# Department of Computing

**CS-213: Advanced Programming**

**Class: BSCS 7A**

# Lab 09: React JS

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**Ismail Matteh (210820)**

# Instructor: Dr. Sidra Sultana

**Lab Engineer: Ms. Ayesha Asif**

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# Lab 09: React JS

**React Code:**

**App.js:**

import React, { useState, useEffect,Component } from "react";

import Cart from './Components/AddToCart/Cart';

// SERVICES

import productService from './services/productService';

import Card from 'react-bootstrap/Card';

import Button from 'react-bootstrap/Button';

import {Row,Container,Col} from 'react-bootstrap';

import Header from '../src/Components/Header/header';

import { Link } from 'react-router-dom';

class App extends Component {

state = {

products: this.products,

Cart: []

}

addCart = [];

componentDidMount(){

this.getProducts();

}

getProducts = async () => {

let res = await productService.getAll();

console.log(res);

this.setState({

products:res

})

}

Compare = (a,b) =>{

if ( a.name < b.name ){

return -1;

}

if ( a.name > b.name ){ // Sorting Algorithm

return 1;

}

return 0;

}

addToCart = (...product)=>{

this.state.Cart.sort(this.Compare); //Sort

this.setState(prevState => ({

Cart: [...prevState.Cart, ...product] //Add to Cart

}))

// console.log(this.state.Cart);

}

renderProduct = product => {

return (

<div key={product.\_id} className="row" >

<Card style={{ width: '18rem', margin:'10px'}}>

<Card.Img variant="top" src={product.image}/>

<Card.Body>

<Card.Title>{product.name}</Card.Title>

<Card.Text>

{product.description}

</Card.Text>

<Button variant="success" style={{ margin:'10px'}}>{product.price}</Button>

<Button variant="primary" onClick={()=>this.addToCart(product)}>Add to Cart</Button>

</Card.Body>

</Card>

</div>

);

};

deleteCart = (id) =>{

this.setState(prevState => {

const cart = this.state.cart.filter((item,j) => id !== j);

return{

cart,

}

})

}

render(){

return (

<div className="App">

<Header/>

<Container>

<Row>

{(this.state.products && this.state.products.length > 0) ? (

this.state.products.map(product => this.renderProduct(product))

) : (

<p>No products found</p>

)}

</Row>

<Cart products={this.state.Cart} delete={(id)=>this.deleteCart(id)}/>

</Container>

</div>

);

}

}

export default App;

**Route.js:**

import React from 'react';

import { Component } from 'react';

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

import App from './App';

import Cart from './Components/AddToCart/Cart';

class Routes extends Component{

render(){

return(

<Switch>

<Route path="/" exact component={App}/>

<Route path="/cart" exact component={Cart}/>

</Switch>

)

}

}

export default Routes;

**Index.js:**

import React from 'react';

import ReactDOM from 'react-dom';

import './index.css';

import \* as serviceWorker from './serviceWorker';

import {BrowserRouter} from 'react-router-dom';

import Routes from './routes';

const App = () =>{

return(

<BrowserRouter>

<Routes/>

</BrowserRouter>

)

}

ReactDOM.render(<App />, 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();

**Cart.js:**

import React, { Component } from 'react';

import { Link } from 'react-router-dom';

import styles from './style.module.css';

import productService from '../../services/productService';

import {Row,Container,Col} from 'react-bootstrap';

import FontAwesome from 'react-fontawesome';

class Cart extends Component{

render(){

return(

<div>

<h1 className={styles.cartHeading}>Cart</h1>

<Container>

<Row>

<Col><h3 className={styles.cartHeading}>Product Name</h3></Col>

<Col><h3 className={styles.cartHeading}>Description</h3></Col>

<Col><h3 className={styles.cartHeading}>Price</h3></Col>

<Col><h3 className={styles.cartHeading}>Remove</h3></Col>

</Row>

{this.props.products.map(item =>(

<Row key={item.\_id}>

<Col><h5 className={styles.cartHeading}>{item.name}</h5></Col>

<Col><h5 className={styles.cartHeading}>{item.description}</h5></Col>

<Col><h5 className={styles.cartHeading}>{item.price}</h5></Col>

<Col><FontAwesome

name="trash"

onClick={this.props.delete(item.name)}

style={{color:'#000', paddingLeft:'100px',cursor:'pointer'}}

/></Col>

</Row>

))}

</Container>

</div>

)

}

}

export default Cart;

**Express Code:**

**Index.js:**

const express = require('express');

const mongoose = require('mongoose');

const bodyParser = require('body-parser');

require('./models/Product');

const app = express();

mongoose.Promise = global.Promise;

mongoose.connect(process.env.MONGODB\_URI || `mongodb://localhost:27017/node-react-app`);

app.use(bodyParser.json());

require('./routes/productRoute')(app);

if (process.env.NODE\_ENV === 'production') {

app.use(express.static('client/build'));

const path = require('path');

app.get('\*', (req,res) => {

res.sendFile(path.resolve(\_\_dirname, 'client', 'build', 'index.html'))

})

}

const PORT = process.env.PORT || 5000;

app.listen(PORT, () => {

console.log('app running on port ${PORT}');

});

**Product.js:**

const mongoose = require('mongoose');

const {Schema} = mongoose;

const productSchema = new Schema({

name: String,

description: String,

})

mongoose.model('products', productSchema);

`

**Productservice.js:**

const mongoose = require('mongoose');

const Product = mongoose.model('products');

module.exports = (app) => {

app.get('/api/product', async (req, res) => {

let products = await Product.find();

return res.status(200).send(products);

});

app.post('/api/product', async (req, res) => {

let product = await Product.create(req.body);

return res.status(201).send({

error: false,

product

})

})

app.put('/api/product/:id', async (req, res) => {

const {id} = req.params;

let product = await Product.findByIdAndUpdate(id, req.body);

return res.status(202).send({

error: false,

product

})

});

app.delete('/api/product/:id', async (req, res) => {

const {id} = req.params;

let product = await Product.findByIdAndDelete(id);

return res.status(202).send({

error: false,

product

})

})

}