

# Phase 1 – Project Planning

## Smart College Academic Portal

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### 1. Project Title

Smart College Academic Portal

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### 2. Domain

Web Application / Academic Management System

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### 3. Proposed Technology Stack (Tentative)

- Frontend: React JS
- Backend: Node JS with Express
- Database: MongoDB

(The final technology stack will be used during development phase.)

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### 4. Problem Statement

College academic information such as subject details, marks distribution and notices are scattered across notice boards, PDFs and messages.

Students often miss important updates and assignment deadlines.

There is no single centralized academic portal for semester-wise and branch-wise academic information.

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### 5. Project Objective

- To centralize college academic data
  - To show semester-wise and branch-wise subject details
  - To display assignments and notices with deadlines
  - To allow teachers (admin) to manage academic information
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# 6. Uniqueness of the System

This project focuses on solving common real-life academic problems faced by college students and teachers.

1. Many students do not come to college regularly or may miss important academic information. This portal allows students to check all subject details, notices and updates online without depending on calls or messages during exam time.
  2. Teachers can post assignments or tasks with deadlines. If a student is absent on that day or misses the announcement, they can later check the task online and stay updated.
  3. For students who are highly interested in a subject, the system provides a subject-based library section. When a student selects a subject, related books with name, image and short description are displayed, helping students easily find books from the college library.
  4. Students often waste time searching for syllabus, previous year papers, notes and study materials from different sources. This system centralizes all academic materials in one place, making learning more organized and time-efficient.
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# 7. System Overview

This system is a web-based academic portal designed for colleges.

It provides:

- Semester → Branch → Subject based navigation
  - Subject details including exam type and marks distribution
  - Study materials provided as external links
  - Assignment and notice updates posted by teachers
  - Separate admin and student access with role-based control
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# 8. User Roles

## Admin (Teacher / College Staff)

- Login to the system
- Manage semesters, branches and subjects
- Add subject details
- Post notices and assignments

## Student

- View semester and branch information
- View subject details and marks distribution
- View study material links (syllabus, notes, exam papers)
- View assignments and announcements

Students have view-only access.

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## 9. Modules List

1. Authentication Module
  2. Semester Management Module
  3. Branch Management Module
  4. Subject & Marks Management Module
  5. Study Material Management Module
  6. Notice & Assignment Module
  7. Student View Module
  8. Admin Dashboard Module
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## 10. Process Model

Incremental Model

The project is developed in phases. Each phase adds new functionality to the system.

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## 11. System Flow

Admin configures academic data such as semester, branch, subject details, marks structure and study materials.

Students access the system to view subject information, marks distribution, materials and announcements based on their selected semester and branch.

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## 12. Flowchart

- Student Side: Subject System Flowchart
- Admin Side: Subject, Marks and Material Management Flowchart

## 13. References

1. MDN Web Docs – JavaScript documentation

2. React JS official documentation
3. Node.js official documentation
4. MongoDB official documentation
5. W3Schools – Web development tutorials
6. GeeksforGeeks – Programming concepts
7. Lucid – Flowchart and diagram tool