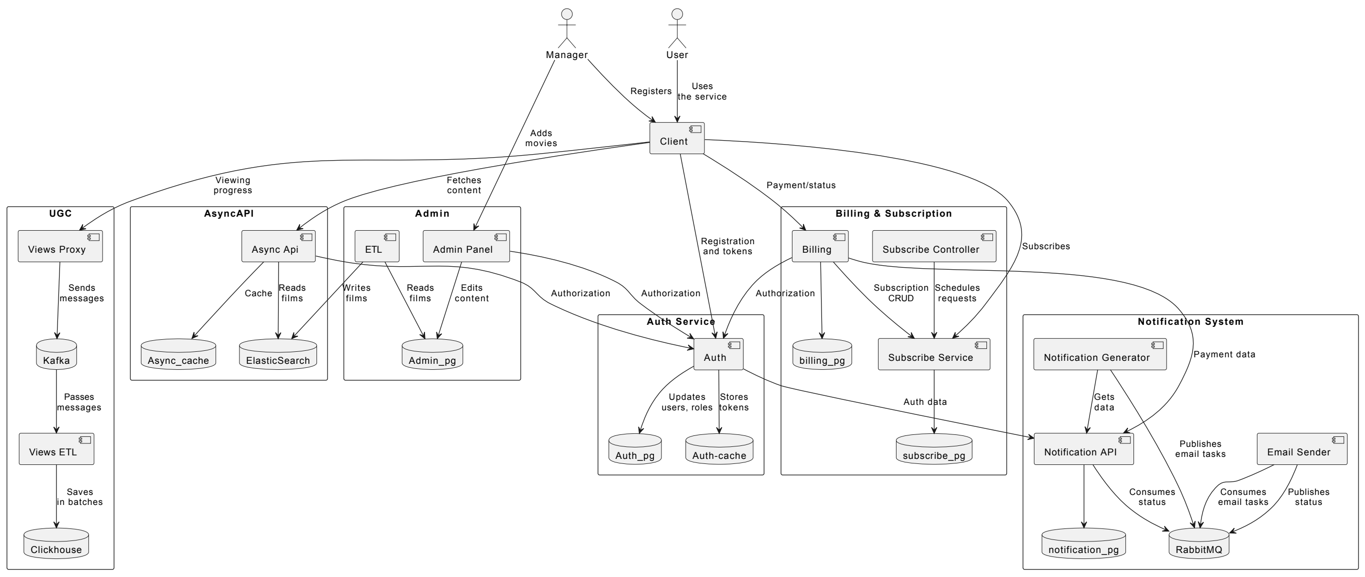
Online Cinema Platform

Subscription-Based Streaming Service



Project Overview

A robust backend system for a subscription-based online cinema platform, featuring comprehensive content management, secure authentication, and automated billing processes. The project demonstrates advanced microservices architecture implementation with a focus on scalability and maintainability.

Repository

Key Features

- **Content Management**
  - Advanced movie catalog management
  - Elasticsearch integration for fast search
  - Comprehensive admin panel
  - Genre and movie categorization
- **User Management**
  - Google account authentication
  - Personal cabinet functionality
  - Secure user data handling
  - Role-based access control
- **Subscription & Billing**
  - Automated subscription management
  - Yandex Kassa integration
  - Payment gateway processing
  - Automatic renewal/termination

- **Notification System**
    - Real-time email notifications
    - Subscription status updates
    - Payment confirmations
    - System alerts

Technical Stack

- **Backend**
    - Python
    - Async API
    - Microservices Architecture
    - RESTful API Design
- **Data Storage**
    - PostgreSQL
    - Elasticsearch
    - SQLite (legacy data)
- **DevOps & Monitoring**
    - Docker
    - Jaeger (distributed tracing)
    - Kibana (logging)
    - CI/CD Pipeline

Architecture Components

1. **Admin Panel**
    - Movie catalog management
    - User management
    - System monitoring
2. **Async API**
    - High-performance endpoints
    - Request handling
    - Data validation
3. **Auth Service**
    - Google authentication
    - Session management
    - Security protocols
4. **Subscription Services**
    - Subscribe Service

    - Subscribe Controller
    - Payment processing

5. **Notification System**
    - Notification API
    - Notification Generator
    - Email Sender

6. **Data Management**
    - ETL processes
    - SQLite to PostgreSQL migration
    - Data transformation

Project Highlights

- Scalable microservices architecture
- High-performance search capabilities
- Secure payment processing
- Real-time notification system
- Comprehensive monitoring
- Automated testing suite

Technical Achievements

- Successfully migrated from SQLite to PostgreSQL
- Implemented distributed tracing
- Integrated multiple payment gateways
- Developed automated testing framework
- Achieved high system reliability
- Implemented comprehensive logging

Development Process

- Version control with Git
- Docker containerization
- Automated testing
- Continuous integration
- Code quality checks
- Documentation maintenance

Future Scalability

- Extensible architecture
- Support for additional payment gateways
- Expandable notification system
- Scalable data storage
- Modular service design

Developed by: Ivan Bazhenov GitHub: @sendhello