

# ESI Progress Tracker

A Web-Based Knowledge Management Platform for Students and Professors

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**Course:** Knowledge Management

## 1. Introduction

At ESI, academic collaboration between students and professors often happens through informal communication or disconnected platforms. This makes it difficult to track progress, share knowledge, and manage academic outputs efficiently. The **ESI Progress Tracker** aims to address this by providing a centralized web-based platform where students can organize and upload their academic work, and professors can monitor progress, provide feedback, and manage their students' projects in a structured way.

## 2. Objectives

- Allow students to upload, organize, and manage their academic work.
- Enable professors to track and evaluate the progress of individual students or groups.
- Create a collaborative space that supports structured feedback and communication.
- Facilitate knowledge sharing, transparency, and institutional memory retention.

## 3. User Roles and Features

### Students:

- Upload project files, reports, or other academic materials.
- Track milestones and submission history.
- View professor feedback and status updates.

### Professors:

- Access dashboards showing assigned students or project groups.
- Review and comment on submissions.
- Monitor progress and performance using analytical tools.

## 4. Database Design

The system will include key tables for users, projects, uploads, and feedback. Example structure:

Table	Description
Students	Stores student info such as name, department, and credentials.
Professors	Holds professor profiles, departments, and login data.
Projects	Links students and professors; tracks progress and project details.
Uploads	Records uploaded files and related feedback.

## 5. Technological Stack

- **Frontend:** React.js + TailwindCSS
- **Backend:** FastAPI (Python) or Express.js (Node.js)
- **Database:** PostgreSQL or SQLite
- **Authentication:** JWT-based secure login system

- **Visualization:** Chart.js for progress and performance insights

## 6. Expected Outcome

The final product will be a functional prototype where each user (student or professor) can log in, perform their respective tasks, and interact with data meaningfully. The platform will demonstrate how digital knowledge management enhances collaboration, feedback, and academic productivity within ESI.

## 7. Conclusion

The **ESI Progress Tracker** project embodies the principles of Knowledge Management by centralizing, structuring, and enhancing the exchange of academic knowledge. It contributes to better organization, continuous learning, and more efficient academic supervision within ESI.