

UE21CS351A: Database Management System

MINI PROJECT USER REQUIREMENT SPECIFICATION

OTT

K SIDDHARTH RAO
PES1UG21CS265

KNC VARDHAN
PES1UG21CS256

1. Introduction

1.1 Purpose of the Project

The purpose of the OTT (Over-The-Top) app project is to develop a comprehensive and user-friendly streaming platform that allows users to access a wide variety of digital content, including movies, TV shows, documentaries, and more. The app will provide a seamless and enjoyable streaming experience for users.

1.2 Scope of the Project

The project encompasses the development of the OTT app's backend database management, content organization, user management, recommendations, and user interactions. This SRS document outlines the functional and non-functional requirements for the project.

2. Project Description

2.1 Project Overview

The project involves creating a robust OTT app with features for content categorization, user profiles, content recommendations, user reviews, and streaming capabilities. It aims to provide an engaging and personalized experience to users.

3. System Features and Function Requirements

3.1 User Registration and Authentication

- Description: Implement a secure user registration and authentication system.
- Functional Requirement: Users must register and log in securely. Password recovery features should be available.

3.2 Content Management

- Description: Create a content catalog and organize content into categories and genres.

- Functional Requirement: Enable administrators to add, update, and delete content. Users can search and view content based on categories and genres.

3.3 User Profiles and Preferences

- Description: Allow users to create profiles and set preferences.
- Functional Requirement: Users should be able to customize their profiles and set language preferences.

3.4 Recommendations and Personalization

- Description: Provide content recommendations based on user preferences.
- Functional Requirement: Implement recommendation algorithms to suggest content to users.

3.5 Reviews and Ratings

- Description: Enable users to write reviews and rate content.
- Functional Requirement: Users can submit reviews and ratings for content. Reviews should be moderated.

3.6 Streaming and Playback

- Description: Develop a robust streaming and video playback system.
- Functional Requirement: Ensure smooth video streaming, support for different devices, and quality settings.

3.7 Subtitles and Language Support

- Description: Allow users to choose subtitles and preferred language.
- Functional Requirement: Users can select from available subtitles and languages.

3.8 Payment Integration

- Description: Implement a secure payment system for premium content.
- Functional Requirement: Users should be able to subscribe, make payments, and manage payment methods.

3.9 Search and Navigation

- Description: Create a user-friendly search and navigation system.
- Functional Requirement: Users can search for content, use filters, and navigate the app efficiently.

4. Non-Functional Requirements

4.1 Performance

- The app should provide fast content loading and streaming with minimal buffering.

4.2 Security

- User data and payment information must be securely stored and protected.

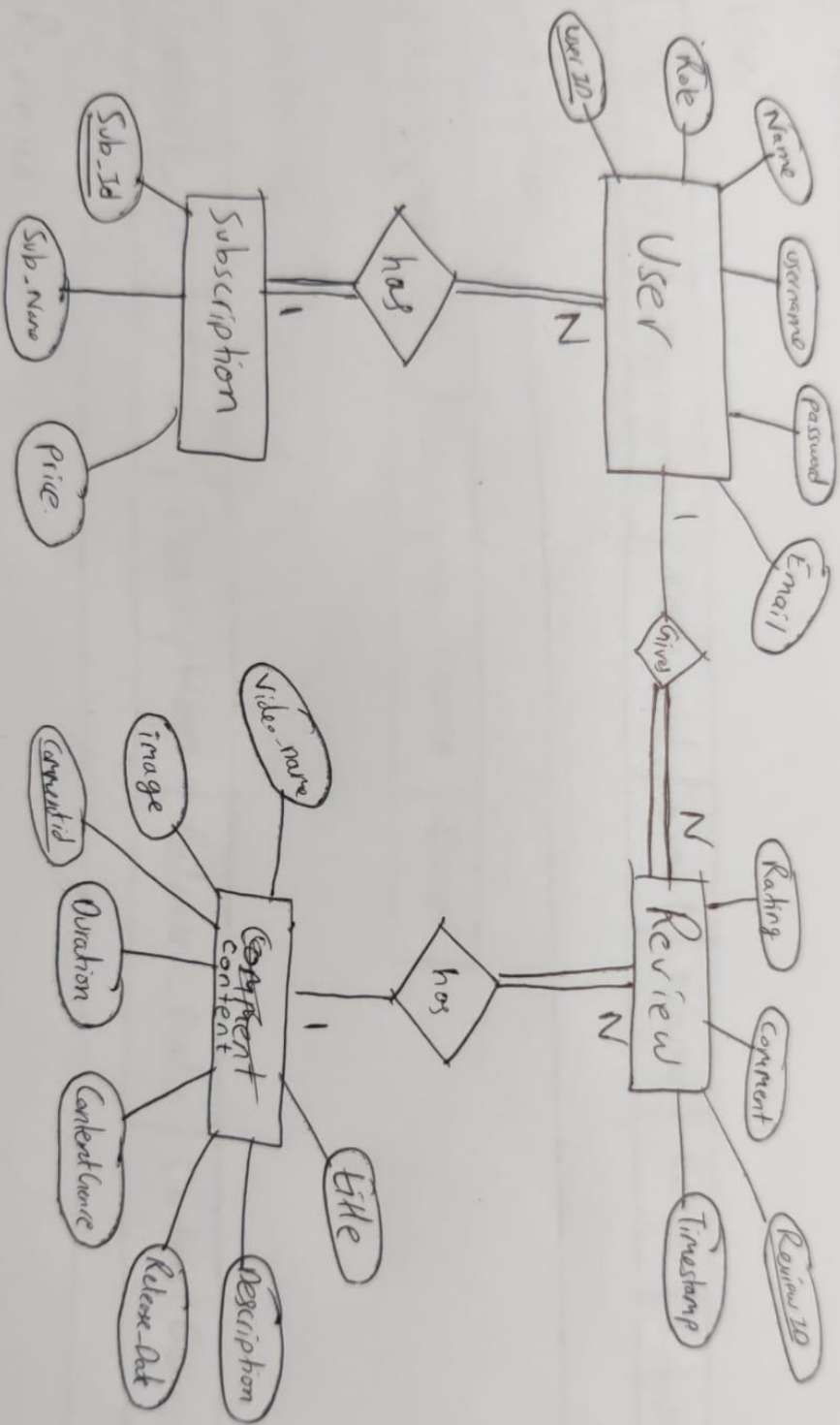
4.3 Scalability

- The system should be scalable to handle a growing user base and expanding content library.

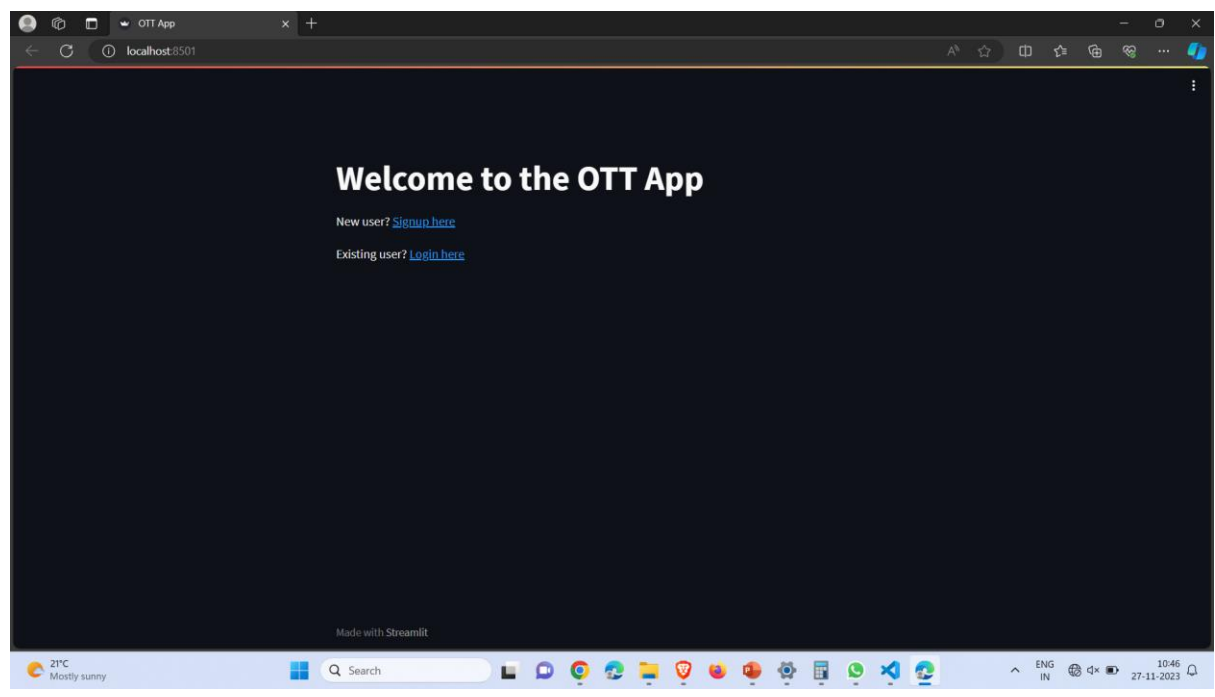
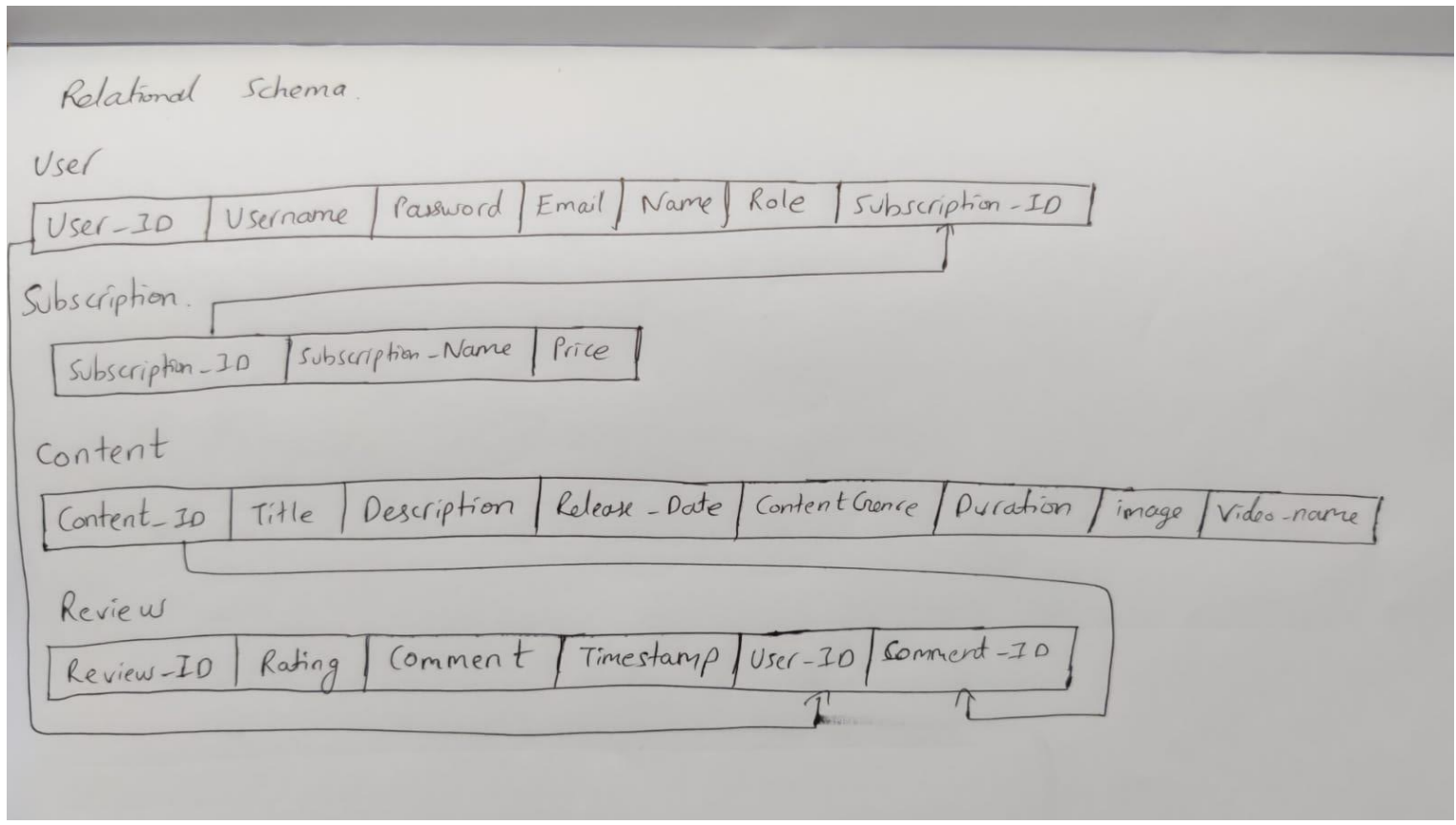
4.4 Usability

- The user interface should be intuitive and user-friendly.

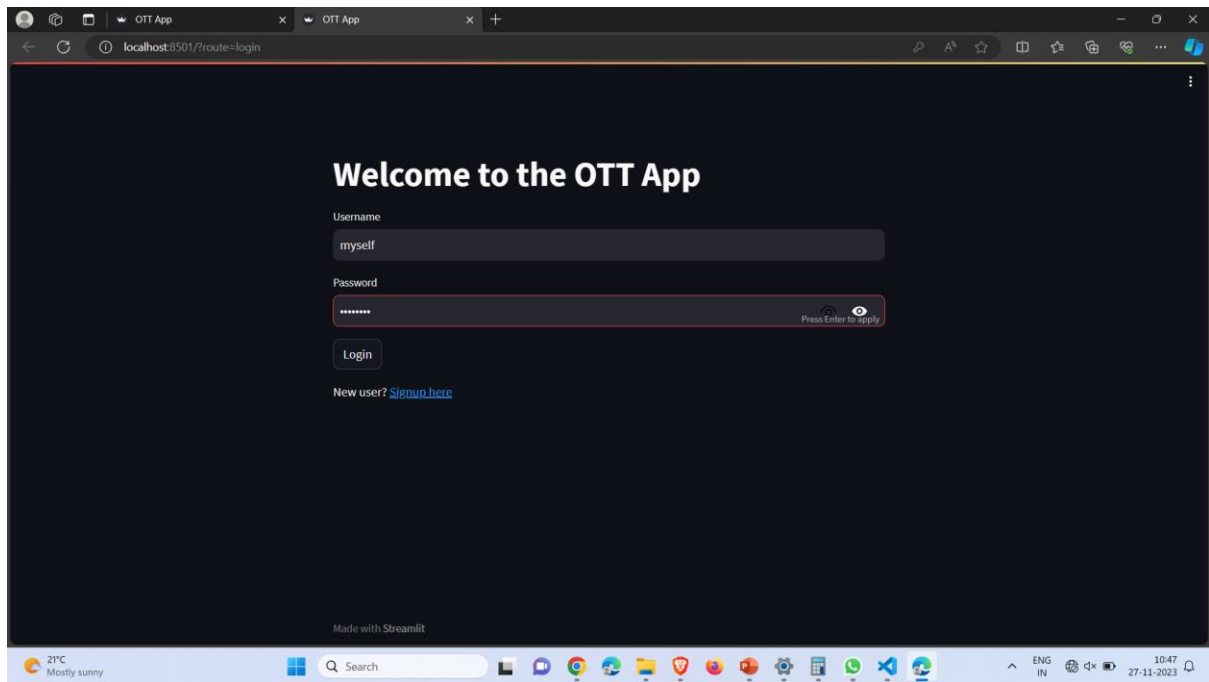
5. ER DIAGRAM



6.RELATIONAL SCHEMA



LOGIN:



```
mysql> select * from user;
```

| UserID | Username | Password | Email | Name | Subscription_ID | Role |
|--------|----------|----------|--------------------|--------|-----------------|-------|
| 1 | myself | password | myself@example.com | Myself | 0 | Admin |
| 2 | a | a | a@a.com | a | 1 | User |

```
2 rows in set (0.00 sec)
```

SIGNUP:

Sign Up

Click to expand

Username

b

Password

•

👁

Confirm Password

•

👁

Email

b@b.com

Name

b

Select content

Basic

▼

Signup

Account created successfully. You can now log in.

```
mysql> select * from user;
```

| UserID | Username | Password | Email | Name | Subscription_ID | Role |
|--------|----------|----------|--------------------|--------|-----------------|-------|
| 1 | myself | password | myself@example.com | Myself | 0 | Admin |
| 2 | a | a | a@a.com | a | 1 | User |
| 3 | b | b | b@b.com | b | 1 | User |

3 rows in set (0.00 sec)

ADMIN:

ADD MOVIES:

ADD A MOVIE

Click to expand

Title

Endgame

Description

endgame

Release Date

2023/11/27

Duration

0

– +

Rating

0.00

10.00

10.00

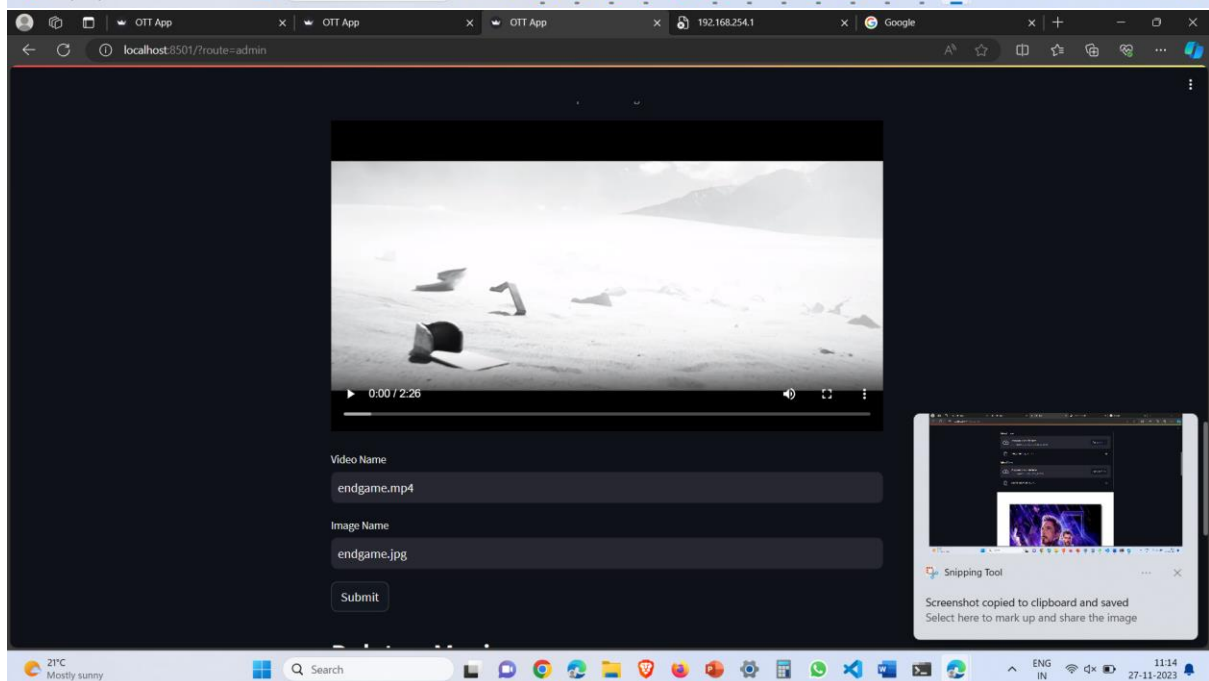
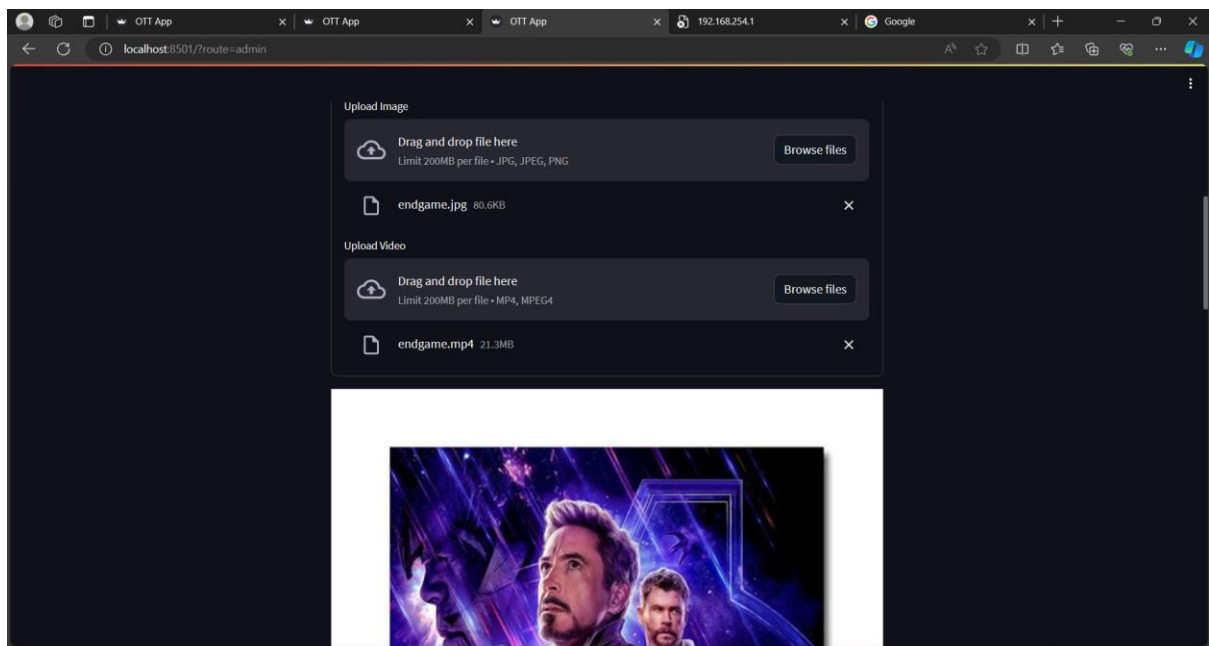
Content Genre

Action

21°C
Mostly sunny

Search

ENG IN 11:14 27-11-2023



```
mysql> SELECT * FROM CONTENT;
```

| ContentID | Title | Description | Release_Date | Duration | Rating | ContentGenre | Image | Video_Name |
|-----------|-----------------|---|--------------|----------|--------|--------------|---------|-----------------|
| 2 | The Godfather | The aging patriarch of an organized crime dynasty transfers control of his clandestine empire to his reluctant son. | 1972-03-24 | 175 | 9.2 | Crime | img.jpg | godfather.mp4 |
| 3 | The Dark Knight | When the menace known as the Joker wreaks havoc and chaos on the people of Gotham, Batman must accept one of the greatest psychological and physical tests of his ability to fight injustice. | 2008-07-18 | 152 | 9 | Action | img.jpg | dark_knight.mp4 |
| 4 | endgame | With the stakes higher than ever, the heroes of the MCU must band together to defeat the most powerful villain they've ever faced. | 2023-11-24 | 206 | 10 | Action | img.jpg | endgame.mp4 |

mysql> select * from content;

DELETE MOVIES

```
mysql> select * from content;
```

| ContentID | Title | Description | Release_Date | Duration | Rating | ContentGenre | Image | Video_Name |
|-----------|---------------------|---|--------------|----------|--------|--------------|---------|-----------------|
| 2 | The Godfather | The aging patriarch of an organized crime dynasty transfers control of his clandestine empire to his reluctant son. | 1972-03-24 | 175 | 9.2 | Crime | img.jpg | godfather.mp4 |
| 3 | The Dark Knight | When the menace known as the Joker wreaks havoc and chaos on the people of Gotham, Batman must accept one of the greatest psychological and physical tests of his ability to fight injustice. | 2008-07-18 | 152 | 9 | Action | img.jpg | dark_knight.mp4 |
| 4 | Shashank Redemption | Shashank is a man who is sentenced to life in prison for a crime he didn't commit. He meets a fellow inmate who helps him escape. | 2023-11-27 | 190 | 9.6 | Crime | img.jpg | shashank.mp4 |

mysql> select * from content;

Delete a Movie

Select a movie to delete

Shawshank Redemption

▼

Delete Movie

Select a movie to delete

Shawshank Redemption

Delete Movie

| ContentID | Title | Description | Release Date | Duration | Rating | ContentGenre | Image | Video Name |
|-----------|-----------------|---|--------------|----------|--------|--------------|---------|-----------------|
| 2 | The Godfather | The aging patriarch of an organized crime dynasty transfers control of his clandestine empire to his reluctant son. | 1972-03-24 | 176 | 9.2 | Crime | gall | godfather.mp4 |
| 3 | The Dark Knight | When the menace known as the Joker wreaks havoc and chaos on the people of Gotham, Batman must accept one of the greatest psychological and physical tests of his ability to fight injustice. | 2008-07-18 | 152 | 9 | Action | img.jpg | dark-knight.mp4 |

CALCULATE REVENUE (PROCEDURE):

Calculate Revenue

Select Subscription Type

Basic

Calculate Revenue

Total Revenue for Basic users: \$9.99

Select Subscription Type

Basic

Total Revenue for Basic users: \$9.99

SEE ALL REVIEWS OF A USER (NESTED QUERY):

Select a User:

Fetch Reviews

| | Username | Email | Review | Title |
|---|----------|---------|---------------|---------|
| 0 | a | a@a.com | jsnjnfvjsnvsj | endgame |
| 1 | a | a@a.com | jetnjnj | endgame |

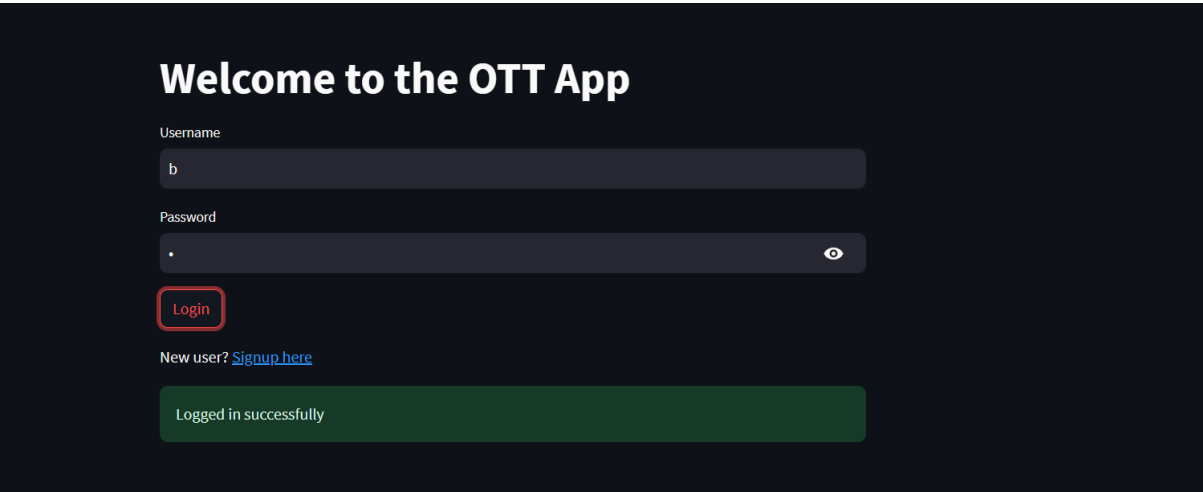
| | Username | Email | Review | Title |
|---|----------|---------|-----------------|---------|
| 0 | a | a@a.com | jsnjnfjvsjnsjlj | endgame |
| 1 | a | a@a.com | jetnjnj | endgame |

```
def fetch_reviews(username):
    query = '''
    SELECT user.Username, user.Email, review.Comment, content.Title
    FROM (
        SELECT UserID, Username, Email
        FROM user
        WHERE Username = %s
    ) user
    JOIN review ON user.UserID = review.UserID
    JOIN content ON review.ContentID = content.ContentID;
    '''

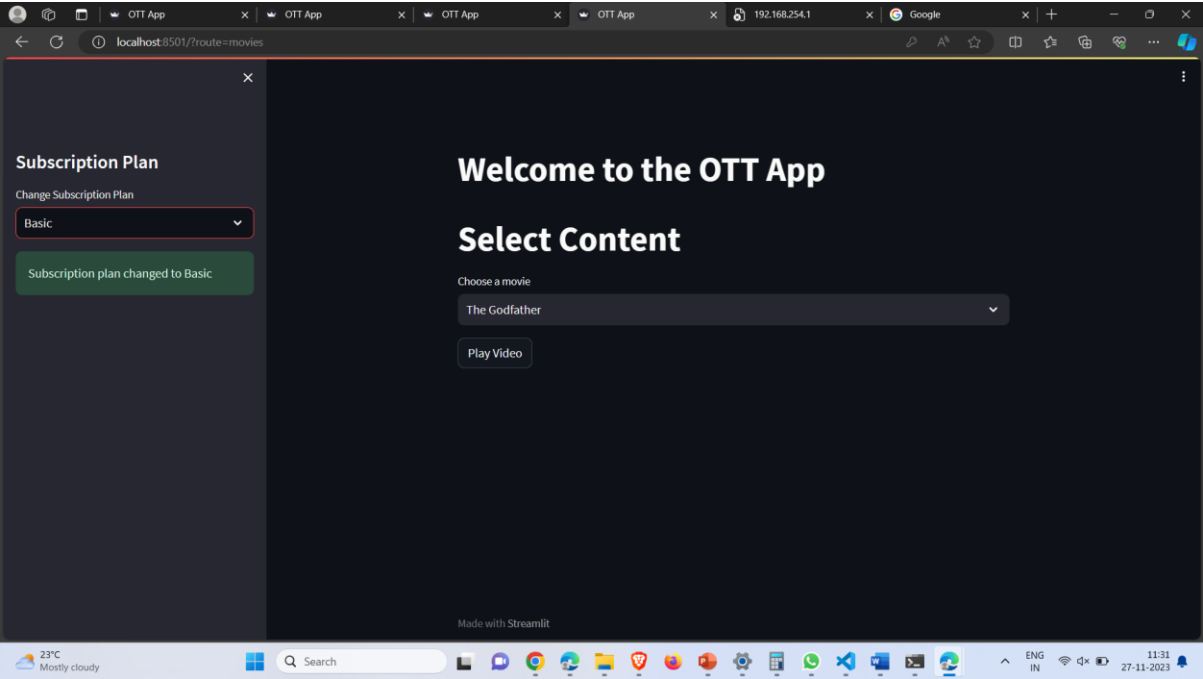
    cursor.execute(query, (username,))
    result = cursor.fetchall()
    return result
```

```
mysql> SELECT * FROM REVIEW;
+-----+-----+-----+-----+-----+-----+
| ReviewID | UserID | ContentID | Rating | Comment | Timestamp |
+-----+-----+-----+-----+-----+-----+
| 1 | 2 | 4 | 10 | jsnjnfvjsnvsj | NULL |
| 2 | 2 | 4 | 10 | jetnjnj | NULL |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

User Page:



CHANGE SUBSCRIPTION:



```
mysql> select username, Subscription_Name from user u, subscription s where u.Subscription_ID = s.SubscriptionID;
```

| username | Subscription_Name |
|----------|-------------------|
| myself | Admin |
| a | Basic |
| b | Basic |

```
3 rows in set (0.00 sec)
```

Subscription Plan

Change Subscription Plan

Premium

Subscription plan changed to Premium

Welcome to the OTT App

Select Content

Choose a movie

The Godfather

Play Video

Made with Streamlit

```
mysql> select username, Subscription_Name from user u, subscription s where u.Subscription_ID = s.SubscriptionID;
```

| username | Subscription_Name |
|----------|-------------------|
| myself | Admin |
| a | Basic |
| b | Premium |

```
3 rows in set (0.00 sec)
```

WATCH MOVIES:

Subscription Plan

Change Subscription Plan

Premium

Subscription plan changed to Premium


Select Content

Choose a movie

endgame

Play Video

endgame



OTT App x x x x x 192.168.254.1 x Google x + - x


localhost:8501/?route=video&video_name=endgame.mp4

Subscription Plan

Change Subscription Plan

Premium

Subscription plan changed to Premium



endgame Poster

Year of Release: 2023-11-24

Description: sdjknbskj

Duration: 200 minutes

Genre: action

Rating: 10.0


23°C Mostly cloudy 11:37 27-11-2023

OTT App x x x x x 192.168.254.1 x Google x + - x

localhost:8501/?route=video&video_name=endgame.mp4

Welcome to the OTT App

Video Player

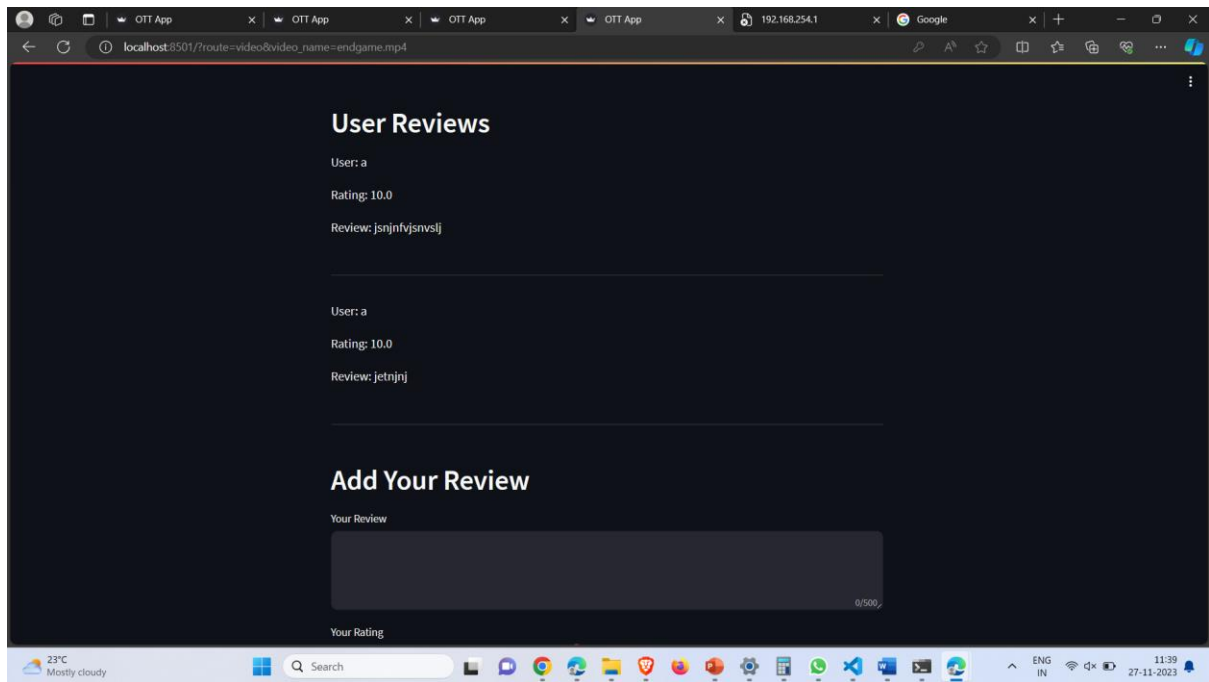


0:00 / 2:26

User Reviews

User: a

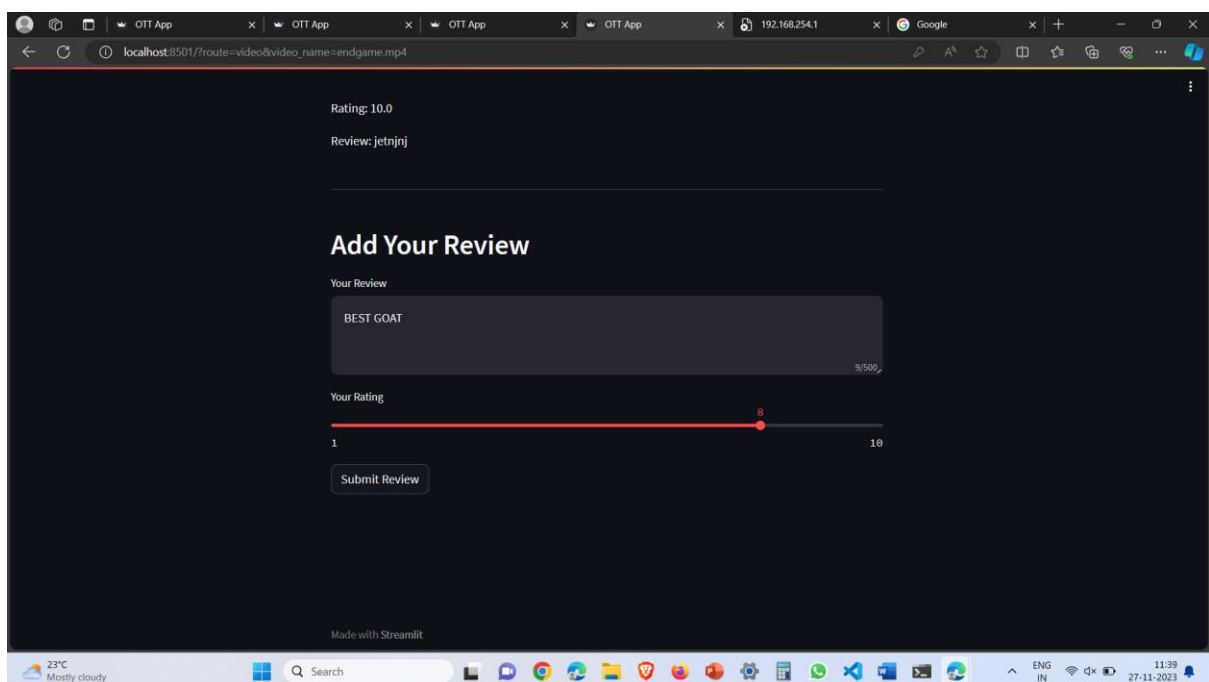
23°C Mostly cloudy 11:38 27-11-2023



```
mysql> SELECT * FROM REVIEW;
```

| ReviewID | UserID | ContentID | Rating | Comment | Timestamp |
|----------|--------|-----------|--------|-----------------|-----------|
| 1 | 2 | 4 | 10 | jsnjnfvjsnvsjlj | NULL |
| 2 | 2 | 4 | 10 | jetnjnj | NULL |

2 rows in set (0.00 sec)



User Reviews

User: a
Rating: 10.0
Review: jsnjnfvsjnsvlj

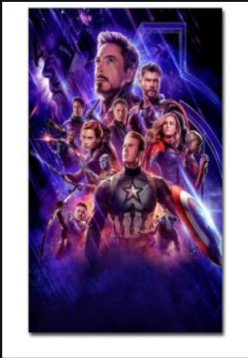
User: a
Rating: 10.0
Review: jetnjnj

User: b
Rating: 8.0
Review: BEST GOAT

```
mysql> SELECT * FROM REVIEW;
+-----+-----+-----+-----+-----+-----+
| ReviewID | UserID | ContentID | Rating | Comment      | Timestamp |
+-----+-----+-----+-----+-----+-----+
| 1        | 2      | 4         | 10     | jsnjnfvsjnsvlj | NULL      |
| 2        | 2      | 4         | 10     | jetnjnj       | NULL      |
| 3        | 3      | 4         | 8      | BEST GOAT     | NULL      |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

Trigger to modify rating:

```
mysql> SELECT * FROM CONTENT;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| ContentID | Title      | Description                                                                                               | Release_Date | Duration | Rating | ContentGenre | Image           | Video_Name      |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2        | The Godfather | The aging patriarch of an organized crime dynasty transfers control of his clandestine empire to his reluctant son. | 1972-03-24   | 175     | 9.2    | Crime       | img.jpg        | godfather.mp4   |
| 3        | The Dark Knight | When the menace known as the Joker wreaks havoc and chaos on the people of Gotham, Batman must accept one of the greatest psychological and physical tests of his ability to fight injustice. | 2008-07-18   | 152     | 9      | Action      | img.jpg        | dark_knight.mp4 |
| 4        | endgame       | sdjknbskj                                                                                               | 2023-11-24   | 200     | 10     | action      | endgame.jpg    | endgame.mp4     |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```



endgame Poster

Year of Release: 2023-11-24
Description: sdjknbskj
Duration: 200 minutes
Genre: action
Rating: 8.4

mysql> SELECT * FROM content;

| ContentID | Title | Description | Release_Date | Duration | Rating | ContentGenre | Image | Video_Name |
|-----------|-----------------|---|--------------|----------|--------|--------------|------------|-----------------|
| 2 | The Godfather | The aging patriarch of an organized crime dynasty transfers control of his clandestine empire to his reluctant son. | 1972-03-24 | 175 | 9.2 | Crime | img.jpg | godfather.mp4 |
| 3 | The Dark Knight | When the menace known as the Joker wreaks havoc and chaos on the people of Gotham, Batman must accept one of the greatest psychological and physical tests of his ability to fight injustice. | 2008-07-18 | 152 | 9 | Action | img.jpg | dark_knight.mp4 |
| 4 | Empire | empire.mp4 | 2013-11-26 | 200 | R.A | Action | empire.jpg | empire.mp4 |

2 rows in set (0.00 sec)