering requirements. In this project, we need to understand the FINAL YEAR PROJECT ARCHIVE SYSTEM project requirements.The Purpose we create this website for these days, Politeknik Seberang Perai students some difficulties with their projects due to a lack of suitable references or accurate ideas. This website assists with their search difficulties for final year project documents, and students can easily access the final year project documents through the website we create.

8.2 Design Phase

For the design phase we would sketch the model design for the website so that it is easier to see the preliminary sketches before the project starts.

8.3 Development Phase

During the development phase, our group will commence the project based on the agreed-upon design and procedures. We will initiate the coding for the functional website. We will create the required MySQL databases and integrate the frontend and backend components . Throughout the project's development, the supervisor regularly monitoring our progress.

8.4 Testing Phase

- In the testing phase, we try the website many times before launching it to find if there are any problems or any lack in our website and check everything to make sure users have the best experience using it. This is a very important step in every development.

    - Test Planning: Determine what needs to be tested, the testing strategy, and the criteria for success.

    - Test Execution: Actively perform testing to identify and resolve any issues or bugs in the software.

    - Regression Testing: Continuously test previously developed features to ensure they still work as expected.

- User Acceptance Testing (UAT): Involve end-users to validate that the software meets their requirements.

- Defect Reporting: Document and prioritize any defects or issues discovered during testing.

- Test Automation: Automate repetitive test cases to improve efficiency.

8.5 Deployment Phase

The Display phase in Agile is crucial for showcasing progress and obtaining feedback from students.We deploy our website in the domain after it has been tested perfectly. Users can now access the website and try it.

- Demo: present the working software to our project supervisor including panel.
- Feedback Gathering: Our Supervisor encourages us to provide feedback on the demonstrated features and functionalities.
- Iterative Improvements: Make the appropriate software modifications based on the comments gathered.
- Prioritization: In following their suggestions and the project's objectives, work with the lectures to order the backlog of features and modifications.

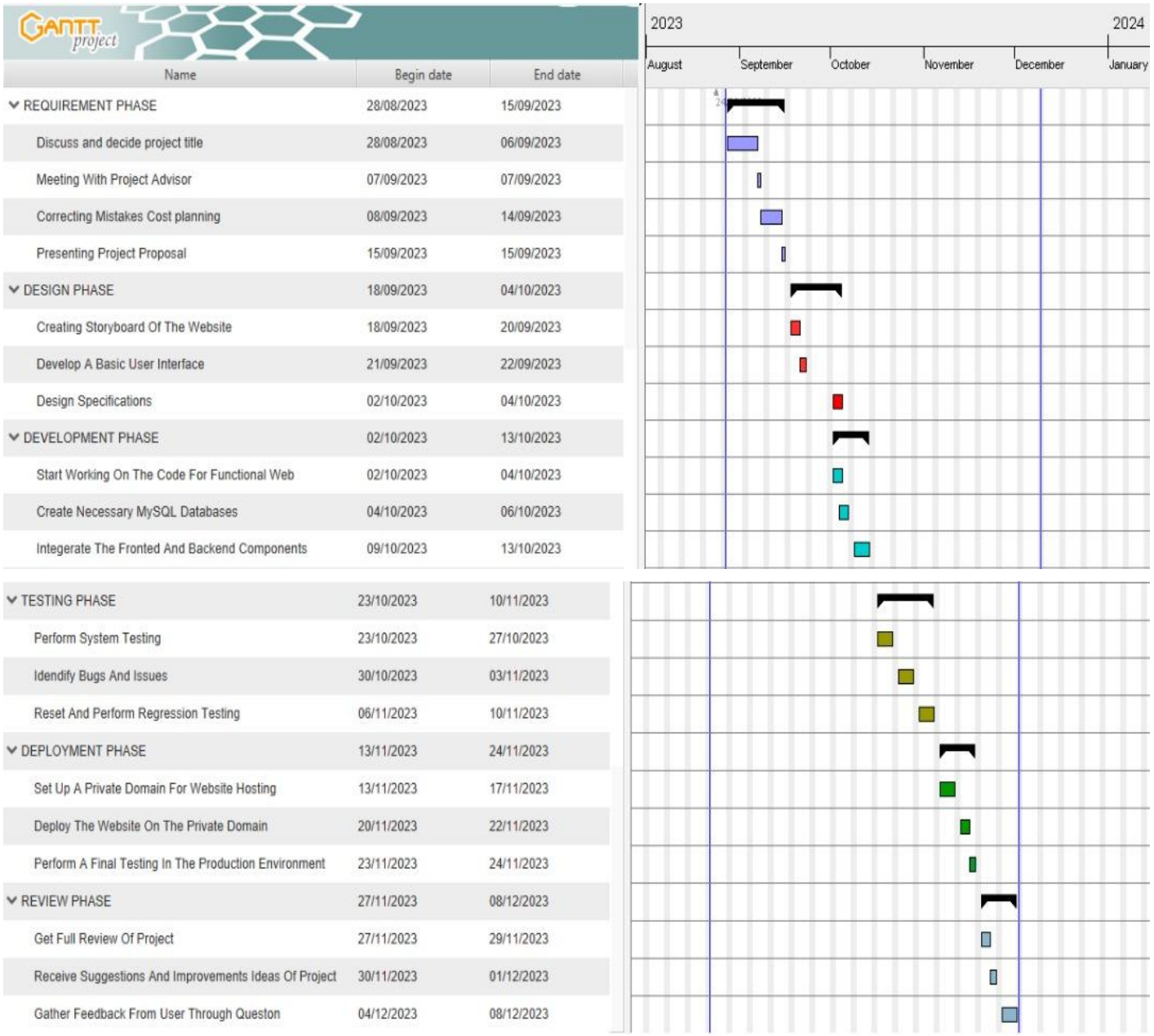
8.6 Review Phase

After launching the website, it is essential to conduct a thorough review to ensure that the project has successfully met its objectives and effectively addressed the issues faced by users. This review phase consists of several key components:

- Sprint Review Meeting: Organize a sprint review meeting where the project team discusses and evaluates the accomplishments made during the sprint or project phase. Ensure that the project aligns with its intended objectives.
- Performance Assessment: Assess the project's progress in comparison to its initial goals and objectives. Evaluate whether the project has achieved what it set out to accomplish.
- Retrospective Meeting: Facilitate a retrospective meeting with the project team to candidly discuss the development process. This includes recognizing successes, identifying failures, and pinpointing areas for improvement.
- Adjustments: Based on the insights gained from the sprint review, performance assessment, and retrospective meeting, make necessary adjustments to the project strategy, priorities, and procedures. Ensure that the project is aligned with evolving requirements and feedback from users.

The review phase is crucial for maintaining project alignment with objectives, continuous improvement, and adaptability to changing circumstances. It allows for refinements that enhance the project's overall effectiveness and success in addressing user needs.

9. Project Plan / Gantt Chart



Name	Begin date	End date
REQUIREMENT PHASE	28/08/2023	15/09/2023
Discuss and decide project title	28/08/2023	06/09/2023
Meeting With Project Advisor	07/09/2023	07/09/2023
Correcting Mistakes Cost planning	08/09/2023	14/09/2023
Presenting Project Proposal	15/09/2023	15/09/2023
DESIGN PHASE	18/09/2023	04/10/2023
Creating Storyboard Of The Website	18/09/2023	20/09/2023
Develop A Basic User Interface	21/09/2023	22/09/2023
Design Specifications	02/10/2023	04/10/2023
DEVELOPMENT PHASE	02/10/2023	13/10/2023
Start Working On The Code For Functional Web	02/10/2023	04/10/2023
Create Necessary MySQL Databases	04/10/2023	06/10/2023
Integerate The Fronted And Backend Components	09/10/2023	13/10/2023
TESTING PHASE	23/10/2023	10/11/2023
Perform System Testing	23/10/2023	27/10/2023
Idendify Bugs And Issues	30/10/2023	03/11/2023
Reset And Perform Regression Testing	06/11/2023	10/11/2023
DEPLOYMENT PHASE	13/11/2023	24/11/2023
Set Up A Private Domain For Website Hosting	13/11/2023	17/11/2023
Deploy The Website On The Private Domain	20/11/2023	22/11/2023
Perform A Final Testing In The Production Environment	23/11/2023	24/11/2023
REVIEW PHASE	27/11/2023	08/12/2023
Get Full Review Of Project	27/11/2023	29/11/2023
Receive Suggestions And Improvements Ideas Of Project	30/11/2023	01/12/2023
Gather Feedback From User Through Queston	04/12/2023	08/12/2023

This Gantt Chart Completed Using This Gantt Project Software.

10. Conclusion

In conclusion, our "FYP Archive System" project holds immense significance, offering tangible benefits to both students and administrators at Politeknik Seberang Perai. Its importance lies in streamlining the archiving process, promoting knowledge sharing, and enhancing the overall quality of IT education.

The impact of this system is far-reaching, contributing to more efficient academic processes, improved learning experiences, and the advancement of our institution's reputation as a forward-thinking educational hub. With this project, we hope to bridge the gap between access to valuable educational resources and student success.

Our aspiration is for every student to have easy access to the wealth of knowledge encapsulated in past FYP reports, fostering a culture of collaboration, innovation, and continuous improvement. As we move forward, we remain committed to realizing this vision and delivering a transformative solution that benefits our entire academic community.
We look forward to making this vision a reality together.

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