**Software Requirements Document (SRD)**

Project Title: PREPILY

**Date: 10th Oct - 10th Dec**

**1. Introduction**

**1.1 Purpose**

The purpose of this project is to develop a mobile application for teachers and students to create and manage courses, chat, and participate in video calls. The application will feature authentication, course creation, an AI chatbot for student assistance, and quiz-based rewards. This SRD outlines the major features and functionalities for the application.

**1.2 Scope**

The app will provide separate portals for teachers, students, and admins. It will allow teachers to create and manage courses, students to purchase and learn from them, and admins to verify or remove teachers.

**2. Functional Requirements**

**2.1 Teacher Portal**

* **Authentication/Signup:** Teachers can create accounts and sign in to the app.
* **Create Course:** Teachers can create a course by providing:
  + Title
  + Description
  + Course Image
  + Course Price
  + Upload video lectures, course notes, and quizzes.
* **Manage Courses:** Teachers can:
  + View their courses.
  + Delete a course.
  + See all available courses.
* **Communication:**
  + Chat with students.
  + Video calling with students (one-to-one).

**2.2 Admin Portal**

* **Verify/Delete Teachers:** Admins can verify or delete teacher accounts based on the credentials or content of the courses.

**2.3 Student Portal**

* **Authentication/Signup:** Students can create accounts and sign in.
* **Browse Courses:** Students can view multiple courses on the home screen, including:
  + Notes
  + Quizzes
  + Video Lectures
* **Buy Courses:** Students can purchase courses.
* **Learning Features:**
  + View course notes and quizzes.
  + Watch video lectures.
  + Rate courses.
* **Communication:**
  + Chat with other students and teachers.
  + Video calling with teachers and students (one-to-one).
* **Rewards:**
  + Earn rewards by scoring 90% or above (10% discount on paid courses).
* **AI Chatbot:** Integrated chatbot for student assistance.

**3. Non-Functional Requirements**

**3.1 Performance Requirements**

* The app should load within 7 seconds on a standard mobile device.
* Chat and video call services should have low latency (max delay of 5 second).

**3.2 Security Requirements**

* Authentication must follow best practices (OAuth 2.0).

**3.3 Usability**

* The app should be easy to navigate for both students and teachers.
* Courses should be accessible in 4 clicks or fewer.

**4. Tools & Technologies**

* **Frontend:** Flutter
* **Backend:** Node.js
* **AI for Chatbot:** AI integration (Llama 3.2) for chatbot features.
* **Database:** MongoDB and Firebase for data storage.

**5. Resource Requirements**

* **Courses:** 5 categories, each containing 4 courses with:
  + Video lectures
  + Notes
  + Quizzes
* **Design:** App logo and icon.
* **Communication Services:** Video call and chat integration.

**6. Timeline**

* **Project Duration:** 10th October - 10th December