

## TEAM-09 Project Title : Internship Management Portal project

### Goals

- Develop a robust backend system using the MERN stack to manage student internship data efficiently.
- Enable CRUD operations on internship records including student details, company, duration, stipend, etc.
- Provide secure upload and download functionality for internship-related documents like Offer Letters, NOCs, and Completion Certificates.
- Allow users to download standardized templates (NOC, LOR) via API endpoints.
- Generate accurate monthly internship reports filtered by month, branch, and company to assist NBA/NAAC documentation.
- Ensure a scalable, maintainable, and secure backend architecture.

### Requirements

#### Functional Requirements

- User authentication and authorization (optional based on scope).
- CRUD APIs for managing internship records.
- File upload API supporting multiple document types (Offer Letter, NOC, Completion Certificate).
- File download API for templates and uploaded documents.
- Report generation API with filters on month, branch, and company.
- Data validation and error handling for all inputs.

#### Non-Functional Requirements

- Use MERN stack: MongoDB, Express.js, React (optional frontend), Node.js.
- Secure file storage and access control.
- API documentation using tools like Swagger or Postman collection.
- Performance: Handle concurrent API requests smoothly.
- Maintainable and well-documented codebase.

### Roadmap

Phase	Tasks	Timeline (Example)
<b>Requirement Gathering &amp; Planning</b>	Finalize features, data fields, document types, report formats. Collect user feedback.	Week 1
<b>Design</b>	Design database schema, API endpoints, file storage strategy.	Week 2
<b>Development</b>	Implement APIs for CRUD, file upload/download, reports. Setup Git repo and version control.	Weeks 3-5
<b>Testing</b>	Manual and automated API testing, fix bugs, incorporate feedback.	Week 6
<b>Release &amp; Deployment</b>	Prepare production build, deploy using	Week 7

Phase	Tasks	Timeline (Example)
Monitoring & Maintenance	scripts/tools, set up monitoring. Monitor app performance, fix issues, optimize.	Ongoing

