# E-COMMERCE WEBSITE USING REACT.JS

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**Roll: 2K19/CO/454**
**Course: Object Oriented**
**Programming (OOP)**

**Submitted to: Ms Diksha Ruhela**

# DECLARATION

I hereby declare that project report entitled "E-COMMERCE WEBSITE IMPLEMENTED USING JAVASCRIPT / HTML / CSS / REACT.JS " submitted by me  (**Ayush Karn 2K19/CO/454**) to Delhi Technological University (DTU), Delhi is a record of original work done under the guidance of  **Ms. Diksha Ruhela** for the course of Object Oriented Programming. All the codes and implementations are completely written by me.

Name: Ayush Karn

Roll No: 2K19/CO/454

Submitted to: Ms. Diksha Ruhela

# CETIFICATE

This is to certify that Ayush Karn of A6 batch Computer Engineering Department (COE) having Roll No 2K19/CO/454 has successfully completed the project work entitled "E-COMMERCE WEBSITE IMPLEMENTED USING JAVASCRIPT / HTML / CSS / REACT.JS" on Object Oriented Programming for Third Semester which is to be evaluated as the Mid Term Component.

Signature: Ayush Karn

Date: 09-11-2020

# ACKNOWLEDGEMENT

I would like to express my special thanks of gratitude to my teacher Ms. Diksha Ruhela as well as our college (Delhi Technological University, Delhi) which gave me the golden opportunity to do this wonderful project on the topic "E-COMMERCE WEBSITE IMPLEMENTED USING JAVASCRIPT / HTML / CSS / REACT.JS", which also helped me in doing a lot of Research and I came to know about so many new things I am really thankful to them.

Secondly i would also like to thank my parents and friends who helped me a lot in finalizing this project within the limited time frame.

# ABSTRACT

E-commerce (electronic commerce) is the activity of electronically buying or selling of products on online services or over the Internet. Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. E-commerce is in turn driven by the technological advances of the semiconductor industry, and is the largest sector of the electronics industry. In this project I have made a website using React.js Node.js and JavaScript that works like a E-Commerce site such as Amazon, Flipkart, WalMart, etc. The functionalities that I have provided are listed below:

-Sign Up

-Log In and Log Out

-Product Component

-Add to Basket

-Remove from Basket

-Calculating the total amount

-Interactive Interface

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# Chapter1 Introduction to My Work

## 1.1 Problem Statement

As we are in 21$^{st}$ century now and everything is being digitalized. From taking classes, making notes to banking transactions as well as shopping. In this project I have prepared a online E-Commerce website with an aim to digitalize buying and selling stuffs. Well, you'll say that there are already well established Online E-Commerce giants like Amazon, Flipkart, Snapdeal, etc. in India then why even create a new one that would be same as them then I would like to tell you that I am not actually from India, I am from Nepal and there is not any well-established E-Commerce website in Nepal. There are just few and they are not even any good. With this project I have taken a foot ahead in the direction to make a E-Commerce website that can be the next big thing in the Online marketplace for my country. Not only this I along with few of my friends have actually started a E-Commerce site in my city but that is built upon php and I actually want to make a transition towards React.js / Node.js to make it more responsive and have a high usage and easy maintainability and handling of the site.

## Chapter 1.2

## Brief Intro of all the API's and components used

### HTML5:

Hypertext Markup Language is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets and scripting languages such as JavaScript

### CSS3

Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

## JavaScript

JavaScript, often abbreviated as JS, is a programming language that conforms to the ECMA Script specification. JavaScript is high-level, often just-in-time compiled, and multi-paradigm. It has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions

## React.js

React is an open-source, front end, JavaScript library for building user interfaces or UI components. It is maintained by Facebook and a community of individual developers and companies. I have used react.js for writing my program. In react we have to write code in JSX format and later it gets converted to respective JavaScript by Babel Compiler

## Node.js

Node.js is an open-source, cross-platform, back-end, JavaScript runtime environment that executes JavaScript code outside a web browser. I have used node.js for creating a runtime environment for my project

## FireBase

Firebase is a platform developed by Google for creating mobile and web applications. It was originally an independent company founded in 2011. In 2014, Google acquired the platform and it is now their flagship offering for app development. I have used Firebase in this project for hosting my website and I am planning to use the database feature of Firebase in future for maintaining the database for my app

# Chapter 1.3:

# Goal of the project:

**Functionality That I have given in this E-Commerce Website:**

- Sign Up
- Log In and Log Out
- Product Component
- Add to Basket
- Remove from Basket
- Calculating the total amount
- Interactive Interface

**Final Aim:**

1) To Develop Skills of Object Oriented Programing
2) Making an interactive Website

# Chapter 2 My Approach

## 2.1 Concepts of OOP Used

Following Concepts of OOP was used in the scripting language JavaScript with the help of React.Js framework and other helping software like Node.Js, FireBase,etc. Ide that I used was VS Code developed by Microsoft Corporation.

### Class

The building block of C++ that leads to Object-Oriented programming is a Class. It is a user-defined data type, which holds its own data members and member functions, which can be accessed and used by creating an instance of that class. A class is like a blueprint for an object.

### Objects

An Object is an identifiable entity with some characteristics and behavior. An Object is an instance of a Class. When a class is defined, no memory is allocated but when it is instantiated (i.e. an object is created) memory is allocated

### Abstraction

Data abstraction is one of the most essential and important features of object-oriented programming in C++. Abstraction means displaying only essential information and hiding the details. Data abstraction refers to providing only essential information about the data to the outside world, hiding the background details or implementation

### Encapsulation

In normal terms, Encapsulation is defined as wrapping up of data and information under a single unit. In Object-Oriented Programming, Encapsulation is defined as binding together the data and the functions that manipulate them.

### Polymorphism

The word polymorphism means having many forms. In simple words, we can define polymorphism as the ability of a message to be displayed in more than one form

### Inheritance

The capability of a class to derive properties and characteristics from another class is called Inheritance. Inheritance is one of the most important features of Object-Oriented Programming.

### File Handling

File handling provides a mechanism to store the output of a program in a file and to perform various operations on it. A stream is an abstraction that represents a device on which operations of input and output are performed. In this project I have taken the output in the database for the login page where it stores the email address and password for a user and it verifies it every time someone logs in to the website

## Exception Handling

In computing and computer programming, exception handling is the process of responding to the occurrence of exceptions – anomalous or exceptional conditions requiring special processing - during the execution of a program. In this project JavaScript automatically detects some of the exceptions for example when Signing In to the website if we enter a wrong format for email then it shows an alert saying that the "The email address is badly formatted" which is an example of Exception Handling.

# Chapter 3: Technical Documentation and Results

## Components Created along with the code:

### App.js

```javascript
import React, { useEffect } from "react";
import "./App.css";
import Header from "./Header";
import Home from "./Home";
import { BrowserRouter as Router, Switch, Route } from "react-router-dom";
import Checkout from "./Checkout";
import Login from "./Login";
import { auth } from "./firebase";
import { useStateValue } from "./StateProvider";
import Payment from "./Payment";
import { loadStripe } from "@stripe/stripe-js";
import { Elements } from "@stripe/react-stripe-js";

const promise = loadStripe(
  "pk_test_51HW06KE8z01YKg7KJcB400StIjWW6chdQuDQRQKnScbTK0bBuPWDklSz
nxG4TzYJONeWDIS6cklPfcTWlGQ9sgvb00V4yqK9LK"
);

function App() {
  const [{}, dispatch] = useStateValue();

  useEffect(() => {
    auth.onAuthStateChanged((authUser) => {
      console.log("The User is>>>", authUser);

      if (authUser) {
```

```
        dispatch({
          type: "SET_USER",
          user: authUser,
        });
      } else {
        dispatch({
          type: "SET_USER",
          user: null,
        });
        //the user is logged out
      }
    });
  }, []);
  return (
    //BEM
    <Router>
      <div className="app">
        <Switch>
          <Route path="/login">
            <Login />
          </Route>
          <Route path="/checkout">
            <Header />
            <Checkout />
          </Route>
          <Route path="/payment">
            <Header />
            <Elements stripe={promise}>
              <Payment />
            </Elements>
          </Route>

          <Route path="/">
            <Header />
```

```
        <Home />
      </Route>
    </Switch>
  </div>
</Router>
  );
}


export default App;
```

## Checkout.js

```
import React from "react";
import "./Checkout.css";
import Subtotal from "./Subtotal";
import { useStateValue } from "./StateProvider";
import CheckoutProduct from "./imgs/CheckoutProduct";

function Checkout() {
  const [{ basket, user }, dispatch] = useStateValue();
  return (
    <div className="checkout">
      <div className="checkout__left">

        <div>
          <h3>Hello, {user?.email}</h3>
          <h2 className="checkout__title">Your Shopping Basket</h2>

          {basket.map((item) => (
            <CheckoutProduct
              id={item.id}
              title={item.title}
              image={item.image}
```

```
                    price={item.price}

                />
            ))}
        </div>
    </div>
    <div className="checkout__right">
        <Subtotal />
    </div>
  </div>
 );
}


export default Checkout;
```

## Checkout.css

```css
.checkout__ad {
  width: 100%;
  margin-bottom: 10px;
}
.checkout {
  display: flex;
  padding: 20px;
  background-color: white;
  height: max-content;
}

.checkout__title {
  margin-right: 10px;
  padding: 10px;
  border-bottom: 1px solid lightgray;
```

```
}
```

## CheckoutProduct.js

```javascript
import React from 'react';
import './CheckoutProduct.css'
import { useStateValue } from "./StateProvider";

function CheckoutProduct({ id, image, title, price, rating, hideButton }) {
    const [{ basket }, dispatch] = useStateValue();

    const removeFromBasket = () => {
        // remove the item from the basket
        dispatch({
            type: 'REMOVE_FROM_BASKET',
            id: id,
        })
    }

    return (
        <div className='checkoutProduct'>
            <img className='checkoutProduct__image' src={image} />

            <div className='checkoutProduct__info'>
                <p className='checkoutProduct__title'>{title}</p>
                <p className="checkoutProduct__price">
                    <small>$</small>
                    <strong>{price}</strong>
                </p>
                <div className="checkoutProduct__rating">
                    {Array(rating)
```

```
                .fill()
                .map((_, i) => (
                    <p>□</p>
                ))}
            </div>
            {!hideButton && (
                <button onClick={removeFromBasket}>Remove from B
asket</button>
            )}
        </div>
    </div>
    )
}


export default CheckoutProduct
```

## CheckoutProduct.css

```css
.checkoutProduct {
  display: flex;
  margin-top: 20px;
  margin-bottom: 20px;
}

.checkoutProduct__info {
  padding-left: 20px;
}

.checkoutProduct__info > button {
  background: #f0c14b;
  border: 1px solid;
  margin-top: 10px;
}
```

```css
  border-color: #a88734 #9c7e31 #846a29;
  color: #111;
}

.checkoutProduct__image {
  object-fit: contain;
  width: 180px;
  height: 180px;
}

.checkoutProduct__rating {
  display: flex;
}

.checkoutProduct__title {
  font-size: 17px;
  font-weight: 800;
}
```

## Firebase.js

```js
import firebase from "firebase";
const firebaseConfig = {
  apiKey: "AIzaSyAWau4GDZv5XfWJXpS4xbPb0Tl0Qbw98DM",
  authDomain: "clone-a041a.firebaseapp.com",
  databaseURL: "https://clone-a041a.firebaseio.com",
  projectId: "clone-a041a",
  storageBucket: "clone-a041a.appspot.com",
  messagingSenderId: "850126730270",
  appId: "1:850126730270:web:5243fd1d50e81b0d372a0f",
};
```

```
const firebaseApp = firebase.initializeApp(firebaseConfig);
const db = firebaseApp.firestore();
const auth = firebase.auth();
export { db, auth };
```

## Header.js

```
import React from "react";
import "./Header.css";
import SearchIcon from "@material-ui/icons/Search";
import ShoppingBasketIcon from "@material-ui/icons/ShoppingBasket";
import { Link } from "react-router-dom";
import { useStateValue } from "./StateProvider";
import { auth } from "./firebase";

function Header() {
  const [{ basket, user }] = useStateValue();
  const handleAuthentication = () => {
    if (user) {
      auth.signOut();
    }
  };

  return (
    <div className="header">
      <Link to="/">
        <img
          src="http://pngimg.com/uploads/shopping_cart/shopping_cart
_PNG68.png"
          className="header__logo"


        />
```

```jsx
        </Link>

      <div className="header__search">
        <input className="header__searchInput" type="text" />
        <SearchIcon className="header__searchIcon" />
      </div>

      <div className="header__nav">
        <Link to={!user && "/login"}>
          <div onClick={handleAuthentication} className="header__opt
ion">
            <span className="header__optionLineOne">
              Hello {!user ? "Guest" : user.email}
            </span>
            <span className="header__optionLineTwo">
              {user ? "Sign Out" : "Sign In"}
            </span>
          </div>
        </Link>

        <Link to='/orders'>
          <div className="header__option">
            <span className="header__optionLineOne">Returns</span>
            <span className="header__optionLineTwo">& Orders</span>
          </div>
        </Link>
        <Link to='/YourPlus'>
        <div className="header__option">
          <span className="header__optionLineOne">Your</span>
          <span className="header__optionLineTwo">Plus</span>
        </div>
        </Link>

        <Link to="./checkout">
```

```
          <div className="header__optionBasket">
            <ShoppingBasketIcon />
            <span className="header__optionLineTwo header__basketCou
nt">
              {basket?.length}
            </span>
          </div>
        </Link>
      </div>
    </div>
  );
}


export default Header;
```

## Header.css

```
.home {
  display: flex;
  justify-content: center;
  margin-left: auto;
  margin-right: auto;
  max-width: 1500px;
}

.home__row {
  display: flex;
  z-index: 1;
  margin-left: 5px;
  margin-right: 5px;
}
```

```css
.home__image {
  width: 100%;
  z-index: -1;
  margin-bottom: -150px;
  mask-image: linear-
gradient(to bottom, rgba(0, 0, 0, 1), rgba(0, 0, 0, 0));
}
```

## Home.js

```jsx
import React from "react";
import "./Home.css";
import Product from "./Product";

function Home() {
  return (
    <div className="home">
      <div className="home__container">
        <img
          src="https://images-na.ssl-images-
amazon.com/images/G/01/AmazonExports/Fuji/2020/October/Fuji_Tallhero
_Dash_en_US_1x._CB418727898_.jpg"
          alt=""
          className="home__image"
        />
        <div className="home__row">
          <Product
            id="11111"
            title="
            LG Ultragear 27-
inch IPS FHD, , HDR 10, Gaming Monitor with Display Port,  Pivot Sta
nd, 144Hz, 1ms - 27GL650Fk"
```

```jsx
          price={144.99}
          image="https://images-na.ssl-images-
amazon.com/images/I/812wPJneMKL._SL1500_.jpg"
          rating={4}
        />
        <Product
          id="22222"
          title="MSI Optix MAG241C 23.6 inch Full HD Curved Gaming
 Monitor, 144hz Refresh Rate"
          price={199.99}
          rating={5}
          image="https://images-na.ssl-images-
amazon.com/images/I/51sp9mu5FzL._SL1024_.jpg"
        />
      </div>

      <div className="home__row">
        <Product
          id="12333"
          title="Think Like a Monk"
          //price="9.99"
          image="https://images-na.ssl-images-
amazon.com/images/I/41GmSlYkjnL._SY445_QL70_ML2_.jpg"
          rating={5}
        />
        <Product
          id="12345"
          title="Crushing It!!!! by Gary Vee"
          price={29.99}
          rating={4}
          image="https://images-na.ssl-images-
amazon.com/images/I/51+lcnIDQfL.jpg"
        />
      </div>
```

```jsx
        <div className="home__row">
          <Product
            id="12344"
            title="The Lean Startup"
            price={29.99}
            image="https://images-na.ssl-images-
amazon.com/images/I/51Zymoq7UnL._AC_SY400_.jpg"
            rating={3}
          />
          <Product
            id="123458"
            title="GTX 2070  Ultimate Edition"
            price={999.99}
            rating={4}
            image="https://www.nvidia.com/content/dam/en-
zz/Solutions/geforce/geforce-rtx-turing/tech-shots/geforce-rtx-2070-
web-tech-shot-630-u@2x.png"
          />
        </div>
        <div className="home__row">
          <Product
            id="123460"
            title="Skytech Archangel Gaming Computer PC Desktop -
 RYZEN 5 2600 6-
Core 3.4 GHz, GTX 1660 6G, 500GB SSD, 16GB DDR4 RAM "
            price={899}
            rating={5}
            image="https://images-na.ssl-images-
amazon.com/images/I/71XvDKfQxjL._AC_SL1500_.jpg"
          />
          <Product
            id="1234561"
            title="SkyTech Blaze II Gaming Computer PC Desktop"
```

```
          price={699}
          rating={5}
          image="https://m.media-
amazon.com/images/I/81PeBrTfhnL._AC_UL480_FMwebp_QL65_.jpg"
        />
      <Product
        id="1231269"
        title="Thermaltake LCGS Shadow III AIO Liquid Cooled CPU
 Gaming PC (AMD RYZEN 5 3600 6-core, ToughRam DDR"
        price={1299}
        rating={4}
        image="https://m.media-
amazon.com/images/I/919vEB1rZnL._AC_UY327_FMwebp_QL65_.jpg"
        />
      <Product
        id="1234654"
        title="Razer Blade 15 Base Gaming Laptop 2020: Intel Cor
e i7-10750H 6-Core, NVIDIA GeForce GTX 1660 Ti, "
        price={1599}
        rating={4}
        image="https://m.media-
amazon.com/images/I/71r5254QPZL._AC_UY327_FMwebp_QL65_.jpg"
        />

    </div>

    <div className="home__row">
      <Product
        id="4903850"
        title="Samsung LC12782136213 49' Curved LED Gaming Monit
or"
        price={199.99}
        rating={4}
```

```jsx
            image="https://images.samsung.com/is/image/samsung/nz-
c24rg5-lc24rg50fqexxy-frontblack-174542981?$PD_GALLERY_L_JPG$"
          />
        <Product
          id="123456"
          title="AOC Curved LED Gaming Monitor"
          price={149.99}
          rating={3}
          image="https://images-na.ssl-images-
amazon.com/images/I/61cdbJ5%2BV5L._AC_SX466_.jpg"
          />
        <Product
          id="123457"
          title="GTX 2080 Ti Ultimate Edition"
          price={1299.99}
          rating={4}
          image="https://images-na.ssl-images-
amazon.com/images/I/514km%2BZccrL._AC_SL1000_.jpg"
          />
      </div>

      <div className="home__row">
        <Product
          id="123459"
          title="LG Smart TV 49 Super Ultra High Defination SD HD
Super Reaility and Everything Included' "
          price={699.99}
          rating={4}
          image="https://images-na.ssl-images-
amazon.com/images/I/81rnw0hav2L._AC_SL1500_.jpg"
          />
      </div>
      <div className="home__row">
        <Product
```

```jsx
          id="1234569"
          title="Let Us C by Yashwant Katekar "
          price={10}
          rating={4}
          image="https://images-na.ssl-images-
amazon.com/images/I/511l5OauWmL.jpg"
        />
        <Product
          id="1234569"
          title="Subtle Art of Not Giving a F**K"
          price={15}
          rating={5}
          image="https://images-na.ssl-images-
amazon.com/images/I/71t4GuxLCuL.jpg"
        />
        <Product
          id="1234569"
          title="Game of Thrones by George R R Martin Full Set of
5 Books"
          price={80}
          rating={5}
          image="https://cdn.shopify.com/s/files/1/0064/5342/8271/
products/RHGM5-game-thrones-armor-front-1200.jpg?v=1550953191"
        />
        <Product
          id="1234569"
          title="War and Peace by Leo Tolstoy"
          price={10}
          rating={4}
          image="https://m.media-
amazon.com/images/I/51pLmscHVEL.jpg"
        />

      </div>
```

```
      </div>
    </div>
  );
}



export default Home;
```

## Home.css

```css
.home {
  display: flex;
  justify-content: center;
  margin-left: auto;
  margin-right: auto;
  max-width: 1500px;
}

.home__row {
  display: flex;
  z-index: 1;
  margin-left: 5px;
  margin-right: 5px;
}

.home__image {
  width: 100%;
  z-index: -1;
  margin-bottom: -150px;
  mask-image: linear-
gradient(to bottom, rgba(0, 0, 0, 1), rgba(0, 0, 0, 0));
}
```

## Index.js

```javascript
import React from "react";
import ReactDOM from "react-dom";
import "./index.css";
import App from "./App";
import * as serviceWorker from "./serviceWorker";
import { StateProvider } from "./StateProvider";
import reducer, { initialState } from "./reducer";

ReactDOM.render(
  <React.StrictMode>
    <StateProvider initialState={initialState} reducer={reducer}>
      <App />
    </StateProvider>
  </React.StrictMode>,
  document.getElementById("root")
);

serviceWorker.unregister();
```

## Index.css

```css
* {
  margin: 0;
}

body {
  background-color: rgb(234, 237, 237);
```

```css
  margin: 0;
  font-family: -apple-
system, BlinkMacSystemFont, "Segoe UI", "Roboto", "Oxygen",
    "Ubuntu", "Cantarell", "Fira Sans", "Droid Sans", "Helvetica Neu
e",
    sans-serif;
  -webkit-font-smoothing: antialiased;
  -moz-osx-font-smoothing: grayscale;
}


code {
  font-family: source-code-
pro, Menlo, Monaco, Consolas, "Courier New",
    monospace;
}
```

## Login.js

```js
import { auth } from "./firebase";
import React, { useState } from "react";
import { Link, useHistory } from "react-router-dom";
import "./Login.css";

function Login() {
  const history = useHistory();
  const [email, setEmail] = useState("");
  const [password, setPassword] = useState("");
  const signIn = (e) => {
    e.preventDefault();
    auth
      .signInWithEmailAndPassword(email, password)
      .then((auth) => {
```

```
          history.push("/");
        })
      .catch((error) => alert(error.message));
  };
  const register = (e) => {
    e.preventDefault();
    auth
      .createUserWithEmailAndPassword(email, password)
      .then((auth) => {
        console.log(auth);
        if (auth) {
          history.push("/");
        }
      })
      .catch((error) => alert(error.message));
  };

  return (
    <div className="login">
      <Link to="/">
        <img
          className="login__logo"
          src="http://pngimg.com/uploads/shopping_cart/shopping_cart
_PNG68.png"
          alt=""
        />
      </Link>
      <div className="login__container">
        <h1>Sign-In</h1>
        <form>
          <h5>E-mail</h5>
          <input
            type="text"
            value={email}
```

```jsx
          onChange={(e) => setEmail(e.target.value)}
        />
        <h5>Password</h5>
        <input
          type="password"
          value={password}
          onChange={(e) => setPassword(e.target.value)}
        />
        <button
          type="submit"
          onClick={signIn}
          className="login__signInButton"
        >
          Sign-In
        </button>
      </form>
      <p>
        By sigining in you agree to the my terms and condition and
 that is for
        cookies and bookmarks and everything that you posses. We w
ill take
        every deatil from you
      </p>
      <button onClick={register} className="login__registerButton"
>
        Create Account
      </button>
    </div>
  </div>
  );
}

export default Login;
```

## Login.css

```css
.login__logo {
  margin-top: 20px;
  margin-bottom: 20px;
  object-fit: contain;
  width: 100px;
  margin-right: auto;
  margin-left: auto;
}
.login {
  display: flex;
  background-color: white;
  flex-direction: column;
  align-items: center;
  height: 100vh;
}
.login__container {
  width: 300px;
  height: fit-content;
  display: flex;
  flex-direction: column;
  border-radius: 5px;
  border: 1px solid lightgray;
  padding: 20px;
}

.login__container > h1 {
  font-weight: 500;
  margin-bottom: 20px;
}
.login__container > form > h5 {
```

```css
    margin-bottom: 5px;
}
.login__container > form > input {
    height: 30px;
    margin-bottom: 10px;
    background-color: white;
    width: 98%;
}
.login__container > p {
    margin-top: 15px;
    font-size: 12px;
}
.login__signInButton {
    background: #f0c14b;
    border: 1px solid;
    border-radius: 2px;
    width: 100%;
    height: 30px;
    margin-top: 10px;
    border-color: #a88734 #9c7e31 #846a29;
}
.login__registerButton {
    border-radius: 2px;
    width: 100%;
    height: 30px;
    border: 1px solid;
    margin-top: 10px;
    border-color: darkgrey;
}
```

## Order.js

```javascript
import React from 'react'
import './Order.css'
import moment from "moment";
```

```jsx
import CheckoutProduct from "./CheckoutProduct";
import CurrencyFormat from "react-currency-format";

function Order({ order }) {
    return (
        <div className='order'>
            <h2>Order</h2>
            <p>{moment.unix(order.data.created).format("MMMM Do YYYY
, h:mma")}</p>
            <p className="order__id">
                <small>{order.id}</small>
            </p>
            {order.data.basket?.map(item => (
                <CheckoutProduct
                    id={item.id}
                    title={item.title}
                    image={item.image}
                    price={item.price}
                    rating={item.rating}
                    hideButton
                />
            ))}
            <CurrencyFormat
                renderText={(value) => (
                    <h3 className="order__total">Order Total: {value
}</h3>
                )}
                decimalScale={2}
                value={order.data.amount / 100}
                displayType={"text"}
                thousandSeparator={true}
                prefix={"$"}
            />
        </div>
```

```
    )
}


export default Order
```

**Order.css**

```css
.order {
  padding: 40px;
  margin: 20px 0;
  border: 1px solid lightgray;
  background-color: white;
  position: relative;
}


.order__id {
  position: absolute;
  top: 40px;
  right: 20px;
}


.order__total {
  font-weight: 500;
  text-align: right;
}
```

**Product.js**

```js
import React from "react";
import "./Product.css";
import { useStateValue } from "./StateProvider";
```

```javascript
function Product({ id, title, image, price, rating }) {
  const [{ basket }, dispatch] = useStateValue();

  const addtoBasket = () => {
    //dispatch item into data layer
    dispatch({
      type: "ADD_TO_BASKET",
      item: {
        id: id,
        title: title,
        image: image,
        price: price,
        rating: rating,
      },
    });
  };

  return (
    <div className="product">
      <div className="product__info">
        <p>{title}</p>
        <p className="product__price">
          <small>$</small>
          <strong>{price}</strong>
        </p>
        <div className="product__rating">
          {Array(rating)
            .fill()
            .map((_, i) => (
              <p>☆</p>
            ))}
        </div>
      </div>
    </div>
```

```jsx
      <img src={image} alt="" />
      <button className="button" onClick={addtoBasket}>Add to Basket
</button>
    </div>
  );
}


export default Product;
```

## Product.css

```css
.product {
  display: flex;
  flex-direction: column;
  align-items: center;
  justify-content: flex-end;
  margin: 10px;
  padding: 20px;
  width: 100%;
  min-width: 100px;
  max-height: 400px;
  background-color: white;
  z-index: 1;
}

.product:hover {
  background-color: lightgrey;
  transform: scale(1.05);
  transition-duration: 0.5s;
}

.product > img {
```

```css
    max-height: 200px;
    width: 100%;
    height: 200px;
    object-fit: contain;
    margin-bottom: 15px;
}

.product__info {
    height: 100px;
    width: 100%;
    margin-bottom: 15px;
}

.product__rating {
    display: flex;
}
.product__price {
    margin-top: 5px;
}

.product > button {
    background: #f0c14b;
    border: 1px solid;
    margin-top: 10px;
    border-color: #a88734 #9c7e31 #846a29;
    color: #111;
}
```

## Products.js

```js
import React from "react";
import "./Product.css";
```

```jsx
import { useStateValue } from "./StateProvider";

function Product({ id, title, image, price, rating }) {
  const [{ basket }, dispatch] = useStateValue();

  const addtoBasket = () => {
    //dispatch item into data layer
    dispatch({
      type: "ADD_TO_BASKET",
      item: {
        id: id,
        title: title,
        image: image,
        price: price,
        rating: rating,
      },
    });
  };

  return (
    <div className="product">
      <div className="product__info">
        <p>{title}</p>
        <p className="product__price">
          <small>$</small>
          <strong>{price}</strong>
        </p>
        <div className="product__rating">
          {Array(rating)
            .fill()
            .map((_, i) => (
              <p>☆</p>
            ))}
        </div>
```

```
        </div>

        <img src={image} alt="" />
        <button className="button" onClick={addtoBasket}>Add to Basket
</button>
    </div>
  );
}


export default Product;
```

## reducer.js

```
export const initialState = {
  basket: [],
  user: null,
};


//selector
export const getBasketTotal = (basket) =>
  basket?.reduce((amount, item) => item.price + amount, 0);

const reducer = (state, action) => {
  switch (action.type) {
    case "ADD_TO_BASKET":
      return {
        ...state,
        basket: [...state.basket, action.item],
      };

    case "REMOVE_FROM_BASKET":
      const index = state.basket.findIndex(
```

```
        (basketItem) => basketItem.id === action.id
      );
      let newBasket = [...state.basket];
      if (index >= 0) {
        newBasket.splice(index, 1);
      } else {
        console.warn(
          `Cant remove product(id:${action.id}) as its not in the ba
sket!`
        );
      }
      return {
        ...state,
        basket: newBasket,
      };
    case "SET_USER":
      return {
        ...state,
        user: action.user,
      };

    default:
      return state;
  }
};

export default reducer;
```

## StateProvider.js

```
import React, { createContext, useReducer, useContext } from "react"
;
```

```
//Prepare Data-layer
export const StateContext = createContext();


//Wrap our app and provide the data-layer to every component
export const StateProvider = ({ reducer, initialState, children }) =
> (
  <StateContext.Provider value={useReducer(reducer, initialState)}>
    {children}
  </StateContext.Provider>
);


//Pull Info from data-layer
export const useStateValue = () => useContext(StateContext);
```

## Subtotal.js

```
import React from "react";
import "./Subtotal.css";
import CurrencyFormat from "react-currency-format";
import { useStateValue } from "./StateProvider";
import { getBasketTotal } from "./reducer";
import { useHistory } from "react-router-dom";

function Subtotal() {
  const history = useHistory();
  const [{ basket }] = useStateValue();


  return (
    <div className="subtotal">
      <CurrencyFormat
        renderText={(value) => (
          <div>
```

```
          <p>
            Subtotal ({basket.length} items) :<strong>{value}</str
ong>
          </p>
          <small className="subtotal__gift">
            <input type="checkbox" />
            This Order contains a gift
          </small>
        </div>
      )}
      decimalScale={2}
      value={getBasketTotal(basket)}
      displayType={"text"}
      thousandSeparator={true}
      prefix={"$"}
    />

    <button onClick={(e) => history.push("/payment")}>
      Proceed to Checlout
    </button>
  </div>
  );
}

export default Subtotal;
```

## Subtotal.css

```
.subtotal {
  display: flex;
  flex-direction: column;
  justify-content: space-between;
  width: 300px;
```

```css
  height: 100px;
  padding: 20px;
  background-color: #f3f3f3;
  border: 1px solid #dddddd;
  border-radius: 3px;
}

.subtotal__gift {
  display: flex;
  align-items: center;
}
.subtotal__gift > input {
  margin-right: 5px;
}
.subtotal > button {
  background-color: #f0c14b;
  width: 100%;
  height: 30px;
  border: 1px solid;
  margin-top: 10px;
  border-color: #a88734 #9c7e31 #846a29;
  color: #111;
}
```

**\*Note: All the codes couldn't be given in a word file. So, I have basically provided with the most important codes for my project here**

# Chapter 4 Conclusion and References

From this project I would like to conclude that I have actually learnt a great deal about web development and a guy who was not at all interested in building web based application I have actually come to like it and I will be making a few more projects on the web development. Also not to forget having an E-Commerce website of your own business actually has so many advantages. Some of them are as follows:

1) Can Broaden Your Brand

2) Its More Convenient

3) Increase Your Reach

4) Gives You Marketing Opportunities

5) Scalable

The website that I created is hosted on the web address: https://iamkarn07.me/ (you can ctrl+click to visit the site)

Credits:

- 1) https://reactjs.org/tutorial/tutorial.html (React Guide)

- 2) https://www.w3schools.com/js/ (W3Schools)

- 3) https://www.coursera.org/ (Coursera)

- 4)https://www.youtube.com/user/TechGuyWeb (Traversy Media)

- 5)https://www.youtube.com/channel/UClb90NQQcskPUGDIXsQEz5Q (Dev. Ed)