1   SYSTEM DESIGN
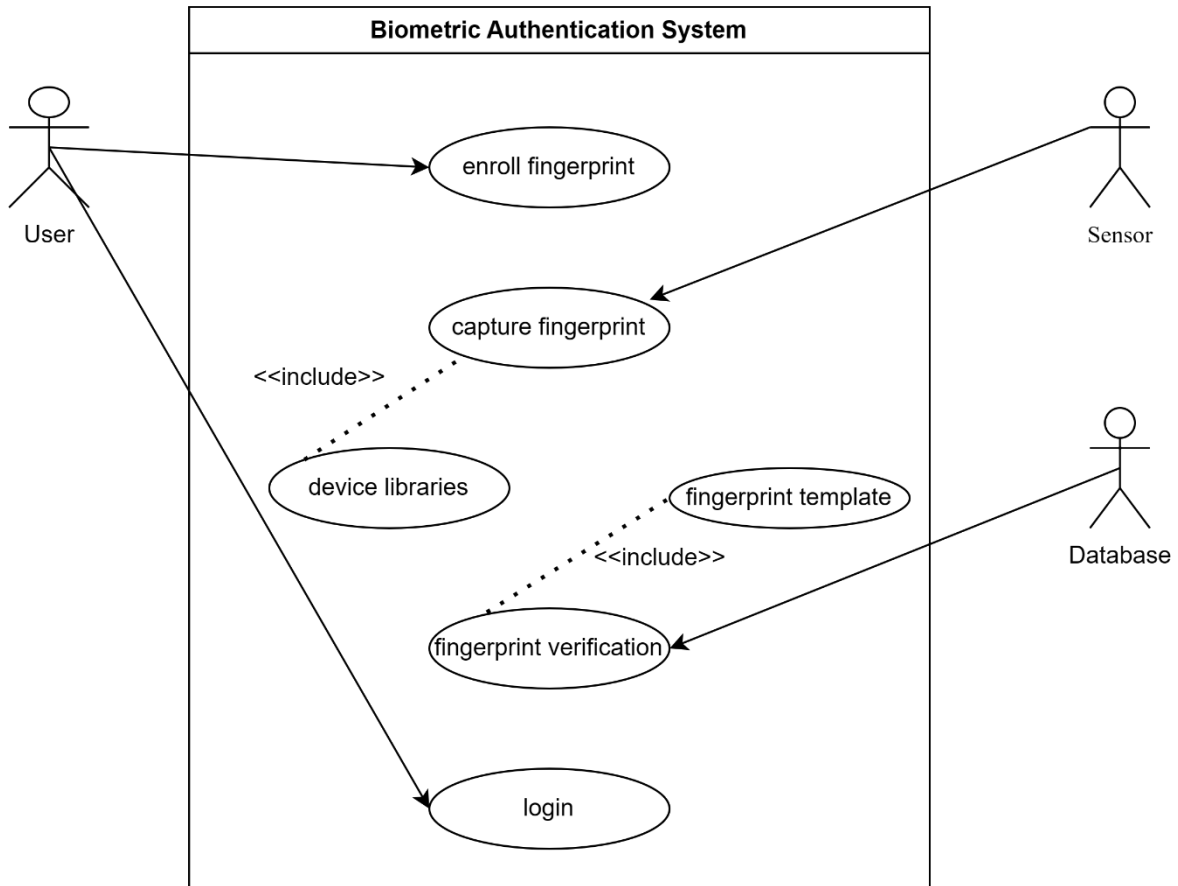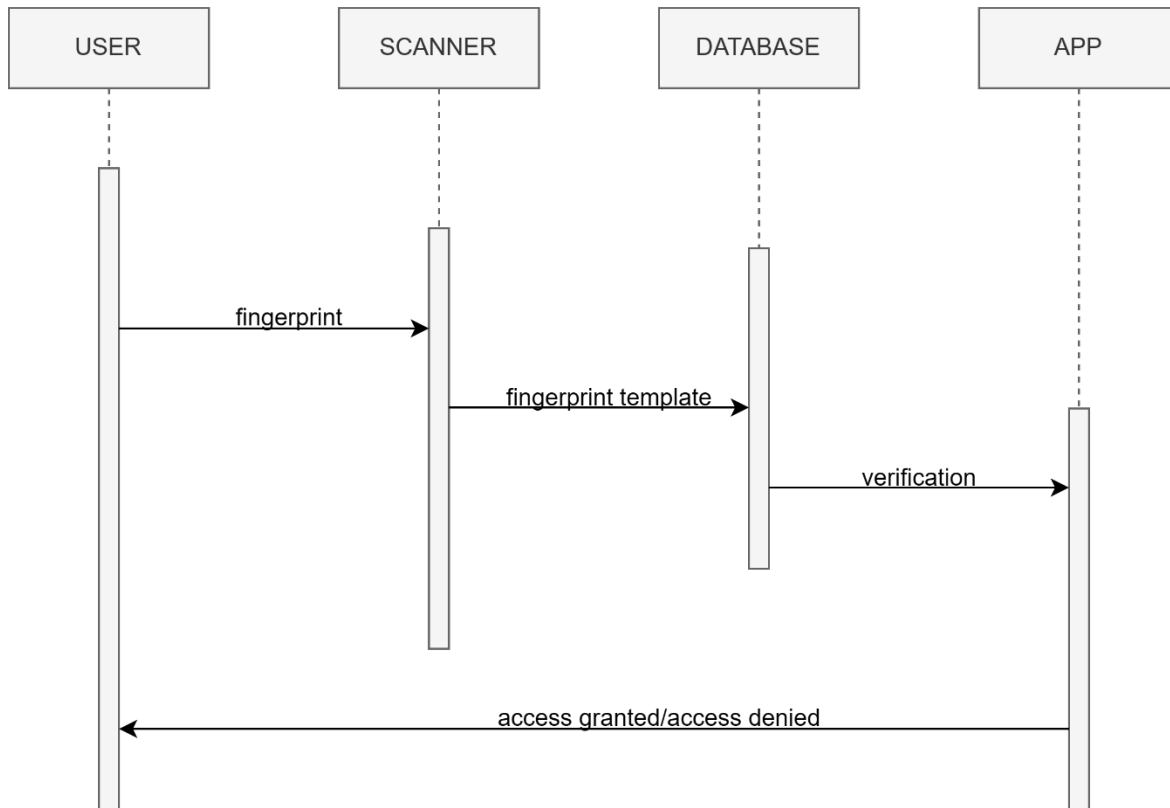
General

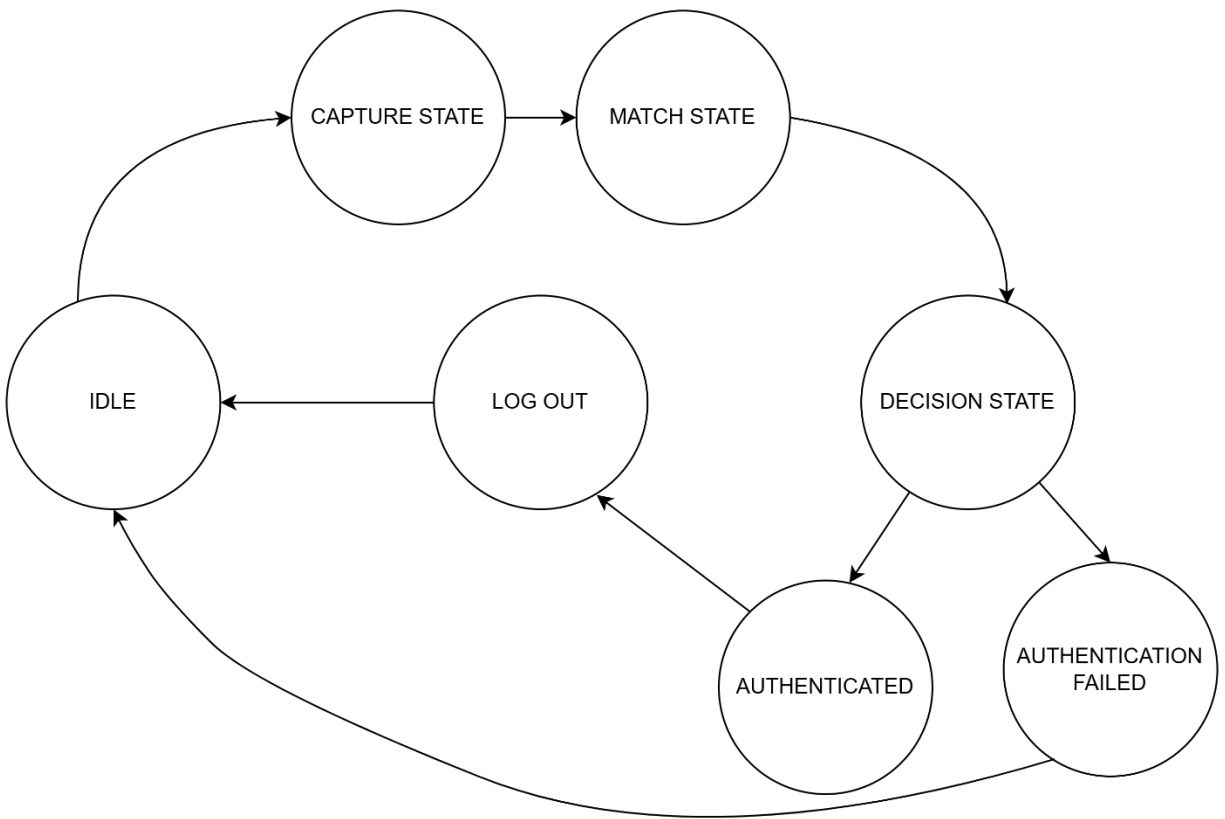## 1.1   UseCase diagram

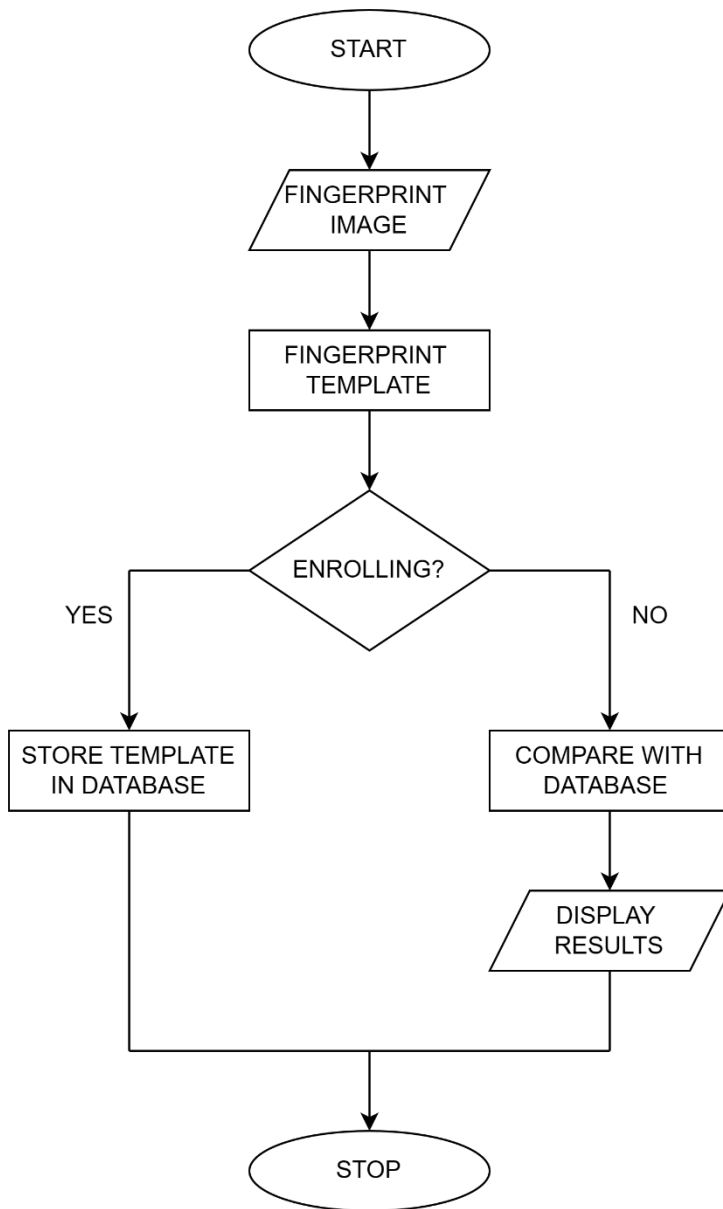## 1.2 Sequence Diagram

1.3   Finite State Machine Diagrams

```
    ┌──────────────┐      ┌──────────────┐
    │ CAPTURE STATE│ ───▶ │ MATCH STATE  │
    └──────────────┘      └──────────────┘
           ▲                      │
           │                      ▼
    ┌──────┐   ┌─────────┐   ┌──────────────┐
    │ IDLE │◀──│ LOG OUT │   │DECISION STATE│
    └──────┘   └─────────┘   └──────────────┘
       ▲            ▲            │        │
       │            │            ▼        ▼
       │      ┌─────────────┐  ┌──────────────┐
       │      │AUTHENTICATED│  │AUTHENTICATION│
       │      └─────────────┘  │   FAILED     │
       └────────────────────── └──────────────┘
```

CAPTURE STATE → MATCH STATE → DECISION STATE → AUTHENTICATED → LOG OUT → IDLE → CAPTURE STATE; DECISION STATE → AUTHENTICATION FAILED → IDLE

1.4   Flowcharts

START

FINGERPRINT IMAGE

FINGERPRINT TEMPLATE

ENROLLING?

YES

NO

STORE TEMPLATE IN DATABASE

COMPARE WITH DATABASE

DISPLAY RESULTS

STOP

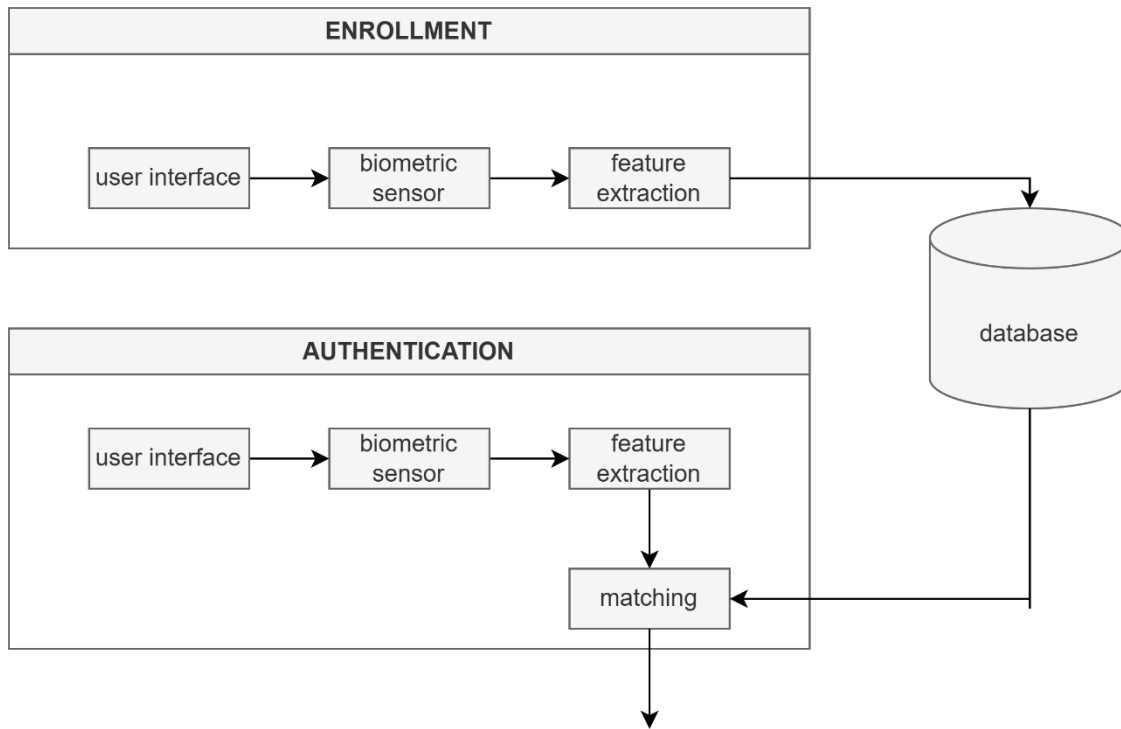## 1.5   Systems Architecture
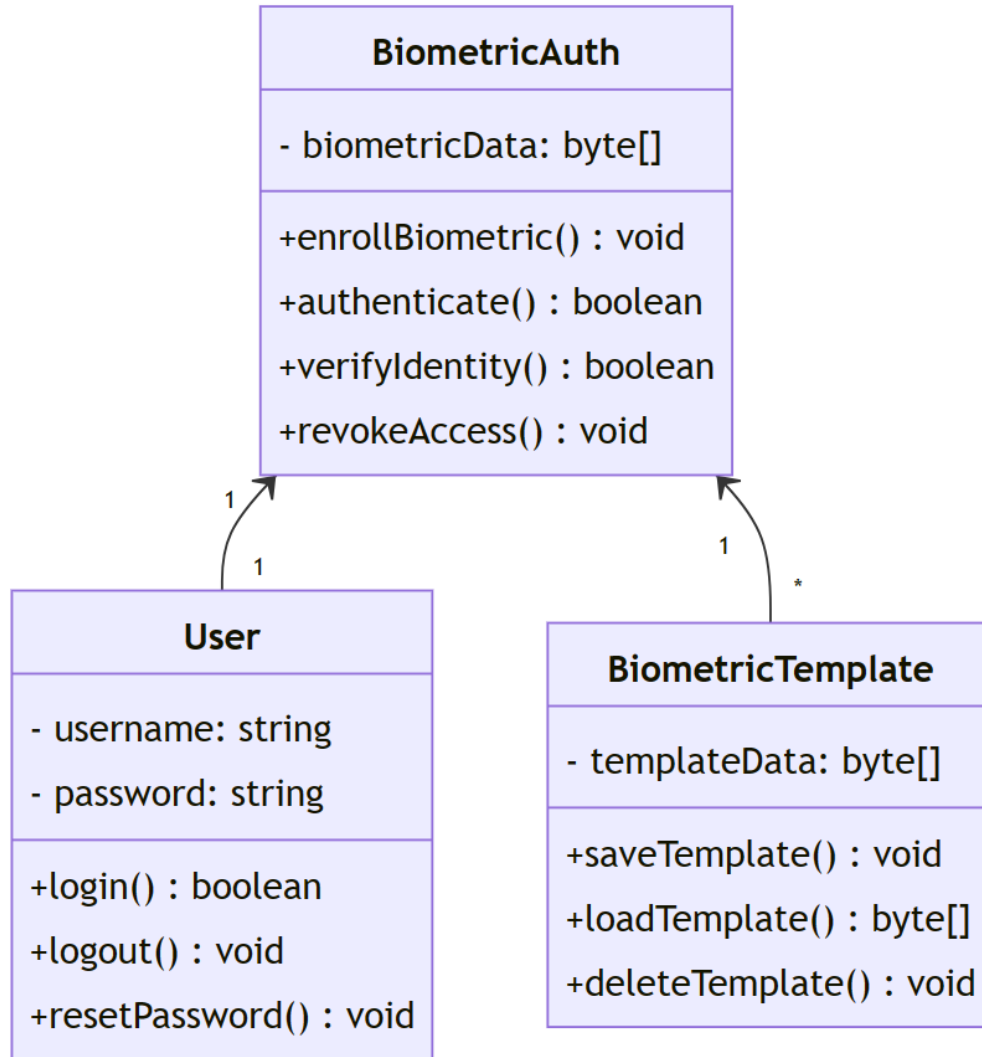
System/Application based

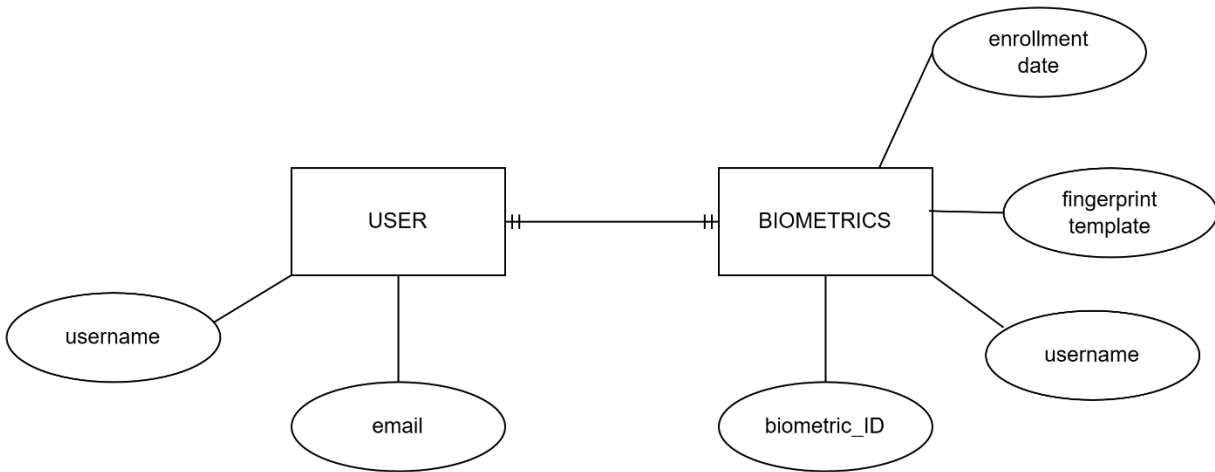## 1.6   Class Diagram

1.7   ERD

1.8   Database Schema