Statement of Work (SoW)

Project Title: Time Table Generator
Date: 04-02-2025

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1. Introduction

This Statement of Work (SOW) outlines the objectives, scope, deliverables, and responsibilities for the "A Website for Time Table Generation" project. The project aims to develop an online platform that enables users to generate optimized timetables based on specific constraints such as course schedules, faculty availability, and room allocation.

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2. Scope of Work

Project Description:

The project involves designing and developing a web-based application that automates timetable generation for educational institutions. The system will allow administrators to input course details, faculty schedules, and room availability, and the platform will generate an optimized timetable automatically.

Objectives:

- Develop a user-friendly web interface for timetable generation.
- Implement an intelligent algorithm to optimize scheduling based on constraints.
- Ensure role-based access for administrators, faculty, and students.
- Provide downloadable and printable timetable formats.
- Enable conflict detection and resolution in scheduling.

Key Activities:

- UI/UX design and prototyping.
- Backend development for automation and database management.
- Integration of scheduling algorithms.
- Testing and debugging.
- Deployment and maintenance.

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3. Deliverables

- Fully functional web-based timetable generation system.
- Admin dashboard for managing faculty, subjects, and schedules.
- Secure login and authentication system.
- Algorithm for timetable generation.
- User manual and project documentation.

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4. Timeline and Milestones

MILESTONE	DESCRIPTION	DUE DATE
Project Kickoff	Statement of Work	07-02-25
Phase -1	Software Requirements Specification	10-03-25
Phase - 2	Software Design Documentation	07-04-25
Testing	Software Testing	09-05-25
Final Delivery	Project Deployment & Demo	20-05-25

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5. Roles and Responsibilities

- **Team Members:**
  - Alasyam Likhith - SE22UCSE021 - Frontend & Backend
  - C Shanmukha - SE22UCSE061 - Deployment & DB Admin
  - Chakilam Kunal - SE22UCSE063 - Frontend & UI/UX
  - D Sathwik - SE22UCSE073 - Backend & UI/UX
  - G Sathvik - SE22UCSE103 - Backend & Deployment
  - K Karthik - SE22UCSE146 - Frontend & DB Admin

- **Client Contact:** Software Engineering Course, Mahindra University.

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7. Assumptions and Constraints

Assumptions:

- All required resources, including faculty schedules and course data, will be provided on time.
- Internet access and hosting services will be available for deployment.
- Users will have basic technical knowledge to operate the web application.
- The system will be used primarily by educational institutions and follow academic calendar constraints.

Constraints:

- The system must ensure real-time updates for timetable changes to avoid scheduling conflicts.
- The application must comply with institutional guidelines and data privacy regulations.
- The timetable must be optimized for minimal room conflicts and faculty overload.

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8. Technology Stack

- **Frontend:** React.js, HTML, CSS
- **Backend:** Node.js, Express.js
- **Database:** MongoDB
- **Authentication:** JWT, OAuth
- **Hosting:** AWS / GitHub
- **UI/UX:** Figma