



**Web Programming Project Proposal**  
**Software Engineering Online Meeting and Learning Platform**

**01286233 Web Programming**  
**Software Engineering Program**

By

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# Web Programming Project Proposal

## Software Engineering Online Meeting and Learning Platform

A comprehensive web-based tool called the "Software Engineering Online Meeting and Learning Platform" was created to encourage education and teamwork in the software engineering industry. Meeting rooms, room availability management, user authentication, homework submission, and user customization are just a few of the features that this platform will provide to meet the needs of both teachers and students. This web application uses a web socket to communicate throughout the meeting. FastAPI server on python to fetch user authentication data. Uses ZODB database to store website data and user information.

### Objectives

- **Facilitate Online Meetings:** Provide an intuitive and secure platform for hosting online meetings and webinars for students and teachers. Everyone who is KMITL Software Engineering teacher/students can have their own instant meeting and be able to share their meeting link.
- **Room Availability Management:** Implement a system to manage the availability of virtual meeting rooms, ensuring user-friendly interface. Students can see their own subjects meeting created by the teacher.
- **User Authentication:** Enable students and teachers to securely log in and access personalized features.
- **Homework Submissions:** Create a platform for students to submit homework assignments and for teachers to review and grade them.
- **User Customization:** Develop user profiles with customizable settings, allowing users to tailor their experience.
- **Meeting Customization:** Allow meeting hosts to customize settings like room name.

### Key Features

#### Meeting Rooms

- Create and manage virtual meeting rooms.
- Real-time video conferencing.
- Owner can customize room name, description.

#### Room Availability

- Check room availability in real-time.
- Join their preferred room in real-time.

#### Basic Online meeting controls

- Microphone: User able to mute and unmute themselves.
- Camera: User can choose to open their camera or not.
- Hand raise: User can raise their hand during meeting to ask/answer question.

#### Audio Devices selection

- Allow users to manage their input and output devices.

#### User Authentication

- Secure login for students and teachers.
- User profiles with role-based access.
- Password recovery and account management.

#### Homework Submissions

- Upload and submit homework assignments.
- File management for students and teachers.
- Grading and feedback mechanisms.

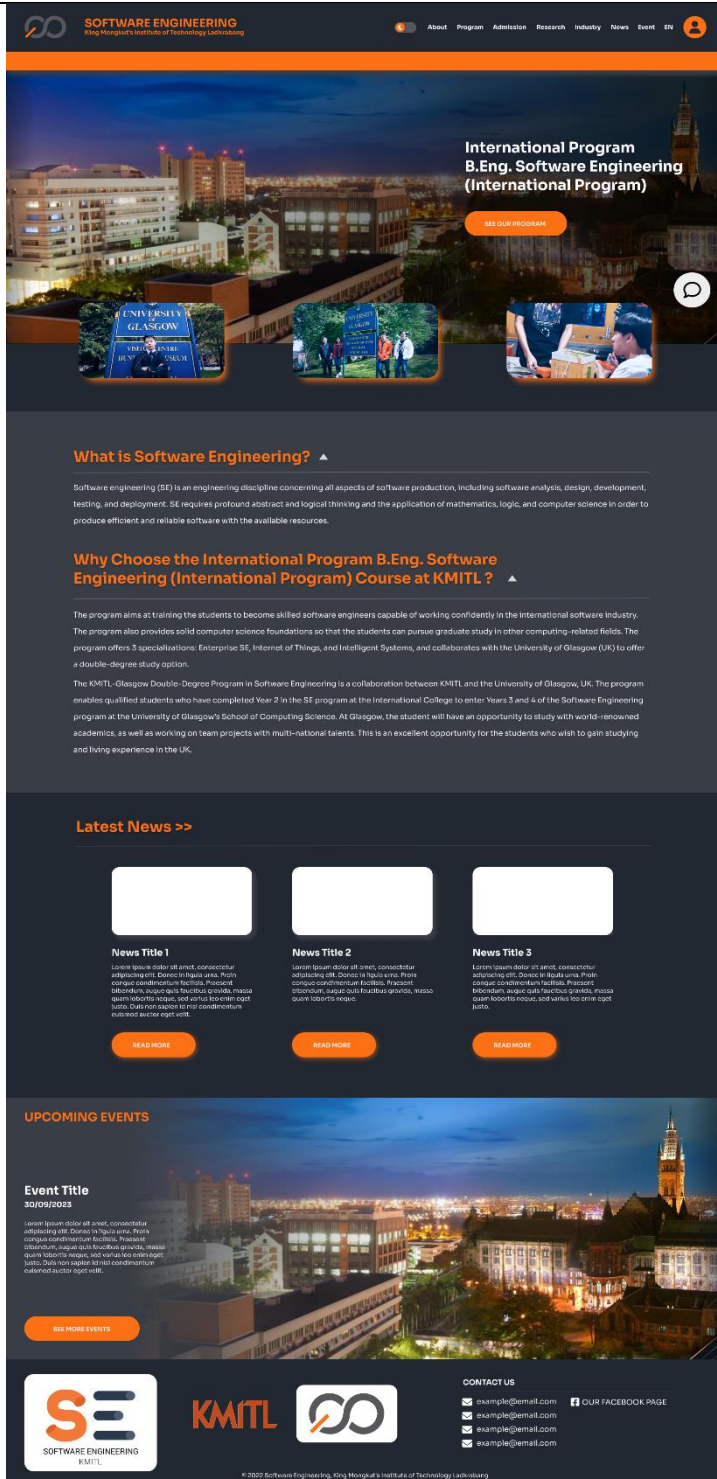
#### User Customization

- Customize user profiles with personal information.
- Tailor the user experience to individual preferences.

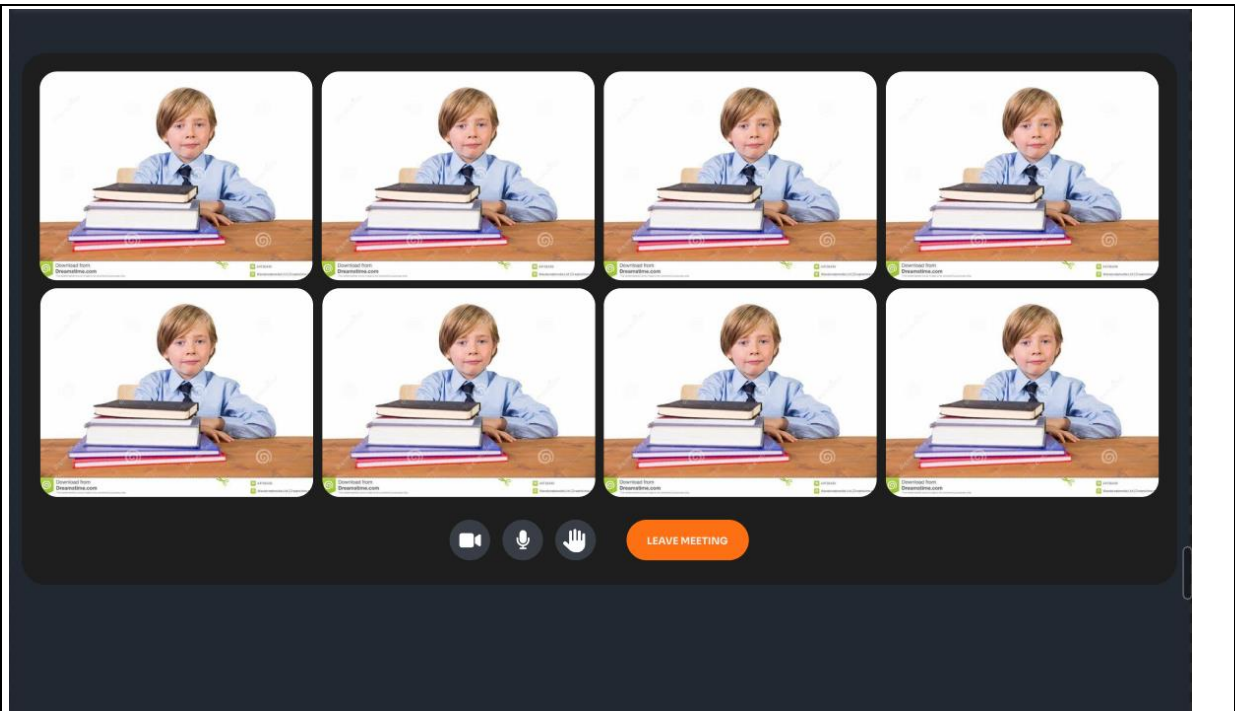
#### Security and Privacy

- End-to-end encryption for private meetings.
- Reporting and moderation features for maintaining a safe environment.

**Draft Design of Web Pages of your Web Application (at least three screens)**



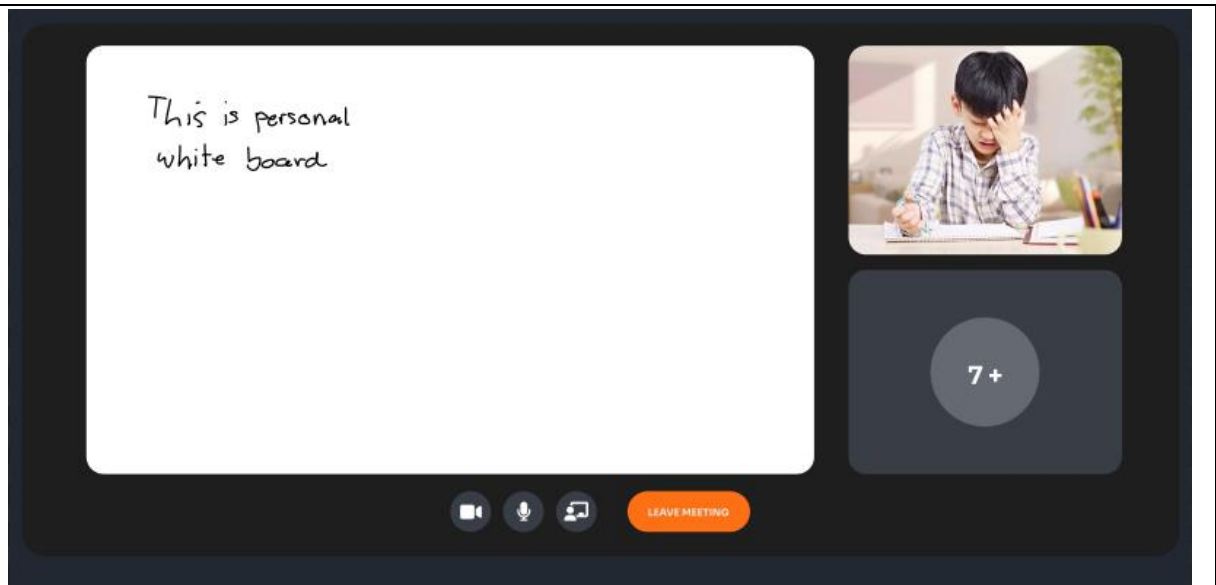
Screen1



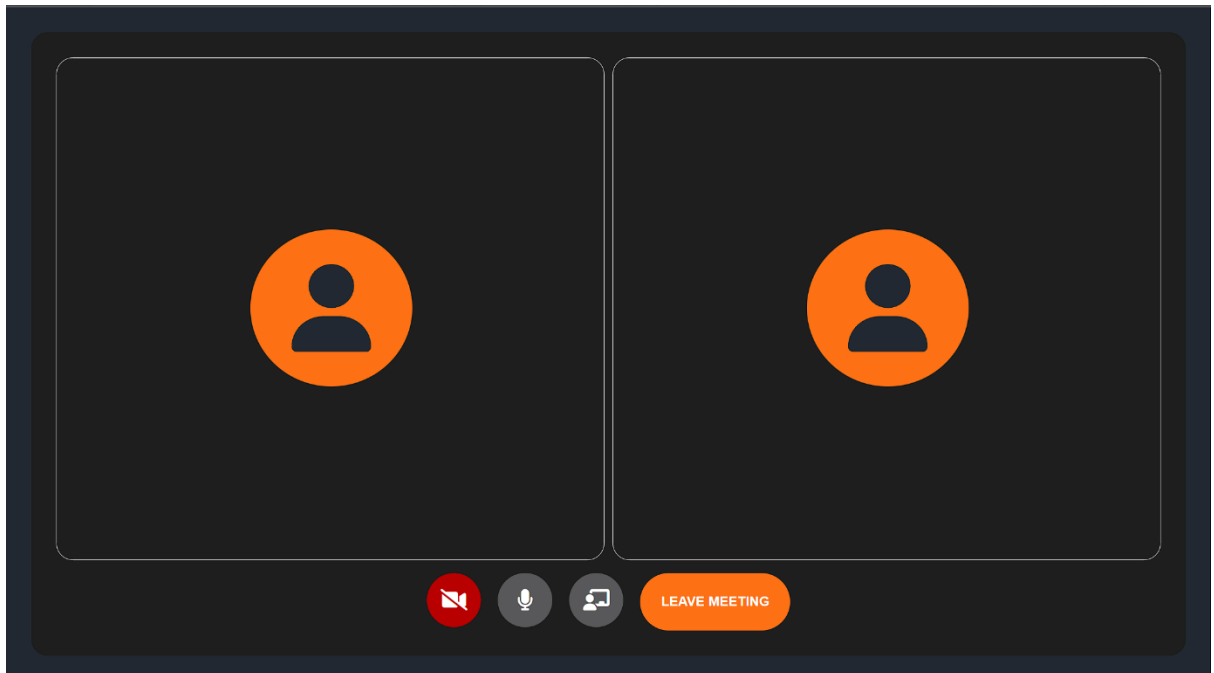
Screen2



Screen 3




Screen 4





Screen 5



Screen 6


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ROOMS AVAILABLE





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Screen 7