Software Requirements Specification (SRS) Document

1. Introduction

1.1 Purpose

This document outlines the requirements for an AI-powered academic assistance system to simplify student and lecturer tasks, focusing on attendance automation, study management, and communication.

1.2 Scope

Key functionalities include:
- Face Recognition Attendance: Automated real-time tracking.
- Task Management: Assignment/exam reminders.
- AI Study Assistance: Summarization, Q&A, MCQs.
- Real-time Communication: Student-lecturer messaging.
- Integrated Dashboard: Centralized academic tools.

1.3 Audience & System Overview

Intended for developers, university admins, lecturers, and students. The system functions as a web and mobile platform with AI-driven automation.

2. System Overview

2.1 Features

- AI Attendance Tracking: Face recognition-based system.
- Task & Exam Management: Submission tracking & reminders.
- AI Learning Tools: Summaries, MCQs, interactive Q&A.
- Dashboard & Notifications: Unified schedules and deadlines.

2.2 Users

- Students: Track attendance, assignments, and schedules.
- Lecturers: Simplify attendance and student tracking.
- Admins: Monitor academic analytics and insights.

3. Functional Requirements

3.1 Attendance System

- Face recognition-based marking.
- Attendance logs accessible by lecturers and students.
- University database integration.

3.2 Task & Exam Management

- Automated deadline reminders.
- Assignment submission & grading.

3.3 AI Study Assistance

- Content summarization.
- AI-generated MCQs & answers.

3.4 Dashboard & Alerts

- Centralized schedule tracking.
- Real-time push notifications.

4. Non-Functional Requirements

4.1 Performance

- Attendance recognition within 2 seconds.
- Summarization within 5 seconds.

4.2 Security

- Encrypted user data.
- Role-based authentication.

4.3 Usability

- User-friendly mobile & web interfaces.
- Accessibility support.

5. System Models

- Use Case Diagrams: User interactions.
- Data Flow Diagrams: System data movement.
- Sequence Diagrams: User-system interactions.

6. Conclusion

This SRS outlines an AI-driven solution to automate attendance, streamline study management, and enhance communication, improving academic efficiency through smart automation.