Name: Avijit Sarker Tonmoy

Id: 19-39983-1

Database schema:

User table:

userid: string

name: string

password: varchar

emailaddress: varchar

Chat table:

Id : string

Name : string

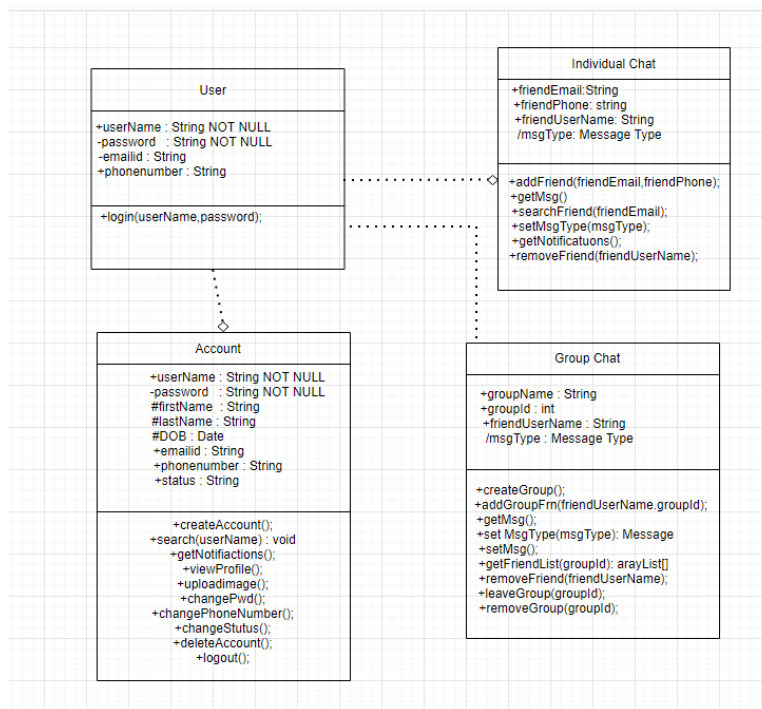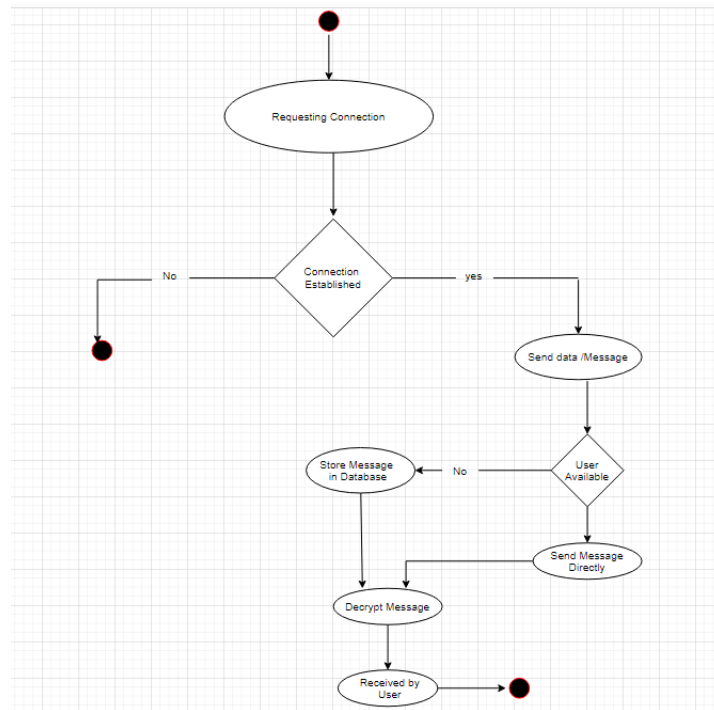# Messages table:

Message id : string
User id : string
Message : varchar

Class diagram

Activity Diagram:

```
                              ●
                              │
                              ▼
                    ╭─────────────────╮
                    │ Requesting Connection │
                    ╰─────────────────╯
                              │
                              ▼
                         ╱╲
         No            ╱    ╲
    ◄──────────────  ╱ Connection ╲   yes
    │               ╲ Established ╱  ─────────┐
    ▼                ╲    ╱                    │
    ●                 ╲╱                       ▼
                                      ╭───────────────╮
                                      │ Send data /Message │
                                      ╰───────────────╯
                                               │
                                               ▼
        ╭──────────────╮      No          ╱╲
        │ Store Message  │  ◄──────────  ╱    ╲
        │ in Database    │              ╱  User  ╲
        ╰──────────────╯              ╲ Available ╱
                │                       ╲    ╱
                │                        ╲╱
                │                         │
                │                         ▼
                │               ╭───────────────╮
                │               │ Send Message   │
                │               │ Directly       │
                │               ╰───────────────╯
                ▼                    │
        ╭──────────────╮  ◄─────────┘
        │ Decrypt Message │
        ╰──────────────╯
                │
                ▼
        ╭──────────────╮
        │ Received by    │  ──────►  ●
        │ User           │
        ╰──────────────╯
```

UI MockUp