

Project 5 Natflix

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● Project Requirement

As the pandemic has led to an increase in the demand for our streaming service, we need to expand the range of our movies, series, and documentaries, which means that we need a newer, more secure, more robust, and scalable web-based application. Our frontend development team has built a frontend website and requires you to complete the application using your fantastic skills in database management, Java development, and REST APIs to make it a fully working website to stream media.

What was provide

Natflix provides a frontend web page designed to meet the needs, and I will start from it. React project containing the web page you will configure so it can communicate with a backend application created by you. This will allow Netflix to offer a service to stream videos to customers and manage the resources.

In addition, we provide a text file with data about the videos. The data of each video is the title, URL, source, and type of content like series, movies, or documentaries. Fixing the thumbnails and summary (if needed) are your tasks. Your app must enable the features requested in the mandatory requirements.

Mandatory requirements

We expect you to use Spring Boot to build your application and all REST APIs needed in the program. To manage the data, you must use a relational DBMS (we recommend MySQL). The application must then be containerized using Docker. This is a more complex project. it has 2 separate user roles:

Administrators: people who create, update, delete, and fill the information of each tv-series, movie, and documentary.

Customers: the ones that consume the content.

1. AUTHENTICATION

Authentication is the umbrella term for both login and sign-up. Customers can create free accounts and log in using the login page on the website. Administrators must access a secret like on localhost:3000/admin to log in. You cannot create an admin account from the website. make an admin account from the database and provide the login and password in the readme file.

2. PLAY A VIDEO

The application must show a specific amount and category of tv-series, movies, and documentaries. For each movie, there must be a clickable thumbnail, the video length, publication year, brief summary, and a tag if it is a tv series telling the number of episodes.

3. SEARCH

The application must show the best matching results, and not only the videos with matching titles (or creator) must be shown, but also those whose description contains that search word.

4. FILTERED PAGES

In the home page, there must be several options that each takes you to a different category (or genre). The only genres available are:

- Series
- Documentaries
- Movies

In turn, every content is classified as: Horror, Action, Comedy, Drama, Other. This will be used in future iterations of the project, to personalize the content for our customers.

5. ADMIN PANEL

There is a unique menu for the admin, where they can edit the content and add new tv series and movies. Any errors or exceptions must be handled effectively on the backend to avoid crashing the web page or losing data.

Extra requirements

After completing the mandatory requirements, these requirements should only be attempted to be developed. Having these extra requirements developed at the expense of the mandatory requirements do not earn you any points. Note these requirements may require modifications on the frontend.

1. HOSTING

Both the backend and the frontend must be deployed on Amazon Web Services.

2. SHOW THE WATCHED HISTORY

A user must be able to review their history of the last 10 watched videos. And provide all watched content with a tag.

3. CUSTOMER OTHER AUTHS

People hate to create new accounts to access a new service, so in order to help Natflex compete against its rival, the mighty Blockbuster, they ask us if we can also add Facebook, Twitter and/or Gmail login.

Deliverables

You must deliver your Git repository with a file Main.java as the starting point of the project inside the “src” folder. The .jar file and the container as well as a link to your AWS’s project must be delivered in the same repository

- Software Used

- Jira
- MySQL Workbench
- Postman
- IntelliJ IDEA
- Docker

- Project Flow -JIRA

The Project flow started by Jira Planning

The screenshot shows the Jira Backlog for the 'nflax' project. The backlog is organized into a sprint named 'NF Sprint 1' (10 Oct - 28 Oct) with 12 issues. The issues are listed with their IDs, descriptions, priorities, and status. The sprint is currently in progress, with 27 issues in the backlog and 0 completed.

Issue ID	Description	Priority	Status
NF-1	As a developer first understand the new concepts (MySQL, Spring boot) - Spike so that i can start working in a conti...	8	TO DO
NF-2	As a developer First setup your environment for developing the application -	3	TO DO
NF-3	As a developer once all setup done , point done the requirement based on the priority issues so that it will be easy to progress		TO DO
NF-7	As a developer ,first start creating the tables in db and their connections based on the requirement so that app will fetc...	5	TO DO
NF-8	As a developer , once setup with spring boot , connect the DB with spring boot		TO DO
NF-9	As a developer start creating the use cases which you plan to implement		TO DO
NF-10	As a developer i prioritise the customer view is more important than admin since it will help in showing some outcome a...	8	TO DO
NF-11	As a customer of the application , now he/she can view(Read) the data instead of fakefetch the real data and they can s...	3	TO DO
NF-12	As a admin now i must be able to add (CRUD) -----create , read, update(modify) and delete the contents of the application		TO DO
NF-13	As a application it needs some authentication to protect it		TO DO
NF-14	As a developer , on delivery i need to put all in docker image and deliver the jar file		TO DO
NF-18	It should only allow to view (read) the content which are in active status instead of fetching all content.		TO DO

Projects / nflax

Backlog

RR RR Epic ▾

🔍

▼ NF Sprint 1 10 Oct – 28 Oct (12 issues) 27 0 0 0 Complete sprint ▾

To deliver a Natflax project with modified frontend and backend in docker

- NF-1 As a developer first understand the n... 8 TO DO ▾ RR
- NF-2 As a developer First setup your envir... 3 TO DO ▾ RR
- NF-3 As a developer once all setup done , point done the require... TO DO ▾ RR
- NF-7 As a developer ,first start creating the tables in db ... 5 TO DO ▾ RR
- NF-8 As a developer , once setup with spring boot , connect the D... TO DO ▾ RR
- NF-9 As a developer start creating the use cases which you plan t... TO DO ▾ RR
- NF-10 As a developer i prioritise the customer view is mor... 8 TO DO ▾ RR
- NF-11 As a customer of the application , now he/she can ... 3 TO DO ▾ RR
- NF-12 As a admin now i must be able to a... + Epic 1 TO DO ▾ RR
- NF-13 As a admin now i must be able to add (CRUD) -----create , read, update(modify) and delete the contents of the application titication to protect it TO DO ▾ RR
- NF-14 put all in docker ima... TO DO ▾ RR
- NF-18 It should only allow to view (read) the content which are in ... TO DO ▾ RR

RR NF-12

Add epic /

As a admin now i must be able to add (CRUD) -----create , read, update(modify) and delete the contents of the application

To Do ▾

Description

Add a description...

Child issues Order by ▾ ... + 0% Done

- NF-15 Add create option to ... TO DO ▾
- NF-16 Add update option to... TO DO ▾

RR Add a comment...

Pro tip: press **⌘** to comment

How one task is linked with another task

Projects / nflax / Add epic / NF-18

It should only allow to view (read) the content which are in "active" status instead of fetching all content.

Attach Add a child issue Link issue ▾ ⋮

Description

Add a description...

Linked issues

+

blocks

NF-17 Add delete option to remove the content from displaying to the c... RR TO DO ▾

Add delete option to remove the content from displaying to the customer (DELETE)

Activity

Show: All Comments History

Newest first ↕

RR Add a comment...

Pro tip: press M to comment

Projects / nflax / NF-12 / NF-17

Add delete option to remove the content from displaying to the customer (DELETE)

Attach

Link issue

Description

Unsaved changes

Add a description...

Linked issues

is blocked by

NF-18

It should only allow to view (read) the content which are in "activ..."

RR

TO DO

Activity

Show: All Comments History

Newest first

RR

Add a comment...

Pro tip: press **M** to comment

To Do

Pinned fields

Click on the next to a field label to start pinning.

Details

Assignee, Labels, Sprint, Story point estimate, Re...

Created 18 minutes ago

Updated 14 minutes ago

Configure

Projects / nflax

NF Sprint 1

To deliver a Netflix project with modified frontend and backend in docker

RR

0 days remaining

Complete sprint

GROUP BY

None

Insights

TO DO 12 ISSUES

As a developer first understand the new concepts (MySQL, Spring boot) -Spike so that i can start working in a continuous process to update

NF-1

8

RR

As a developer First setup your environment for developing the application -

NF-2

3

RR

As a developer once all setup done , point done the requirement based on the priority issues so that it will be easy to progress

NF-3

RR

IN PROGRESS

DONE

Projects / nflax

NF Sprint 1

To deliver a Netflix project with modified frontend and backend in docker

0 days remaining

Complete sprint

...

GROUP BY: None

Insights

TO DO 2 ISSUES

As a application it needs some authentication to protect it

NF-13

As a developer , on delivery i need to put all in docker image and deliver the jar file

NF-14

IN PROGRESS 4 ISSUES

As a developer i prioritise the customer view is more important than admin since it will help in showing some outcome at first

NF-10

As a customer of the application , now he/she can view(Read) the data instead of fakefetch the real data and they can select whatever they like and they are allowed to view the video in "youtube"

NF-11

As a admin now i must be able to add (CRUD) -----create , read, update(modify) and delete the contents of the

DONE 6 ISSUES

As a developer first understand the new concepts (MySQL, Spring boot) -Spike so that i can start working in a continuous process to update

NF-1

As a developer First setup your environment for developing the application -

NF-2

As a developer once all setup done , point done the requirement based on the priority issues so that it will be easy to progress

NF-3

TO DO

IN PROGRESS 3 ISSUES

As a admin now i must be able to add (CRUD) -----create , read, update(modify) and delete the contents of the application

NF-12

As a application it needs some authentication to protect it

NF-13

As a developer , on delivery i need to put all in docker image and deliver the jar file

NF-14

DONE 9 ISSUES

As a developer first understand the new concepts (MySQL, Spring boot) -Spike so that i can start working in a continuous process to update

NF-1

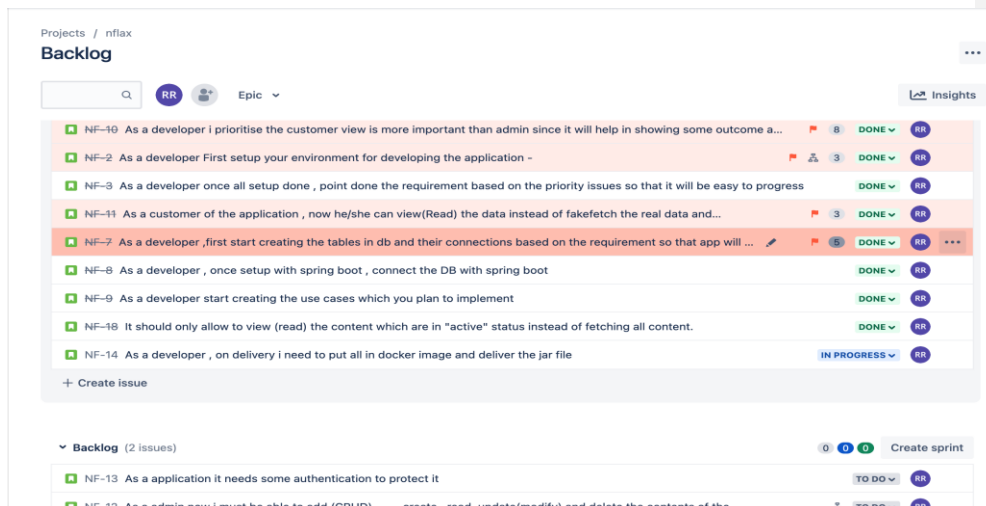
As a developer i prioritise the customer view is more important than admin since it will help in showing some outcome at first

NF-10

As a developer First setup your environment for developing the application -

NF-2

As a developer once all setup



- Backend (Spring Boot) - setup

Install MySQL workbench and set root password which are need to set the connection with the spring boot.

IntelliJ IDEA spring boot application was created with maven using the following steps available from <https://start.spring.io/>

Set up -Maven Project and Java 17 and Spring Web dependency.

Once it's done add Database setup also in pom.xml file for mysql and jpa. Like this

```
<dependency>
  <groupId>mysql</groupId>
  <artifactId>mysql-connector-java</artifactId>
  <scope>runtime</scope>
</dependency>
```


Then in the application.properties file under (src-main-resources) add the setup for port and database setup to connect the front end with the backend.

```
server.port=8000 |
spring.jpa.hibernate.ddl-auto=update
spring.datasource.url=jdbc:mysql://localhost:3306/natflix
spring.datasource.username=root
spring.datasource.password=(your database root password)
spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver
#spring.jpa.show-sql:true
spring.datasource.validationQuery=Select 1
spring.datasource.testWhileIdle=true
server.servlet.context-path=/api |
```

Commented [RR1]: this is spring boot with Database backend port number where u can see json files with data from database table

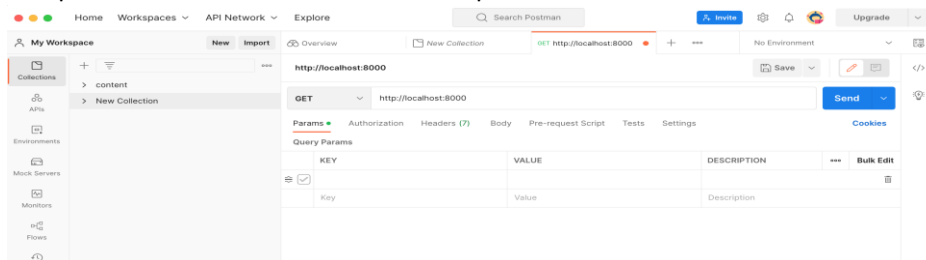
Commented [RR2]: to run the front end with backend using this endpoint /api.

• MySQL

Table structure

content	details_content	-details_series	content_type	content_category	user
Id = 1,2,3,	Id	Id	Id	Id	Id
title = name of series,movie or document	Content id(foreign key)	content id(FK)	type(series, movie, document,)	category(comedy, horror, romantic)	Email
type_id =tv-series,document,movie	Video code:	Season number			Hashed password
category_id = (comedy, drama, action)		Episode number			User_name
Summary =(description)		Series title			Password
		Summary			
		thumbnail_url			
		video_code			

Use postman to check how each diff endpoint fetch data from the database.



- Front end -setup

Front end - <https://github.com/Novare-Potential/Natflix-frontend>

Clone the project and execute the commands

install npm

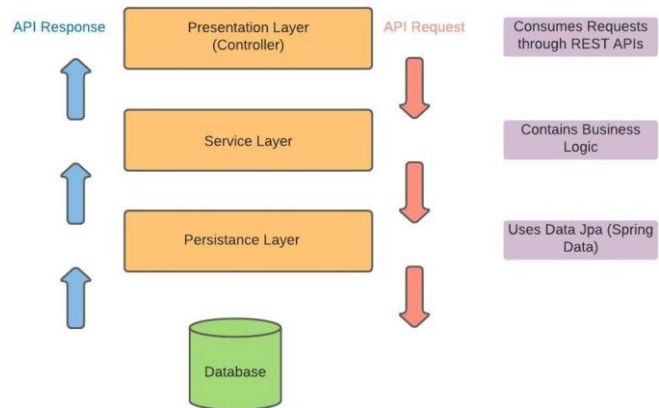
I added proxy to the package.json file in the frontend code and modified the fakefetch which was initially having fake items, which I changed to fetch from the (API)s /endpoints.

"proxy": "http://localhost:8000",

Then type in terminal in the source folder :npm run start

Now the application run in port- http://localhost:3000

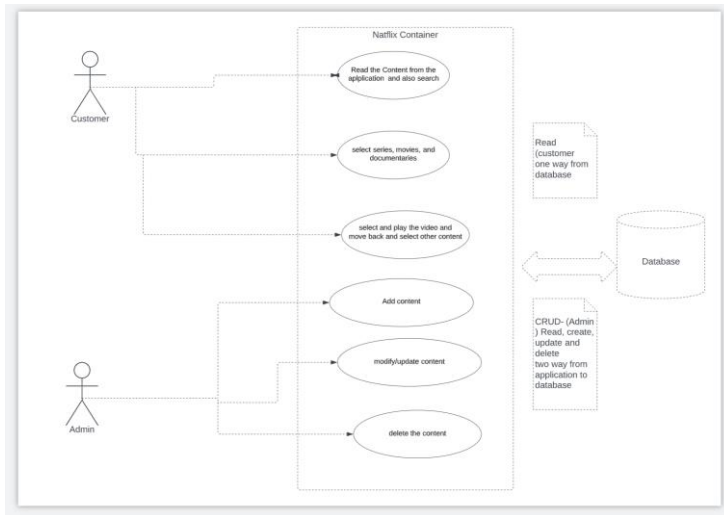
- How They work all together (frontend & backend)



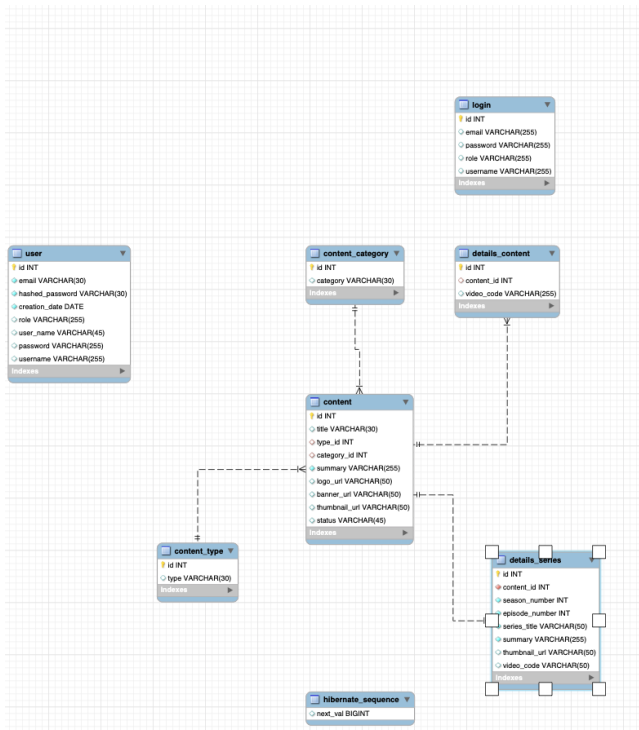
- Docker – setup

<https://github.com/bWNyeQ/novare-docker-compose>

- Use Case Diagram

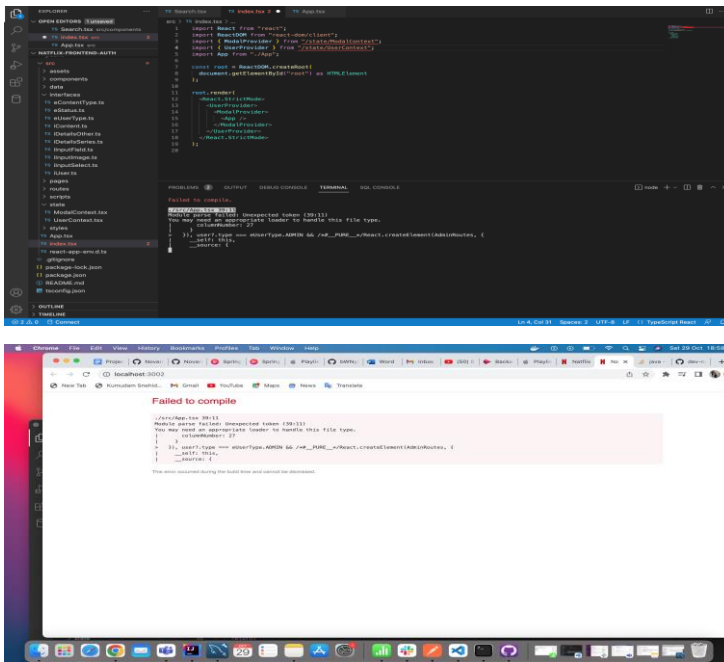


- ER diagram



- Notes to Reviewer

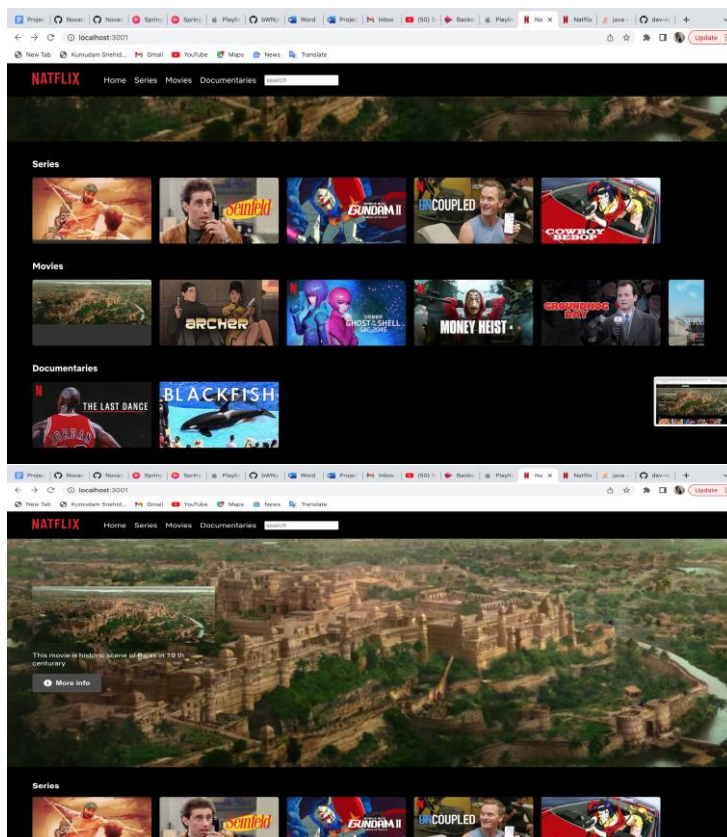
I tried authentication but I faced either page stuck without refreshing and page not found error, then I tried even other updated version I get some kinds of error like this with path error I fix one I get others like this ...I tried with my best



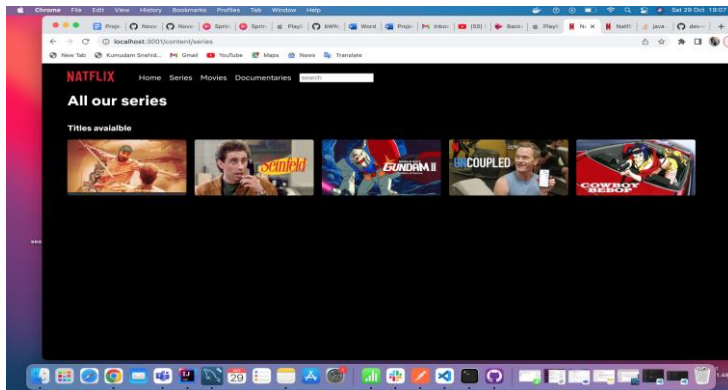
And since authorization was not working, I didn't include role wise access to the CRUD operations in backend.

I did with Content page and also for series, movies and documentaries and search option.

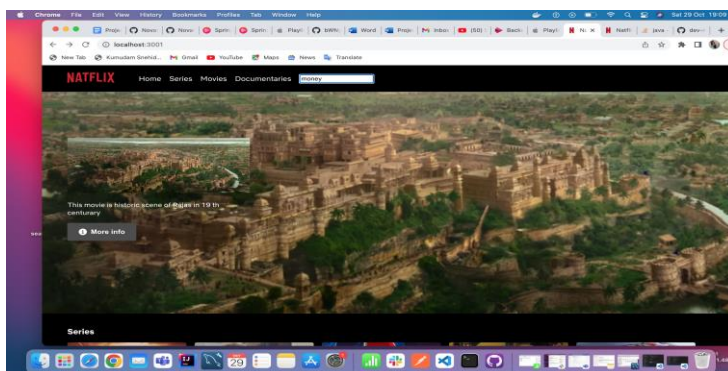
The outcome for content/Home page



Series Page as well as series category

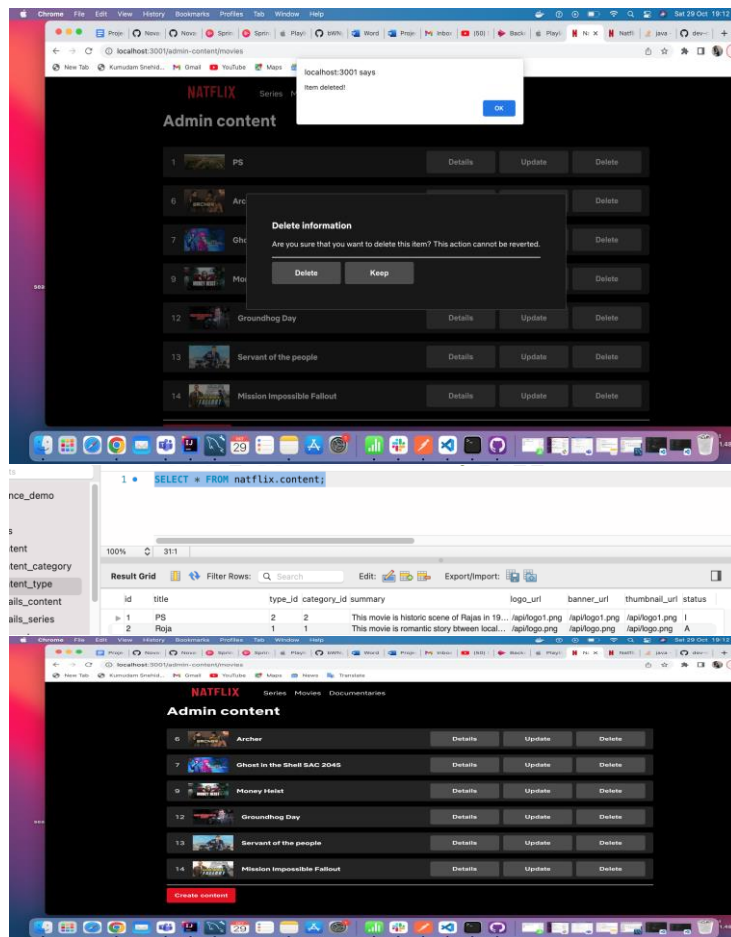


Search – enter search word and press enter

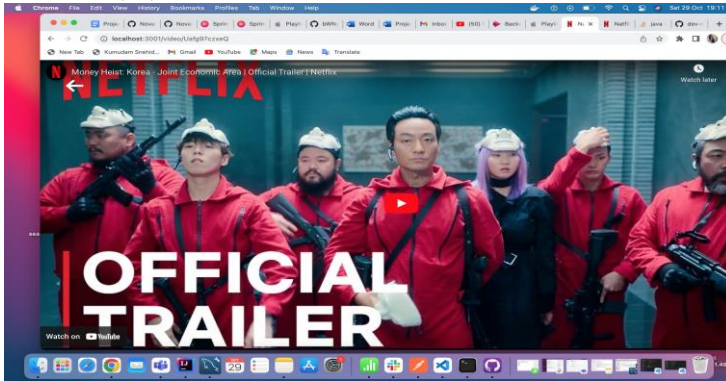


For admin

I have done for delete (I choose to instead of deleting completely I choose to make the status as inactive which will make the movie not available for view)



I can able to play the video:



- Issues Faced and Future planning

I am currently trying to do POST and PUT – with more time I would have done and also try to deliver the project with docker.

I tried with maven to generate jar file where I faced issues in mac ...

