**Proposal Title:** Online Class Mobile Application Project

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### **Introduction:**

The proposal for the "Online Class" mobile application seeks to address the evolving landscape of education in the digital age. Did you know that by 2025, mobile internet usage is projected to surpass traditional desktop usage globally? The annual growth in the use of mobile devices has been steadily increasing each year [1]. the demand for innovative mobile applications has never been more urgent. Traditional online education platforms often struggle to provide engaging and interactive learning experiences, especially amidst the challenges posed by the COVID-19 pandemic [2].

To bridge this gap, the "Online Class" application aims to revolutionize online learning by offering a dynamic and immersive platform that prioritizes student engagement, fosters collaboration, and supports personalized learning experiences. Leveraging cutting-edge technologies, the app seeks to create immersive, collaborative learning environments that empower learners to thrive irrespective of geographical barriers or time constraints [3].

The purpose of the project is to develop a mobile application that redefines online education by providing a dynamic and interactive learning environment for both students and teachers. Through features such as real-time collaboration tools, multimedia content delivery, and automated assessment systems, the app aims to enhance accessibility, engagement, and learning outcomes in virtual classrooms.

The scope of the project includes the design, development, testing, and deployment of a comprehensive mobile application for online class management. Key features such as content management, quizzes, progress tracking, and reporting will be meticulously implemented to ensure a seamless solution for virtual education.

In subsequent sections, the proposal will delve into the problem statement, objectives, scope, requirements, mock-up design specifications, and conclusion, providing a comprehensive overview of the proposed solution. Through careful analysis of challenges faced by current online learning platforms and clear objective setting, the proposal aims to deliver a robust and user-friendly platform that enhances the teaching and learning experience for all users.

### **Problem statement:**

In online education, students and instructors face critical challenges hindering the effectiveness and accessibility of learning platforms. These include:

#### 1. Lack of Information on Teachers:

- Difficulty accessing comprehensive information about instructors, leading to uninformed decisions about educators.
- Solution: Implement a comprehensive teacher profile system in the 'Online Class' app, enabling instructors to provide detailed backgrounds, expertise, and qualifications, fostering transparency and trust.

### 2. Absence of Tests or Quizzes:

- Lack of assessments after lessons deprives students of essential feedback on comprehension and progress.
- Solution: Integrate built-in assessment features for instructors to create and administer tests or quizzes, enabling immediate feedback and enhancing student engagement.

#### 3. Lack of a Comprehensive Application:

- Fragmentation of learning resources across various platforms creates inefficiencies and barriers to accessing educational materials.
- Solution: Develop the 'Online Class' app as a comprehensive platform catering to students across diverse fields, offering content repositories and collaboration tools for a holistic learning experience.

#### 4. Absence of Grade Visibility:

- Inability to access grades at the end of courses leaves students uninformed about their performance and progress.
- Solution: Establish a centralized grade tracking and reporting system in the 'Online Class' app, allowing students to view detailed breakdowns of assessments and assignments, facilitating effective monitoring of academic achievements.

# **Aims and Objectives:**

The aim of the 'Online Class' mobile application project is to revolutionize online education by enhancing accessibility, engagement, and learning outcomes in virtual classrooms. The project's specific objectives are as follows:

#### 1. Enhance Transparency and Trust:

• Develop a comprehensive teacher profile system to empower students in making informed decisions about educators, fostering transparency and trust.

#### 2. Facilitate Continuous Assessment:

• Integrate a built-in assessment feature for immediate feedback on performance, enabling students to track progress and enhance learning engagement.

#### 3. Streamline Access to Educational Resources:

• Develop a comprehensive platform catering to diverse fields of study, providing centralized access to content repositories and collaboration tools for enhanced efficiency and accessibility.

### 4. Empower Students with Grade Visibility:

• Create a centralized grade tracking system for students to monitor academic progress, make informed decisions, and track achievements effectively.

By achieving these objectives, the 'Online Class' app aims to redefine the online education experience, empowering both students and instructors to thrive in the digital age.

# **Scope of the Project:**

The scope of the project involves designing, developing, testing, and deploying the 'Online Class' mobile application. It includes key features such as a comprehensive platform for remote learning, allowing teachers to upload educational materials like presentations, documents, videos, and quizzes for assessing student understanding. Students can access these materials, participate in quizzes, and view teacher profiles. The application aims to cater to the needs of both students and instructors by providing a user-friendly interface and seamless integration with existing learning management systems.

#### **Features & Functionalities:**

- 1. User Registration and Profile Management: Users can create accounts and manage their profiles with personal information and preferences. and when create the profile can login or logout any time.
- 2. Content Upload: Teachers can create lessons, upload and can delete update presentations, documents, videos, and voice recordings for student.
- 3. Quizzes: Teachers can create and share quizzes with students, with real-time feedback and grading.
- 4. Teacher Profiles: Students can view teacher profiles to learn more about their qualifications and expertise.
- 5. Quiz Results: Students can view their quiz scores and overall performance metrics.
- 6. Search Functionality: Students can search for specific educational materials or quizzes.
- 7. Notification System: Push notifications for new content uploads and upcoming quizzes.

#### **Deliverables:**

- Complete mobile app for both iOS and Android platforms.
- Backend API documentation for future maintenance and updates.
- Source code with detailed comments for easy understanding and modification.
- User manual for teachers and students on app usage and features.

#### **Milestones & Timelines:**

- proposal, Initial mockups and designs: 2 weeks.
- Development of core features: 8 weeks.
- Testing phase: 2 weeks.
- Final launch: 12 weeks from project initiation.

# **Requirements:**

Functional requirements include user authentication, content management, assessment tools, communication channels, progress tracking, and reporting. Non-functional requirements encompass performance, security, scalability, usability, and compatibility. Integration requirements involve interoperability with existing learning management systems and third-party services.

#### **Hardware:**

• Laptop or desktop computer for development purposes and smart phone to run the application on it.

#### Software:

- Visual Studio Code (IDE)
- Platforms: iOS and Android.
- Frontend: Flutter SDK for cross-platform development.
- Various plugins and dependencies for Flutter development
- Backend: Dart with Firebase for real-time database and authentication.
- Third-party Integrations: Firebase for real-time database, storage, and authentication.

# **Mock-up Design Specifications:**

Before delving into the detailed designs of the 'Online Class' mobile application, it is essential to present an overview of the mockups. Mockups serve as visual representations of the app's interface, allowing stakeholders to visualize its layout, features, and functionality.

In this section, we provide a brief introduction to the mockups, highlighting key aspects of the app's design and user interface. The following mockups illustrate various screens and functionalities of the 'Online Class' app, including user registration, content browsing and quiz participation.

Please note that the mockups are preliminary representations and may undergo further refinement during the development process based on feedback and usability testing.

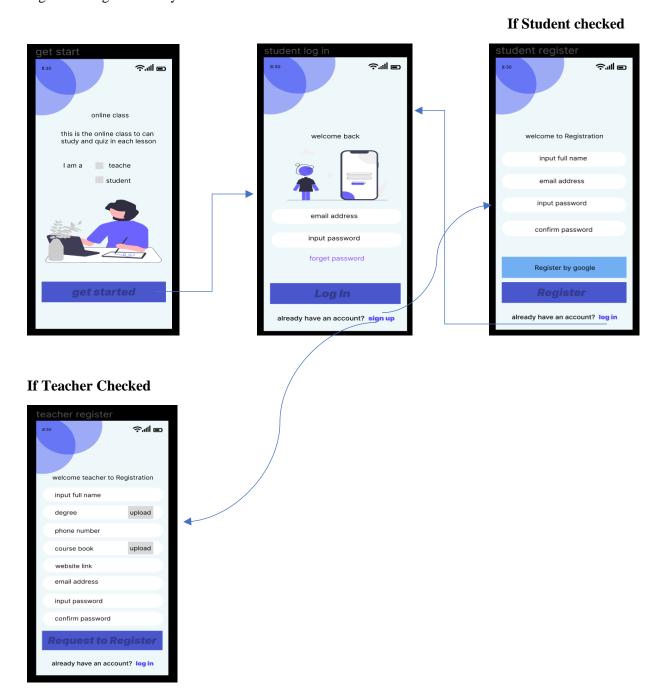
For this application we have three deferent types of users, visibility and activities:

- 1. Admin
- 2. Teacher
- 3. Student

# **Mockup Designs:**

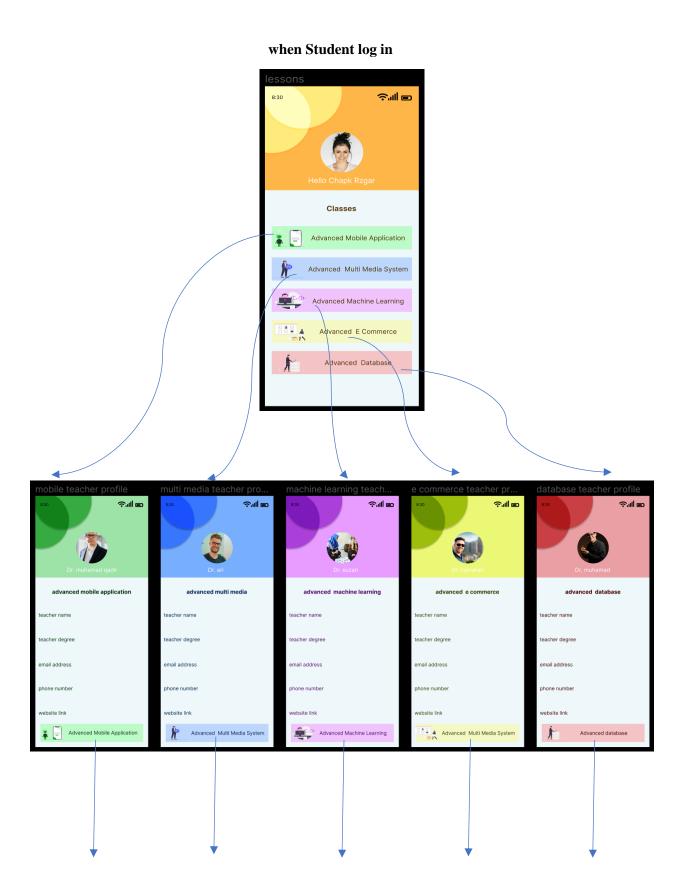
### 1. User Registration:

When user install and open the mobile application first see that screens must choose student or teacher to register or log in to the system.

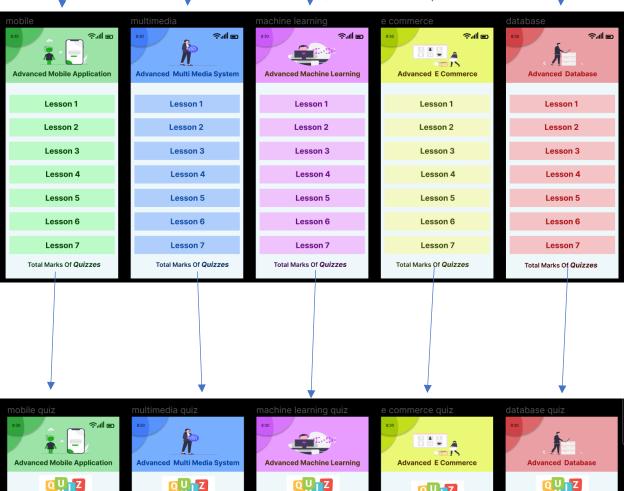


### 2. Dashboard and Profile Viewing:

for student can choose with course include in the Application, and see the profile of teachers.



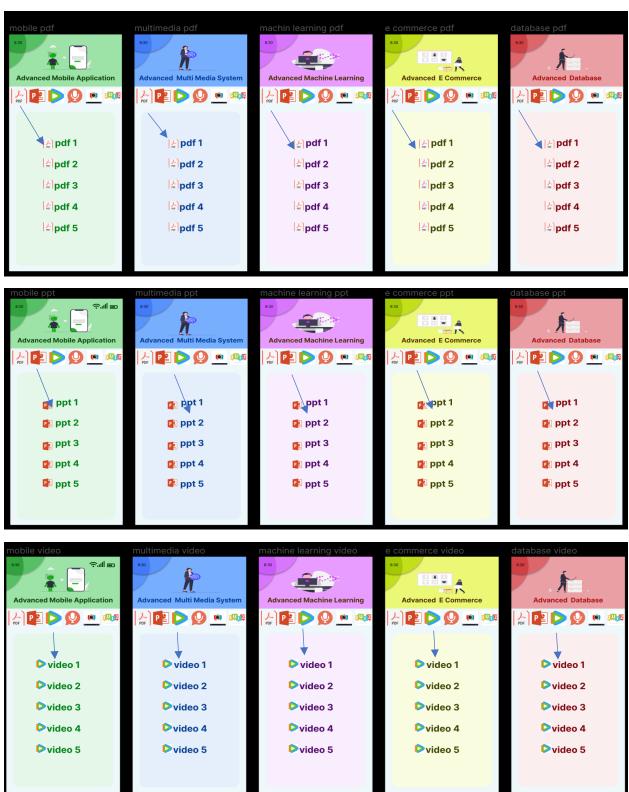
#### Each class has some lessons and student can see all quizzes marks

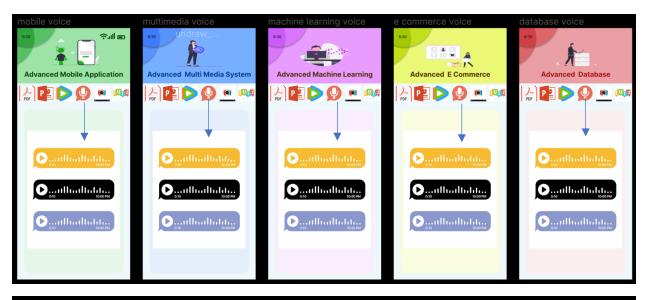




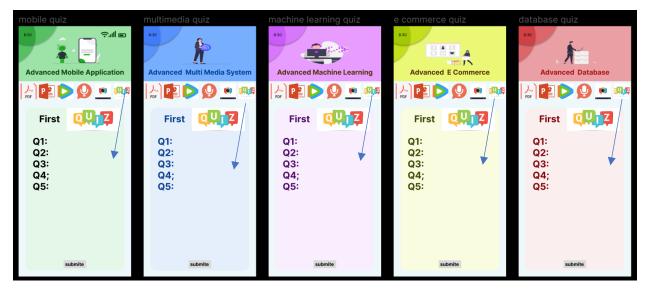
#### **3. Course Content:**

If select each lesson can see pdf, ppt, audio, video, image files and do quiz for each lesson.



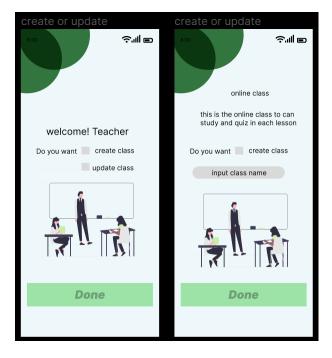






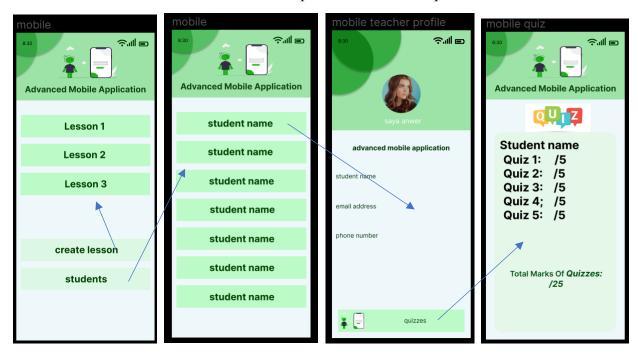
#### 4. Dashboard to Teacher

Teacher can check witch one want to do create class or update class



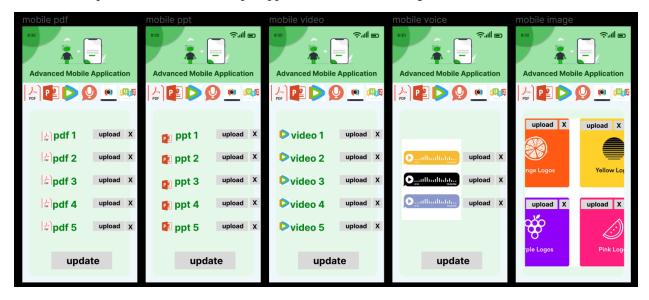
### **5. Profile Viewing and Quiz Results:**

Teacher can create lessons and can see students' profiles and students' quizzes.



#### **6. Course Content:**

Teacher can update or delete or create pdf, ppt, audio, video and image.



### 7. Quiz Section:

Teacher can create quiz for each lessons can choose type of each questions.



The mockups presented above provide a glimpse into the anticipated user experience and interface of the 'Online Class' mobile application. As development progresses, further iterations and refinements will be made to ensure a seamless and intuitive user experience for both students and teachers.

# **Conclusion:**

In conclusion, the development of the 'Online Class' mobile application represents a significant step towards enhancing online education and empowering learners to succeed in today's digital age. By addressing the challenges faced by current online learning platforms and leveraging the power of mobile technology, we have the opportunity to redefine the future of education and unlock the potential of online learning with 'Online Class.'

This proposal sets the stage for the development of a smart, efficient, and academically sound solution that promises to revolutionize the online education landscape.

### **References:**

- 1. Tangirov, K. and F.J.M.E.S.-M.J. Murodov, *ASPECTS OF USING MOBILE EDUCATION IN THE EDUCATION SYSTEM*. 2023. **4**(05): p. 186-193.
- 2. Aguilera-Hermida, A.P.J.I.j.o.e.r.o., College students' use and acceptance of emergency online learning due to COVID-19. 2020. 1: p. 100011.
- 3. Chen, J.C., et al., *Mobile Applications to Measure Students' Engagement in Learning*. 2022. **13**.