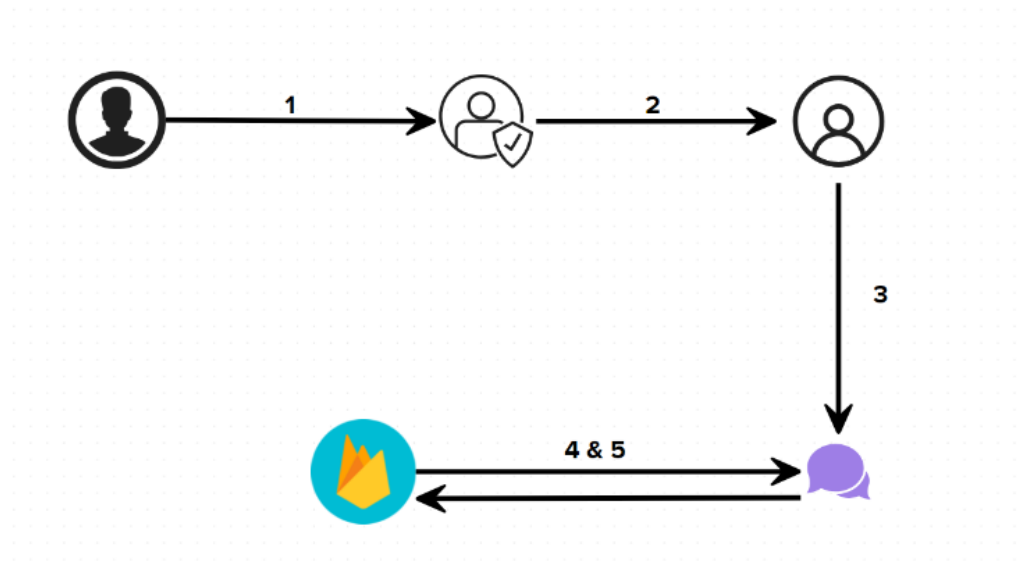


Project Design Phase-II Technology Stack (Architecture & Stack)

| | |
|---------------|--|
| Date | 24 October 2023 |
| Team ID | Team-591016 |
| Project Name | ChatConnect - A Real-Time Chat and Communication App |
| Maximum Marks | 4 Marks |

Technical Architecture:



1. User Login & Two Factor Authentication Using Smartphone Generated One Time Password.
2. Profile Setup.
3. Now users can send messages to another user.
4. The message is stored in the firebase database.
5. The message is stored in the database until the other user receives the message.

Table-1 : Components & Technologies:

| S.No | Component | Description | Technology |
|------|---------------------------------|---|-----------------------------|
| 1. | User Interface | How user interacts with application | Kotlin Android Studio |
| 2. | Application Logic-1 | Logic for a process in the application | Kotlin |
| 3. | Application Logic-2 | Logic for a process in the application | Android compose UI tool kit |
| 4. | Database | Data Type, Configurations etc. | Shared Preferences |
| 5. | Cloud Database | Database Service on Cloud | Firebase |
| 6. | File Storage | File storage requirements | Local Filesystem |
| 7. | External API-1 | Purpose of External API used in the application | Firebase |
| 10. | Application | Purpose of Machine Learning Model | Real time messaging |
| 11. | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration : | Firebase, Local |

Table-2: Application Characteristics:

| S.No | Characteristics | Description | Technology |
|------|--------------------------|--|--|
| 1. | Open-Source Frameworks | List the open-source frameworks used | Firebase for backend, Kotlin in Android Studio, utilize open-source frameworks for efficient development, enhance user experience. |
| 2. | Security Implementations | List all the security / access controls implemented, use of firewalls etc. | Use Firebase Authentication, Realtime Database, and Cloud Functions with Kotlin to ensure secure real-time chat app communication in Android Studio. |

