Project Details

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Project ID : 14

SEAT NUM:239

Tech Stack : LAMP

Project Name : CO PO Result Analysis

Technical Components

Work Phase	**Tech Components used**
UI / UX Designing	Figma
Front End Development	HTML, CSS, Javascript
Database Implementation	MYSQL
Back End Development	Laravel

Project Implementation Timeline

Stage	Deadline	Phase	Status
1	04/06/2024	Planning and Requirement gathering	Completed
2		Design and Prototyping	In progress
3		Database Designing	In progress
4		BackEnd Development	In progress
5		Testing And Implementation	Not started

Stage	Deadline	Phase	Status
6		**Deployment**	Not started

Problem Statement: Enhanced CO-wise Periodical Test Marks Management and Result

Current Challenges:

➤ Inconsistent Data Management: The management of CO-wise periodical test marks is fragmented across various departments and systems. This results in data discrepancies, errors in mark entries, and challenges in maintaining up-to-date records. The lack of a unified system complicates the tracking of student performance and academic progress.

➤ CO PO Calculation Complexity: Calculating the correlation between Course Outcomes (CO) and Program Outcomes (PO) manually is a time-consuming and error-prone process. The absence of an automated system for CO PO calculations leads to inaccuracies and delays in generating meaningful insights from student performance data.

➤ Ineffective Result Analysis: The current approach to result analysis is not streamlined, making it difficult to derive actionable insights from the data. Without a centralized system, analyzing trends, identifying areas for improvement, and making data-driven decisions are challenging tasks.

➤ Communication Fragmentation: There is no single, cohesive system for disseminating important information related to test marks, analysis results, and academic performance. This leads to communication gaps, delayed information flow, and reduced coordination among faculty, students, and administration.

➤ Administrative Burden: The manual management of test marks, CO PO calculations, and result analysis imposes a significant administrative burden. Faculty and staff spend considerable time on data entry, validation, and conflict resolution, detracting from their core responsibilities of teaching and academic support.

Workflow for Student Information Management System
1. Project Initiation:
Objective Definition: Clearly define the purpose and objectives of the Student Information Management System (SIMS),
Stakeholder Identification: Identify primary stakeholders, including administrative faculties and users who will interact with the system.

2. Requirement Gathering:
Interviews and Surveys: Conduct interviews and surveys with administrative staff to understand their needs and pain points.

Document Analysis: Review existing processes and documentation related to student data management.

3. System Design:
Define User Roles and Permissions:
Administrator: Full access to all functionalities.
User: Access to student data with import, export, and filtering capabilities under administrator supervision.
Architectural Design:
Choose compatible database systems.
Design system architecture ensuring scalability and security.
User Interface Design:
Create wireframes and mockups for the user interface.
Ensure the interface is user-friendly and intuitive.

4. Development Phase:
User Registration and Authentication Module:
Develop user registration and login functionalities.
Integrate with existing authentication systems for secure access.
Student Data Management Module:
Develop forms for creating, updating, and deleting student records.
Implement search functionality for retrieving specific student records.
Data Import and Export Module:
Create tools for importing student data from CSV and other external sources.
Develop export functionality for generating reports in various formats (e.g., CSV, Excel).
Record Filtering Module:
Implement filters and search options based on diverse student attributes.
Add advanced filtering options for customized data analysis.
Administrative Tools Module:
Develop user management interface for administrators.
Create system settings page for configuring access permissions and other administrative settings.

5. Testing Phase:
Unit Testing: Test individual components and functionalities for expected outcomes.
Integration Testing: Ensure all modules work together seamlessly.
User Acceptance Testing (UAT): Conduct testing sessions with actual users to gather feedback and make necessary adjustments.
Security Testing: Perform security assessments to ensure data encryption and secure user authentication.

6. Deployment:

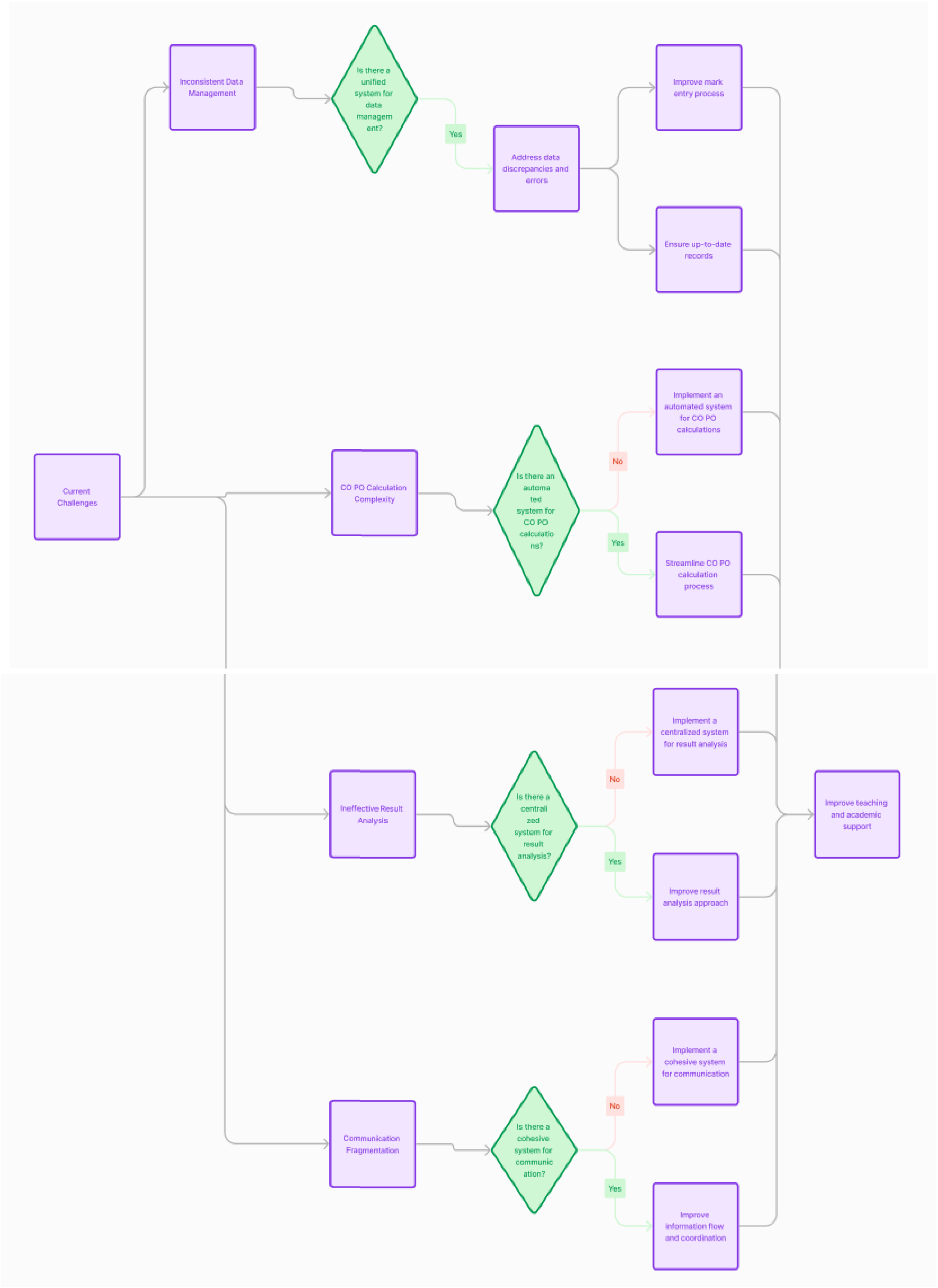
Preparation: Prepare the deployment environment, ensuring compatibility with existing infrastructure.
Deployment: Deploy the system to the live environment.
Post-Deployment Support: Provide support and troubleshooting for any issues that arise post-deployment.

7. Training and Documentation:
Training Sessions: Conduct training sessions for administrators and users.
User Manuals: Create comprehensive user manuals and documentation.
Online Help: Provide an online help system for user guidance.

8. Maintenance and Updates:
Regular Maintenance: Schedule regular maintenance for system updates and data backups.
Feedback Loop: Establish a feedback loop with users for continuous improvement.
Version Updates: Plan and implement updates based on user feedback and emerging needs.

9. Continuous Improvement:
Monitoring: Continuously monitor system performance and user satisfaction.
Enhancements: Identify and implement enhancements to meet evolving requirements.

WEB APP WORKFLOW:


Current Challenges
Inconsistent Data Management
Is there a unified system for data management?
Yes
Address data discrepancies and errors
Improve mark entry process
Ensure up-to-date records
CO PO Calculation Complexity
Is there an automated system for CO PO calculations?
No
Implement an automated system for CO PO calculations
Yes
Streamline CO PO calculation process
Ineffective Result Analysis
Is there a centralized system for result analysis?
No
Implement a centralized system for result analysis
Yes
Improve result analysis approach
Communication Fragmentation
Is there a cohesive system for communication?
No
Implement a cohesive system for communication
Yes
Improve information flow and coordination
Improve teaching and academic support