

# **VirtualCare 2025 – Part 1 Submission**

**Software Architecture Practical Assignment (2025 – 2026)**

**Module:** 6FTC2084 – Software Architecture

**Student:** Nancy Kamal

**Student ID:** 202200396

# 1. Use Case Diagram

## Description:

This diagram shows the main actors (Patient, Provider, Admin, Payment System) and their interactions with the VirtualCare 2025 system.  $\diamond$  and  $\diamond$  relationships are used to illustrate optional or dependent use cases.

## Screenshot:

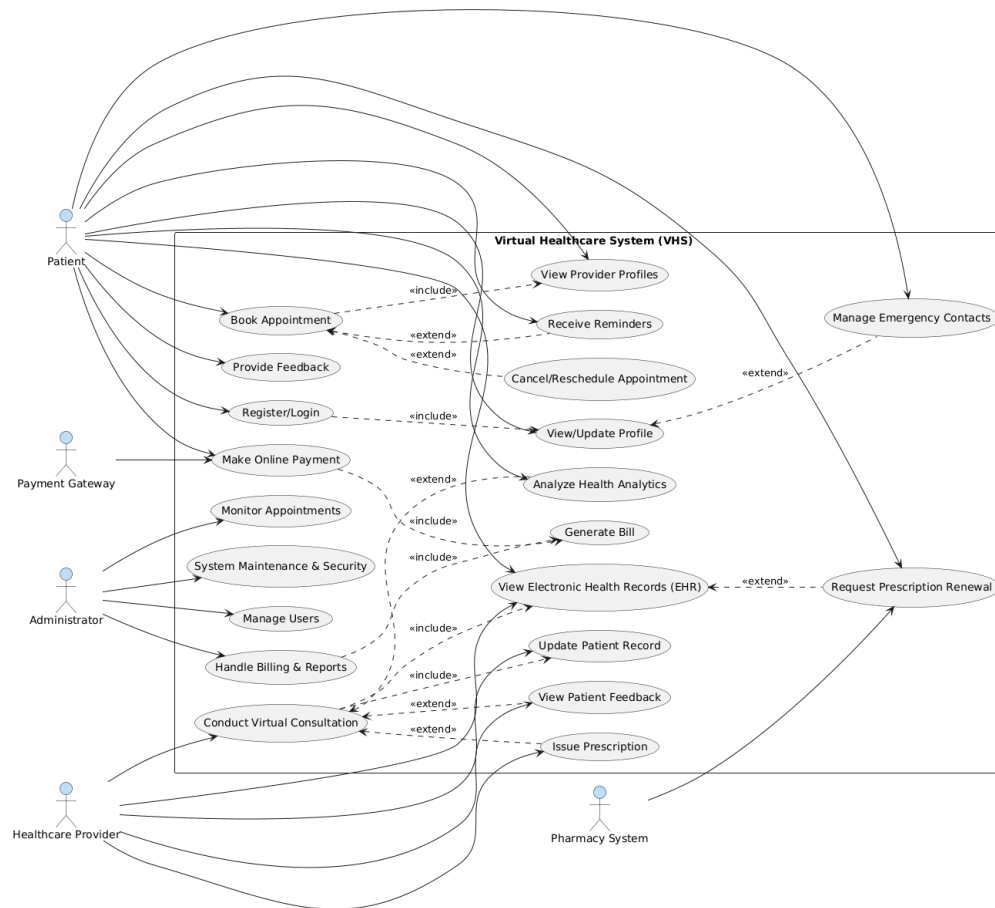


Fig.1 Use case diagram

## 2. 3-Tier Architecture Diagram

### Description:

The system is structured in three layers:

- **Presentation Layer:** Web/Mobile interface, Video Conferencing interface
- **Logic/Business Layer:** Appointment Management, Consultation Management, EHR Management, Billing, Prescription Management
- **Data Layer:** Databases storing Patients, Providers, EHRs, Billing records

Dependencies between layers are clearly indicated.

### Screenshot:

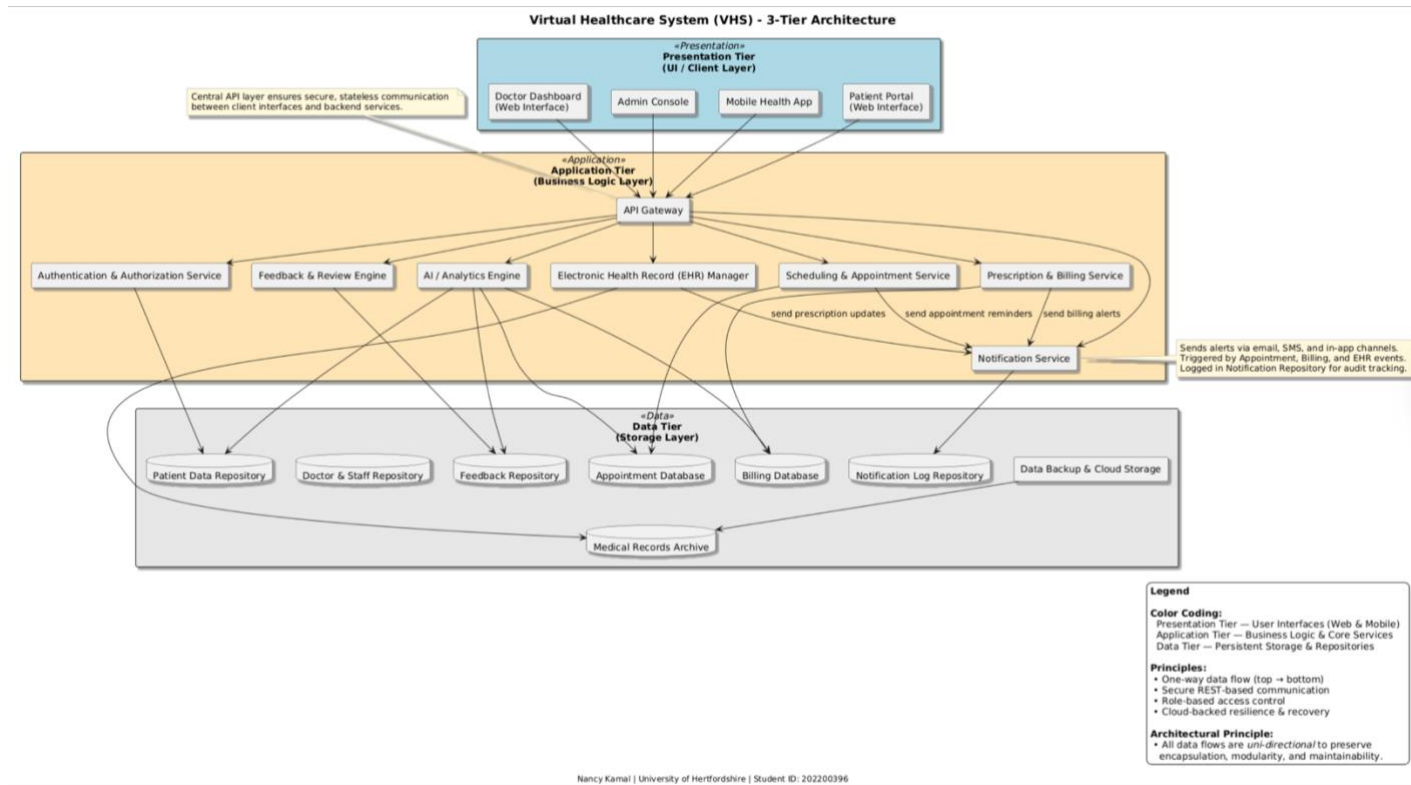


Fig.2 3-Tier Architecture Diagram

**Description:**

The class diagram captures system entities, their attributes, methods, and relationships. Inheritance, aggregation, and associations are used where appropriate. Classes are grouped according to the subsystems they belong to.

**Screenshot:**

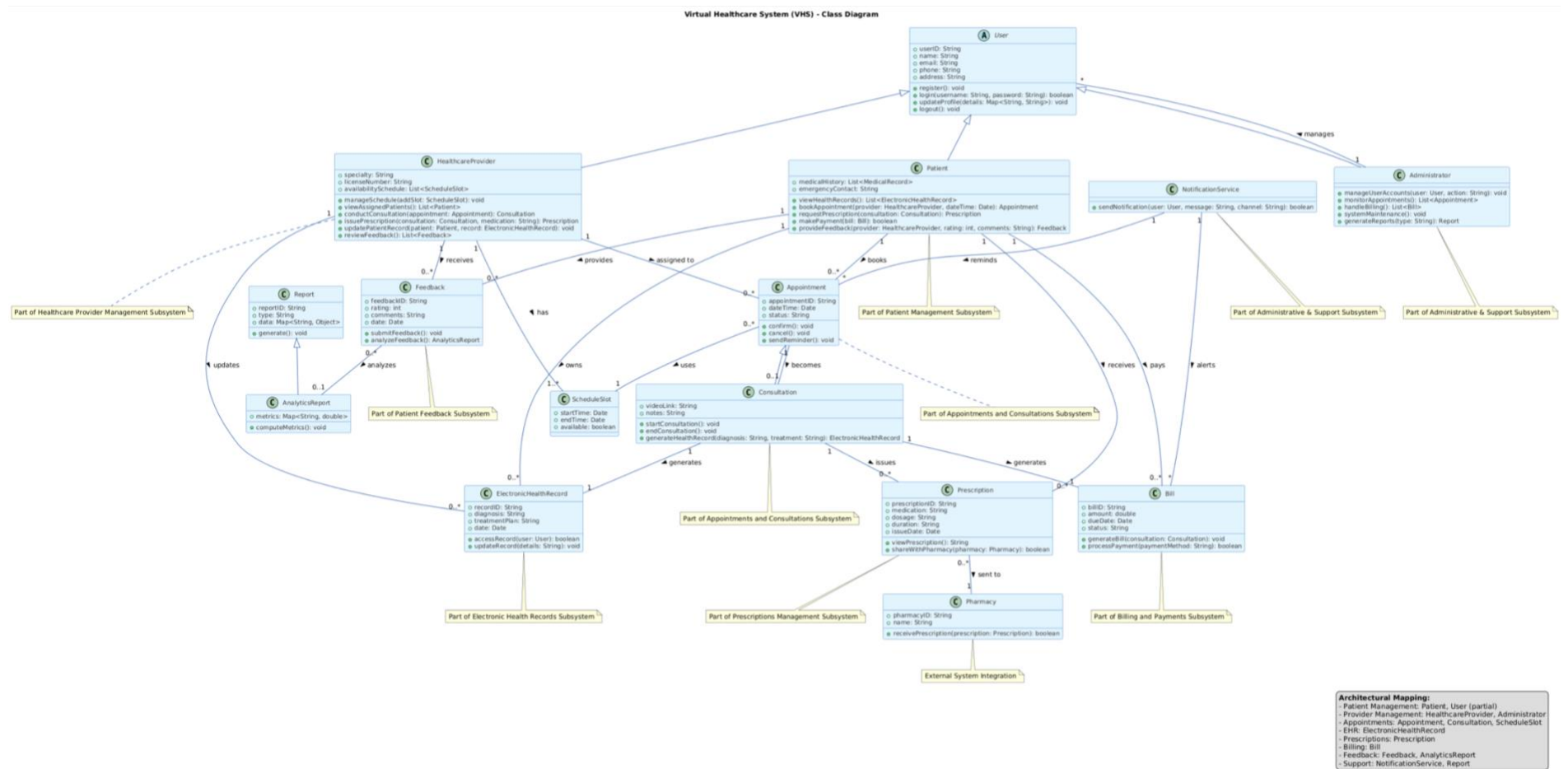


Fig.3 3. Class Diagram