

React redux series net ninja

<https://www.youtube.com/watch?v=OxIDLw0M-m0&list=PL4cUxeGkcC9ij8CfkAY2RAGb-tmkNwQHG>

Lecture 1:

Redux Definition

Redux is a layer on top of react to do state management

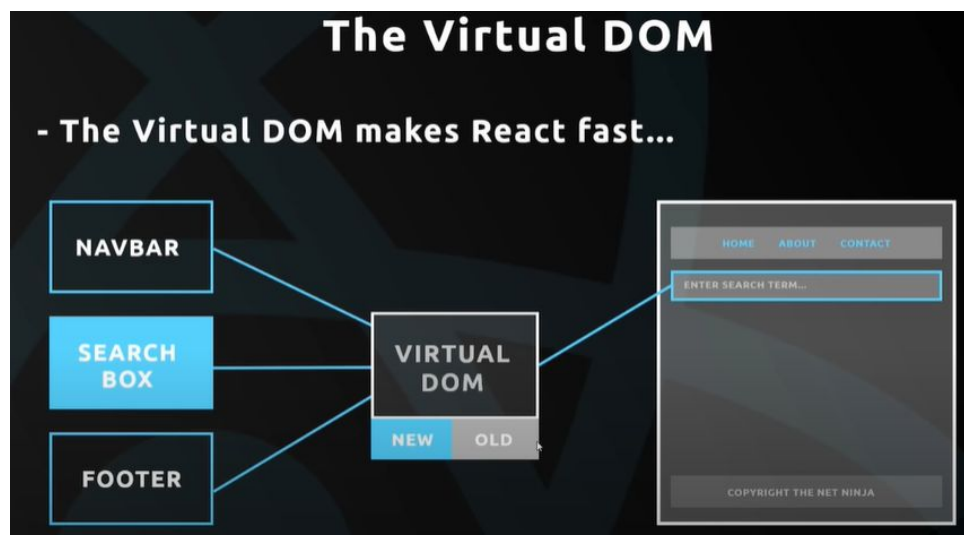
Things in the course:

- **React basics:**
Components , events , templates, props, &forms
- **React Router:**
routes , route parameters, redirects
- **Redux:**
Stores, actions & reducers

Lecture 2:

Life blood of react is component and injecting it to the DOM creating a javascript representation knows as **Virtual DOM**

New and Old virtual DOM to manage **states via react as shown below**



Components and templates are **jsx** (javascript xml) along with dynamic content loading

{{ this.state.name }}

Lecture 3:

How to use cdn of react for widgets

Lecture 4:

- How to use cdn to create a component

Code snippet:

```
<html
  lang="en
">

  <head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width,
initial-scale=1.0">

    <meta http-equiv="X-UA-Compatible" content="ie=edge">

    <title>React Basics</title>

    <script
src="https://unpkg.com/babel-standalone@6/babel.min.js"
></script>

    <script crossorigin
src="https://unpkg.com/react@16/umd/react.development.js"
></script>

    <script crossorigin
src="https://unpkg.com/react-dom@16/umd/react-dom.development.js"
></script>

  </head>

  <body>

    <div id="app"></div>
```

```

<script type="text/babel">

  class App extends React.Component {

    render() {

      return (

        <div className="app-content">

          <h1>Hello, ninjas!</h1>

          <p>Random number: { Math.random() * 10 }</p>

        </div>

      )

    }

  }

  ReactDOM.render(<App />,
document.getElementById('app'));
</script>
</body>
</html>

```

Note :

- Root element should be a div tag css changed as class becomes className
- One do not directly render call but instead a tag like
ReactDOM.render(<App/>,document.getElementById('app'))
- Use of live server for an html page as a vs code plugin
- Addition of babel
- How dynamic javascript content is rendered

lecture 5 :

- Use of state intro to o/p dynamic data to browser.
- This is tutorial also states how dynamic content is rendered.

```

<script
type="text/babel
">

    class App extends React.Component {

        state = {
            name: 'Ryu',
            age: 30
        }

        render() {
            return (
                <div className="app-content">
                    <h1>Hello, ninjas!</h1>
                    <p>My name is: { this.state.name }
and I am { this.state.age }</p>
                </div>
            )
        }
    }

    ReactDOM.render(<App />,
document.getElementById('app'));
</script>

```

lecture 6 :

- Addition of chrome extension of react

lecture 7 :

- DOM click function event

lecture 8 :

- Arrow function to do data binding =>

```
handleMouseOver = (e)
```

```
=> {
```

```
  console.log(e.target, e.pageX);  
}
```

- How to change state of the component using setState method based on an event

```
  handleClick
```

```
= (e) => {
```

```
  console.log(e.target);
```

```
  console.log(this.state);
```

```
  this.setState({  
    name:  
    'Yoshi'  
  });  
}
```

lecture 9 :

- Onchange event to get data on the fly

```
class App  
extends  
React.Component {
```

```
  state = {  
    name: 'Ryu',  
    age: 30  
  }
```

```
  handleChange = (e) => {  
    this.setState({
```

```

        name: e.target.value
      })
    }

    handleSubmit = (e) => {
      e.preventDefault();
      preventing the browser from
      getting refreshed

      console.log('form
      submitted', this.state);
    }

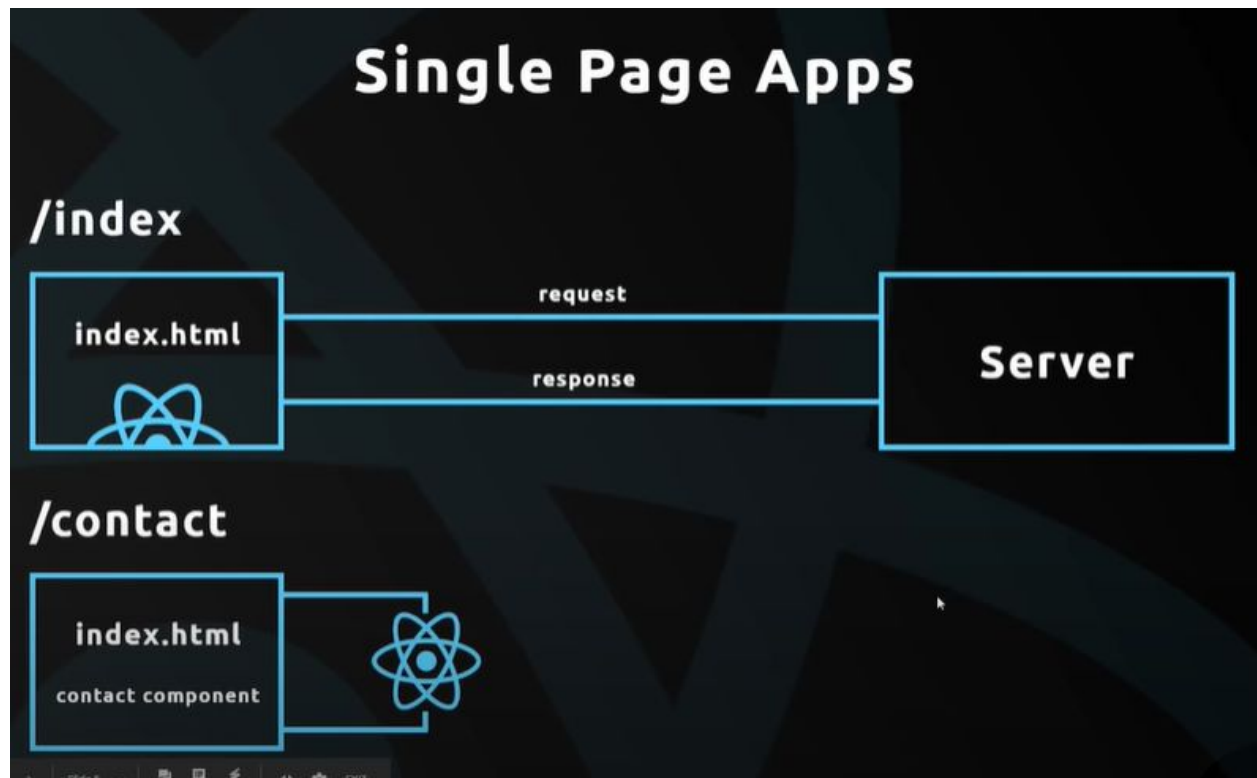
    render() {
      return (
        <div
        className="app-content">
          <h1>My name is
          {this.state.name}</h1>
          <form
          onSubmit={this.handleSubmit}>
            <input type="text"
            onChange={this.handleChange} />

          <button>Submit</button>
          </form>
        </div>
      )
    }
  }
}

```

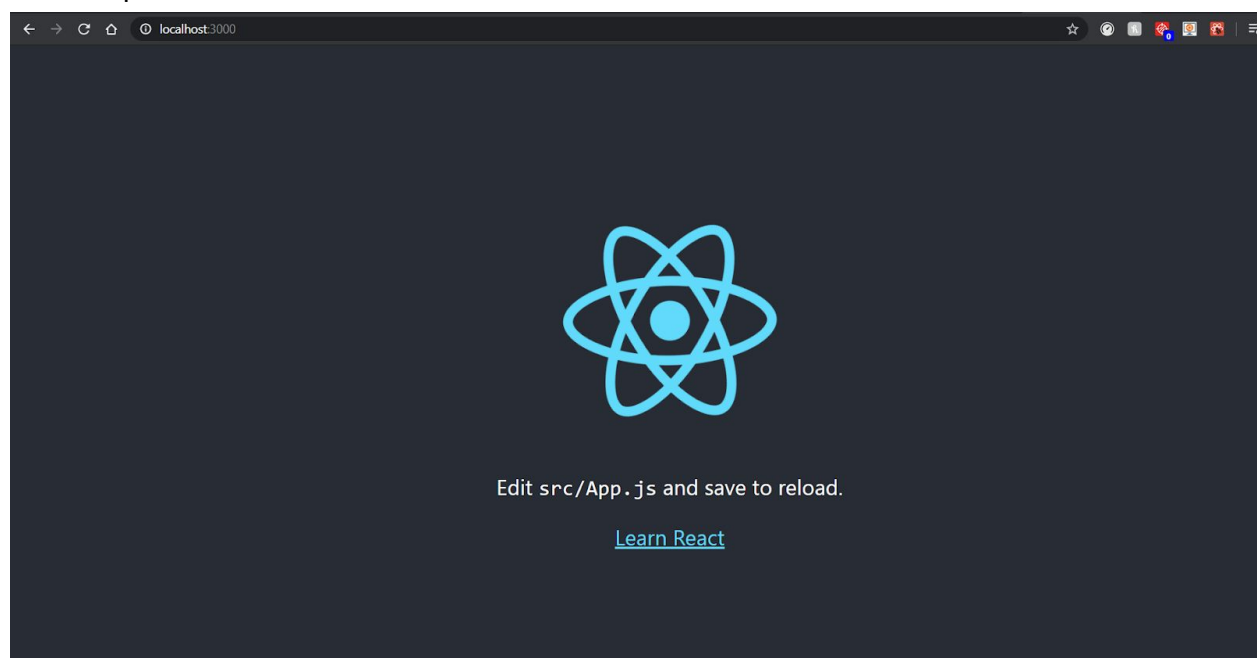
lecture 10 : (Actual Start)

- Creating a react app
 - Install npm i -g create-react-app
 - npx create-react-app tutorialnetninja



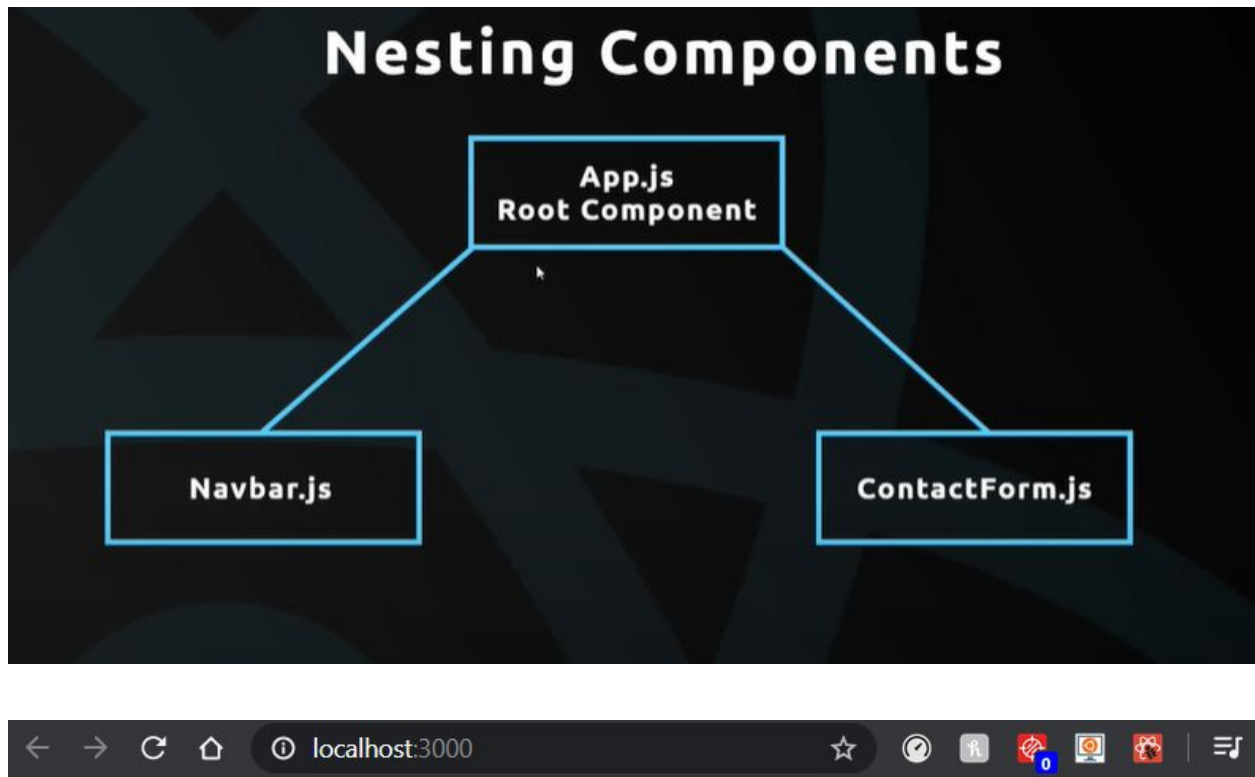
lecture 11 :

- Understanding the folder structure
- To run the server:
Npm start



lecture 12 :

- Single Page Application:



lecture 13 :

- How to make components reusable.

Calling a component from app.js as below:

```
<Ninjas name="TRyu" age="25" belt="green1"/>
```


Passing data to props making it reusable due to own usage of constants:

```
import React, { Component } from 'react'

class Ninjas extends Component{
  render(){
    // console.log(this.props);
    const { name, age, belt } = this.props;
    return (
      <div className="ninja">
        <div>Name: { name }</div>
        <div>Age: { age }</div>
        <div>Belt: { belt }</div>
      </div>
    )
  }
}

export default Ninjas
```

lecture 14 :

- How to traverse the lists.

```
import React, { Component } from 'react'

class Ninjas extends Component{
  render(){
    const { ninjas } = this.props;
    const ninjaList = ninjas.map(ninja => {
      return (
        <div className="ninja" key={ninja.id}>
          <div>Name: { ninja.name }</div>
          <div>Age: { ninja.age }</div>
          <div>Belt: { ninja.belt }</div>
        </div>
      )
    });
    return (
      <div className="ninja-list">
```

```
    { ninjaList }  
  </div>  
)  
}  
}  
  
export default Ninjas
```

My first React app!

Welcome :)

Name: Ryu

Age: 30

Belt: black

Name: Yoshi

Age: 20

Belt: green

Name: Crystal

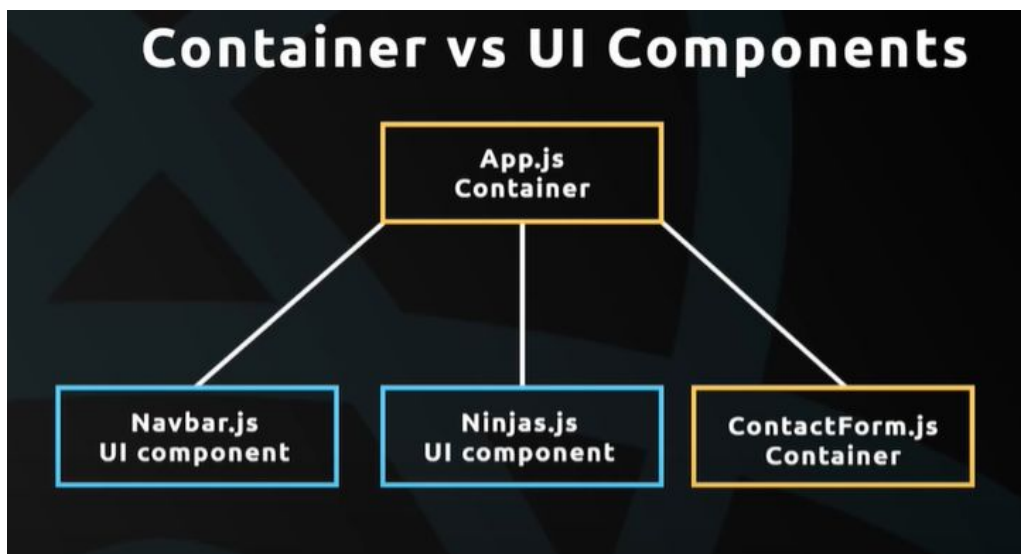
Age: 25

Belt: pink

lecture 15 :

Container Components: which contain stater

Ui Components: which does not contain state

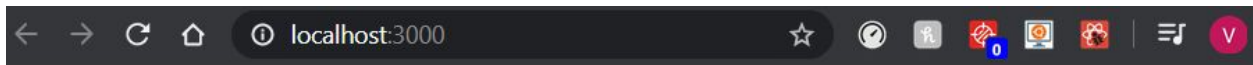


lecture 16 :

Ternary and if else operator

lecture 17 :

How to create a container component react with setting of state and passing form data



My first React app!

Welcome :)

Name: Ryu

Age: 30

Belt: black

Name: Yoshi

Age: 20

Belt: green

Name: Crystal

Age: 25

Belt: pink

Name: Age: Belt:

Cosloe of the data

Name: Age: Belt:

```
c:/js/0.chunk.js.map: Connection error:
net::ERR_CONNECTION_REFUSED
▲ DevTools failed to load SourceMap: Could not
load content for http://localhost:3000/stati
c:/js/main.chunk.js.map: Connection error:
net::ERR_CONNECTION_REFUSED
main.chunk.js:71
{name: "sdaasdsd", age: "asdasd", belt:
"asd"}
>
```

lecture 18 :

Passing props via functions to set state variables in other components. This is done by passing the function from parent component to the child component. The child component utilizes the parent component function and passes the data to the props of the parent component via the function.

My first React app!

Welcome :)

Name: Ryu

Age: 30

Belt: black

Name: Yoshi

Age: 20

Belt: green

Name: Crystal

Age: 25

Belt: pink

Name: vishal.kk@somaiya.edu

Age: as

Belt: asd

Name: vishal.kk@somaiya.edu

Age: as

Belt: asd

Name: Age: Belt:

lecture 19 :

Deleting an item from a list based on a button click this also is done similar to above where in we pass a delete function as a prop to the child component and then also the youtuber says that in order to attach a delete function we need to pass a arrow function so to not automatically load the function.



My first React app!

Welcome :)

Name: Yoshi
Age: 20
Belt: green
Delete Ninja

Name: Crystal
Age: 25
Belt: pink
Delete Ninja

Name: Age: Belt: Submit

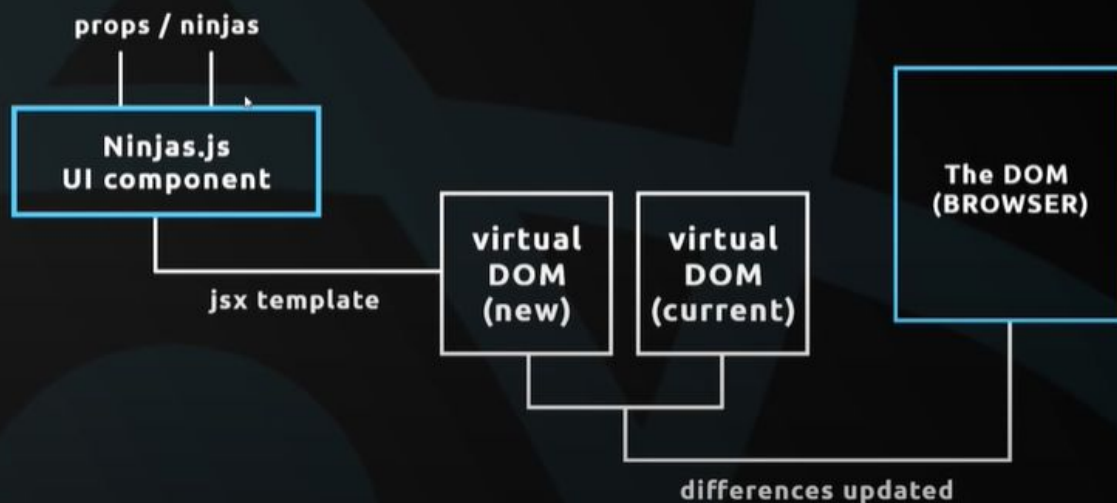
lecture 20 :

How is the current scenario of the project till now the working and passing of the data

Recap & Virtual DOM



Recap & Virtual DOM

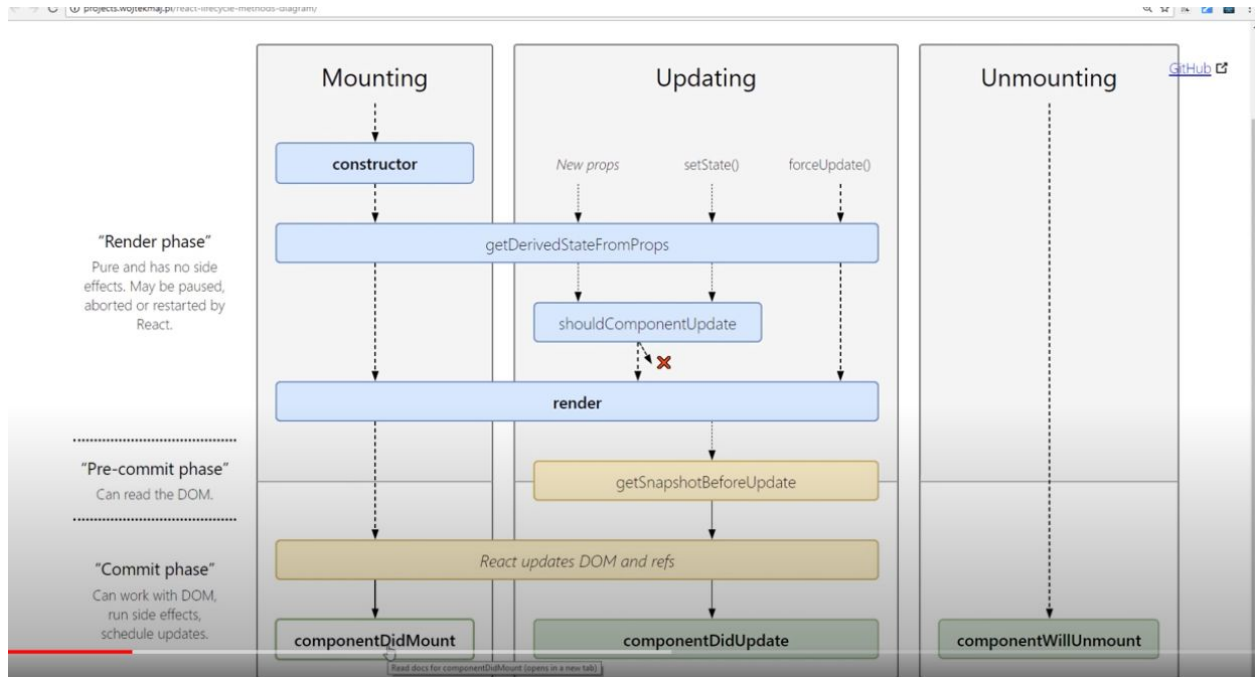


Lecture 21 :

It is just about css how even css of one file effects the css of the entire react application

Lecture 22 :

LifeCycle methods behind the react component



Lecture 23 :

Starting to create a todo app

- Use of material UI cdn inside the public \index.html

<https://materializecss.com/getting-started.html>

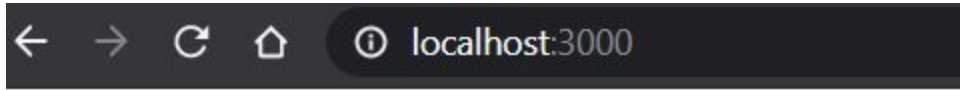
```
<link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/m
aterialize.min.css">
```

- Loading a todo list via a component and passing it to an array

Todos

buy some milk
buy some apples
buy some oranges

- Deleting an item from a list

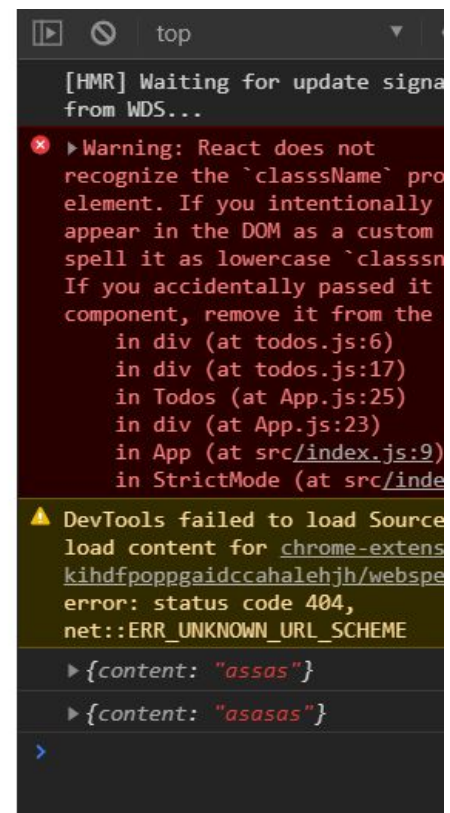
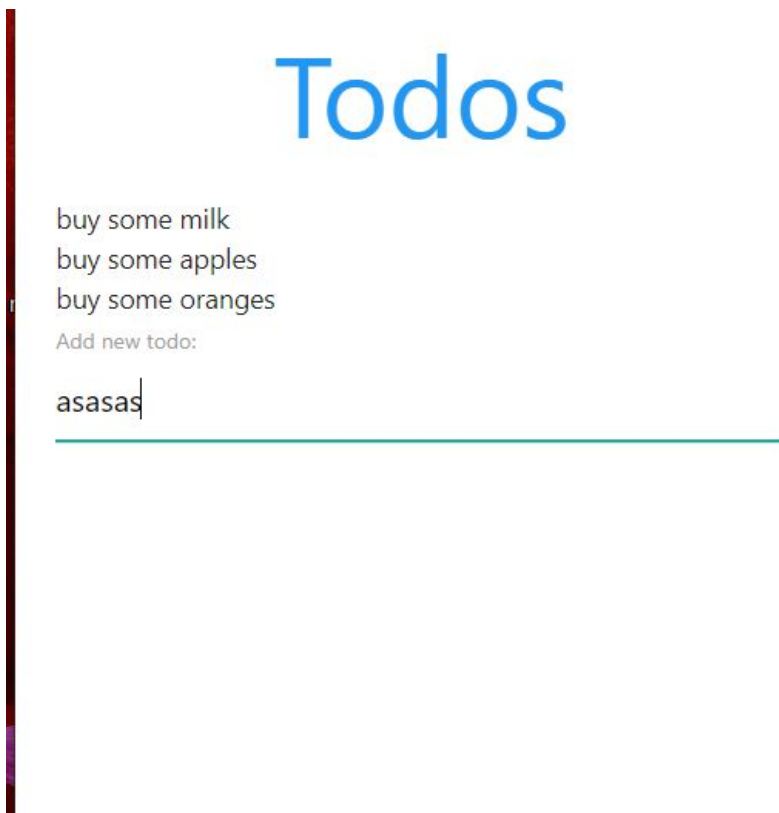


Todos

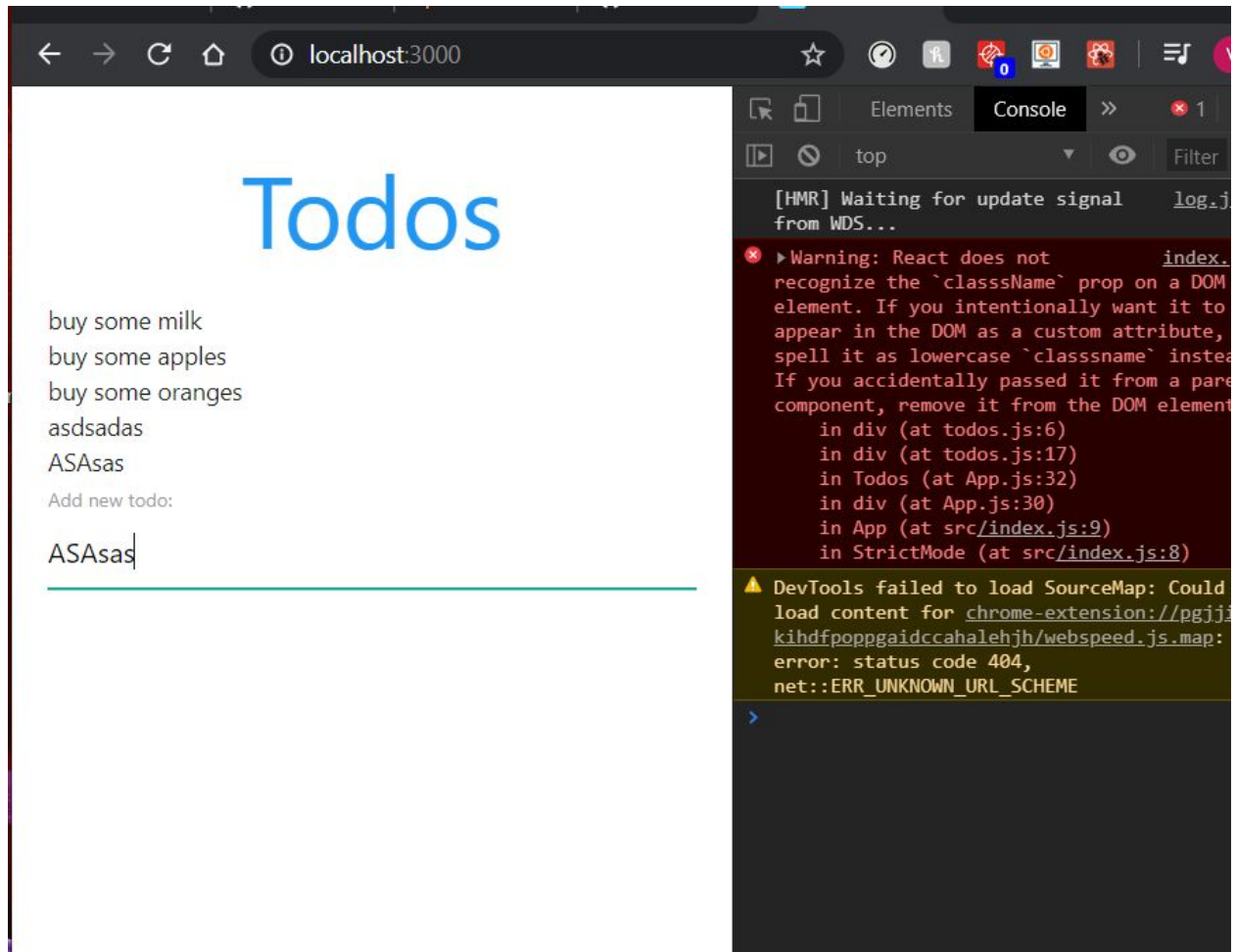
buy some apples

Lecture 23 :

Adding form to add a todo using the handleSubmit form button



Adding items to a form

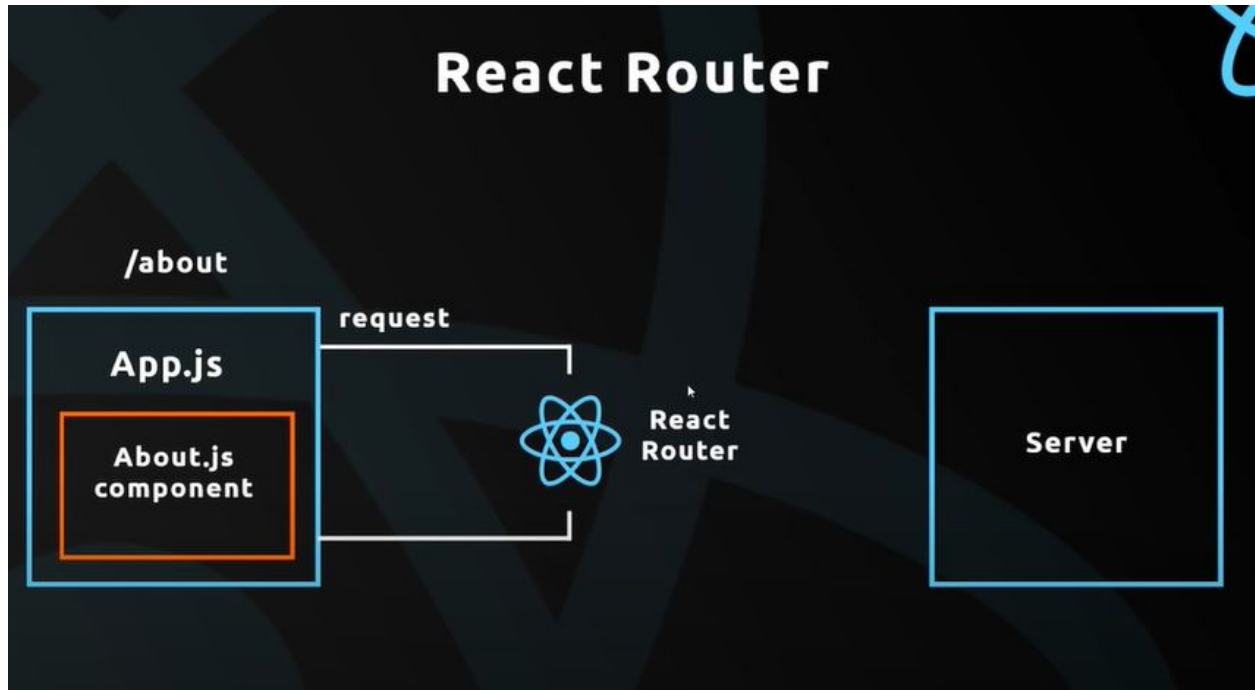


Lecture 24 :

ReChanging the input variable to null again so as to reenter

Lecture 25 :

- first we do with refreshing the page in this lesson then in the next we do lazy-loading of predefined stackset pages
- React Router, how to create a SPApplication use of the Browser Router and then the use of exact prop



Note still one can see in the browser that reloading takes place.

Lecture 26 :

- Without refreshing the page in this lesson while accessing links
- First use of link and then use of NavLink



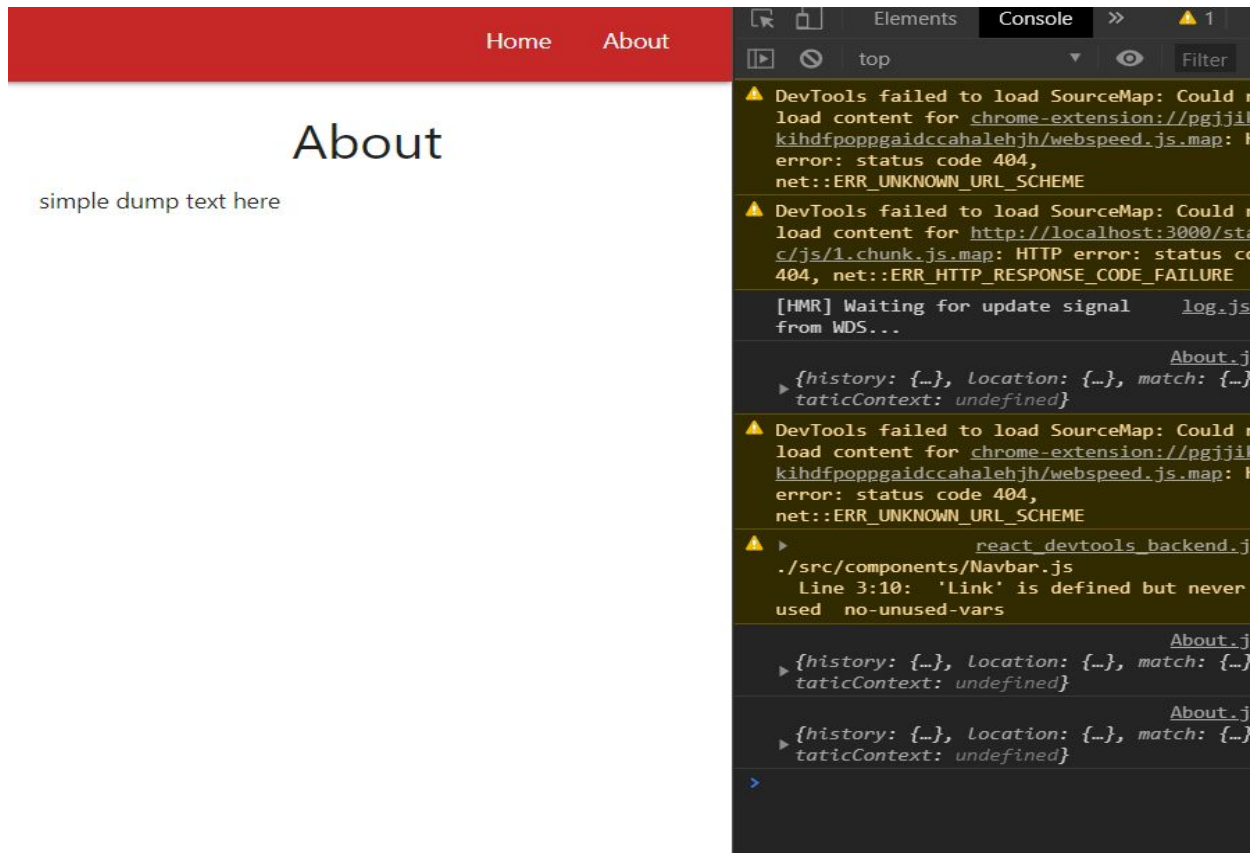
About

simple dump text here

Lecture 27 :

- Programmatic redirects

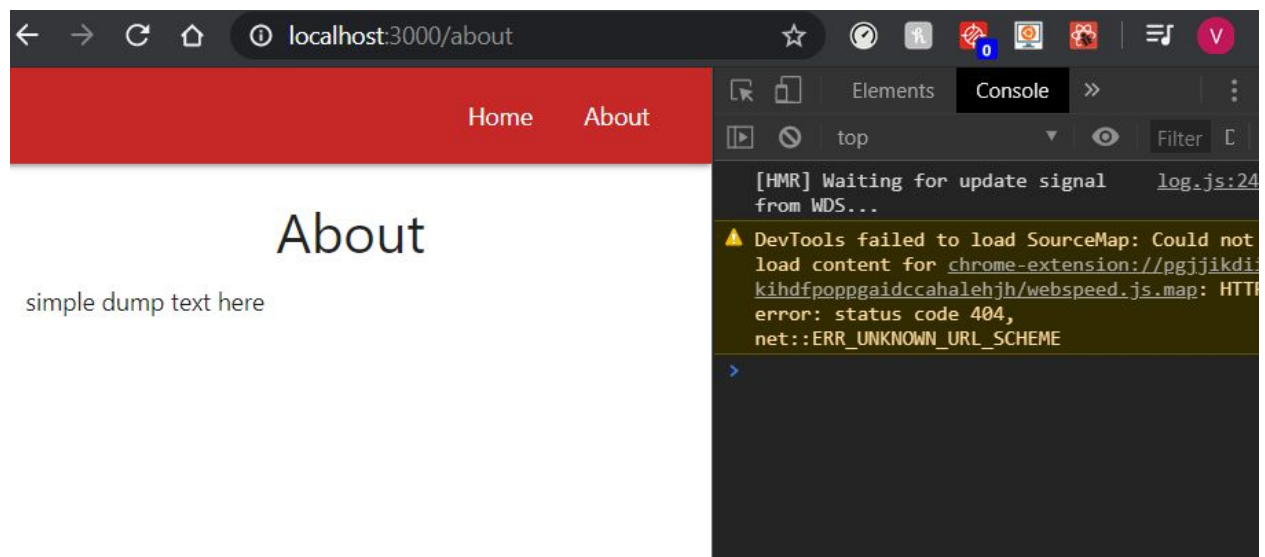
Passing of props:

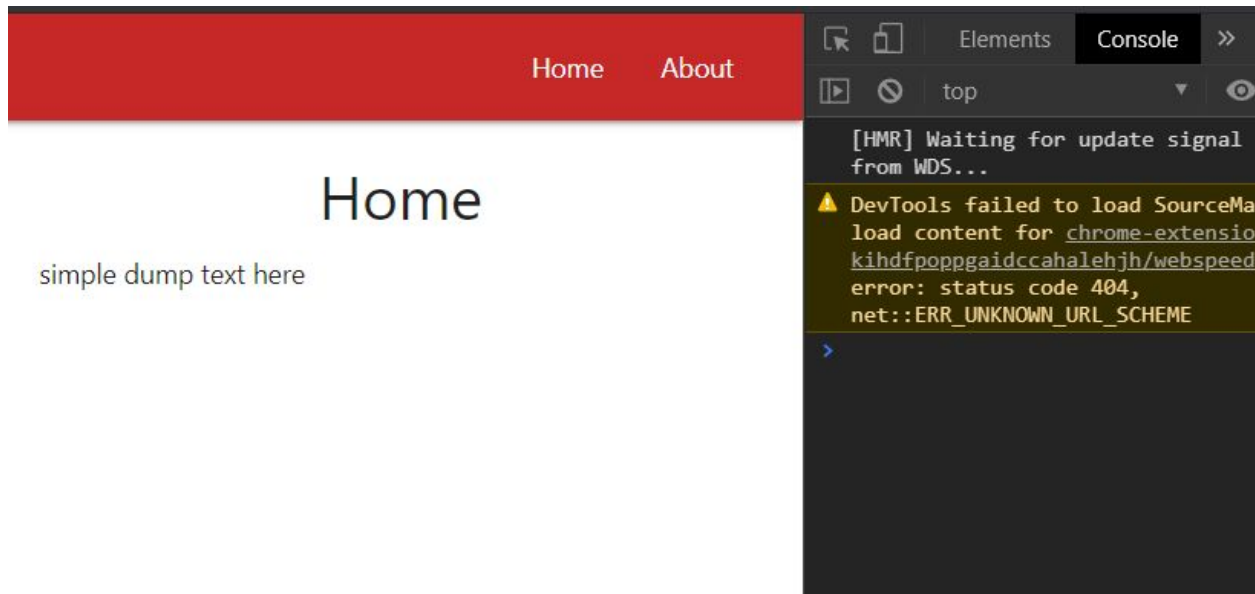


```
import React from 'react'

const About = (props) =>{
  setTimeout(()=>{
    props.history.push('/')
  },10000);
  return(
    <div className="container">
      <h4 className = "center">About </h4>
      <p>simple dump text here</p>
    </div>
  )
}

export default About;
```

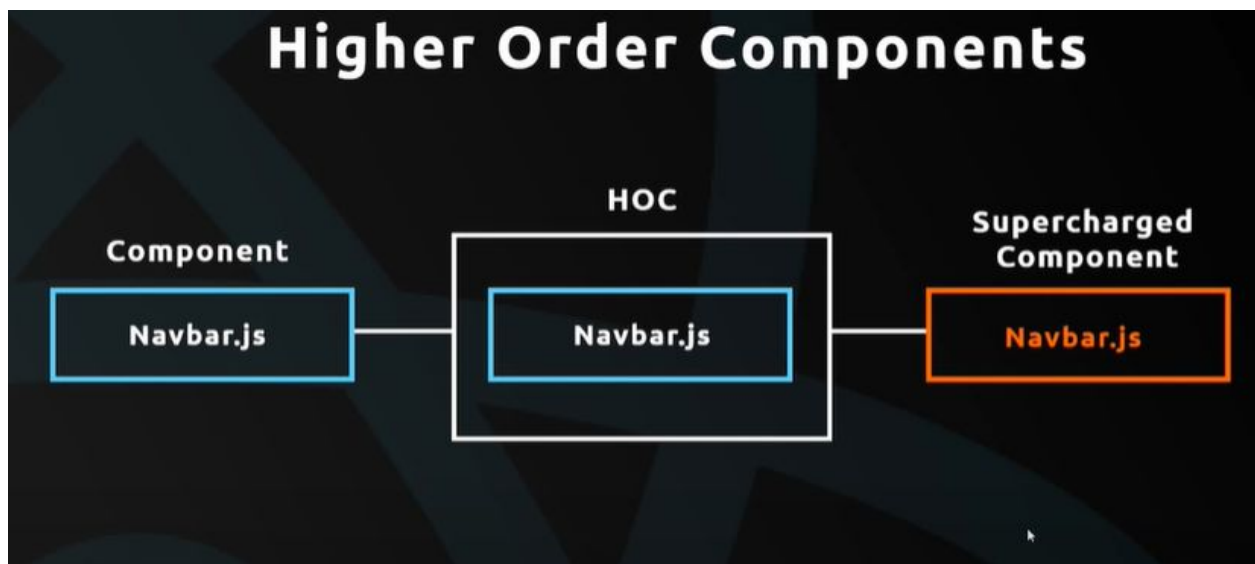




Note : it is a nested property so usage of higher order components withRouter in the Navbar to get the history property

Lecture 28:

Wrapping a component and changing color using a supercomponent



Lecture 29:

Use of axios to load data from api:

Api used <https://jsonplaceholder.typicode.com/posts>



Home

sunt aut facere repellat provident occaecati excepturi optio reprehenderit

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ullam et saepe reiciendis voluptatem adipisci sit amet autem assumenda provident rerum culpa quis hic commodi nesciunt rem tenetur doloremque ipsam iure quis sunt voluptatem rerum illo velit

```
import React,{Component} from 'react'  
import axios from 'axios'
```

```

class Home extends Component{
  state={
    posts : []
  }
  componentDidMount() {
    axios.get('https://jsonplaceholder.typicode.com/posts')
      .then(res=>{
        this.setState({
          posts: res.data.slice(0,10)
        })
      })
  }

  render() {
    const { posts } = this.state;
    const postList = posts.length ? (
      posts.map(post =>{
        return(
          <div className="post card" key={post.id}>
            <div className="card-content">
              <span className="card-title">
                {post.title}
              </span>
              <p>
                {post.body}
              </p>
            </div>
          </div>
        )
      })
    ) : (
      <div className="center">Loading data...</div>
    )
    return(
      <div className="container">
        <h4 className = "center">Home </h4>
        {postList}
      </div>
    )
  }
}

```

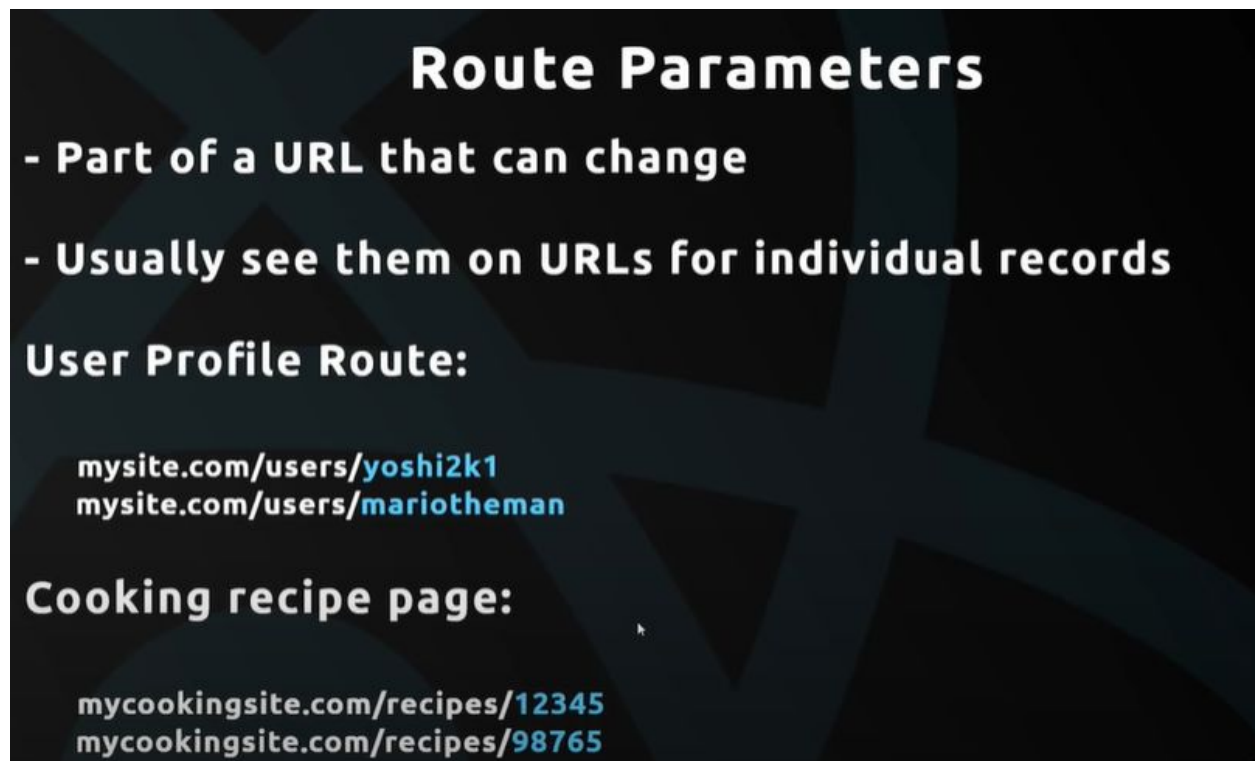
```
        </div>
    )
}
export default Home;
```

In order to load the data we use the lifecycle hooks method and then we create a jsx variable to load the data dynamically to a page.

Lecture 30:

Route parameters:

How to set route parameters grab parameter and pass the parameter as shown in the ss below



Route Parameters

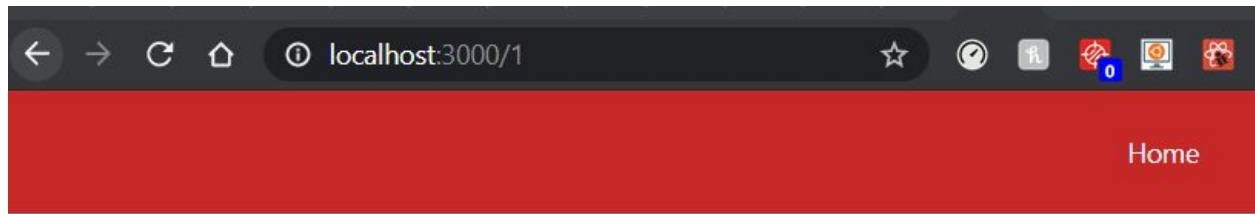
- Part of a URL that can change
- Usually see them on URLs for individual records

User Profile Route:

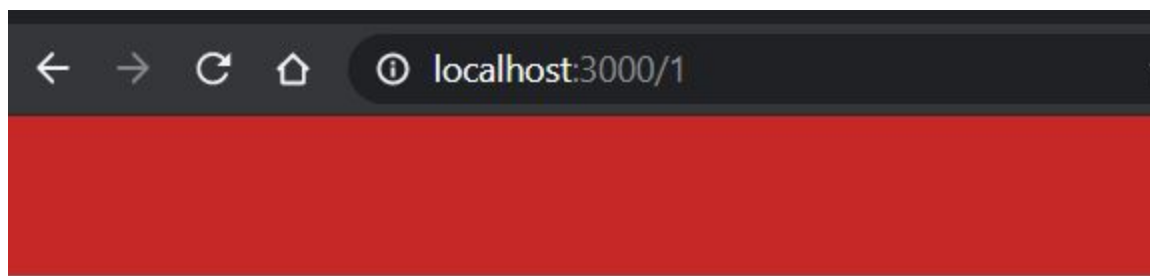
`mysite.com/users/yoshi2k1`
`mysite.com/users/mariotheman`

Cooking recipe page:

`mycookingsite.com/recipes/12345`
`mycookingsite.com/recipes/98765`



route param



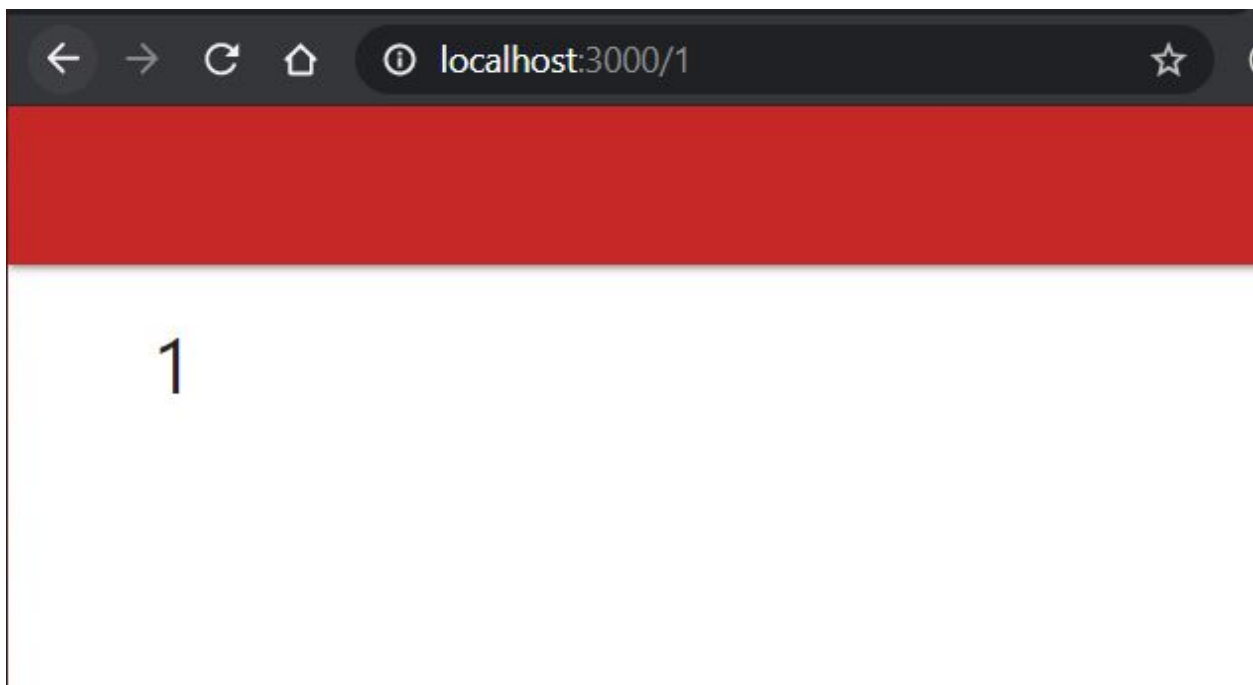
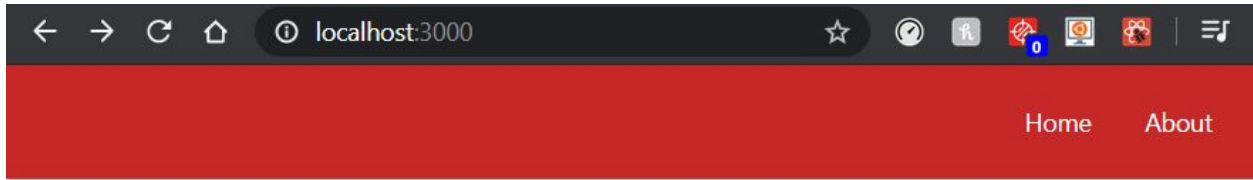
1

Lecture 31:

Route parameters:

Showing the post based on route parameters for an actual post.

First linking the id with link url





Lecture 32:

How to solve redirection problems:

- One way could be Using the /posts/post_id
- Second way could be using a switch tag from the router component
This is done by using a row ladder kind of structure

```
import { Route, BrowserRouter, Switch } from 'react-router-dom'
```

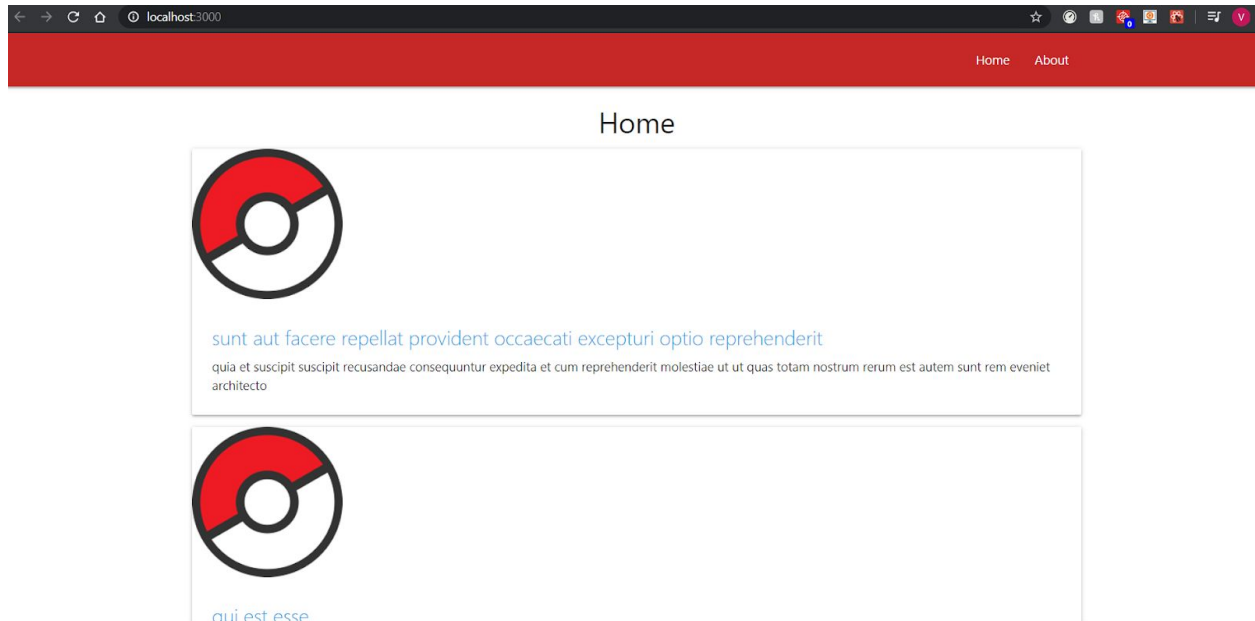
```
<div className="App">
  <Navbar />
  <Switch>
    <Route exact path="/" component={Home}/>
    <Route exact path="/about" component={About} />
    <Route path = "/:post_id" component={Post}/>
  </Switch>
</div>
```

Lecture 31:

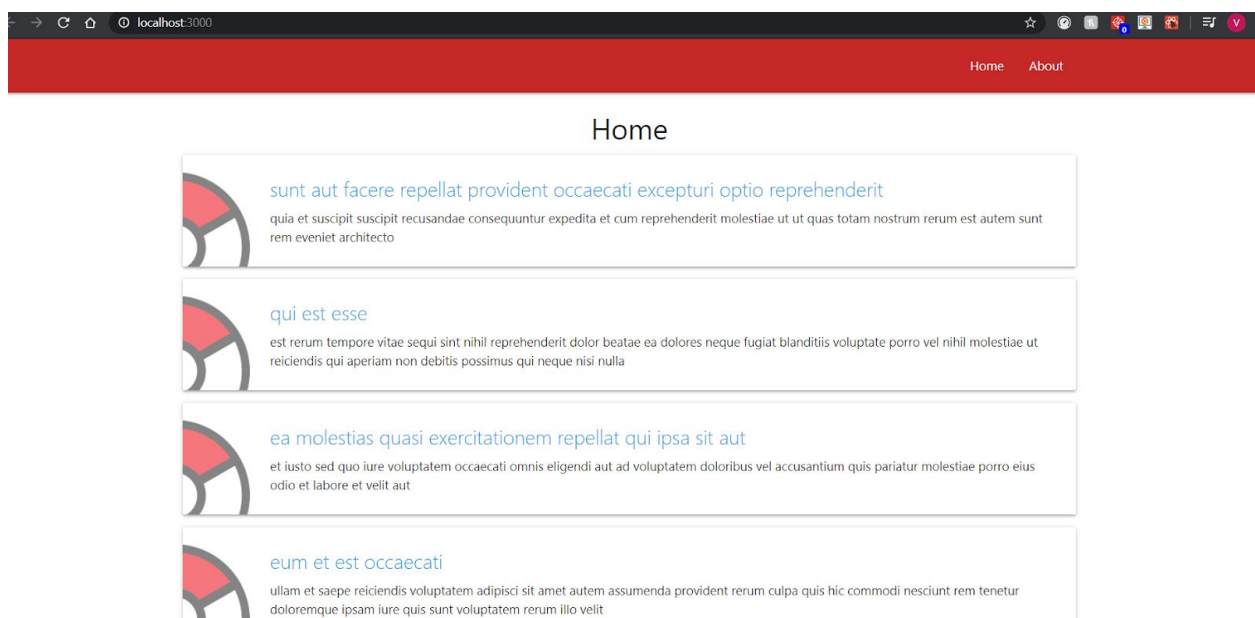
Route parameters:

How to add Images inside our components

Without css:



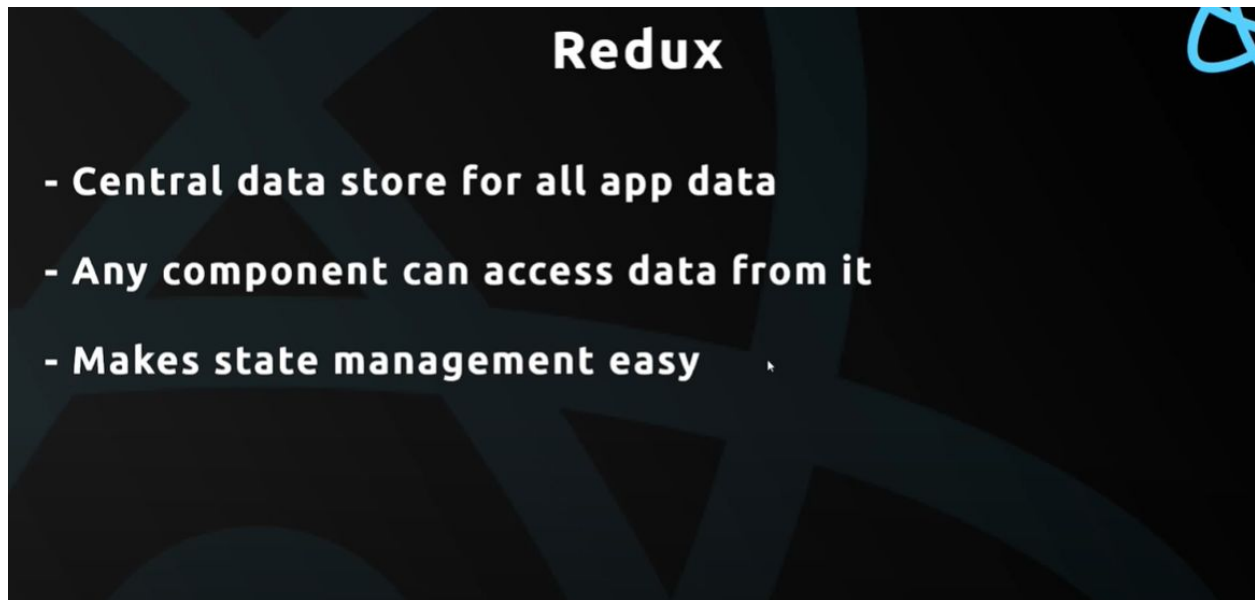
With css:



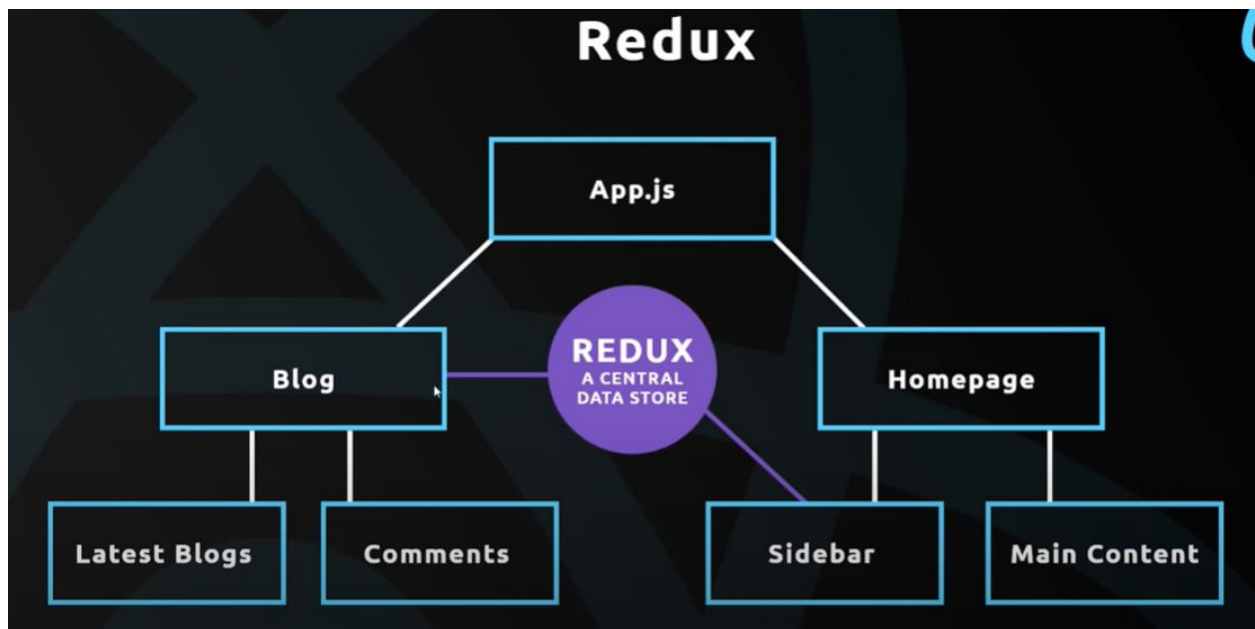
Lecture 34:

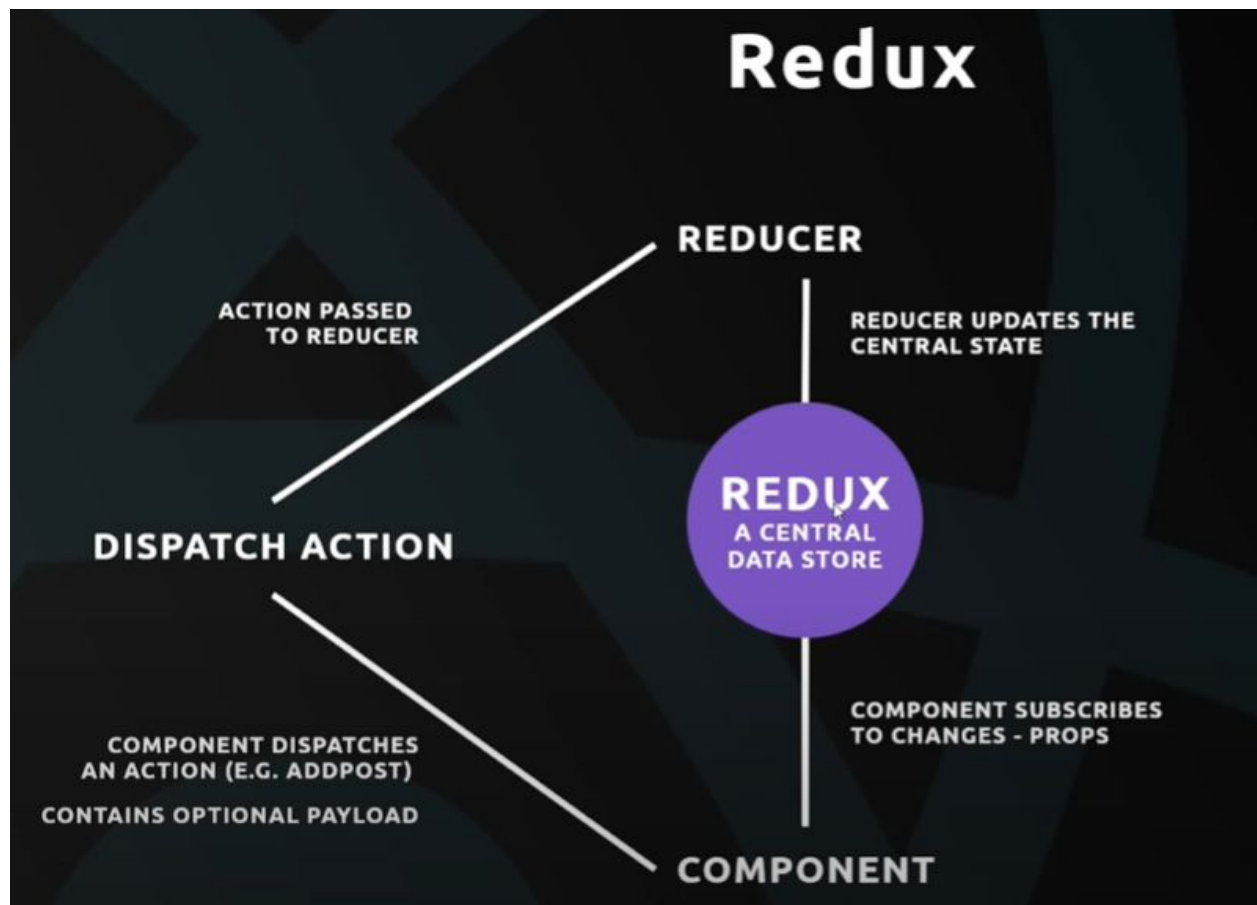
Route parameters:

Redux a central datastore to access data with ease.



Example application:





Lecture 35:

Route parameters:

Redux acts as a central database and **REDUCER** acts as a guard to update data with ease.

Codepen session

Here we do initialization of the state object via the reducer.

Code is as below:

The screenshot shows a web browser's developer console and code editor. The console on the left displays three log messages: an object with type '@@redux/INITx.7.5.h.t.t.j', an object with type 'ADD_TODO', and another object with type 'ADD_TODO'. The code editor on the right shows the following JavaScript code:

```
1 const { createStore } = Redux;
2
3 const initState = {
4   todos: [],
5   posts: []
6 }
7
8 function myreducer(state = initState, action){
9   console.log(action, state);
10 }
11
12 const store = createStore(myreducer);
13
14 const todoAction = { type: 'ADD_TODO', todo: 'buy milk'};
15
16 store.dispatch(todoAction)
```

A close-up of the `myreducer` function code from the previous image:

```
7
8 function myreducer(state = initState, action){
9   if (action.type === 'ADD_TODO') {
10     return {
11       todos: [...state.todos, action.todo]
12     }
13   }
14 }
15
```

Lecture 38:

Redux:

State of the product changing with the help of a reducer.

```

8 function myreducer(state = initState, action){
9   if (action.type === 'ADD_TODO') {
10    return {
11      todos: [...state.todos, action.todo]
12    }
13  }
14 }
15
16 const store = createStore(myreducer);
17
18 store.subscribe(() => {
19   console.log('state updated');
20   console.log(store.getState());
21 })
22

```

Spread operator to change only the new content of the state:

```

7
8 function myreducer(state = initState, action){
9   if (action.type === 'ADD_TODO') {
10    return {
11      ...state,
12      todos: [...state.todos, action.todo]
13    }
14  }
15 }

```


Action on posts:

```
13     }
14   }
15
16   if (action.type === 'ADD_POST') {
17     return {
18       ...state,
19       posts: [...state.posts, action.post]
20     }
21   }
22 }
23
```

The module also speaks about how to subscribe to a store using a reduces to get data

Lecture 39:

Setup Reducer in project structure:

Usage of provider from the react-redux to provide data from index.js to the app.js

Passing a Single root reducer and its set up

age of provider from the react-redux to provide data from index.js to the app.js

First creating a root reducer:

```
const initState={
  posts:[]
}
const rootReducer = (state = initState, action) =>{
  return state;
}
export default rootReducer;
```

Then importing it the main app component via the index.js

```

import React from 'react';
import ReactDOM from 'react-dom';
import './index.css';
import App from './App';
import * as serviceWorker from './serviceWorker';
import { createStore } from 'redux';
import { Provider } from 'react-redux';
import rootReducer from './reducers/rootReducer'
const store = createStore(rootReducer);

ReactDOM.render(
  <React.StrictMode>
    <Provider store={store}>
      <App />
    </Provider>
  </React.StrictMode>,
  document.getElementById('root')
);

// If you want your app to work offline and load faster, you can change
// unregister() to register() below. Note this comes with some pitfalls.
// Learn more about service workers: https://bit.ly/CRA-PWA
serviceWorker.unregister();

```

Lecture 40:

How to supercharge a component via connect function to invoke the data in the component: i.e mapping state to props

```

import React, {Component} from 'react'
import {Link} from 'react-router-dom'
import pokeball from './pokeball.png'
import { connect } from 'react-redux'

class Home extends Component{

```



```

const mapStateToProps=(state)=>{
  return{
    posts: state.posts
  }
}

export default connect(mapStateToProps)(Home) ;

```

Lecture 41:

Passing specific id to a component:

```

import React, {Component} from 'react'
import {connect} from 'react-redux'
class Post extends Component{

  render() {

    const post = this.props.post?(
      <div className="post">
        <h4 className="center">
          {this.props.post.title}
        </h4>
        <p>{this.props.post.body}</p>
      </div>
    ): (
      <div className="center">
        Loading post ...
      </div>
    )

    return(
      <div className="container">
        {post}
      </div>
    )
  }
}

```

```

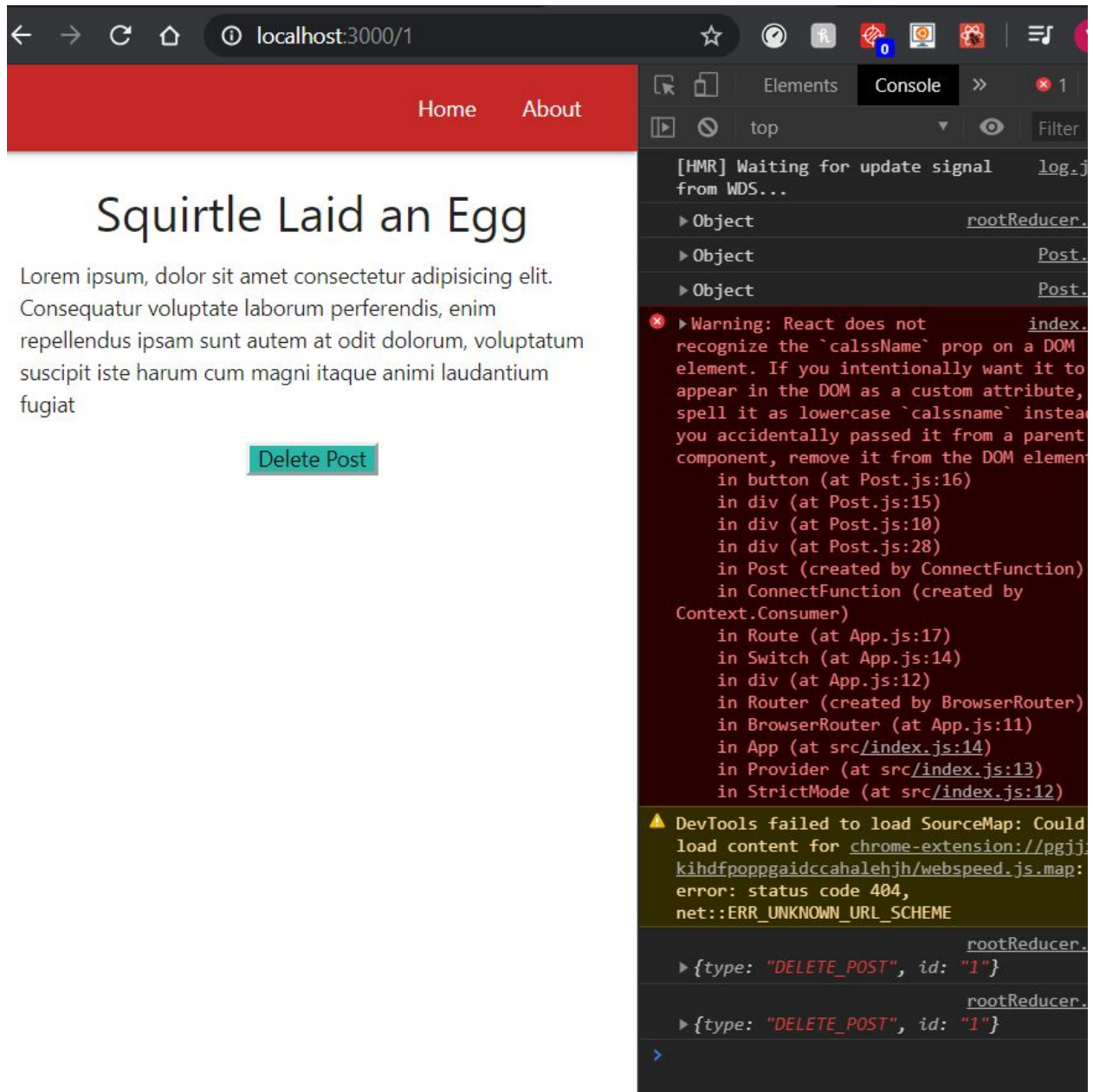
    }
  }
  const mapStateToProps=(state, ownProps)=>{
    let id = ownProps.match.params.post_id
    return {
      post: state.posts.find((post) => {
        return post.id===id
      })
    }
  }
}
export default connect(mapStateToProps)(Post)

```

Lecture 42:

Deleting a post: reducer action takes the item then passes it to the root reducer component to change the central data store of the application and thereby passing the updated props back to the component.

Passing the delete action:



This part described action logging the console to the root reducer.

How to use the history event:

```
class Post extends Component{
  handleClick=()=>{
    this.props.deletePost(this.props.post.id);
    this.props.history.push('/')
  }
}
```

How to delete a post:

```
const rootReducer = (state = initState, action) =>{
  if(action.type === 'DELETE_POST'){
    let newPosts = state.posts.filter(post=>{
      return action.id !== post.id
    })
    return{
      ...state,
      posts: newPosts
    }
  }
  return state;
}
```

Lecture 43:

Action creator function to make code reusable.

```
export const deletePost = (id)=>{
  return {
    type: 'DELETE_POST',
    id
  }
}
```