

# PROJECT TOPIC: OTT Platform

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## MASTER OF COMPUTER APPLICATION SCHOOL OF COMPUTER SCIENCE

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#### **Abstract:**

The project aims to design and implement a software system that can handle the various aspects of running an OTT service, such as content acquisition, delivery, analytics and user experience. The project will use object-oriented analysis and design principles to model the system requirements, architecture and components. The project will also demonstrate the use of various software engineering tools and techniques, such as UML diagrams, design patterns, testing frameworks and documentation standards.

#### Analysis phase:-

#### **Project statement:**

The OTT platform project is a software system that allows users to stream, download and purchase various types of media content, such as movies, TV shows, music, etc. The project aims to provide a user-friendly, secure, and reliable service that can compete with other existing platforms in the market.

#### **Project Description:**

The OTT platform will provide a wide range of video content, including movies, TV shows, music from various content providers. Users will be able to access the platform via web browsers, mobile devices, and smart TVs, and will have the ability to search and discover new content based on their interests and viewing history.

#### **Project Scope:**

The project will focus on the development of the OTT platform's core functionality, including the user interface, content management system, search engine, purchase and download features. The scope of the project will not include the development of any new hardware, but will require integration services.

#### **Project Objectives:**

The main objectives of OTT platform:

- 1. To create a user-friendly and intuitive interface for the OTT platform that will provide a seamless experience for users.
- 2. To ensure that the platform is secure and can protect user information and content from unauthorized access.
- 3. To provide support for multiple devices and platforms, including mobile phones, tablets, and smart TVs.
- 4. To download the favorite video, movie, TV shows, music etc. And purchase premium content at very minimum cost.

#### **Software Requirement specification:-**

#### **Introduction:**

The Software Requirements Specification (SRS) is a document that outlines the functional and non-functional requirements for the OTT platform. It is intended for developers, testers, and stakeholders who are involved in the project.

#### **Purpose:**

The purpose of the SRS is to provide a detailed description of the requirements for the OTT platform, including its functionality, user interface, and technical specifications. It will serve as a guide for the development team and ensure that the platform meets the needs of its users.

#### **System Description:**

The OTT platform is a web-based application that allows users to stream and watch video content on demand. It will be designed using object-oriented analysis and design principles to ensure scalability, maintainability, and flexibility.

#### **Project Scope:**

The project scope will include the design and development of the OTT platform, including the front-end and back-end components. The platform will be accessible through a web browser, mobile devices and smart TV.

#### **Hardware Requirements:**

Processor: 1.0 GHZ processor or higher.

Memory: Minimum 4GB RAM.

#### **Software Requirements:**

Operating system: Android 8.0 or above, IOS 10 or above, windows 10 or above.

Technology: Java version 18 or above.

#### **Type of Users:**

The OTT platform will target a broad range of users, including casual viewers and avid fans of specific content genres. The platform will also be designed to appeal to different age groups and demographics.

#### **Technical Feasibility:**

- The availability of modern web development tools and frameworks makes it feasible to develop the OTT platform.
- The platform can be deployed on a cloud-based infrastructure that offers scalability and availability.
- The use of object-oriented analysis and design principles ensures maintainability and

- flexibility.
- Availability of open-source frameworks and libraries to support development.

#### **Operation Feasibility:**

- The platform will be designed to be user-friendly and easy to navigate.
- The platform will be accessible through a web browser and mobile devices, making it convenient for users.
- The platform will support multiple devices and platforms, ensuring broad accessibility.

#### **Economic Feasibility:**

- The market demand for OTT platforms is growing, making it economically feasible to develop and operate.
- The cost of cloud-based infrastructure has decreased, making it cost-effective to deploy and scale the platform.
- The platform can generate revenue through subscription-based models or advertising.

#### **Social Feasibility:**

- The OTT platform can provide users with access to a variety of content, including niche genres and international content, which promotes cultural exchange.
- The platform can provide opportunities for content creators to reach a broader audience, promoting creative expression.
- The platform can promote social interaction through features such as comments and ratings.
- The platform can contribute to the democratization of content distribution, giving a voice to underrepresented communities.

#### **SOFTWARE REQUIREMENT ANALYSIS:**

The software requirement analysis will focus on identifying the functional and non-functional requirements for the OTT platform.

#### **Functional requirements:**

Functional requirements are an essential component of a Software Requirements Specification (SRS) and describe the specific functions and features that the software system must provide to meet the needs of its users. Here are some examples of functional requirements that might be included in an SRS:

- 1. User registration and login.
- 2. Content search and browsing.
- 3. Video playback and streaming.
- 4. Payment processing and management.

#### **System features:**

The system features for the OTT platform include:

- 1. User profiles and preferences.
- 2. Content management and distribution.
- 3. Content rating and feedback.

#### **Non-functional requirements:**

Non-functional requirements describe the qualities or characteristics of the software system that are not directly related to its specific functions or features. They are important considerations for the overall performance, usability, and maintainability of the software system. Here are some examples of non-functional requirements that might be included in an SRS:

- 1. Performance and scalability.
- 2. Security and privacy.
- 3. Compatibility and interoperability.
- 4. Reliability and availability.

#### Design:

#### **Module description:**

**User module:** user module is the module that holds the information of the user which will have the features of login, search video, download video and manage their account with a user-friendly interface. User will be able to access

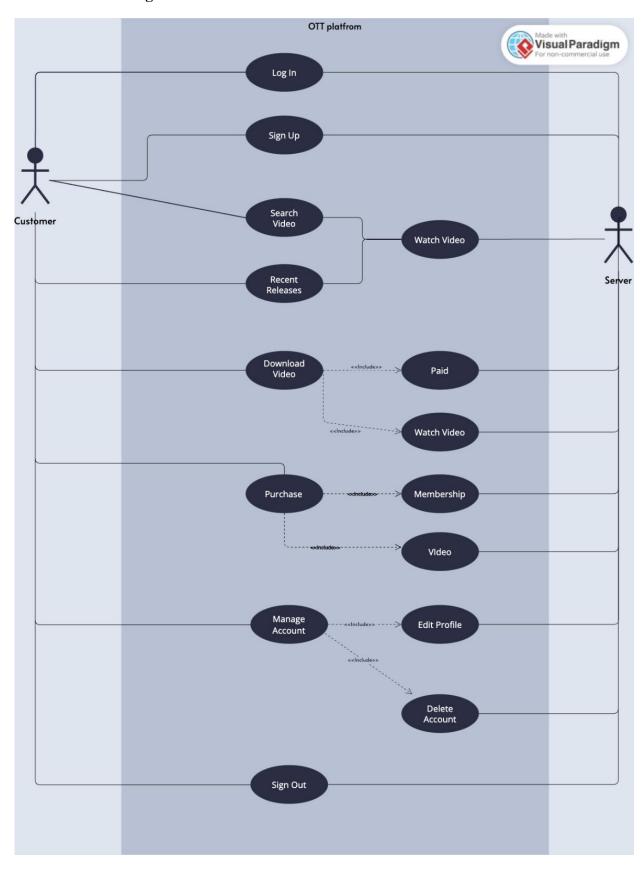
- Dashboard
- View / Edit Profile
- Search Video
- Watch Video
- Download Video
- Upload Video
- Purchase Video

**Admin module:** Admin module will have access to all the features so they can track and manage all the activities that will be performed by the user. Admin will be the one uploading videos, managing accounts and videos over the data base. It will be able to access

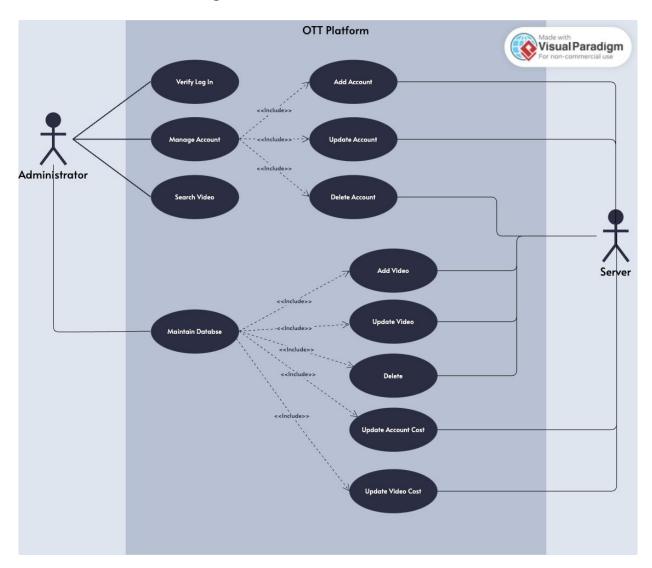
- Dashboard
- Maintain Account
  - Add Account
  - Update Account
  - Delete Account
- Content Verification
- Manage Data base
  - Delete Video
  - Edit Video
  - Upload Video
  - Watch Video

## Use-case diagram:-

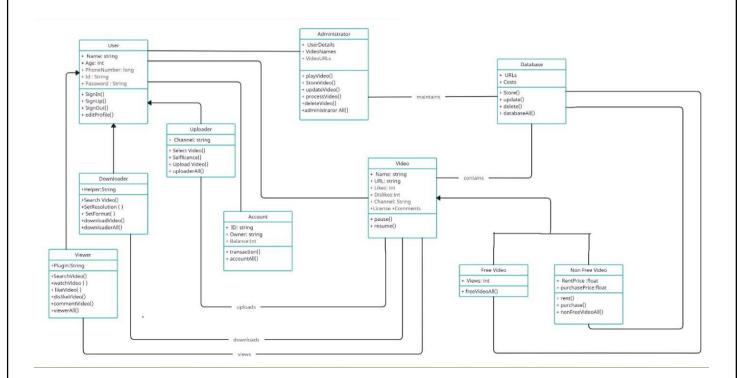
#### User Use-case diagram-



## Administrator Use-case diagram-

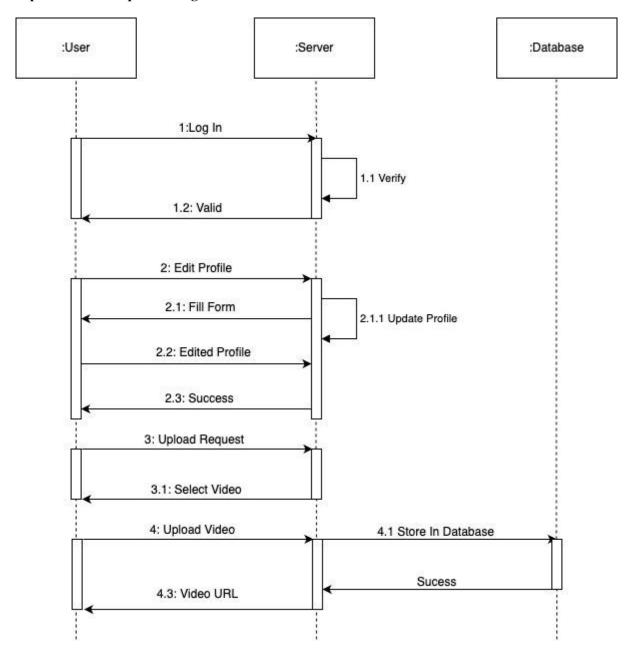


## Class diagram:-

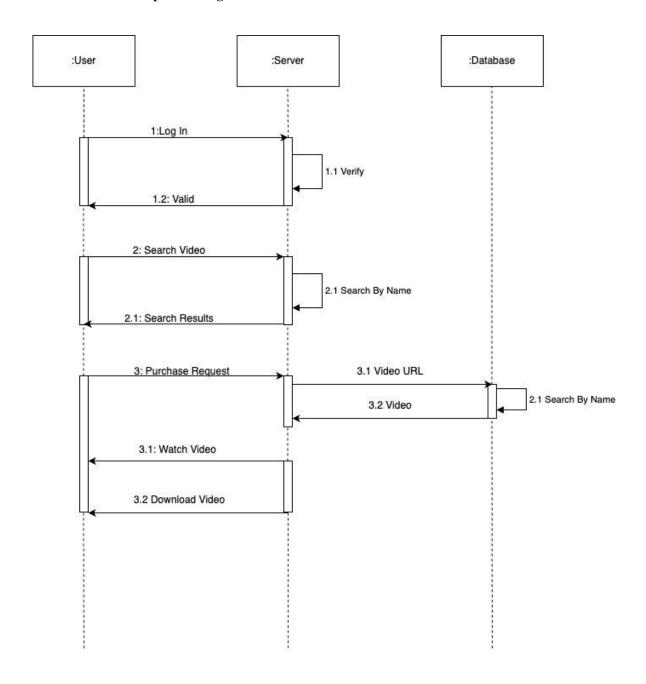


## Sequence diagram:-

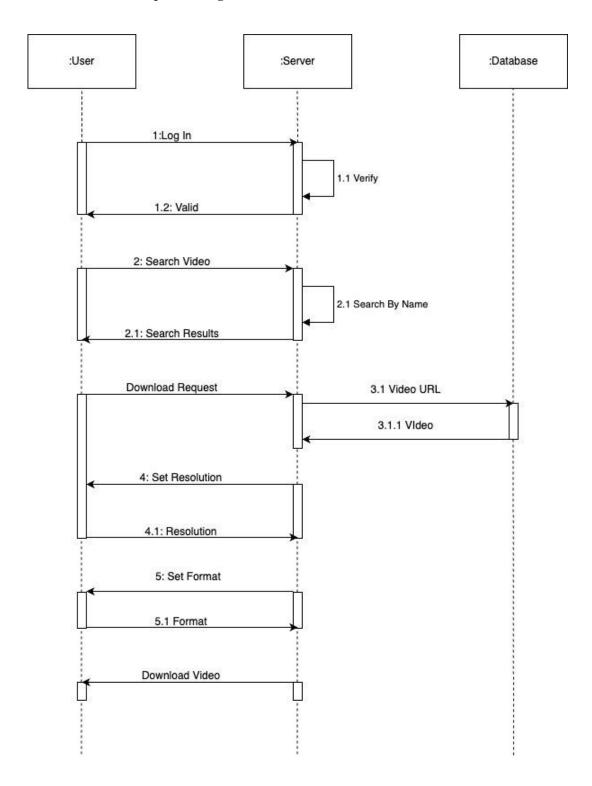
## Upload Video Sequence diagram:-



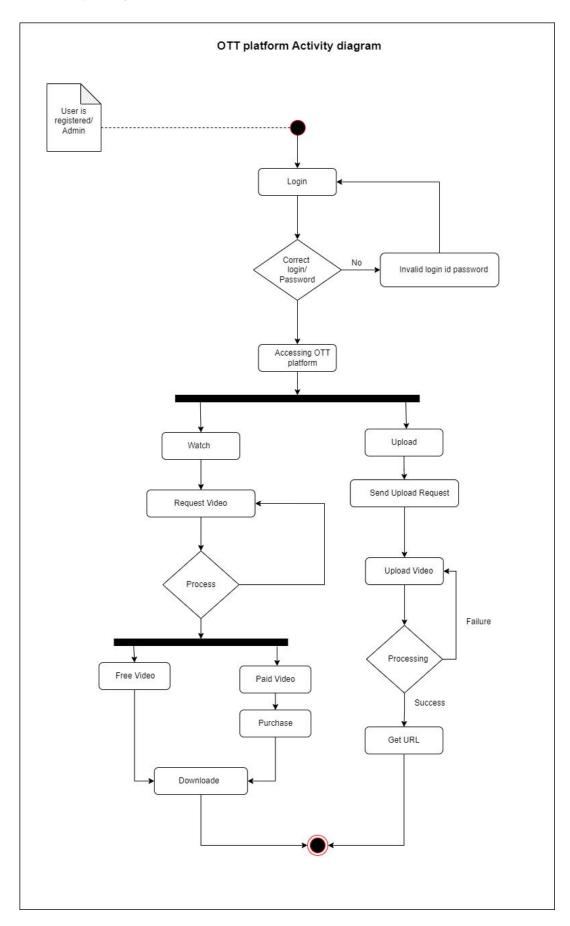
## Purchase Video Sequence diagram:-



## Download Video Sequence diagram:-

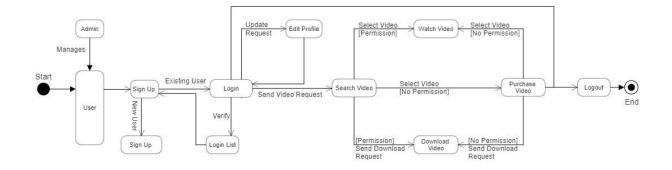


## Activity diagram:-

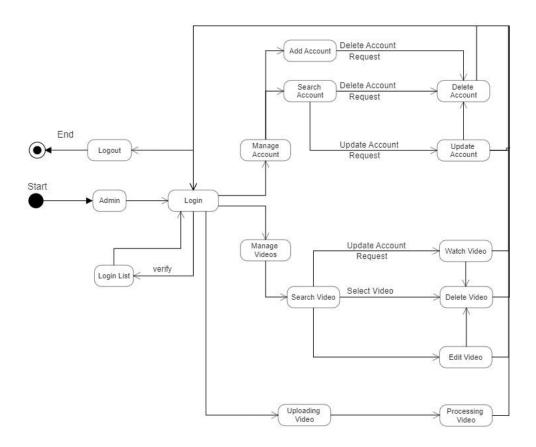


## State transition diagram:-

#### User state transition diagram:-



#### Admin state transition diagram:-



## Deployment diagram:-

