Project Design Phase-I
Proposed Solution Template

Date	20 October 2023
Team ID	590913
Project Name	ChatConnect - A Real-Time Chat and Communication App
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	In an era where digital communication has become a staple of everyday life, the need for secure, private, and scalable messaging platforms remains paramount. Current messaging applications often compromise user privacy and data security. Moreover, data retention and limited cross-platform compatibility hinder seamless communication.

2.	Idea / Solution description	Develop an application that seeks to address these challenges by providing a messaging application that prioritizes end-to-end encryption to ensure user data remains private and secure, offering a seamless, cross-platform experience, eliminating the restrictions posed by platform-specific applications.
3.	Novelty / Uniqueness	Implementing RSA asymmetric encryption with keys generated on the client side, as opposed to the server side, ensures more secure and private conversations. Additionally, promptly deleting messages from the server as soon as they are delivered to their intended recipients guarantees that users are the sole owners of their personal conversations.
4.	Social Impact / Customer Satisfaction	The utilization of RSA asymmetric encryption with client-side key generation and the immediate deletion of messages from the server upon delivery is poised to have a profound social impact and enhance customer satisfaction. This approach places paramount importance on user privacy and data security, fostering heightened trust in the app. Users can confidently engage in private and sensitive conversations, knowing they retain ownership and control over their personal exchanges. Moreover, the reduced data retention period

		on the server minimizes the risk of data breaches, a pivotal factor in today's cybersecurity landscape.
5.	Business Model (Revenue Model)	The core business revolves around displaying targeted ads to users of our app. Ensuring that the advertisements are non-intrusive and relevant to users' interests to maintain a positive user experience.
6.	Scalability of the Solution	The scalability of our messaging app is inherent from a technological perspective. It's designed to efficiently accommodate growing user volumes, adapt to evolving communication needs, and seamlessly integrate with existing and future technologies, ensuring its effectiveness as a scalable solution.