Department of Computer Science

Namal University, Mianwali

FYP Management System

Project Proposal

Subject Title: Software Engineering

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Contents

1. Introduction

Final Year Project (FYP) is a crucial stage for undergraduate student where they apply their theoretical and practical knowledge in real world scenarios. In our university managing FYP is not very easy.Student have submit their ideas manually and wait for approvals and all other steps are not automated.Currently, FYP Management method at Namal University is manual and depend on the Excel sheets or manual tools for storing FYP details, monitoring progress from grouping to project evaluation. Manual base work approach to data repetition,limited access and inefficiency. To handle these difficulties, developing an FYP Management System that specially design for our university. The system aims to the automate the all process of FYP phases. From proposal submission, supervisor assignment to final submission all these step done in smooth manner and one time adjustment method.

2. Problem Statement

Namal University handles all Final Year Project related tasks using manual or simple Excel based methods. Management team such as coordinators, placement cell and faculty members faces issues as increase in students strength as well as increase projects each year. Phases such that creating groups of students,assigning supervisors and co supervisors, checking proposals, monitoring progress and these things consume time and become stressful for all stakeholders. There is an absence of centralized and automated system which cause duplication, inconsistency and inefficiency and leads to disturbance in FYP development phases.

3. Objectives

The objectives of systems are :

- Automate the FYP management process from forming student groups to last evaluation.
- Provide role base access to each user.
- Maintain proper records of all past and present FYPs.
- System will handles large number users and scalable.

4. Stakeholders Identification

Table 1: Stakeholders and responsibilities

Stakeholder	**Responsibilities**
Students	Submit project proposals and increase their progress to get proper feedback from their supervisors.
Supervisors/Co-Supervisors	Review the work done by students, approve their proposals, guide students, and provide the feedback about project.
HODs	observe the all projects then approve final submissions and control overall quality of projects
Industrial Mentors	Provide guidance from an industry and ensure projects are practical with real-world demands.
Placement Cell	it is the main that get project from industries and refine projects according to university courses.
Super Admin	Manage all system users, permissions, and maintain the system.
Department Faculty	Assist in evaluation and provide feedback during project progress.
External Evaluators	They are from other organizational that Conduct evaluations during final presentations.
Clients	Provide project requirements and behind the idea of system
Finance Office	Manage any project-related financial matters and records.
Coordinators	organize the schedule of evaluation and handles deadlines.

5. Software Development Methodology

Agile Scrum Methodology is selected for the development of the **FYP Management System**. This methodology provides an easy management, team friendly and workload is divided into small step by step sprints that easy to manage task. It is suitable for this project because any moment the client wants to change or add new requirements and system has stakeholders provide feedback that may convert into any improvement or change during the phase of development. This project has not fixed requirements and Its each sprint design under the continuous feedback of client about sprint where functional module is designed and develop and it reduce the risk and provide a good quality.Divert from the goal or sprint does not find the progress.It can settle in next sprint, not wait

for long time.

Development Schedule (1-Year Duration):

Table 2: Development Schedule of FYP Management System

Month(s)	Phase	Description
1–2	Requirement Gathering and Planning	Gather and analyze system requirements and set the requirement into order and design plan.
3–5	Prototype and System Design	Design ER diagrams, UML diagrams, database schema and plan system design.
6–8	Implementation	Develop core modules student section, supervisors and those linked with FYP process.
9–10	Testing and Debugging	Perform the testing on whole system and where system fails, debug it.
11–12	Deployment and user feedback	Deploy the system and get feedback from stakeholders for enhancement.

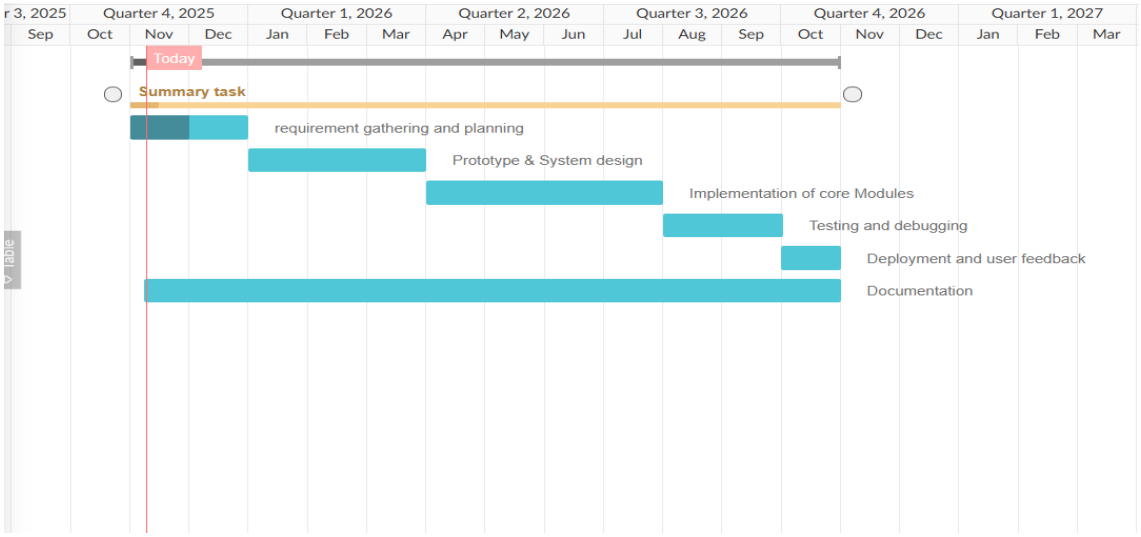

Figure 1: Gantt Chart for FYP Management System

6. Tools and Technologies

- **Frontend Development:**
  HTML, CSS, JavaScript, React.js are used to create user friendly and responsive design.

- **Backend Development:**
  Node.js is used for server side and design RESTfull APIs.

- **Database Management:**
  MySQL is used to manage the data such that students, projects and proposals etc
- **Version Control:**
  Git and GitHub are used to control the versions of software.
- **Integrated Development Environment:**
  Visual Studio Code tool use for code development.
- **Deployment and Testing:**
  Docker/ XAMPP/ MOcha are used for deployement and testing
- **Design Tools:**
  Figma is used to design the intractive design of system.

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