

Project Name:

Video Streaming Application (Netflix Clone)

Course name:

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Names of the Project Team Members

S.No.	Name	Roll No.
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Explain what the project does in points

- Video Streaming Application is a web based application that allows the users to browse the videos.
- This is a server-side application that will handle fetching and streaming videos, generating thumbnails for your videos using TMDB Movie Database
- Users need to login/sign up to the application view the videos.
- Users have to subscribe to a monthly plan from the 3 available plans – Basic, Premium and Standard.
- Videos can be browsed from the following categories- Netflix Originals, Trending Now, Top Rated, Popular Movies, Upcoming Movies, Action Movies, Comedy Movies, Horror Movies and Romance Movies.
- By clicking on a video thumbnail, the YouTube Video Player opens playing the video.
- Reviews page displays all the reviews of this entire application, signed In users can add multiple Reviews(give Feedback), update and delete them
- The Frequently Asked Questions Page include a series of questions that are commonly asked by customers.
- The Contact Us Page explains why users should contact them, describe what problems they are facing using this application and how they can help solve their users' problems.

a. Take one scenario

Login form (User Signing In Page)

b. Presentation

The User clicks on Sign-In(or Getting Started), and the Sign-Up Page occurs, then enters 'email' and 'password' in the Textboxes of the Sign-In form, the 'email' and 'password' values are sent to the function `auth.signInWithEmailAndPassword()`

c. Service

The 'email' and 'password' values sent to the function `auth.signInWithEmailAndPassword()`, which checks if email and password is in correct string

2 cases will occur

i)Login status:"0-login unsuccessful"

if {login failed=pop up text will appear stating "There is no user record corresponding to this identifier. The user may have been deleted"}

ii)Login status:"1-login successful"

if {login success=the page will get redirected to homepage }

d. DAO

it return status of checking user login details in DB in the form of boolean/String value, it checks if conditions are met in Firebase built-in Authentication Rules and user defined Rules

Some scenarios where you got stuck in the project and how did you overcome.

- Login Authentication with Firebase and Collection Rules

We faced errors in setting up authentication using Firebase and also creating collections in Firebase DB. We overcame this by setting the correct rules, like only the signed-in user can add a review.

- Playing the original movie/TV-show video

Since cannot play the original movies and TV-shows playing in the video player, we used a function that searches YouTube based on the movie name which is pulled using API from the TMDB Database

- Adding Payment Method for User Plans Subscription

To add Stripe extension to firebase, while trying to add my card, the following Payment form error gets displayed “Your Credit/Debit Card does not support international automatic recurring payments”, on further investigation found that most Indian individual users are having this problem with firebase due to 3D secure verification service. So, we did without payment, that is user can subscribe a monthly plan, just by button click and it enters in database without real payment.

Learnings during the project

- We learnt the following technologies
- We learnt the React framework, its features, React allows developers to create large web applications.
- It allows you to use state and other React features without writing a class. Hooks are the functions which "hook into" React state and lifecycle features from function components.
- We used basic React Redux, which is the official React UI bindings layer for Redux. It lets your React components read data from a Redux store, and dispatch actions to the store to update state.
- Asana web application which helped us to assign, organize, track, and manage the project work, among us.
- Firebase and using its built-in Authentication
- Firestore, used as database which is a cloud-hosted, NoSQL database like MongoDB
- Firebase Security Rules work by matching a pattern against database paths, and then applying custom conditions to allow access to data at those paths.
- GitHub - It lets you and others work together on projects from anywhere. We could share our code among other team members

