

**School of Computer Science & Engineering**

**Department of Computer Science and Applications**

**SYBScCS Div –B**

**Sem: 4, Year: 2025-26**

**Project Based Learning - Project Synopsis**

**Project Title:  
University ERP Platform**

**Team Details:**

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* **Introduction**

#### ****Aim:**** The aim of this project is to develop a centralized, web-based ERP platform for managing all university operations. Features include role-based access for students, faculty, and administrators, a user-friendly interface, and real-time communication.

1. **Existing System:**

The current ERP system at MIT-WPU, while functional, faces several issues that limit its effectiveness. The user interface is complex and not user-friendly, making it difficult for students and faculty to navigate. Modules are often fragmented, leading to redundant data entry and inefficiencies. Performance issues such as delays in generating reports and processing tasks disrupt workflows, while the lack of advanced analytics tools limits data-driven decision-making. Additionally, the system struggles with scalability, accessibility on mobile devices, and timely technical support, which hampers its ability to meet the university's evolving needs.

1. **Need for System:**

A new ERP system is essential to address these limitations and improve efficiency. It should offer a user-friendly interface, seamless integration of all modules, and advanced reporting features for better decision-making. A scalable and mobile-friendly platform would ensure accessibility and adaptability to the university's growth. Enhanced security measures would protect sensitive data, and reliable technical support would minimize disruptions. By incorporating modern technologies like AI and machine learning, the new system can streamline operations and provide a future-ready solution for managing university processes.

1. **Scope of System**

The system will handle student management, course scheduling, fee collection, faculty management, and reporting. It is scalable to meet the needs of universities of varying sizes and adaptable for future modules like e-learning or online examinations.

1. **Users of System**

**Students:** Access academic information, schedules, and payment records.

**Faculty:** Manage courses, timetables, and student performance.

**Administrators:** Handle operations like enrollment, finances, and reporting.

1. **Objectives:**
2. To create a centralized system for managing university operations.
3. To simplify academic and administrative workflows.
4. To ensure real-time communication between students, faculty, and administrators.
5. To provide secure storage and retrieval of university data.
6. To deliver a responsive and engaging user interface.

* **Technology used:**

1. **Front End:**
   1. **HTML, CSS, JavaScript:**

Core web technologies for building the structure, styling, and interactivity of the platform.

* 1. **React:**

A front-end library for creating dynamic and responsive user interfaces.

* 1. **Bootstrap:**

A CSS framework for designing mobile-friendly and visually appealing layouts.

* 1. **WordPress:**

Used for CMS features or integrating blog-like content.

* 1. **Figma:**

A design tool for creating wireframes and prototypes.

1. **Back End:**
   1. **Node.js:**

A backend runtime environment for handling server-side logic and APIs.

* 1. **PHP:**

For backend development and server-side scripting.

1. **Database:**

**MySQL or MongoDB:** Databases for secure and efficient data storage and retrieval.

* **Flow Chart:**

Following is diagrammatic representation for flow of webpages for student login.

Dashboard

Login

Course info

Time Table

Study Material

Attendance

Profile

Documents

Course info

S. info

Calendar

Events

Holiday

Exam

Upcoming exam

Hall ticket

Result / Marks

Online exam