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**Date : 09/24/2023**

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**University Name : Boston University**

**Github link :-** [**https://github.com/CS683/lab1-aayushr21**](https://github.com/CS683/lab1-aayushr21)

**Project Proposal :**

**Texting App**

**Introduction :**

* This project aims to develop a feature-rich texting app for Android, using the Kotlin programming language and Firebase for real-time communication and data storage.
* This app will mainly focus for a User-friendly interface, efficient, and secure messaging platform for Android users.

**Objectives :**

* Create a user-friendly and intuitive texting app for Android devices.
* Implement real-time chat functionality using Firebase Realtime Database.
* Ensure end-to-end encryption for secure messaging.
* Provide features such as multimedia sharing (images, videos), push notifications, and user authentication.
* Optimize the app for performance and responsiveness.

**Methods :**

* Developing the app's user interface (UI) using the latest design principles and guidelines.
* Integrating Firebase for real-time chat and data storage.
* Implementing end-to-end encryption using industry-standard protocols.
* Conduct usability testing to ensure user-friendliness.

**Project Timeline :**

* UI Design and Firebase Setup – 09/23/2023 to 30/23/2023
* Real-time Chat Implementation – 10/01/2023 to 10/07/2023
* Security and Multimedia Features – 10/08/2023 to 10/15/2023
* Testing and Optimization – 10/16/2023 to 10/23/2023
* Finalization and Documentation – 10/24/2023 to 10/31/2023

**Resources to be used :**

* Android development environment (Android Studio).
* Kotlin programming expertise.
* Firebase account and API access.
* Test devices/Emulators.
* Firebase expenses (if applicable).

**References :**

* <https://developer.android.com/kotlin>
* <https://www.pluralsight.com/paths/android-development-with-kotlin-fundamentals>
* <https://firebase.google.com/>
* <https://frontendmasters.com/courses/firebase/>

**Conclusion :**

This project proposal Summarises the development of a texting app for Android using Kotlin and Firebase. It focuses on a modern and secure messaging platform on the Android platform, and upon completion, it will provide a valuable resource for users.