COVID Essentials Website

A Project Report

Submitted by

Sara Dharadhar B024

Rhea Gupta B031

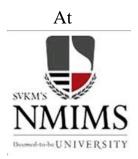
Under the Guidance of

Dr. Gaurav Londhe

in partial fulfillment for the award of the degree of

B.TECH

COMPUTER ENGINEERING



MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT ENGINEERING, NMIMS, MUMBAI OCTOBER 2020

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CERTIFICATE

This is to certify that the project entitled "Covid Essentials Web	osite" is the bonafide work carried
out by _Sara Dharadhar and Rhea Gupta of B Tech, MPSTME	(NMIMS), Mumbai, during the VI
semester of the academic year 2019-2020, in partial fulfil	lment of the requirements for the
Course E-Commerce.	
Dr. Gaurav Londhe	
Internal Mentor	
<u> </u>	
Examiner 1	Examiner 2

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Thank You All!

SARA DHARADHAR RHEA GUPTA

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1. INTRODUCTION

The Covid Essentials Website, in simple terms, is a shop for various items such as sanitizers, masks, PPE kits, soaps and so on which have become the new normal and necessities due to the ongoing pandemic.

1.1NEED OF THE WEBSITE

Coronavirus disease is an infectious disease caused by a newly discovered coronavirus. Nine months since we first heard of COVID-19, the pandemic has claimed more than one million lives and infected more than 30 million people in 190 countries. Infections are rising and there are troubling signs of new waves. Much about the virus remains unknown. But one basic fact is clear: the world was not prepared.

Due to this ongoing pandemic, most people are sceptical about leaving their houses. The E-commerce sector is blooming and in these times items like sanitizers, masks, shields, PPE Kits, Thermometers, Oximeters, and soaps have become basic necessities. There is no website currently available which is solely dedicated to these items hence we find the development of this kind of website of utmost importance and unique in its concept.

1.2 TARGET AUDIENCE

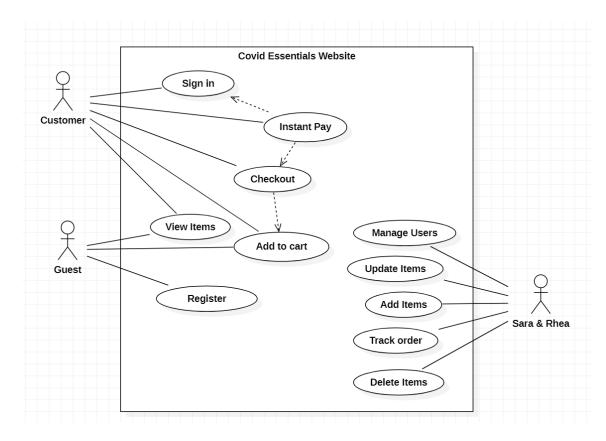
People worldwide have been affected by this pandemic. Anyone with a smart device and an internet connection is an audience for this website. Everyone needs to take several precautions to remain safe from the corona virus. This website will be a one stop shop for all products needed to ensure safety during these times. Therefore, people of all age groups and areas become legitimate customers of the covid essentials website.

1.3 <u>FUNCTIONALITIES</u>

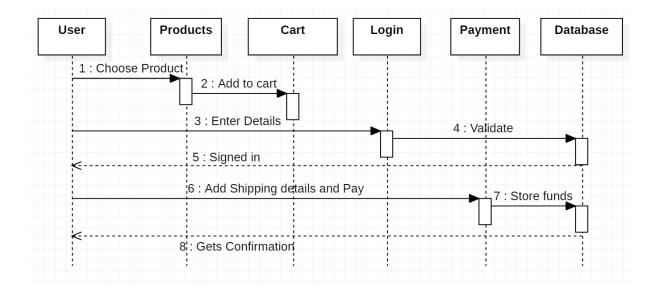
- **Home Page:** The home page shows the products, search bar, filter, cart, and sign in options.
- Authentication (Sign Up and Login): The customer can view products and add products to cart even without signing in. The authentication functionality allows verified users to login and place orders and helps admin keep a track of the customers and their orders.
- **Search and filter:** To ensure easy browsing for users we have provided a search functionality (by name, brand, and type) and filter functionality (By newest, highest price and lowest price) for all products.
- Catalog: We have a simple catalog design with price reviews and picture of product shown clearly.
- Shopping cart: We have a cart which is one click away and easy to use with prompts.
- **Shipping Information:** We take all shipping info from users to ensure maximum customer satisfaction.
- **Payment gateway (Paypal):** We have implemented a secure payment gateway using paypal which increases the reliability of our website.

1.4 FLOW DIAGRAMS

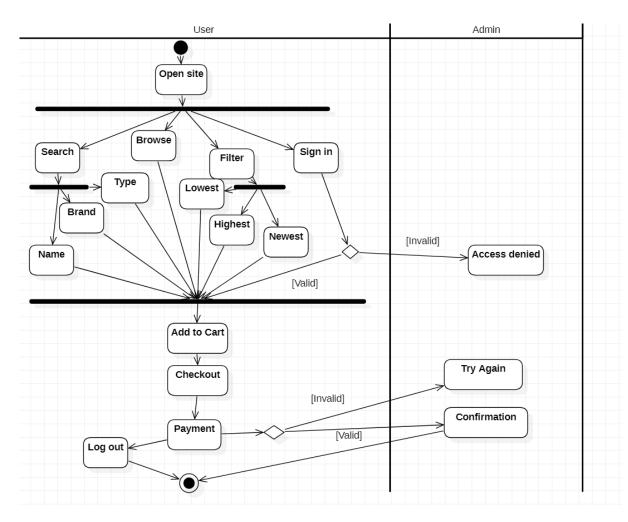
Use case Diagram



Sequence Diagram



Activity Diagram



2. TECHNICAL CONTENT

2.1 HARDWARE AND SOFTWARE REQUIREMENT

Hardware Requirements

- Any desktop environment MacOS, Windows, Linux
- Website can also run on handheld devices like smartphones and tablets.

Software Requirements

- The website requires a web browser like google chrome or safari to run
- A valid internet connection to host website and backend server

2.2 TECHNOLOGIES USED

- Our web application was built with the help of the **ReactJS Framework**
- We used **react-redux** as a state container and to enable our actions and reducers.
- We used **Axios** to make ajax requests and **Redux thunk** to act as a middleware for ajax requests.
- We use Express to connect our backend server.
- We use **mongoose** and **mongodb** to enable our backend database.
- We used the **Jsonwebtoken** dependency to assign unique ids to our users/orders/products
- We used the **bcryptjs** dependency to ensure user password security.

3. CONCEPTS IMPLEMENTED

3.1 BUSINESS LOGIC

Benchmarking

- Covid, Essentials, Sanitizer, PPE Kits, Thermometer, Oximeter, Soaps, Masks, Pan-India are keywords driving traffic to our site
- Our Goals and KPIs Include:
 - 1. Increase recurring purchase frequency by continually engaging with customers purchase frequency
 - 2. Target lookalike audiences to expand their customer pool
 - 3. Acquire new users by studying behavior patterns

Search Engine Optimization (SEO)

- We have page titles that are unique and optimized with the most important keywords appearing first
- Our content strategy is that we update items regularly, Provide good product descriptions, Reviews for products and keywords as well.
- We an internal linking strategy in place
- We have implemented a product review system to create user generated content and increase conversion rates

3.2 DESIGN AND UTILITY

- We have clear and consistent calls to action
- The navigation easy to use
- The site search box prominently displayed and when a user utilizes the site search, it produces the best possible results
- It takes one click for a user to get from the homepage to the shopping cart

3.3 SHOPPING CART AND CHECKOUT

The Shopping Cart

- There are "remove items" and "continue shopping" buttons
- We have included a product summary and thumbnail
- We show the user the final pricing with taxes and shipping included

The Checkout Process

- Our checkout process includes a progress bar
- We are properly tracking the checkout process in analytics to identify opportunities for improvement

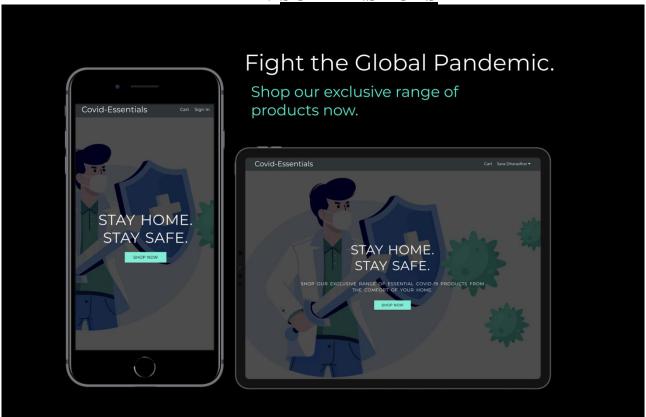
3.4 E-PAYMENT

- We have a pay pal payment gateway which increases the sites reliability
- We allow credit and debit card payment for convenience

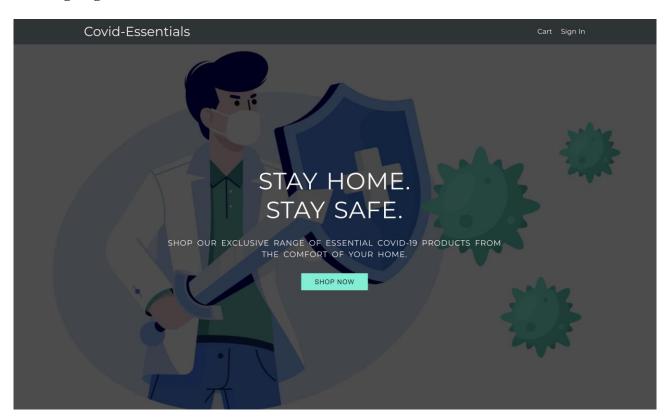
3.5 SECURITY

- We have installed a dependency called bcypt js which uses a hashing function to encrypt the user's password so that it is not explicitly mentioned and even the admin cannot see it.
- We made use of pay pal payment which is a secure payment gateway
- Authentication while signing in is in place so that only valid users can go ahead with the checkout process.
- Administrator can only perform administrative task on pages they are privileged to access. Customers will not be allowed to access the administrator pages.

4. SCREENSHOTS



Landing Page



Product Catalog

OUR PRODUCTS













COVID SAFE KEY HANDS FREE KEY CLENSTA COVID-19 PROTECTION LOTION

INFRA RED THERMOMETER

INFRA-RED THERMOMETER



****4 reviews Rs.298

















GODREJ PROTEKT HAND SANITIZER

****13 reviews Rs.50

DETTOL HAND SANITIZER

**** 13 reviews Rs.50

LIFEBUOY HAND SANITIZER

**** 13 reviews Rs.25

HEXA PRO DISINFECTANT

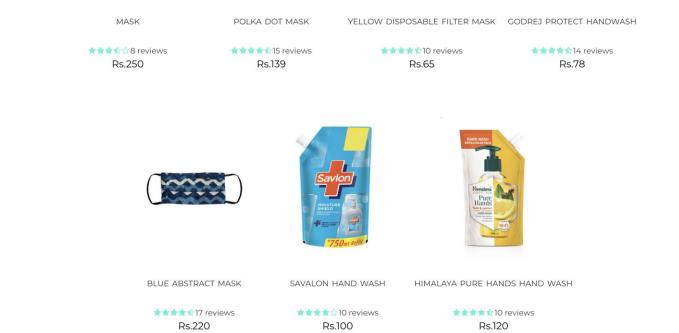
****3 reviews Rs.100











Product Page

Back to result



HIMALAYA PURE HANDS HAND
WASH

Price

Rs.120

Price

Rs.120

Status

In Stock

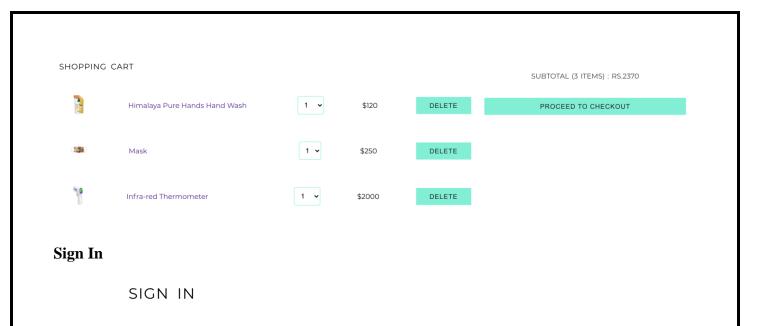
Description:

high quality product

Qty

ADD TO CART

Shopping Cart



Email address

sara11.dharadhar@gmail.com

Password

••••

SIGN IN

New customer? Create your account

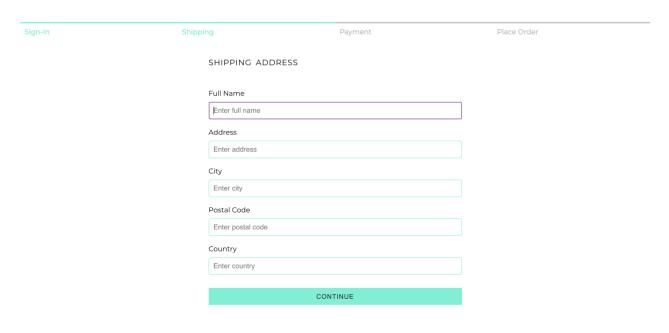
Register

CREATE ACCOUNT

Enter name Email address Enter email Password Enter password Confirm Password Enter confirm password

Already have an account? Sign-In

Shipping Address



Payment Method



Order Summary

Sign-In	Shipping	Payment	Place Order	
	SHIPPING		ORDER SUMMARY	
	Name: Sara Address: 701 a woodrose,Mumbai, 400053,India		Items	Rs.2370.00
	PAYMENT		Shipping	Rs.0.00
	Method: PayPal		Tax	Rs.355.50
	ORDER ITEMS		Order Total	Rs.2725.50
<u> </u>	Himalaya Pure Hands Hand Wash	1 x Rs.120 = Rs.120	PLACE ORDE	२
	Mask	1 x Rs.250 = Rs.250		
	Infra-red Thermometer	1 x Rs.2000 = Rs.2000		

Order Confirmation

ORDER 5F833CA8B906CB9E0AD43395

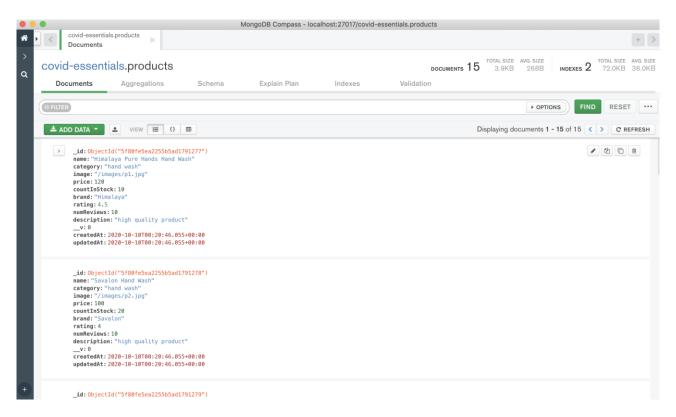


Pay confirmation

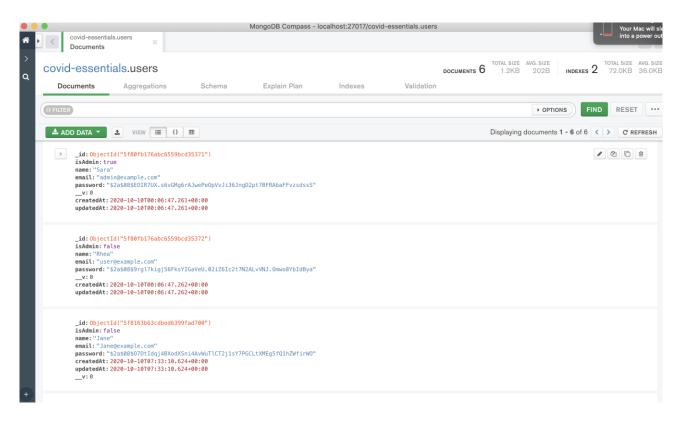
ORDER 5F833CA8B906CB9E0AD43395



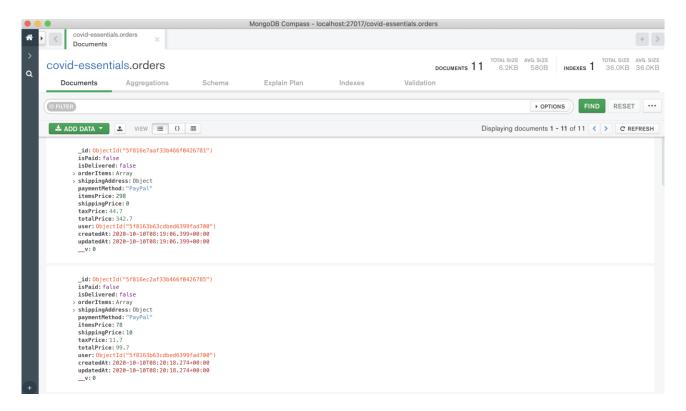
Product Database



User Database



Orders Database



5. CONCLUSION & FUTURE SCOPE

The Internet has become a major resource in modern business, thus electronic shopping has gained significance not only from the entrepreneur's but also from the customer's point of view. For the entrepreneur, electronic shopping generates new business opportunities and for the customer, it makes comparative shopping possible. As per a survey, most consumers of online stores are impulsive and usually decide to stay on a site within the first few seconds.

"Website design is like a shop interior. If the shop looks poor or like hundreds of other shops the customer is most likely to skip to the other site. Hence, we have designed the project to provide the user with easy navigation, retrieval of data and necessary feedback as much as possible. We have used ReactJS and redux framework which improves the design and creates a very interactive view, in turn attracting the user.

A good shopping cart design must be accompanied with user-friendly shopping cart application logic. It should be convenient for the customer to view the contents of their cart and to be able to remove or add items to their cart. The shopping cart application described in this project provides several features that are designed to make the customer more comfortable.

This project helps in understanding the creation of an interactive web page and the technologies used to implement it

The building of the project has given us a precise knowledge about how an ecommerce website is built and managed.

In the future, we plan to update and add items as per the need of the hour and plan to host it as well.

6. SOCIETAL APPLICATION

We believe that our project is very relevant given the current scenario. It helps people order items from the comfort of their homes. The products being sold on the website have become very common and day to day necessities in these times. Our site is easy to use and applicable to all age groups and locations.

7. CODE

Since our code consists of several files and its not feasible to add all the code we have pasted the code of some important pages below.

Backend Server

```
import mongoose from "mongoose";
const app = express();
app.use(express.json());
app.use(express.urlencoded({ extended: true }));
 process.env.MONGODB_URL || "mongodb://localhost/covid-essentials",
  useCreateIndex: true,
app.get("/", (req, res) => {
 res.send("Server is ready");
});
app.use("/api/users", userRouter);
app.use("/api/products", productRouter);
app.use("/api/orders", orderRouter);
app.get("/api/config/paypal", (req, res) => {
 res.send(process.env.PAYPAL_CLIENT_ID || "sb");
app.use((err, req, res, next) => {
 res.status(500).send({ message: err.message });
```

App.js

```
import React from "react";
import { useDispatch, useSelector } from "react-redux";
import { BrowserRouter, Link, Route } from "react-router-dom";
import HomeScreen from "./screens/HomeScreen";
import { signout } from "./actions/userActions";
import ShippingAddressScreen from "./screens/ShippingAddressScreen";
import RegisterScreen from "./screens/RegisterScreen";
```

```
import CartScreen from "./screens/CartScreen";
import OrderScreen from "./screens/OrderScreen";
import ProductScreen from "./screens/ProductScreen";
import PlaceOrderScreen from "./screens/PlaceOrderScreen";
function App() {
 const cart = useSelector((state) => state.cart);
 const { cartItems } = cart;
 const userSignin = useSelector((state) => state.userSignin);
 const { userInfo } = userSignin;
 const dispatch = useDispatch();
 const signoutHandler = () => {
  dispatch(signout());
  <BrowserRouter>
   <div className="grid-container">
      <nav className="navbar">
       <div className="navbar-center">
         <Link className="brand" to="/">
          Covid-Essentials
         <Link to="/cart">
          Cart
          {cartItems.length > 0 && (
            <span className="badge">(cartItems.length)</span>
          <div className="dropdown">
            <Link to="#">
            {userInfo.name} <i className="fa fa-caret-down"></i>{" "}
            </Link>
            ul className="dropdown-content">
              <Link to="#signout" onClick={signoutHandler}>
               Sign Out
           <Link to="/signin">Sign In</Link>
```

```
</fr>
</final/>
</nav>
</header>
<main>
<Route path="/register" component= RegisterScreen]></Route>
<Route path="/signin" component= SigninScreen]></Route>
<Route path="/shipping" component= (ShippingAddressCreen)></Route>
<Route path="/shipping" component= (CartScreen)></Route>
<Route path="/cart/:id" component= (CartScreen)></Route>
<Route path="/products" component= (ProductScreen)></Route>
<Route path="/product/:id" component= (ProductScreen)></Route>
<Route path="/placeorder" component= (PlaceOrderScreen)></Route>
<Route path="/placeorder" component= (PlaceOrderScreen)></Route>
<Route path="/payment" component= (PaymentMethodScreen)></Route>
<Route path="/payment" component= (PaymentMethodScreen)></Route>
<Route path="/" component= (HomeScreen) exact></Route>
</rr>
</ra>

<footer className="row center">
</footer className="row center">All right reserved</footer>
</div>
</foreign="row center">
</foreign= Reserved</footer>
Reserved
```

Home Screen

```
import React, { useState, useEffect } from "react";
import LoadingBox from "../components/LoadingBox";
import { useDispatch, useSelector } from "react-redux";
import { listProducts } from "../actions/productActions";
import LandingPage from "../components/LandingPage";
export default function HomeScreen(props) {
const dispatch = useDispatch();
const [searchKeyword, setSearchKeyword] = useState("");
const [sortOrder, setSortOrder] = useState("");
const category = props.match.params.id ? props.match.params.id : "";
 const productList = useSelector((state) => state.productList);
 const { loading, error, products } = productList;
 useEffect(() => {
}, [category]);
 const submitHandler = (e) => {
  dispatch(listProducts(category, searchKeyword, sortOrder));
 const sortHandler = (e) => {
  setSortOrder(e.target.value);
  dispatch(listProducts(category, searchKeyword, sortOrder));
```

```
<LandingPage></LandingPage>
<div class="section-title">
 <h2>our products</h2>
ul className="filter">
  <form onSubmit={submitHandler}>
    name="searchKeyword"
    onChange={(e) => setSearchKeyword(e.target.value)}
   <button className="banner-btn" type="submit">
    Search
  Sort By{" "}
  <select name="sortOrder" onChange={sortHandler}>
   <option value="">Newest</option>
   <option value="lowest">Lowest</option>
   <option value="highest">Highest</option>
 <MessageBox variant="danger">{error}
  <div className="row center">
   {products.map((product) => (
    <Product key={product_id} product=(product)></Product>
```

Product Screen

```
import React, { useEffect, useState } from "react";
import { useDispatch, useSelector } from "react-redux";
import { detailsProduct } from "../actions/productActions";
```

```
import { Link } from "react-router-dom";
import Rating from "../components/Rating";
export default function ProductScreen(props) {
const dispatch = useDispatch();
const productId = props.match.params.id;
const [qty, setQty] = useState(1);
const productDetails = useSelector((state) => state.productDetails);
const { loading, error, product } = productDetails;
 useEffect(() => {
}, [dispatch, productId]);
const addToCartHandler = () => {
 props.history.push(`/cart/${productId}?qty=${qty}`);
    <MessageBox variant="danger">{error}
    <div className="btr">
     <Link to="/">Back to result</Link>
     <div className="row top">
      <div className="col-2">
         className="large"
         alt={product.name}
       <div className="col-1">
          <Rating
           rating={product.rating}
           numReviews={product.numReviews}
         Pirce : Rs.{product.price}
          Description:
```

```
<div className="col-1">
 <div className="card card-body">
    <div className="row">
     <div>Price</div>
     <div className="price">Rs.{product.price}</div>
    <div className="row">
     <div>Status</div>
       <span className="success">In Stock</span>
       <span className="danger">Unavailable</span>
   {product.countlnStock > 0 && (
      <div className="row">
       <div>Qty</div>
          onChange={(e) => setQty(e.target.value)}
          {[...Array(product.countlnStock).keys()].map(
           (x) => (
            <option key={x + 1} value={x + 1}>
       onClick={addToCartHandler}
       className="banner-btn block"
       Add to Cart
```

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

CSS

```
@import url("https://fonts.googleapis.com/css?family=Montserrat");
 box-sizing: border-box;
 font-family: "Lato", "Arial", sans-serif;
 margin: 0;
 padding: 0;
body {
 margin: 0;
 height: 100vh;
 font-weight: 300;
 -webkit-font-smoothing: antialiased;
 -moz-osx-font-smoothing: grayscale;
#root {
 height: 100%;
.grid-container {
 display: grid;
 grid-template-areas:
 grid-template-rows: 5rem 1fr 5rem;
 height: 100%;
header {
 grid-area: header;
main {
 grid-area: main;
footer {
```

```
grid-area: footer;
 background-color: #2d3436;
 font-size: 1.8rem;
 padding: 1rem 0;
 font-weight: 300;
 text-transform: uppercase;
 margin-top: 0;
 margin-bottom: 20px;
 word-spacing: 4px;
 letter-spacing: 1px;
h2 {
 font-size: 1.6rem;
 padding: 1rem 0;
 font-weight: 300;
 text-transform: uppercase;
 word-spacing: 2px;
 text-align: center;
 margin-bottom: 30px;
 text-decoration: none;
a:hover {
ul {
 padding: 0;
 margin: 0;
 list-style-type: none;
margin-top: 1rem;
textarea {
 padding: 1rem;
 border: 0.1rem #50f2d4 solid;
 font-family: Helvetica, Arial, sans-serif;
 -webkit-font-smoothing: antialiased;
 -moz-osx-font-smoothing: grayscale;
```

```
select:hover,
button.primary {
 background-color: #50f2d4;
button.block {
header a {
 padding: 1rem;
a.brand {
badge {
 background-color: #f02020;
 padding: 0.2rem 0.7rem;
 margin-left: 0.2rem;
row {
 display: flex;
 flex-wrap: wrap;
 justify-content: space-between;
 align-items: center;
 padding: 20px;
.row.center {
justify-content: center;
.row.top {
align-items: flex-start;
.col-2 {
.min-30 {
```

```
img {
img.small {
img.medium {
img.large {
.card {
 padding: 4rem 0;
 text-align: center;
section-title h2 {
 word-spacing: 2px;
 text-align: center;
 margin-bottom: 30px;
 letter-spacing: 1px;
.card-body {
 padding: 1rem;
.card-body > * {
margin-bottom: 0.5rem;
.price {
.rating span {
 margin: 0.1rem;
.rating span:last-child {
.loading {
```

```
display: block !important;
success {
.danger {
padding: 1rem;
border: 0.1rem solid transparent;
.alert-info {
background-color: #e0e0ff;
alert-danger {
background-color: #ffe0e0;
alert-success {
background-color: #eeffe0;
form {
margin: 0 auto;
display: flex;
flex-direction: column;
.form label {
margin: 1rem 0;
.dropdown {
display: inline-block;
position: relative;
dropdown-content {
position: absolute;
display: none;
right: 0;
padding: 1rem;
```

```
background-color: #2d3436;
 margin: 0;
 margin-top: 0.4rem;
.dropdown:hover .dropdown-content {
 display: block;
/* Checkout Steps */
checkout-steps > div {
 border-top: 0.3rem #c0c0c0 solid;
 padding: 1rem;
 font-weight: bold;
checkout-steps > div.active {
border-top-color: #50f2d4;
filter {
 display: flex;
 list-style-type: none;
 padding: 0;
 margin: 1rem auto;
justify-content: space-between;
 align-items: center;
filter input,
filter button,
filter select {
 padding: 1rem;
 border: 0.1rem #c0c0c0 solid;
.categories {
padding: 0;
list-style-type: none;
categories a {
display: flex;
 padding: 1rem;
.categories a:hover {
background-color: #c0c0c0;
.navbar {
```

```
position: sticky;
height: 60px;
display: flex;
align-items: center;
background: #2d3436;
z-index: 1;
navbar-center {
max-width: 1170px;
margin: 0 auto;
display: flex;
align-items: center;
justify-content: space-between;
padding: 0 1.5rem;
hero {
min-height: calc(100vh - 60px);
background-size: cover;
background-position: center;
display: flex;
align-items: center;
background-attachment: fixed;
justify-content: center;
background-image: -webkit-linear-gradient(
 url("https://cdn.dribbble.com/users/287476/screenshots/11006005/media/c443c0067b944bba7b9687f86deb99d7.jpg");
banner {
text-align: center;
position: absolute;
display: inline-block;
padding: 2rem;
banner-title {
font-size: 5.4rem;
text-transform: uppercase;
margin-bottom: 1rem;
banner-btn {
padding: 1rem 3rem;
text-transform: uppercase;
letter-spacing: 0.1rem;
```

```
color: #222;
border: 1px solid #50f2d4;
transition: all 0.3s linear;
cursor: pointer;
}

.banner-btn:hover {
   background: transparent;
   color: #50f2d4;
}

.btr {
   padding: 5px;
   padding-top: 10px;
}

.long-copy {
   line-height: 145%;
   width: 70%;
   margin-left: 15%;
   color: #fff;
}
```

8. REFERENCES

- https://www.entrepreneur.com/article/284175
- https://www.hostgator.com/blog/get-ecommerce-website-running/
- https://www.quicksprout.com/create-ecommerce-website/
- https://reactjs.org/tutoria
- https://www.freecodecamp.org/news/learn-mongodb-a4ce205e7739/
- https://www.nykaa.com/covid-safety-

<u>checklist?transaction_id=dc6708e96d83418b3919e5a652b36cbc&intcmp=hp,bottom_b</u> <u>anner,1,covid-safety-checklist</u>