AI-Driven Career Recommendation & Skill Pathway System

Object Oriented Analysis and Design

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Presented To:

Mr. Satyam Tiwari

OBJECTIVES

Main Objective

Provide personalized career recommendations using profile data and AI.

Specific Objectives

1. Collect academic, skills, and interest data
2. Analyze user profile using ML
3. Provide best-fit career options
4. Generate skill gap report
5. Suggest courses, certifications, and roadmap
6. Track learning progress

CASE-STUDY

Meet Rahul – A confused 20-year-old B. Tech student

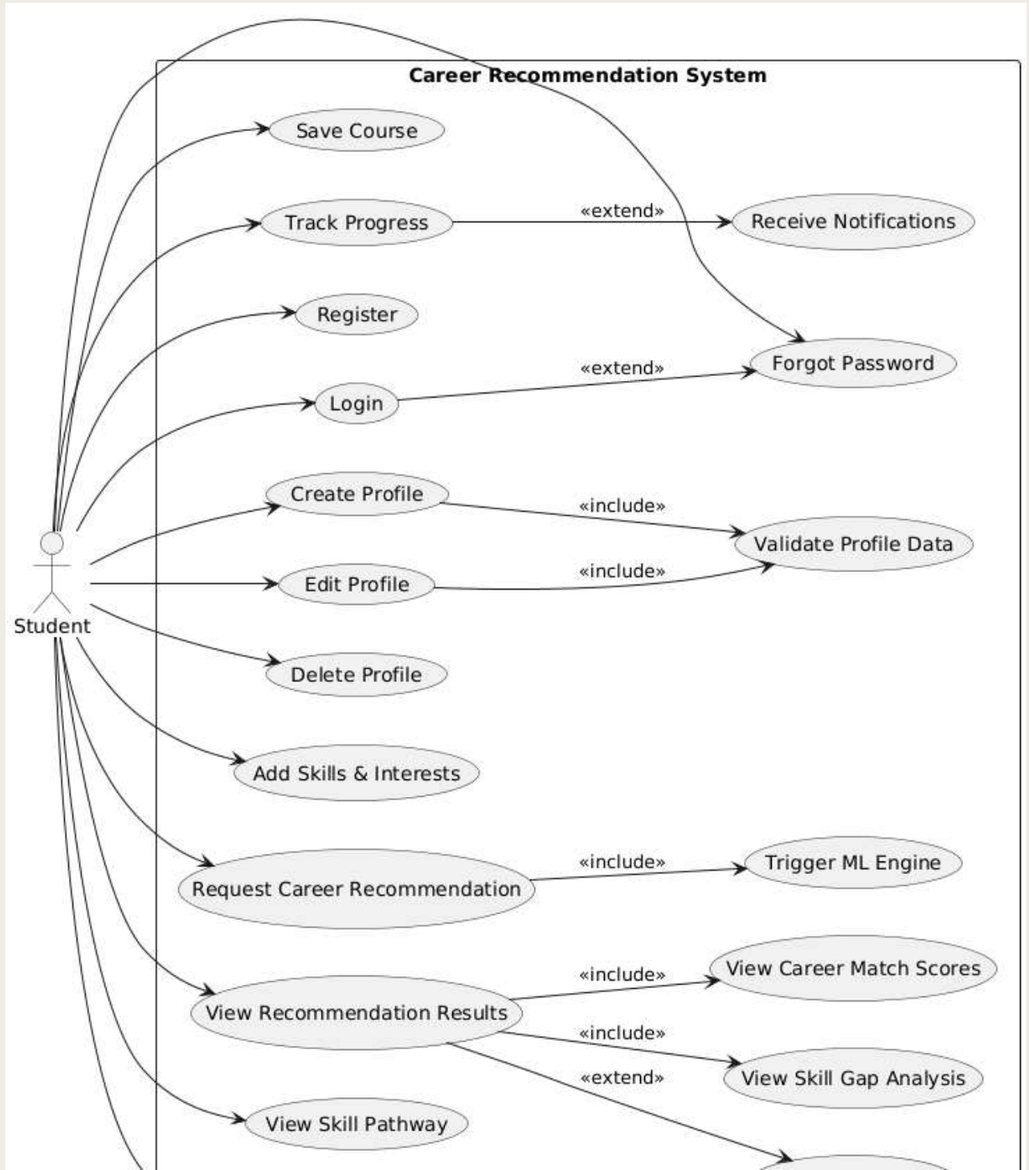
• Unsure whether to choose Data Analyst, Software Developer, or UI/UX
• Has average coding skills, good communication skills
• Interests: analytics, design, problem-solving
• Needs clarity on skill gaps and suitable career path

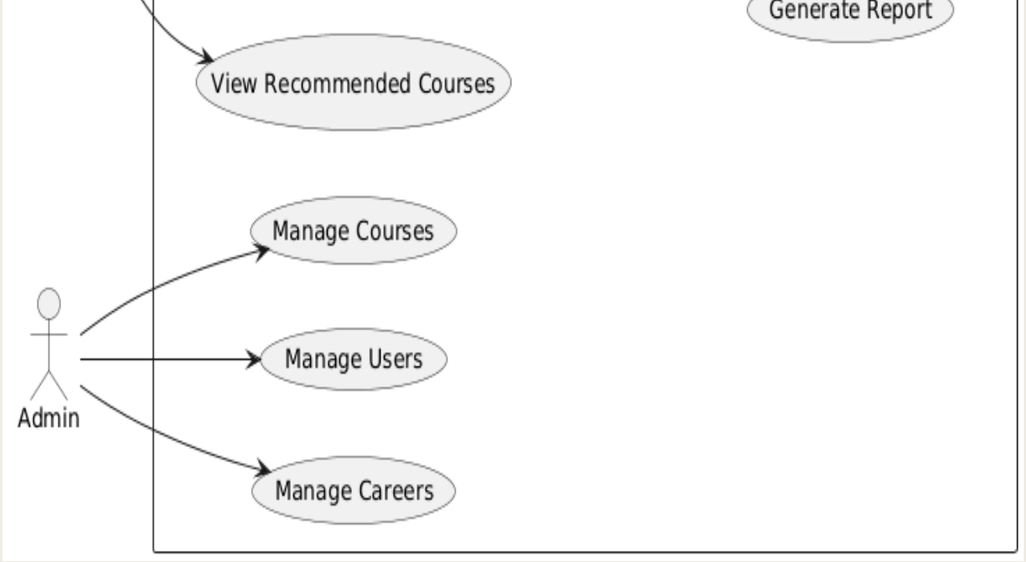
How the System Helps Rahul

1. Rahul creates a profile
2. Enters skills, interests, projects, CGPA
3. Requests AI-based recommendation
4. ML engine evaluates his data
5. System suggests:
    1. Data Analyst – 87% match
    2. Business Analyst – 82% match
    3. Product Analyst – 76% match
6. Skill gap analysis + roadmap + course plan
7. Rahul selects a path and the system tracks his weekly progress

UML Diagrams (Behavioural Modelling)

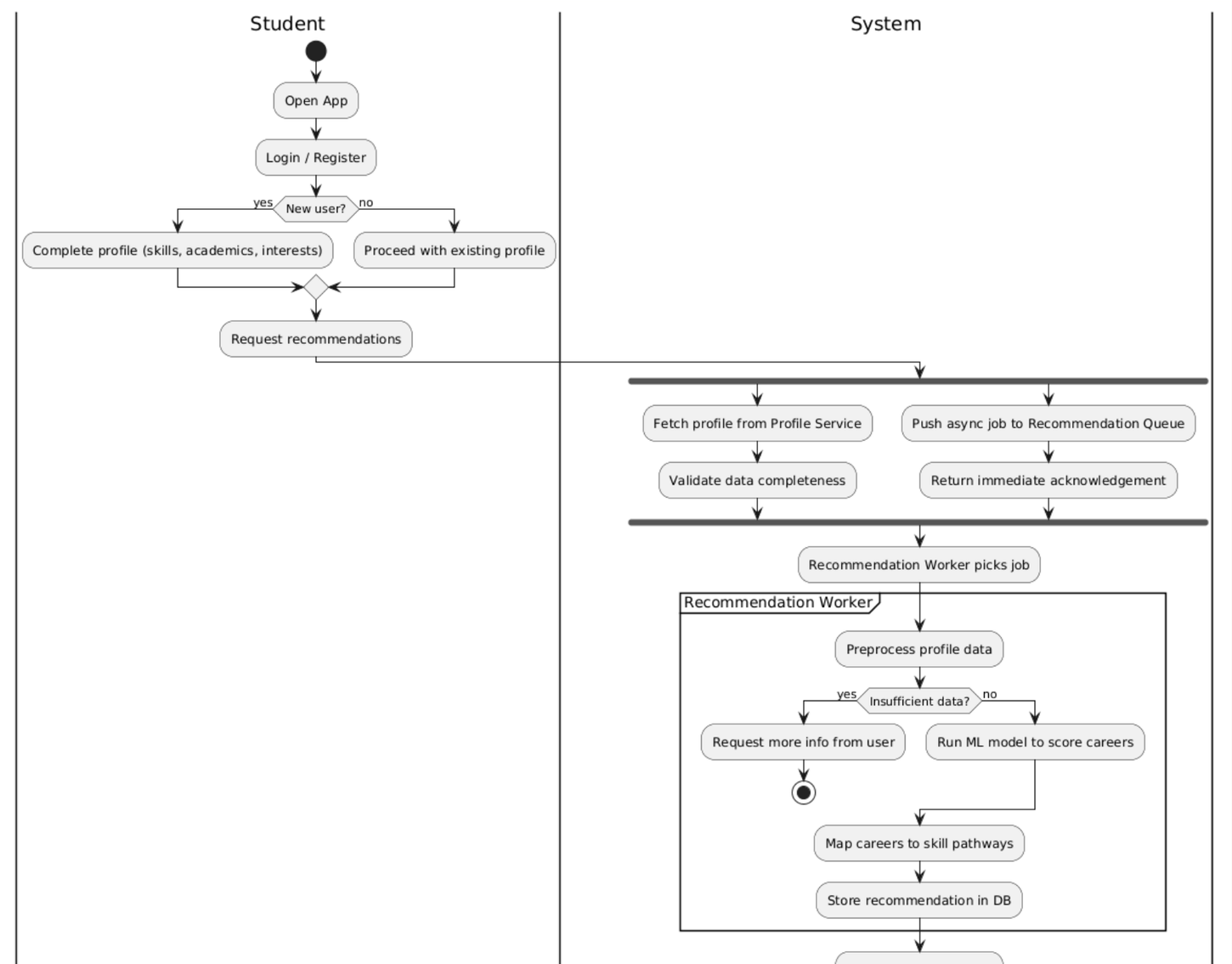
USE-CASE

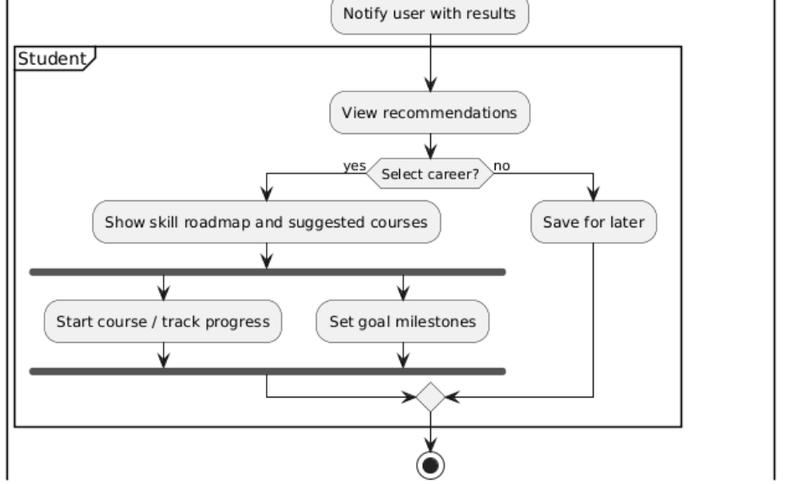




UML Diagrams (Behavioural Modelling)

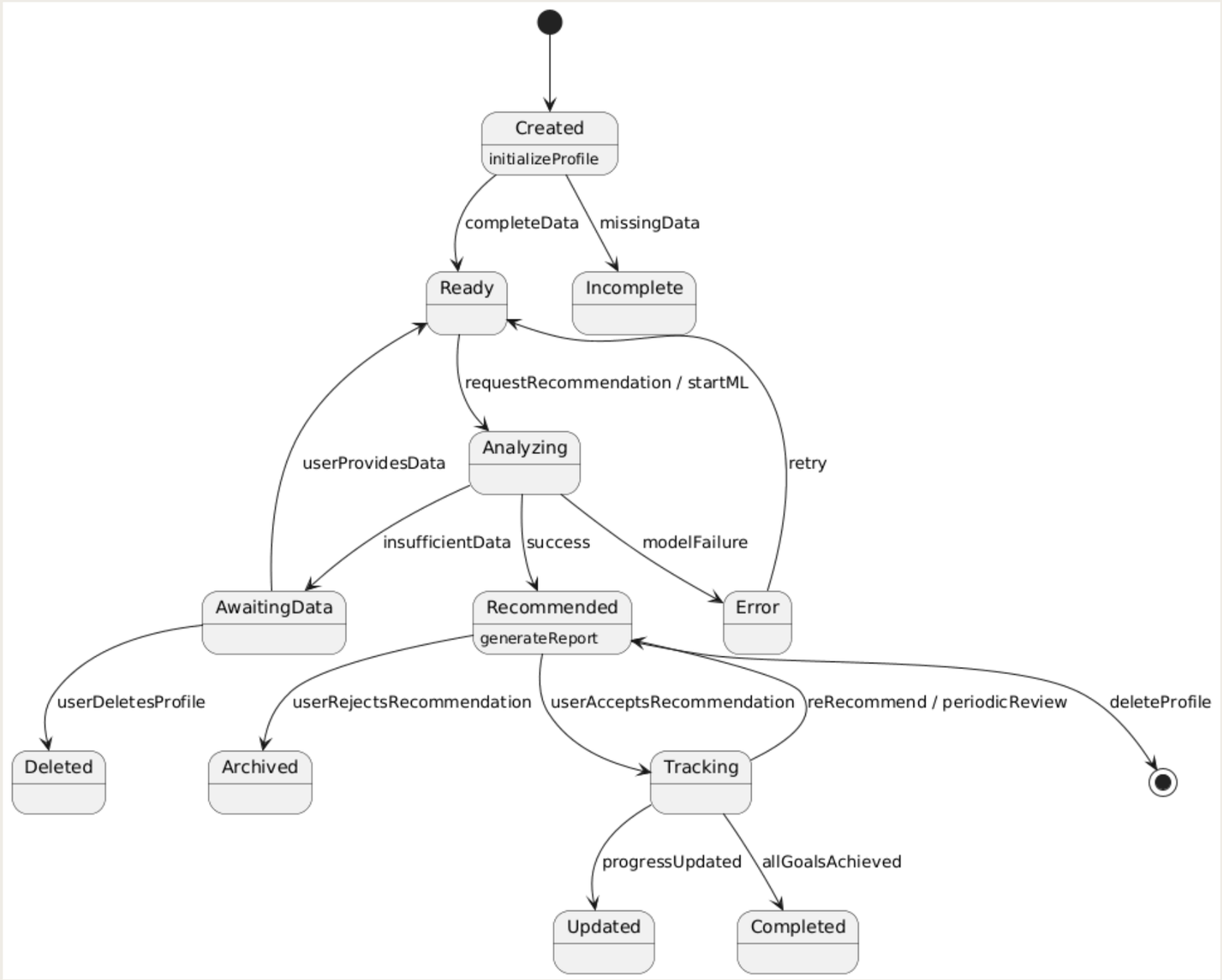
ACTIVITY





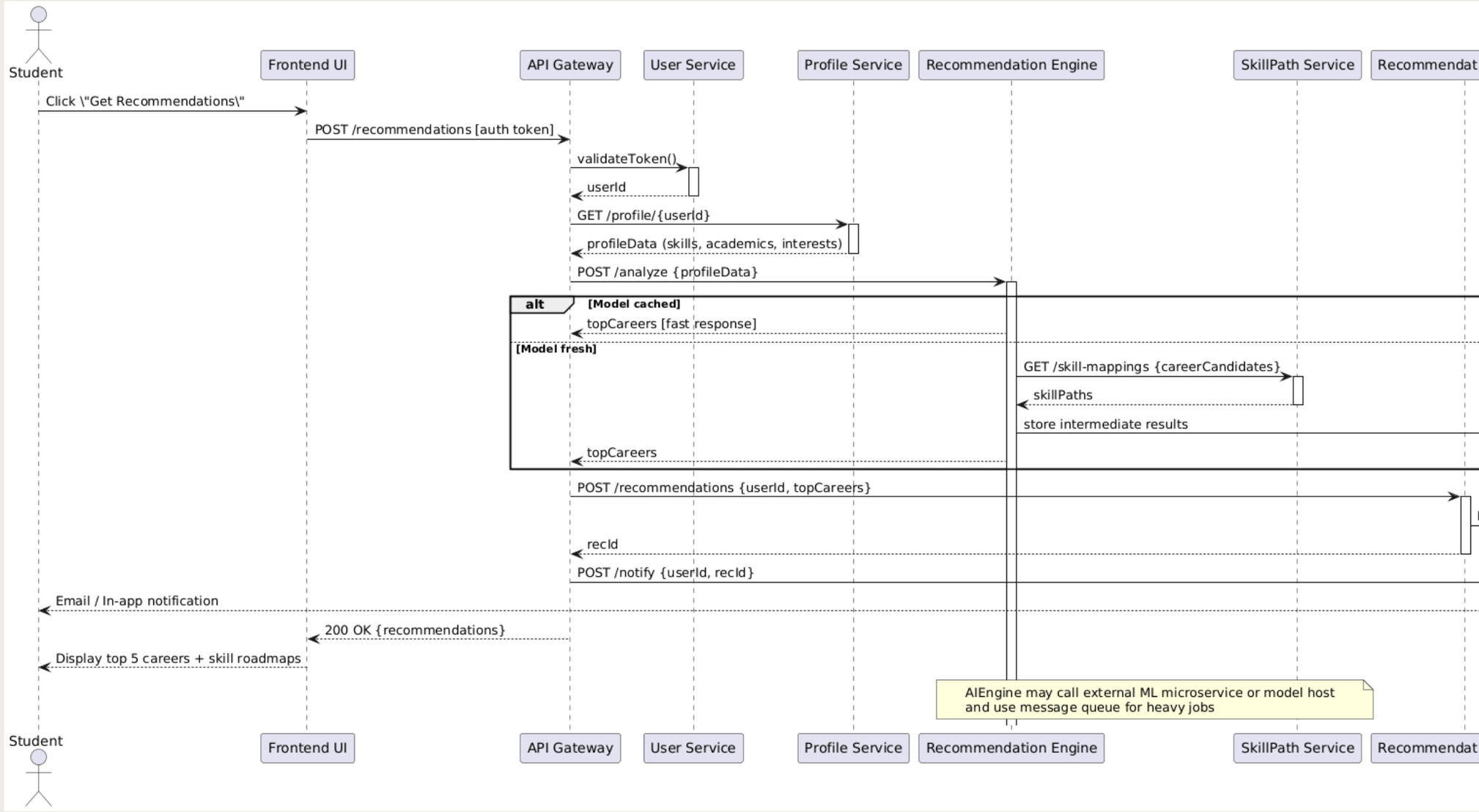
UML Diagrams (Behavioural Modelling)

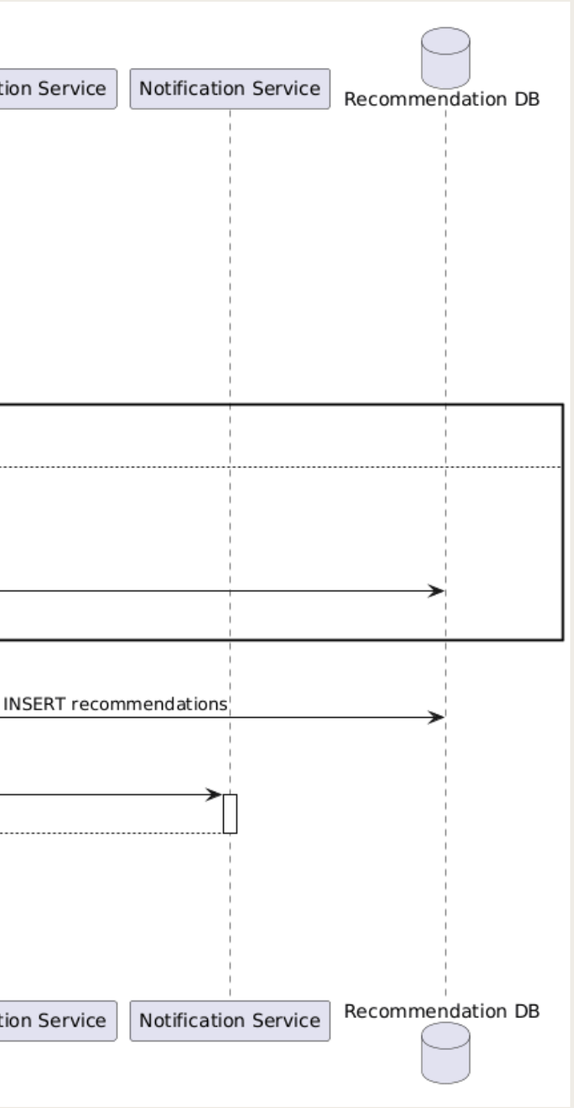
STATE



UML Diagrams (Behavioural Modelling)

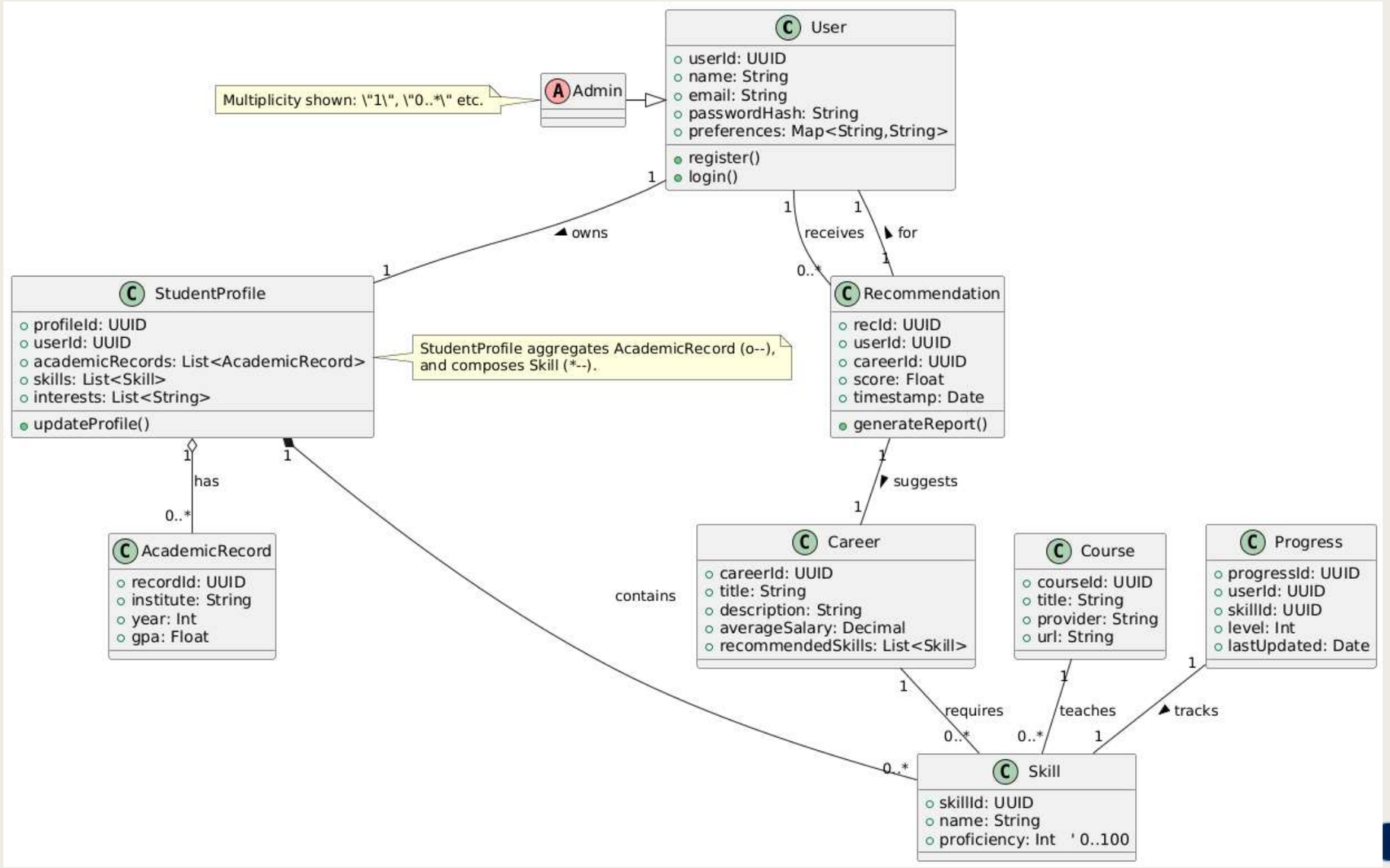
SEQUENCE





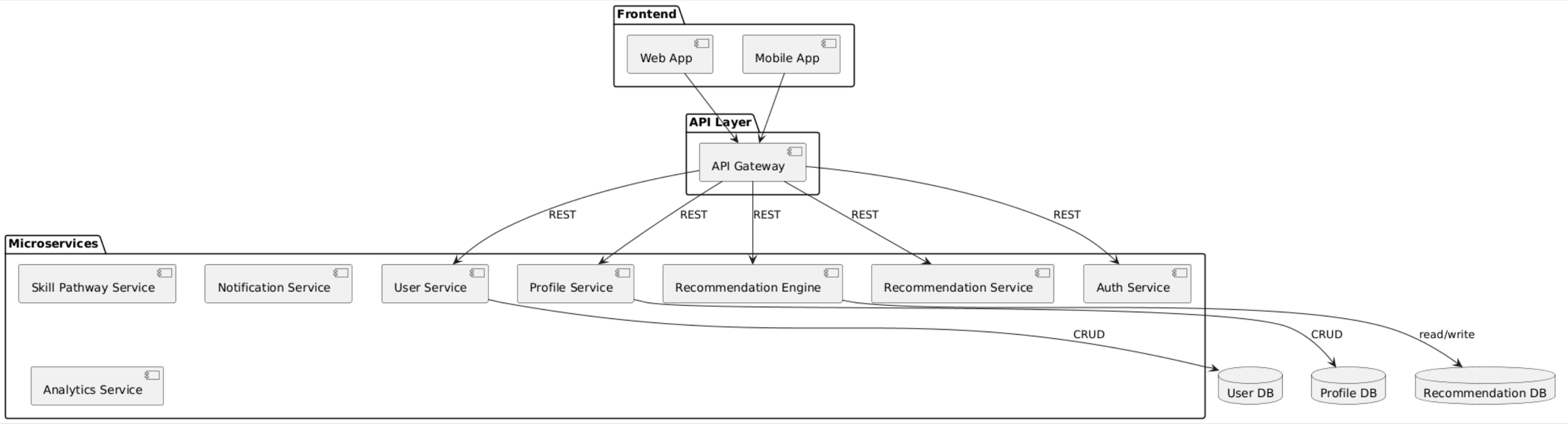
UML Diagrams (Structural Modelling)

CLASS



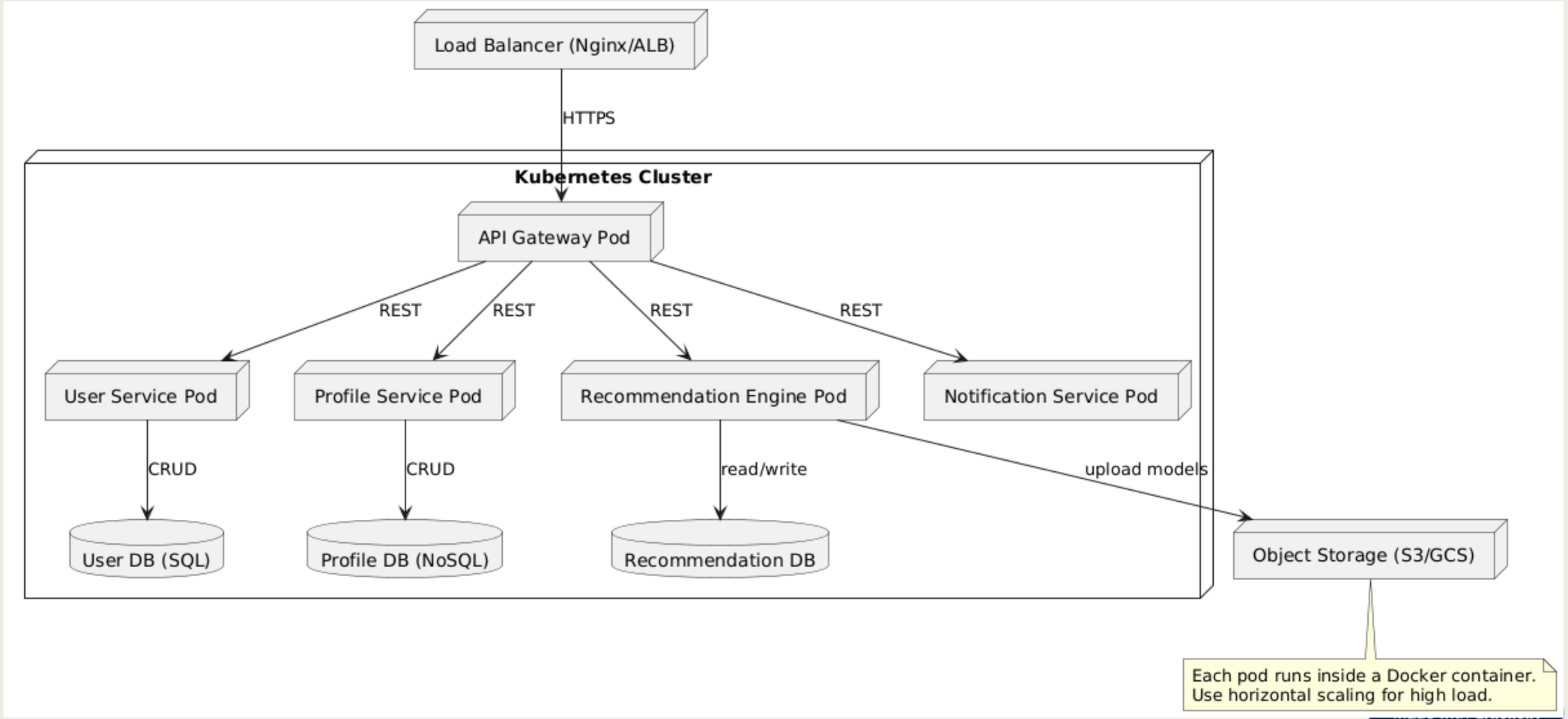
UML Diagrams (Architecture Modelling)

COMPONENT



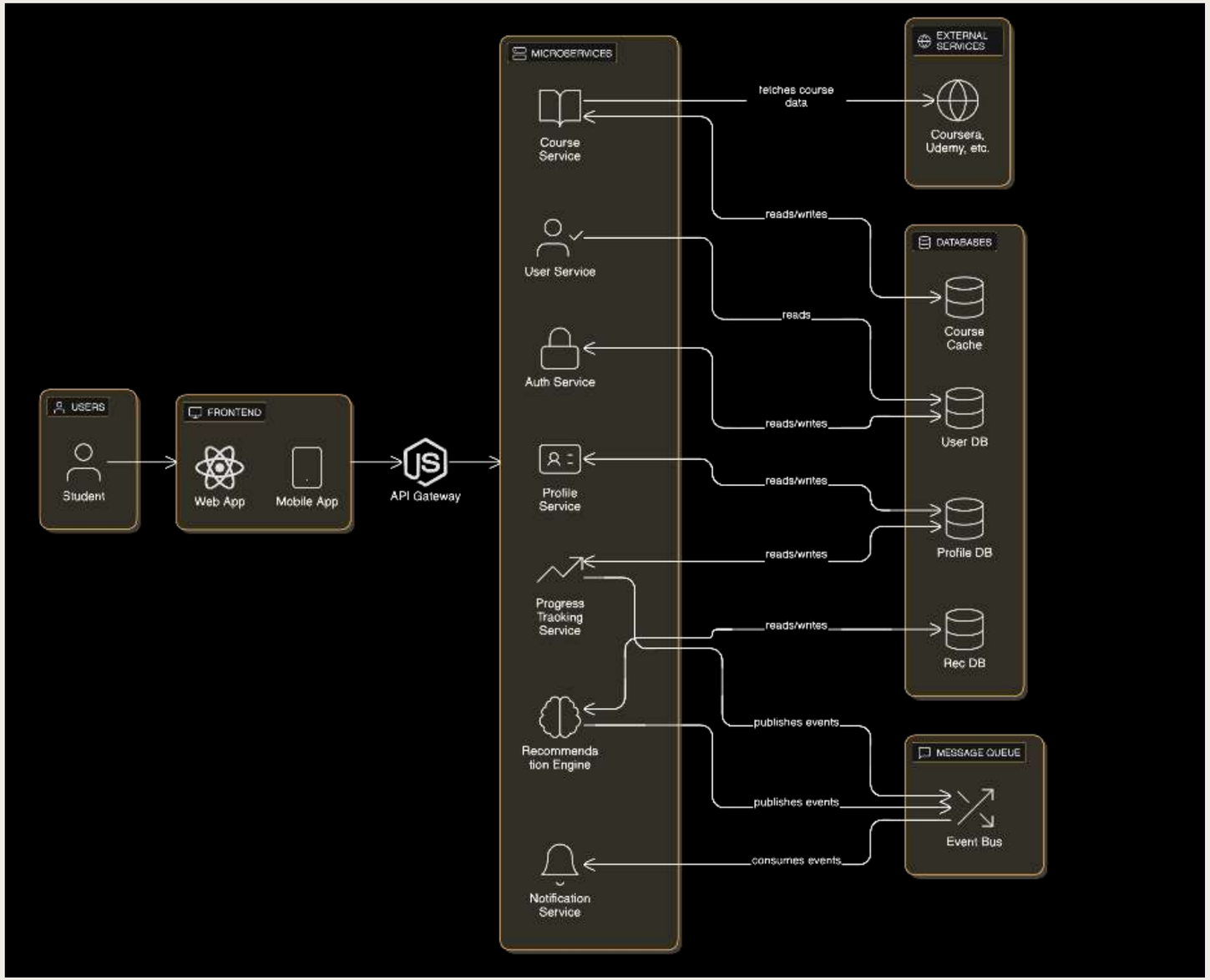
UML Diagrams (Architecture Modelling)

DEPLOYMENT



UML Diagrams (Architecture Modelling)

MICROSERVICE ARCHITECTURE



Advantages of Microservices

1. Independent deployment
2. Technology flexibility
3. Fault isolation
4. Easier scaling
5. Better maintainability
6. Supports ML workloads

THANK YOU