React.js

Lecture 3

Agenda

- Recap last lecture.
- Routing
- Axios
- API Integration
- Questions!

Routing

Routing is the capacity to show different pages to the user. That means the user can move between different parts of an application by entering a URL or clicking on an element.

React at its core is a very simple library, and it does not dictate anything about routing so you need to install it first :

`npm install react-router-dom@5`

https://v5.reactrouter.com/web/example/basic

Routing

\<BrowserRouter\>

A \<Router\> that uses the HTML5 history API (pushState, replaceState and the popstate event) to keep your UI in sync with the URL.

\<Route\>

The Route component is perhaps the most important component in React Router to understand and learn to use well. Its most basic responsibility is to render some UI when its path matches the current URL.

Routing

`<Link to="/">Home</Link>`

Provides declarative, accessible navigation around your application.

Routing hooks :

useHistory : The useHistory hook gives you access to the history instance that you may use to navigate.

useParams : useParams returns an object of key/value pairs of URL parameters.

Axios

Axios is basically an external library, which is used to make promise based HTTP calls

```
import axios from 'axios';


export const instance =
axios.create({
  baseURL: 'API BASE URL',
});
```

Axios

After initialize axios instance you can use it for API calling to integrate with backend server :

```
instance.post('/endpoint_name')

  .then(function (response) {

    console.log(response);

  })

  .catch(function (error) {

    console.log(error);

  });
```

Let's check Axios Docs

Interceptors

Interceptors are functions that Axios calls for every request to transform the request before Axios sends it, or transform the response before Axios returns the response to your code.

There are two types of interceptors:

- **request interceptor:** this is called before the actual call to the endpoint is made.
- **response interceptor:** this is called before the promise is completed and the data is received by the then callback.

Interceptors

To use interceptors you need his two methods for request and another for response :

```
axios.interceptors.request.use(function (config) {

    // Do something before request is sent

    return config;

  }, function (error) {

    // Do something with request error

    return Promise.reject(error);

  });
```

Interceptors

To use interceptors you need his two methods for request and another for response :

```
// Add a response interceptor

axios.interceptors.response.use(function (response) {

    // Do something with response data

    return response;

  }, function (error) {

    // Do something with response error

    return Promise.reject(error);

  });
```

Interceptors

Interceptors can be used for example :

- Show loader in request method and hide it in response one
- Set authorization header
- Set Accept-language key based on user selected language
- Handling general errors returned from API

Thank you

Lecture 3
LAP

Task : Movies App

1 - Add navbar with links for different pages as shown in task

Create account on the movie database website :

https://www.themoviedb.org/login

2- get Movies list using API :

https://api.themoviedb.org/3/movie/popular?api_key={apiKey}

3- using dynamic routes get movie details data using API :

https://api.themoviedb.org/3/movie/880009?api_key={apiKey}

Where 880009 is the movie ID you will get from the url
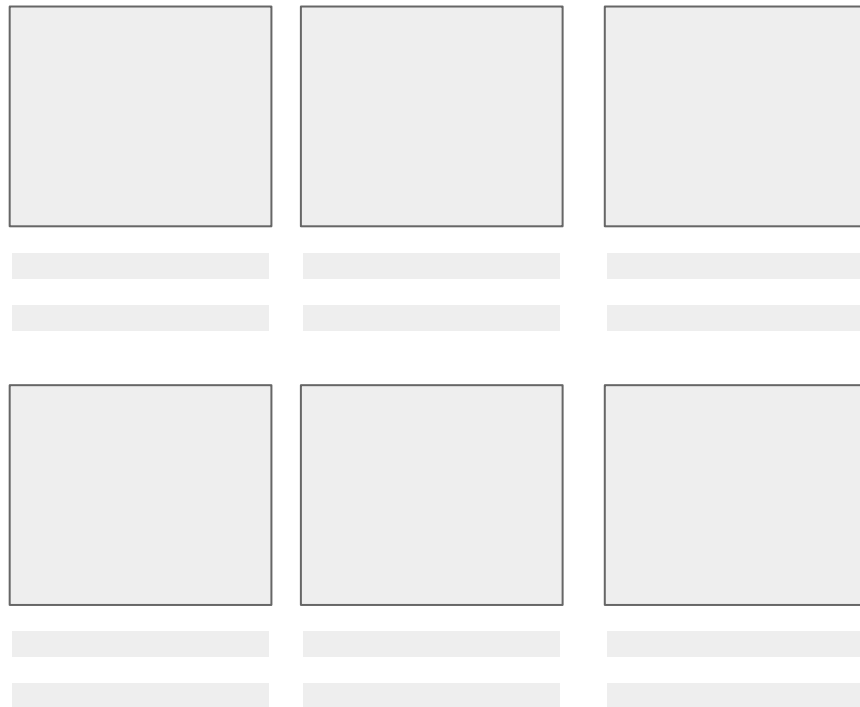
Task : Movies App
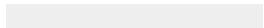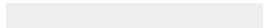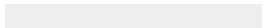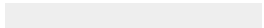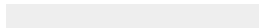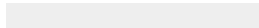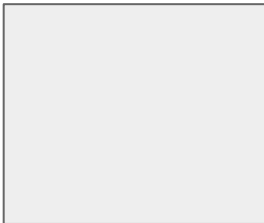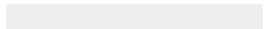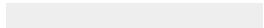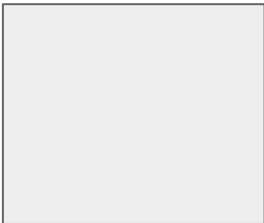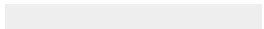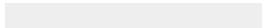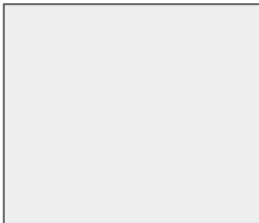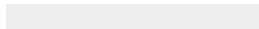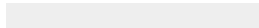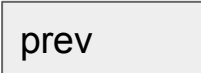
4-Handle pagination by send query params to url called **page** **[Bonus]**

https://api.themoviedb.org/3/movie/popular?api_key=7a1c19ea3c361a4d3cc53eb70ef8298c&**page=4**

5- Apply search for movies using the following api

https://api.themoviedb.org/3/search/movie?api_key=7a1c19ea3c361a4d3cc53eb70ef8298c&**query={MovieName}** **[Bonus]**

prev   next

Task : Movies App

For images please add static url part to img src before poster_path key

https://image.tmdb.org/t/p/w500/${poster_path}

Movies DB link:

https://developers.themoviedb.org/3/movies/get-popular-movies
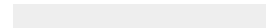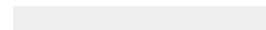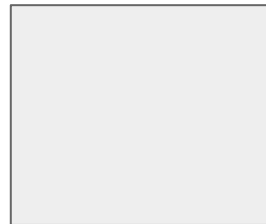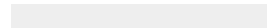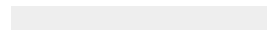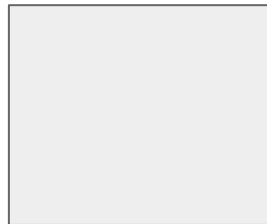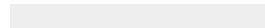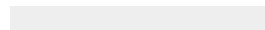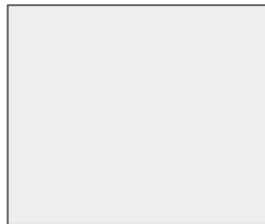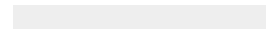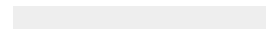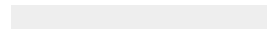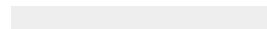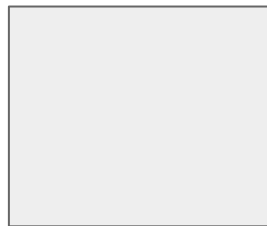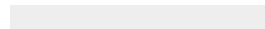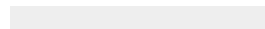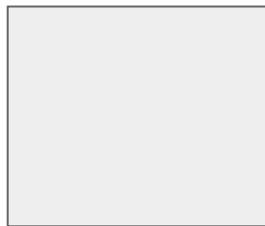
Release Date ⌄   Filters ⌄

Rogue One: A Star Wars Story
Science fiction film/Action

Moana
Fantasy/Adventure

Arrival
Mystery/Science fiction film

Fist Fight
Comedy
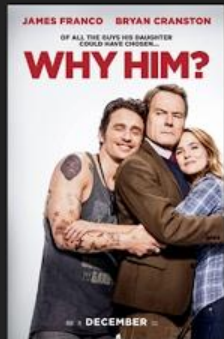
Get Out
Thriller/Horror

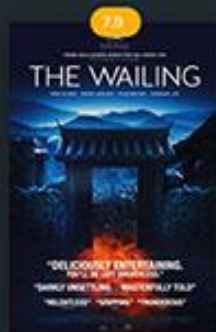**Assassin's Creed**
Fantasy/Science fiction film

Doctor Strange
Fantasy/Science fiction film

New Releases

| 7.9 | 8.1 | 6.8 | 6.7 | 7.1 |

The Wailing
Mystery, Thriller

Warcraft
Action, Adventure, Fantasy

The Space Between Us
Adventure, Drama, Sci-Fi

The Witch
Horror, Mistery

The Shallows
Drama, Horror, Thriller

| 7.8 | 5.9 | 6.2 | 7.0 | 6.8 |

X-Men: Apocalypse
Action, Adventure, Sci-Fi

Me Before You
Drama, Romance

Now You See Me 2
Action, Comedy, Thriller

The Fits
Drama

Money Monster
Crime, Drama, Thriller