COSC 31093 / BECS 31213

Enterprise Software Design and Architecture

Group Project – Group 04

Netflix Case study

User Guide

Figure 1: Netflix logo, (Nisha, 2023)

Acknowledgement

As the students of group 4, we would like to express my sincere gratitude to Dr. Mrs. Toshini Kumarika for her invaluable guidance and support throughout this module. Her expertise and dedication have been instrumental in enhancing my understanding and skills. I would also like to thank all group members for their collaboration and teamwork. Their contributions and commitment have been essential to the successful completion of this assignment.

Thank you all for your encouragement and assistance.

Introduction

This tutorial offers detailed instructions for configuring and launching a Spring Boot backend with a React frontend. React is used in the frontend build process, and IntelliJ IDEA is used for the backend, which is powered by Spring Boot.

Prerequisites

- Node.js and npm installed
- installed the Java Development Kit (JDK)
- installed IntelliJ IDEA
- Installed Git (version control optional)

Step-by-Step Guide for Backend

1. Setting Up the Backend (Spring Boot)

    1.1. Generate the Project using Spring Initializer

- Open your web browser and navigate to Spring Initializer.
- Configure your project with the following settings:
- Project: Maven Project

- Language: Java
- Spring Boot: 2.7.0 or later

Project Metadata:

- Group: com.example
- Artifact: Netflix
- Name: Netflix
- Package name: com.example.Netflix

Dependencies:

- Spring Web
- Spring Data JPA
- MySQL Driver (or H2 for in-memory database)
- Thymleaf
- Lombok
- Hibernate

Click on Generate to download the project as a .zip file.

Extract the .zip file to your desired directory.

1.2. Import the Project into IntelliJ IDEA

Open IntelliJ IDEA.

Click on File -> Open.

Navigate to the extracted project folder and select it.

IntelliJ will automatically detect the project and import it.

1.3. Configure Application Properties

- Open src/main/resources/application.properties.
- Configure the necessary properties, such as database connection details:

application.properties

spring.application.name=netflix-backend

spring.datasource.url=jdbc:mysql://localhost:3306/Netflix

server.port=3000

spring.datasource.username=root

spring.datasource.password=

spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver

spring.jpa.hibernate.ddl-auto=update

spring.jpa.show-sql=true

spring.jpa.properties.hibernate.format_sql=true

server.error.whitelabel.enabled=false

2. Then we can develop the source code for the Backend as we created it in Erp-Final-Group-04-Source Code.

2.1. Run the Spring Boot Application

1. Locate the main class annotated with @SpringBootApplication (e.g., NetflixApplicationTest.java).
2. Right-click on the main class and select Run.
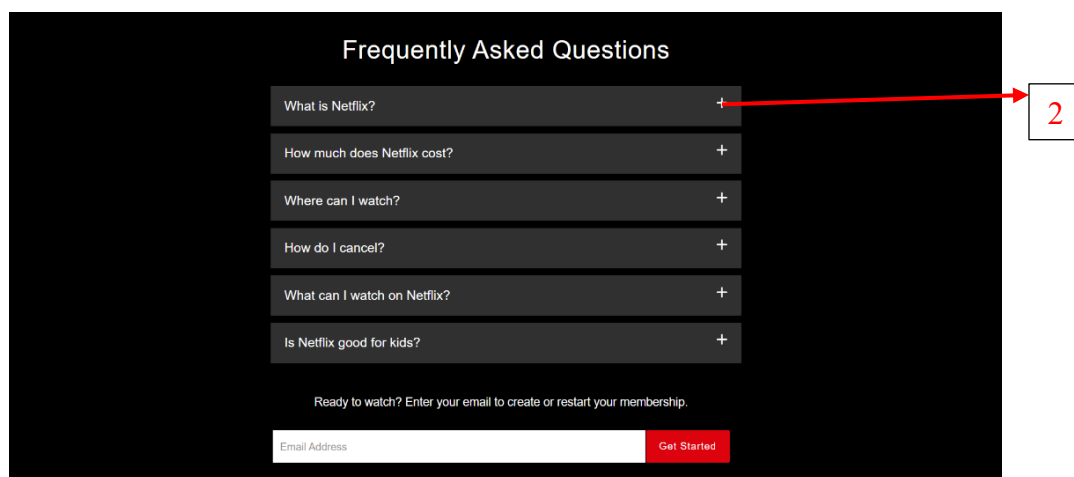3. The Spring Boot application should start, and you can access it at http://localhost:3000.
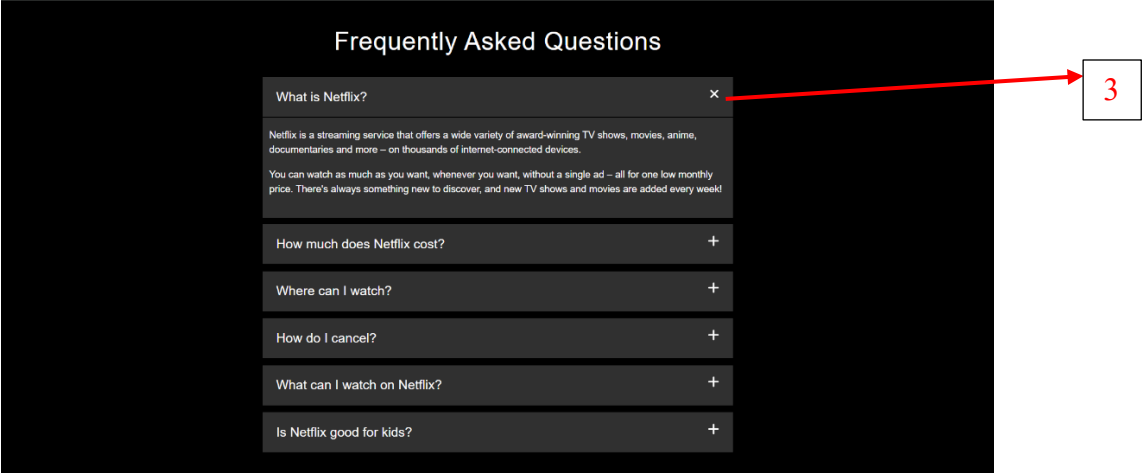
Step-by-Step Guide for Frontend

1.Setting Up the Frontend (React)
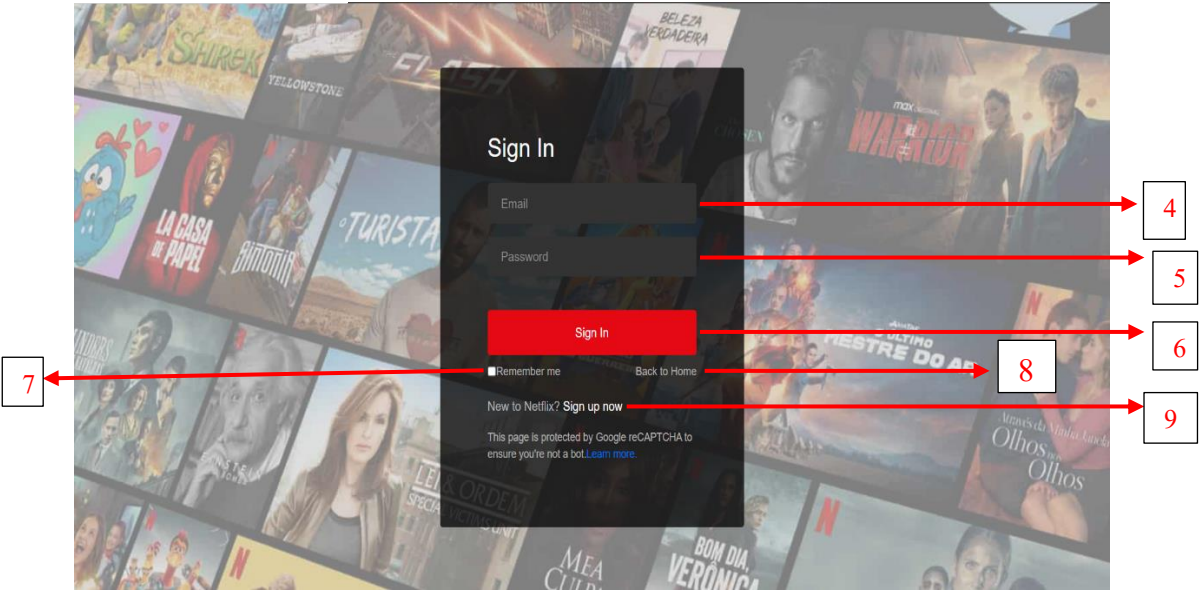
1.1 Create a React Application

1. Open your terminal or command prompt.

2. Navigate to the directory where you want to create the React application.

3. Run the following command to create a new React app:

   - npx create-react-app netflix-frontend-main

- cd netflix-frontend-main
- npm install

4. Then you can update your js files and json files to obtain desired interface for your frontend.

2.Implementation of Netflix Frontend

Frequently Asked Questions

What is Netflix? ×

Netflix is a streaming service that offers a wide variety of award-winning TV shows, movies, anime, documentaries and more – on thousands of internet-connected devices.

You can watch as much as you want, whenever you want, without a single ad – all for one low monthly price. There's always something new to discover, and new TV shows and movies are added every week!

How much does Netflix cost? +

Where can I watch? +

How do I cancel? +

What can I watch on Netflix? +

Is Netflix good for kids? +

Sign In Form

Text box No:	description
1	Press Sign in button to sign in
2	Frequently asked question in system
3	Answers for question
4	Enter email
5	Enter a password
6	Sign in button

7	Remember you when you logged in again
8	Go back to home page
9	Sign up if you don't have account

Sign Up Form
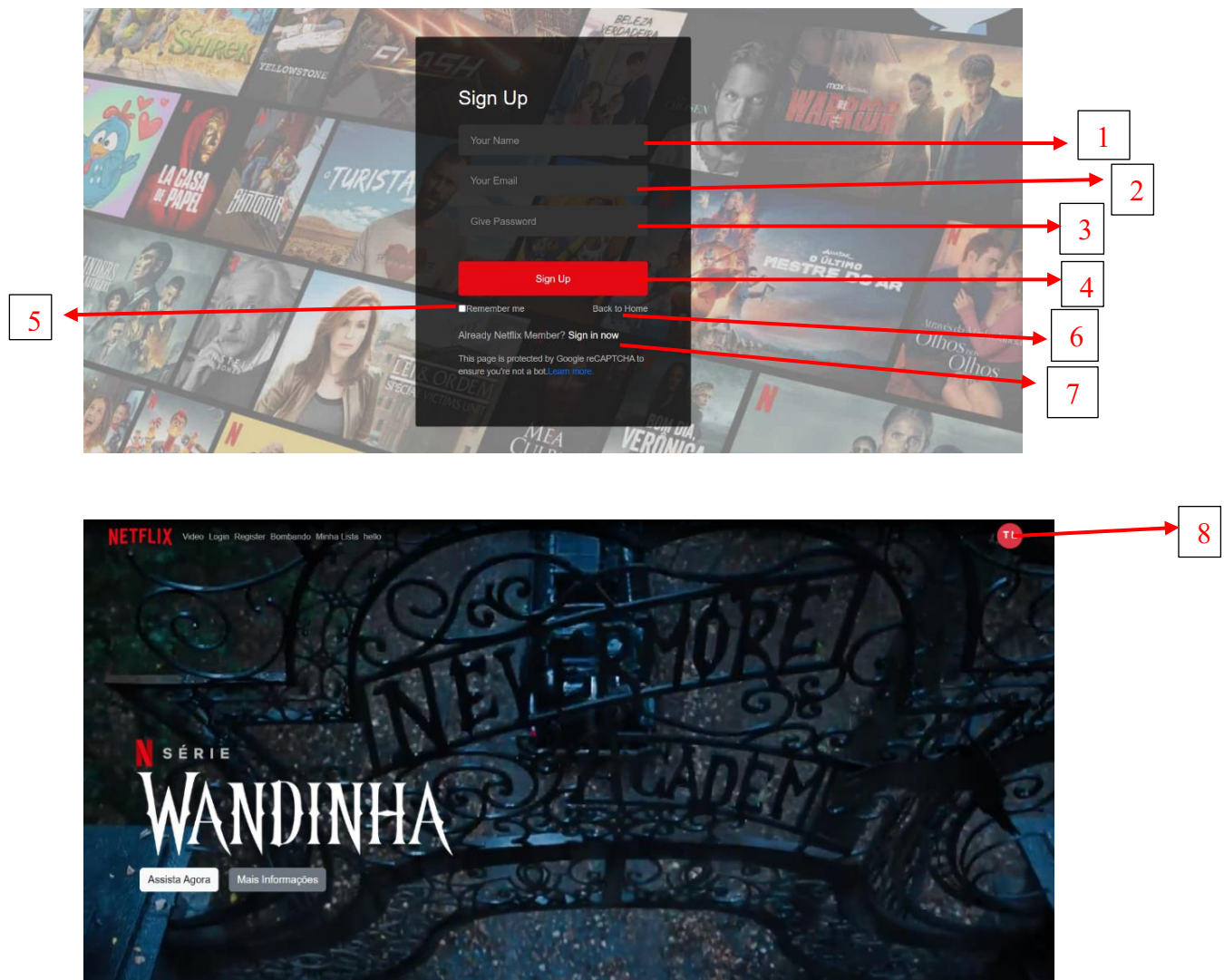
Text box No:	description
1	User's first name and last name
2	User's email
3	Create a password
4	Sign up button
5	Remember the user when logged in again
6	Go back to home page
7	If have account, then sign in
8	When logged in displaying icon of the profile

Video Gallery

All Video
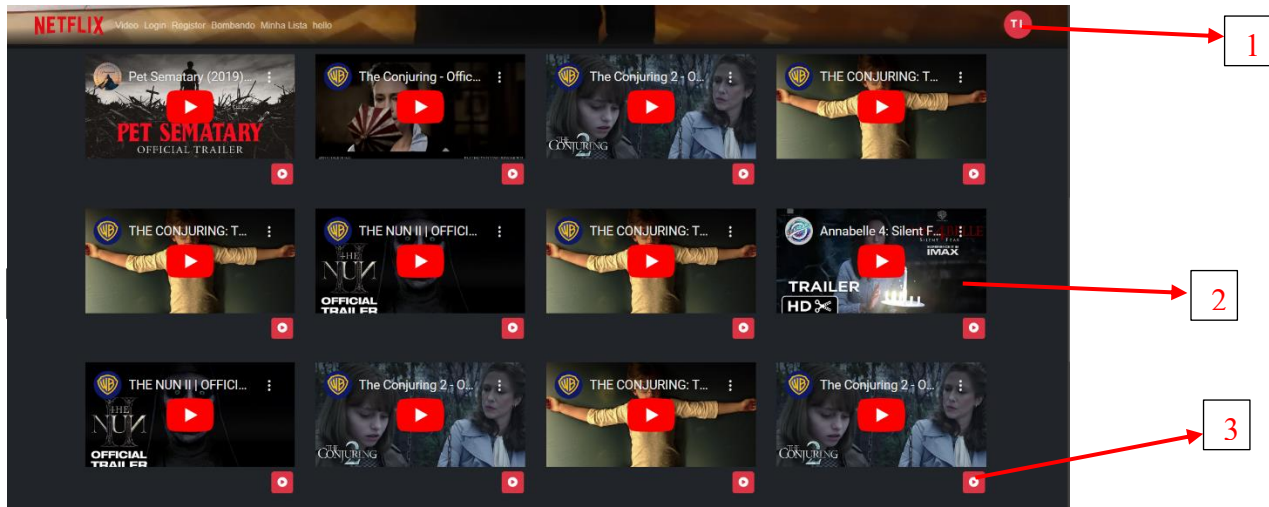
Updating details of a video

NETFLIX

- Home
- Video
- **Subscription**
- Financial
- Trending
- Settings
- Help
- Report
- Feedback

≡ Subscribers

Search Movie [Search]

User ID	User Name	User Email	User Password	UserRole	Added Date	Added Time	More Actions
9	Kaveesh Perera	kaveesh@gmail.com	kaveesh123	Admin	2024-07-13	09:14:16	Delete
10	Mayura Lakshan	mayura@gmail.com	mayura123	User	2024-07-13	13:27:12	Delete
14	Bhashitha Kaveesh	bhashitha@gmail.com	asdqwe123	Admin	2024-07-21	08:11:41	Delete
16	Pasindu Pramuditha	pasindu@gmail.com	asd123	User	2024-08-03	11:32:37	Delete

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NETFLIX

- Home
- Video
- Subscription
- Financial
- **Trending**
- Settings
- Help
- Report
- Feedback

≡ Trending

[Add] [Logout]

Record ID	Record ID	Video ID	Video Title	Type	Added Date	Added Time	More Actions
62	k10ETZ41q5o	Conjuring 1	Kaveesh Perera	kaveesh@gmail.com	2024-07-13	13:22:46	Delete
63	h9Q4zZS2v1k	The Nun	Mayura Lakshan	mayura@gmail.com	2024-07-13	13:22:50	Delete
64	VIlcgXSIJkE	Pet Sematry	Kaveesh Perera	kaveesh@gmail.com	2024-07-13	13:23:25	Delete
65	h9Q4zZS2v1k	Conjuring 3	Kaveesh Perera	kaveesh@gmail.com	2024-07-13	13:23:28	Delete
66	VIlcgXSIJkE	Pet Sematry	Kaveesh Perera	kaveesh@gmail.com	2024-07-13	14:47:56	Delete
67	k10ETZ41q5o	Conjuring 1	Kaveesh Perera	kaveesh@gmail.com	2024-07-13	14:47:59	Delete
68	KyA9AtUOqRM	Conjuring 2	Kaveesh Perera	kaveesh@gmail.com	2024-07-13	14:48:01	Delete
69	h9Q4zZS2v1k	Conjuring 3	Kaveesh Perera	kaveesh@gmail.com	2024-07-13	14:48:03	Delete
70	AqF9CP0iFDI	The Nun	Kaveesh Perera	kaveesh@gmail.com	2024-07-13	14:48:05	Delete
78	h9Q4zZS2v1k	Conjuring 3	Kaveesh Perera	kaveesh@gmail.com	2024-07-13	15:00:56	Delete
79	h9Q4zZS2v1k	Conjuring 3	Kaveesh Perera	kaveesh@gmail.com	2024-07-13	15:00:56	Delete
80	h9Q4zZS2v1k	The Nun	Kaveesh Perera	kaveesh@gmail.com	2024-07-13	15:01:03	Delete
81	QF-oyCwaArU	The Nun	Kaveesh Perera	kaveesh@gmail.com	2024-07-13	15:01:06	Delete

11

Text box No:	description
1	When user logged in the profile icon
2	Subscribed movies or series
3	User can click the icon to watch the movie or series
4	To add video to database
5	To admin logout
6	To update video details
7	To delete a specific video
8	To save added video in the database
9	Go back to the dashboard
10	To delete a subscriber
11	To delete trending video
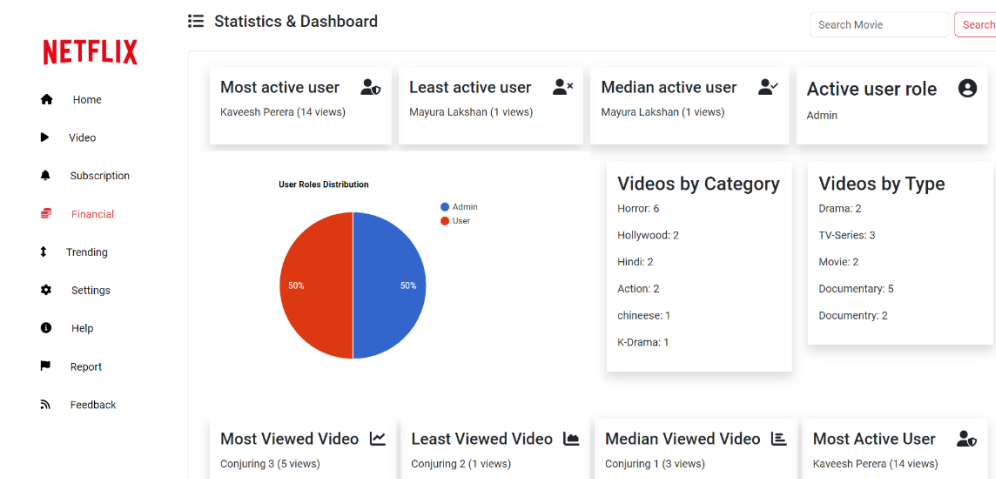
This dashboard is showing key information such as the most and least active users, user roles, and popular video categories. It provides a visual overview of user activity and video content types on the platform.
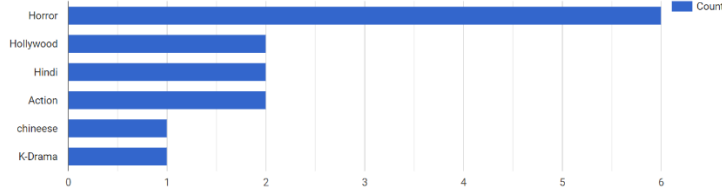
Our platform, highlights key data such as the most and least viewed videos and the most active user. It includes a bar chart displaying the distribution of video categories, showing how many videos are available in each genre like Horror, Hollywood, and K-Drama. Additionally, a line graph tracks the number of views over time on a weekly basis, helping users understand viewing trends.
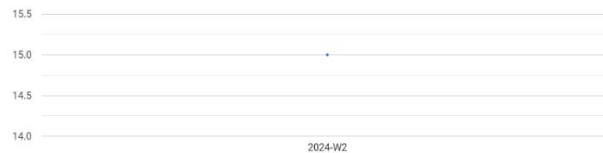
The map feature visually displays global data with color-coded countries. Each country's shade of red indicates data presence and intensity, which can be interpreted using the color scale at the bottom. The scale shows the data range, helping users quickly grasp the distribution and magnitude of information across different regions.

Additional Resources

React Documentation: React Docs

Spring Boot Documentation: Spring Boot Docs

Node.js and npm: Node.js Docs

Conclusion

Following this guide, you should be able to set up and run your React frontend and Spring Boot backend applications. Ensure all configurations are correct and dependencies are installed. For any further assistance, refer to the official documentation or community forums.

Team Members

Student number	Group Member
PS/2020/010	A.E.P.P. JAYASEKARA
PS/2020/012	A.M.L. ATHUKORALA
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Table 1: Group members