



BANNARI AMMAN INSTITUTE OF TECHNOLOGY

An Autonomous Institution Affiliated to Anna University - Chennai, Accredited by NAAC with A+ Grade
Sathyamangalam – 638401 Erode District, Tamil Nadu, India

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REGISTER NO: 7376221SE138

SEAT NO: 166

PROJECT ID: 29

PROJECT TITLE: COURSE FILE AUTOMATION

TECHNICAL COMPONENTS:

Component	Tech Stack
Backend	Express JS with Node JS
Frontend	React JS
Database	MongoDB (NoSQL)
API	RESTful API

IMPLEMENTATION TIMELINE:

Phase	Deadline	Status	Notes
Stage 1	25/07/2024	Completed ▾	Planning and Requirement gathering
Stage 2		In Progress ▾	Design and UI/UX Prototyping
Stage 3		Not Started ▾	DB Designing & Implementation
Stage 4		Not Started ▾	Backend Development
Stage 5		Not Started ▾	Integration & Testing
Stage 6		Not Started ▾	Deployment

PROBLEM STATEMENT:

Develop a course file automation website that enables users to input specific academic formats and generate documents (PDF or Word) for various educational components such as Vision and Mission statements, academic schedules, timetables, syllabi, lesson plans, lecture notes, attendance records, and assessments with signatures.

- **Inefficiency and Errors:** Manual or semi-automated processes for managing academic and administrative tasks are time-consuming and prone to errors.
- **Task Tracking Difficulties:** Difficulty in tracking task completion, status, and maintaining user roles and permissions.
- **Feedback Mechanism:** Insufficient feedback mechanisms for faculty to provide input on tasks and issues.
- **Reporting Challenges:** Inadequate tools for generating reports and analytics on task performance and completion.
- **Centralized Solution Need:** A centralized web application is needed to streamline task management, approval processes, calendar integration, and feedback, enhancing efficiency and communication within the institution.

PROJECT-FLOW:

PURPOSE:

The purpose of this document compilation is to organize key academic and administrative information for a course, aligning with the institution's and department's visions. It ensures transparency, accountability, effective teaching, and continuous improvement in educational outcomes through structured schedules, standardized materials, systematic feedback and remediation.

SCOPE:

The scope of this document compilation is to comprehensively assemble and organize essential academic and administrative information for a specific course within the department. This includes the vision and mission of both the institute and department, and detailed academic documentation to ensure transparent and standardized education delivery. The compilation involves several key components:

- **Vision and Mission Statements:** These outline the strategic goals and guiding principles of the institute and department, providing a foundational context for all academic activities.
- **Program Educational Objectives (PEOs), Program Outcomes (POs), and Program Specific Outcomes (PSOs):** These elements delineate the intended knowledge, skills, and competencies students are expected to acquire by the end of the program.
- **Academic Schedule and Timetable:** The tentative academic calendar and class timetable ensure that all stakeholders are informed of the schedule and can plan accordingly.
- **Course Syllabus:** Providing the detailed syllabus from the website helps ensure that all topics and objectives are clearly communicated.
- **Lesson Plan:** A structured lesson plan, including topic details, hours allocated, and reference materials, supports effective course delivery.
- **Sample Lecture Notes:** Providing examples of lecture notes helps standardize teaching materials and methods.
- **Student Attendance and Assessment Records:** Lists with signatures ensure accountability and transparency in attendance and assessment.
- **Assessment and Feedback Documentation:** This includes test papers, sample answer scripts, mark sheets, and CO-PO attainment records, with signatures from faculty and HOD, along with remedial actions for non-attainment of COs.

FEATURES:

- Admin login for configuring formats and managing accounts.
- Faculty login for entering and updating marks and attendance.
- Automated document generation (PDF) with specified formats.
- Uploading timetables as photos or Excel files.
- Including college logo, department name, course code, course title, faculty name, and signatures in documents.
- Managing academic documents such as timetables, syllabus, lesson plans, lecture notes, attendance records, assessments, and course feedback.

WORKFLOW:

1. Admin Login:

- Configure document templates.
- Manage faculty accounts.

2. Faculty Login:

- Input and update marks and attendance.
- Upload timetables (photo or Excel).
- Generate and print documents in PDF format

3. Data Input:

- Faculty enter marks and attendance in the provided format.
- Faculty upload timetables as photos or Excel files.

4. Document Generation:

- System processes data to generate documents with the required details.
- Generated documents can be printed as PDF files.

5. Document Management:

- Store generated documents for future access.
- Allow faculty and admin to manage documents.

FUNCTIONAL REQUIREMENTS:

1. User Authentication:

- Login functionality for admin and faculty.
- Role-specific dashboard access.

2. Dashboard:

- Admin Dashboard: User, task, and template management, approval workflows.
- Faculty Dashboard: View tasks, upload timetables, enter student data.

3. Document Generation:

- Generate documents with college logo, department name, course code, course title, faculty name, faculty signature, and HOD signature.
- Support for various academic documents, including:
 - Vision and Mission statements
 - PEOs, POs, PSOs
 - Academic schedules
 - Timetables
 - Syllabi
 - Lesson plans
 - Lecture notes
 - Student name lists with signatures
 - Course committee meeting minutes
 - Periodical test documentation (mark sheets, COs-POs attainment, remedial actions)
 - Attendance records
 - Assessment proofs
 - Assignment and lab experiment documentation
 - End semester documentation (student feedback, course exit survey, COs-POs attainment)

4. Feedback Mechanism:

- Faculty can provide feedback on tasks and suggest improvements.

FLOWCHART:

