Harcourt Butler Technical University, Kanpur

Seminar Report

On

"React JS – The power of ReactJs"

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Sincerely,
Mohit Jaisal

Table of Contents

Sr.No.	TOPIC	Page No.
1.	Project to understand React	4
2.	Technologies Used	5
3.	Flow Chart	10
4.	User Sign-up/Sign-in	11
5.	Foods Page	13
6.	Filter Foods	12
7.	Featured Testimonials	20
8.	Foods Checkout Page	22
9.	Light/Dark Mode	23
10.	Responsive for all screen sizes	24
11.	Codes and structure	28
12.	Conclusion	32
13.	References	33

Project to Understand React

I created an online food delivery department to showcase power of ReactJs and MERN tech.

The project was named as **"Sapphire Foods"**. It is an online food delivery application made with React JS

Technologies Used

HTML

- HTML stands for Hyper Text Markup Language
- HTML is the standard markup language for creating Web pages
- HTML describes the structure of a Web page
- HTML consists of a series of elements
- HTML elements tell the browser how to display the content
- HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.

CSS

- CSS stands for Cascading Style Sheets
- CSS describes how HTML elements are to be displayed on screen, paper, or in other media
- CSS saves a lot of work. It can control the layout of multiple web pages all at once
- External stylesheets are stored in CSS files.

Javascript

JavaScript (often shortened to JS) is a lightweight, interpreted, object-oriented language with first-class functions, and is best known as the scripting language for Web pages, but it's used in many non-browser environments as well. It is a prototype-based, multi-paradigm scripting language that is dynamic, and supports object-oriented, imperative, and functional programming styles.

JavaScript runs on the client side of the web, which can be used to design / program how the web pages behave on the occurrence of an event. JavaScript is an easy to learn and also powerful scripting language, widely used for controlling web page behavior.

Contrary to popular misconception, JavaScript is *not* "Interpreted Java". In a nutshell, JavaScript is a dynamic scripting language supporting prototype based object construction. The basic syntax is intentionally similar to both Java and C++ to reduce the number of new concepts required to learn the language. Language constructs, such as if statements, for and while loops, and switch and try ... catch blocks function the same as in these languages (or nearly so).

React JS

React is a JavaScript-based UI development library. Facebook and an open-source developer community run it. Although React is a library rather than a language, it is widely used in web development. The library first appeared in May 2013 and is now one of the most commonly used frontend libraries for web development.

React offers various extensions for entire application architectural support, such as Flux and React Native, beyond mere UI.

When compared to other technologies on the market, React is a new technology. Jordan Walke, a software engineer at Facebook, founded the library in 2011, giving it life. The likes of XHP, a straightforward HTML component framework for PHP, have an influence on React. React's newsfeed was its debut application in 2011. Later, Instagram picks it up and incorporates it into their platform.
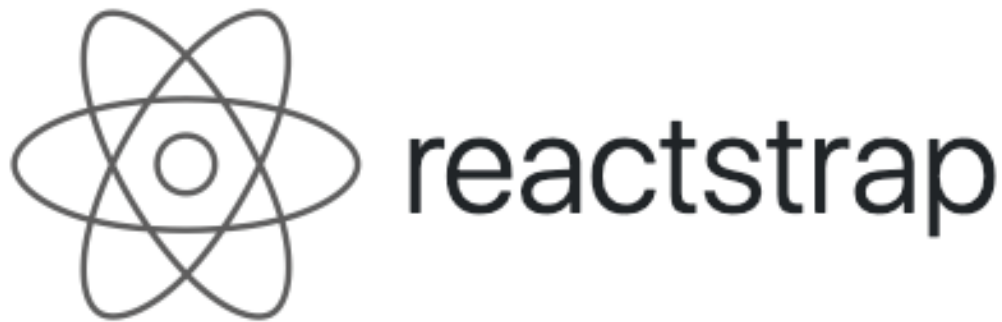
Easy to use React Bootstrap 4 components

React Strap

Reactstrap is a bootstrap-based React UI library that is used to make good-looking webpages with its seamless and easy-to-use component. Reactstrap does not embed its own style, but it depends upon the Bootstrap CSS framework for its styles and theme.
Prerequisites:

- Good knowledge of react.
- Good knowledge of Bootstrap.

Install Reactstrap: You can install it with npm or yarn by the following the command:
npm i reactstrap bootstrap --save

// or

yarn add reactstrap

Reactstrap currently requires, React 16.8 or higher. Reactstrap is currently compatible with Bootstrap 5.1. If you are using Bootstrap 4, you'll need to use Reactstrap v8.

NodeJS

Node.js is a server-side platform built on Google Chrome's JavaScript Engine (V8 Engine). Node.js was developed by Ryan Dahl in 2009 and its latest version is v0.10.36.

Node.js is an open source, cross-platform runtime environment for developing server-side and networking applications. Node.js applications are written in JavaScript, and can be run within the Node.js runtime on OS X, Microsoft Windows, and Linux.

Node.js also provides a rich library of various JavaScript modules which simplifies the development of web applications using Node.js to a great extent.

Asynchronous and Event Driven − All APIs of Node.js library are asynchronous, that is, non-blocking. It essentially means a Node.js based server never waits for an API to return data. The server moves to the next API after calling it and a notification mechanism of Events of Node.js helps the server to get a response from the previous API call.

Flow Chart
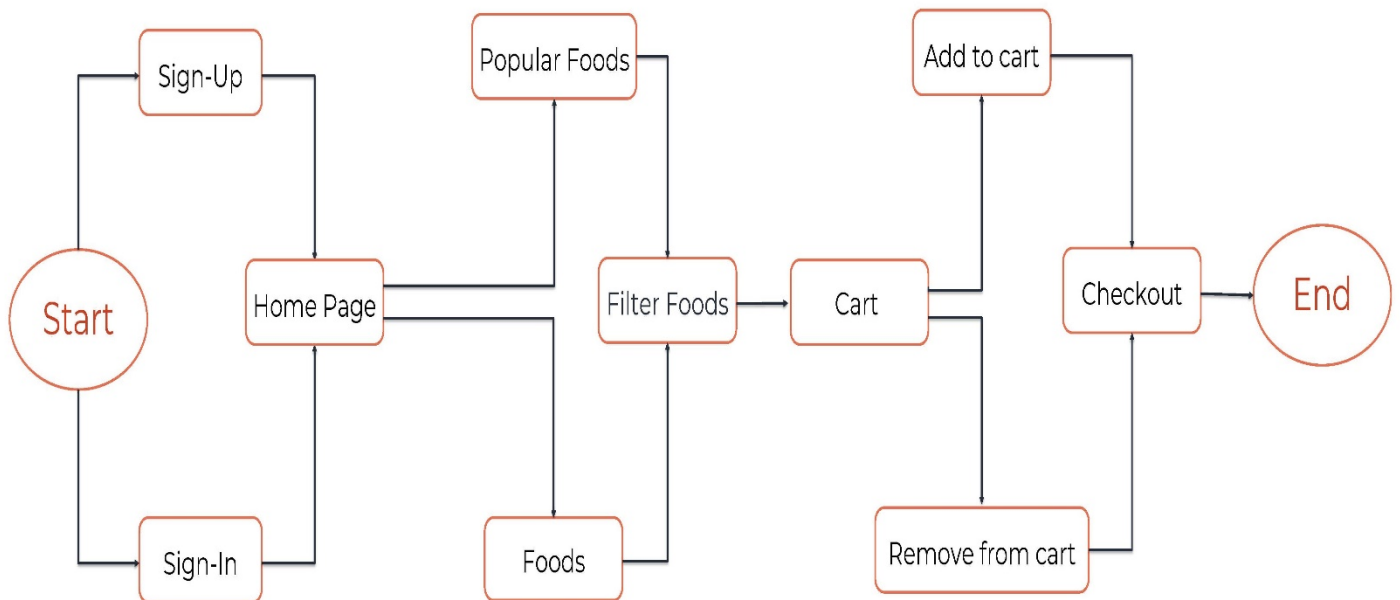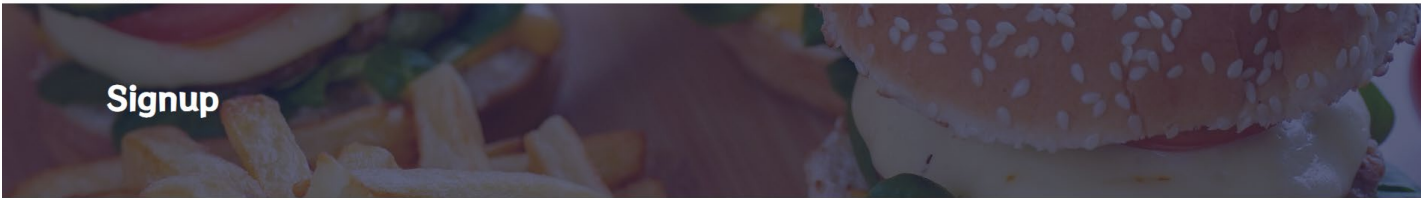
USER SIGN-UP

Sapphire Foods

Home   Foods   Cart   Contact

Signup

Full name

Email

Password

Sign Up
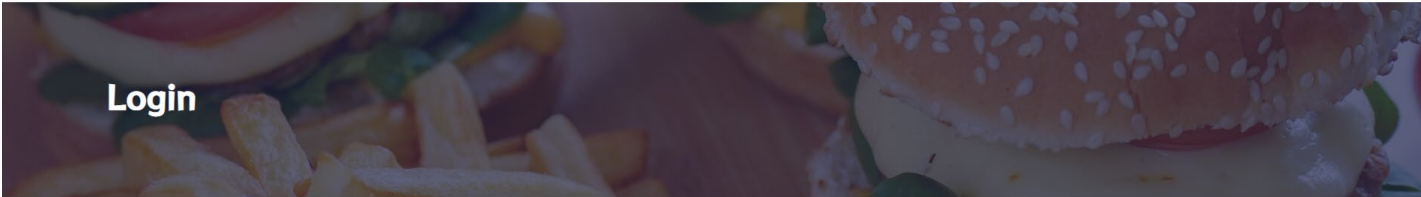
Already have an account? Login

USER SIGN-IN

SEPARATE FOODS PAGE

Sapphire Foods

Home   Foods   Cart   Contact

I'm looking for....   Default

Chicken Burger

$24   Add to Cart

Vegetarian Pizza

$115   Add to Cart

Double Cheese Margherita

$110   Add to Cart

Maxican Green Wave

$110   Add to Cart

FILTER FOODS

Sapphire Foods

Home Foods Cart Contact

burger   🔍   Default

Chicken Burger

$24   Add to Cart

Cheese Burger

$24   Add to Cart

Royal Cheese Burger

$24   Add to Cart

Classic Hamburger

$24   Add to Cart

Prev   1   Next

Sapphire Foods

Home   Foods   Cart   Contact

Pizza

Default

Vegetarian Pizza

$115   Add to Cart

Seafood Pizza

$115   Add to Cart

Thin Cheese Pizza

$110   Add to Cart

Pizza With Mushroom

$110   Add to Cart

Prev   1   Next

FILTER DESIGN FOR POPULAR FOODS
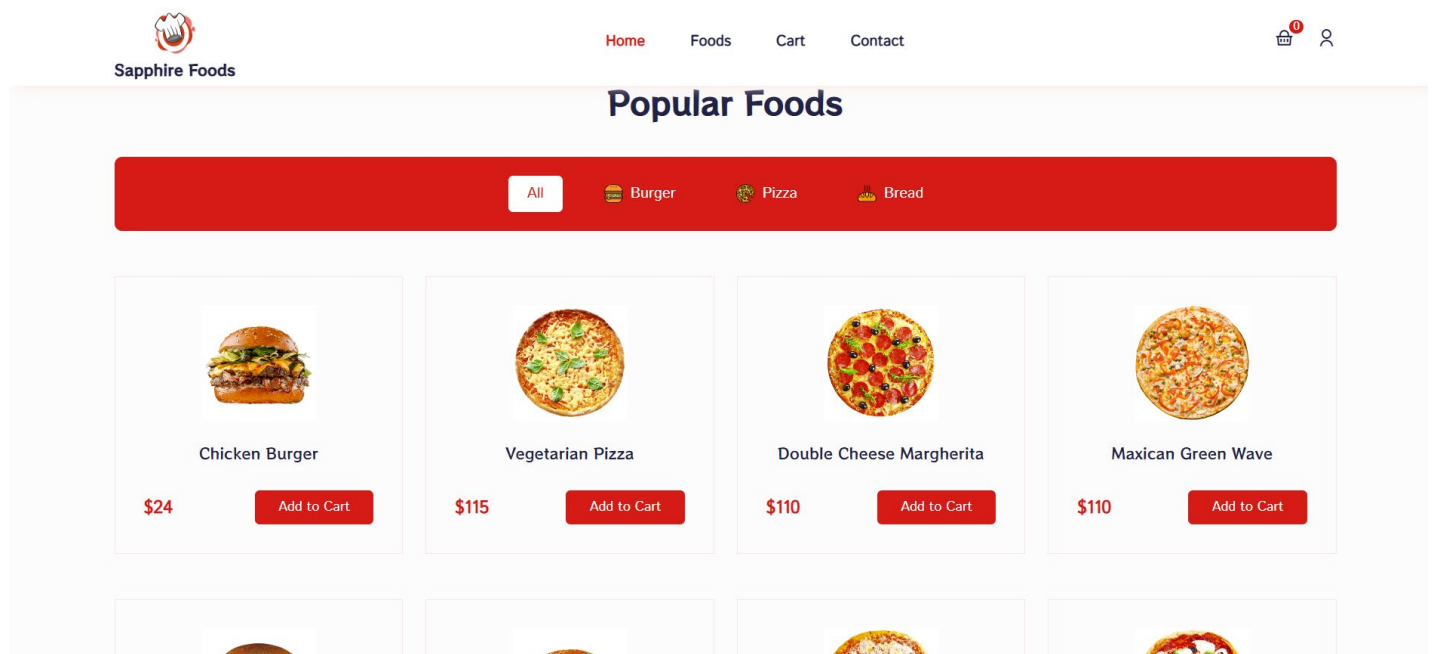
Sapphire Foods

Home   Foods   Cart   Contact

Popular Foods

All   🍔 Burger   🍕 Pizza   🥖 Bread

Chicken Burger
$24   Add to Cart

Vegetarian Pizza
$115   Add to Cart

Double Cheese Margherita
$110   Add to Cart

Maxican Green Wave
$110   Add to Cart

Sapphire Foods

Home   Foods   Cart   Contact

Popular Foods

All   🍔 Burger   🍕 Pizza   🍞 Bread

Chicken Burger

$24   Add to Cart

Cheese Burger

$24   Add to Cart

Royal Cheese Burger

$24   Add to Cart

Classic Hamburger

$24   Add to Cart

Sapphire Foods

Home   Foods   Cart   Contact

Popular Foods

All   🍔 Burger   🍕 Pizza   🥖 Bread

Vegetarian Pizza	**Double Cheese Margherita**	**Maxican Green Wave**	**Seafood Pizza**
$115 Add to Cart	$110 Add to Cart	$110 Add to Cart	$115 Add to Cart

Sapphire Foods

Home   Foods   Cart   Contact

Popular Foods

All   🍔 Burger   🍕 Pizza   🥖 Bread

Crunchy Bread

$35   Add to Cart

Delicious Bread

$35   Add to Cart

Loaf Bread

$35   Add to Cart

FEATURED TESTIMONIALS

Sapphire Foods

Home   Foods   Cart   Contact

Testimonial

What our **customers** are saying

"Life is not about the right opportunities, but it's about handling the opportunities right"
So, if you have a dream, what's holding it back? Go live your dream and support
someone else's dream as well.

A tech based on latest microservice solutions for managing multi-channel ordering. Our
brand-wise polygon helps customise reach and scalability of brands independently
without any constraint. Our patented machinery and automation allow uniformity and
increased efficiency through all.

Aashiya Khan

• • •

CART PAGE

Image	Product Title	Price	Quantity	Delete
	Vegetarian Pizza	$115	1px	🗑
	Seafood Pizza	$115	1px	🗑
	Crunchy Bread	$35	1px	🗑
	Chicken Burger	$24	1px	🗑

Subtotal: $289

Taxes and shipping will calculate at checkout

Continue Shopping   **Proceed to checkout**

FOODS CHECKOUT

Sapphire Foods

Home   Foods   Cart   Contact

Shipping Address

Enter your name

Enter your email

Phone number

Country

City

Postal code

Payment

Subtotal:	$302
Shipping:	$30
Total:	**$332**

LIGHT MODE
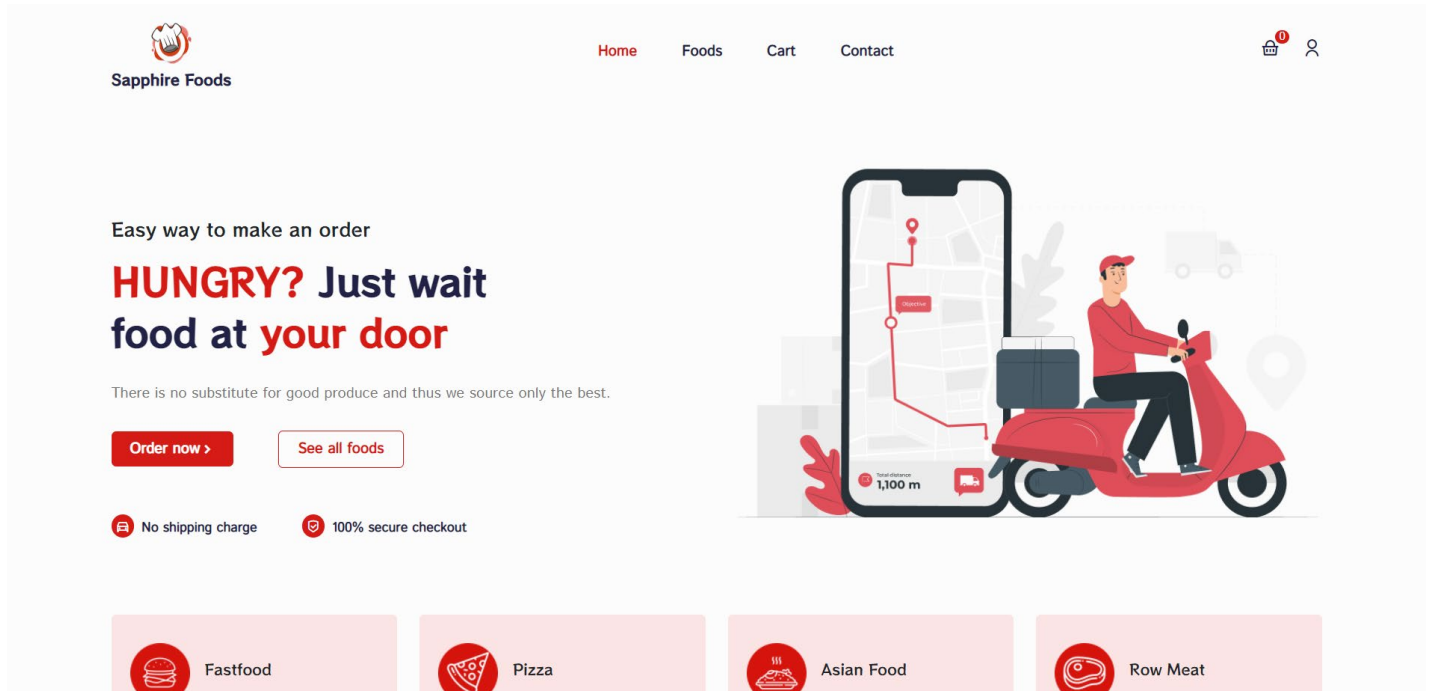
DARK MODE
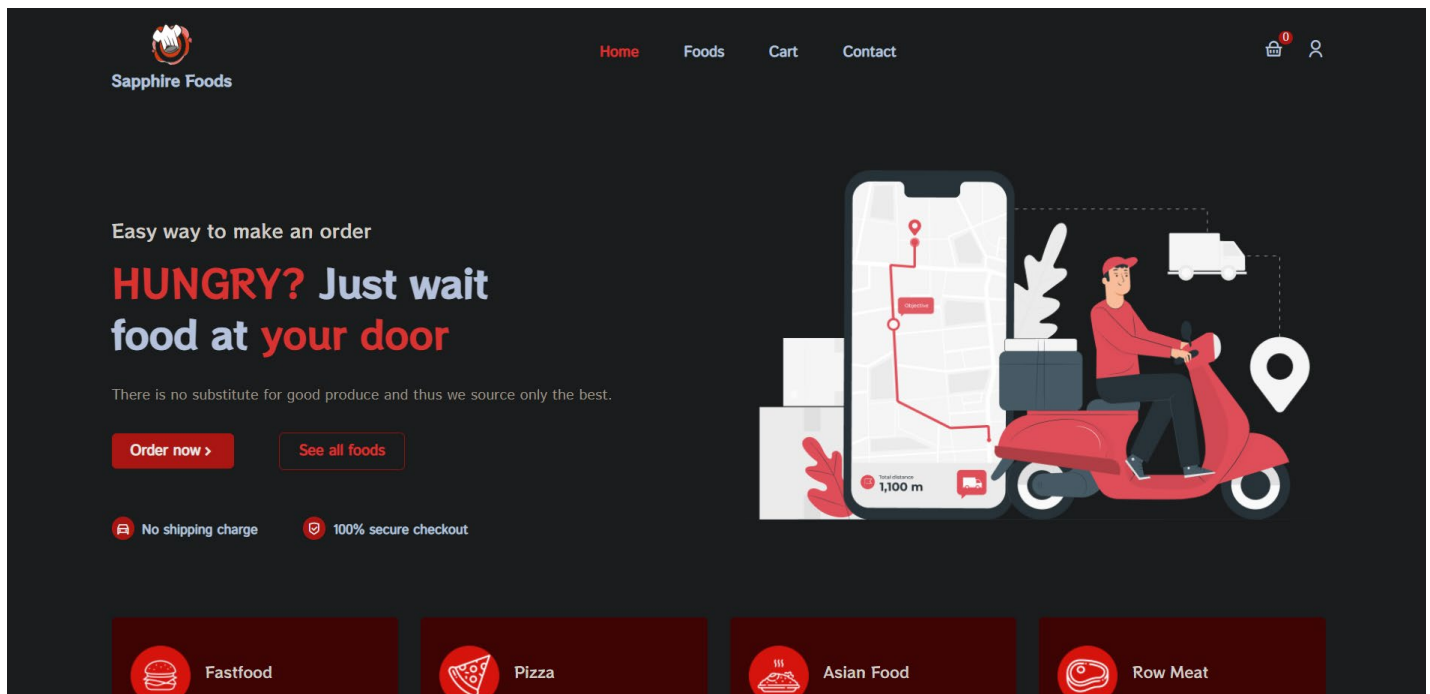
RESPONSIVE FOR DEKSTOP/LAPTOP

Sapphire Foods

Home   Foods   Cart   Contact

Popular Foods

All   🍔 Burger   🍕 Pizza   🥖 Bread

Chicken Burger	Vegetarian Pizza	Double Cheese Margherita	Maxican Green Wave
$24 Add to Cart	$115 Add to Cart	$110 Add to Cart	$110 Add to Cart
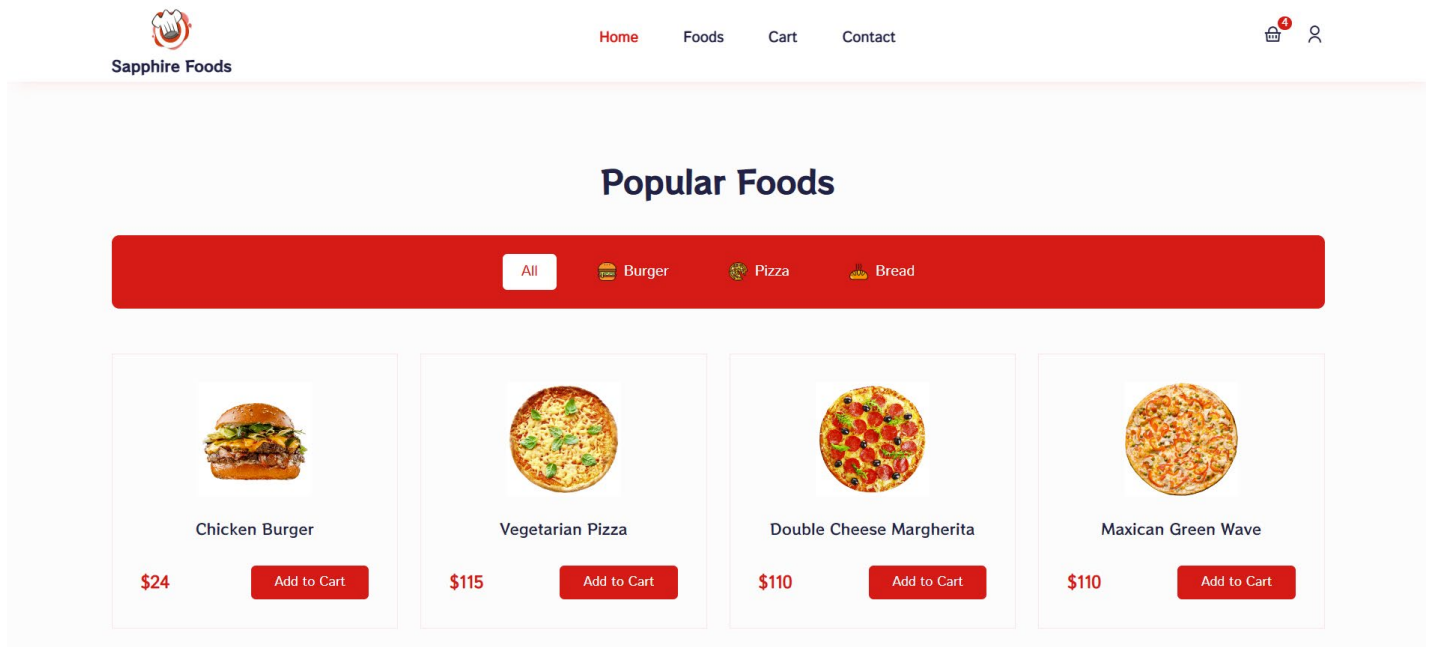
RESPONSIVE FOR TABLETS
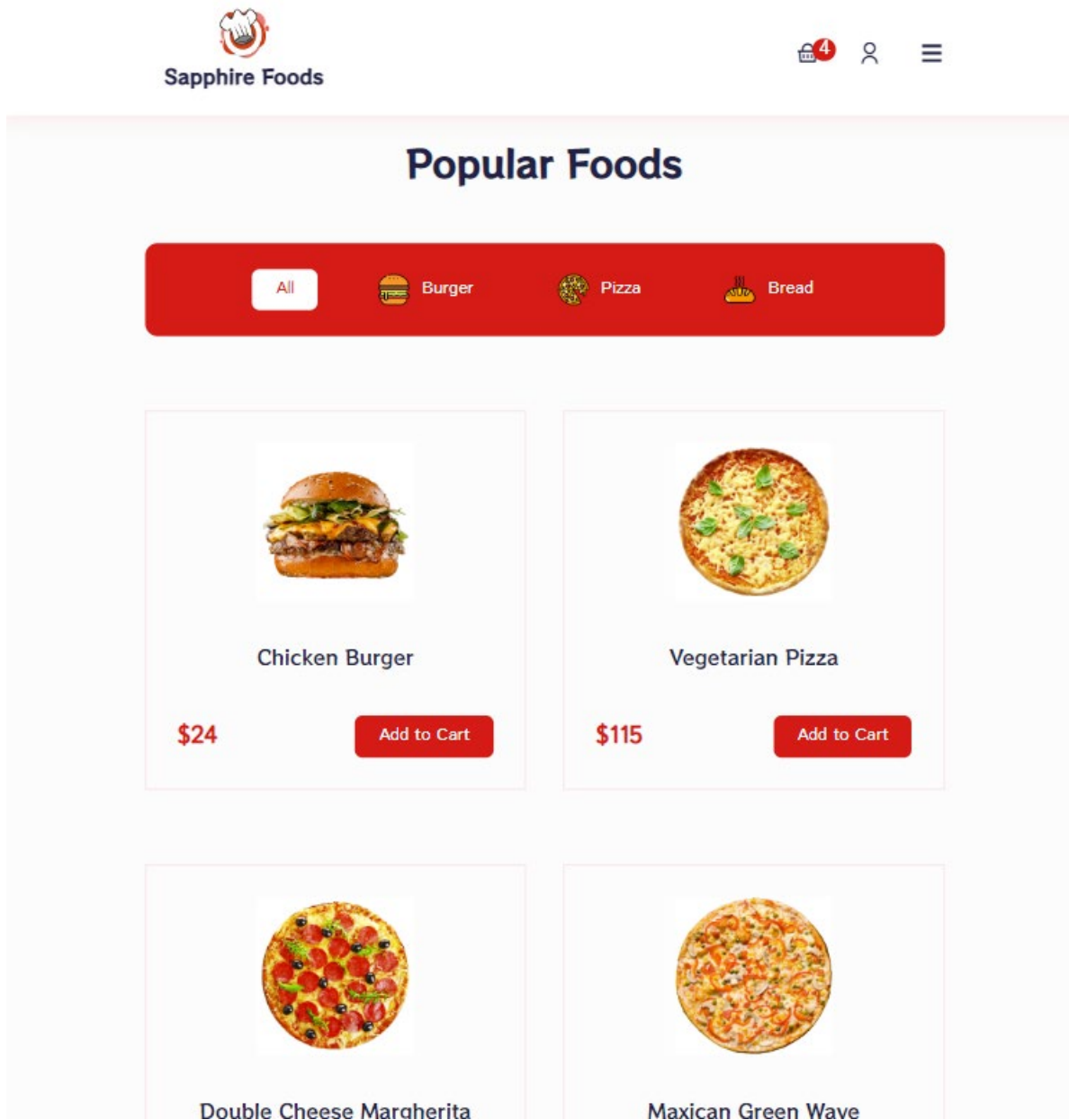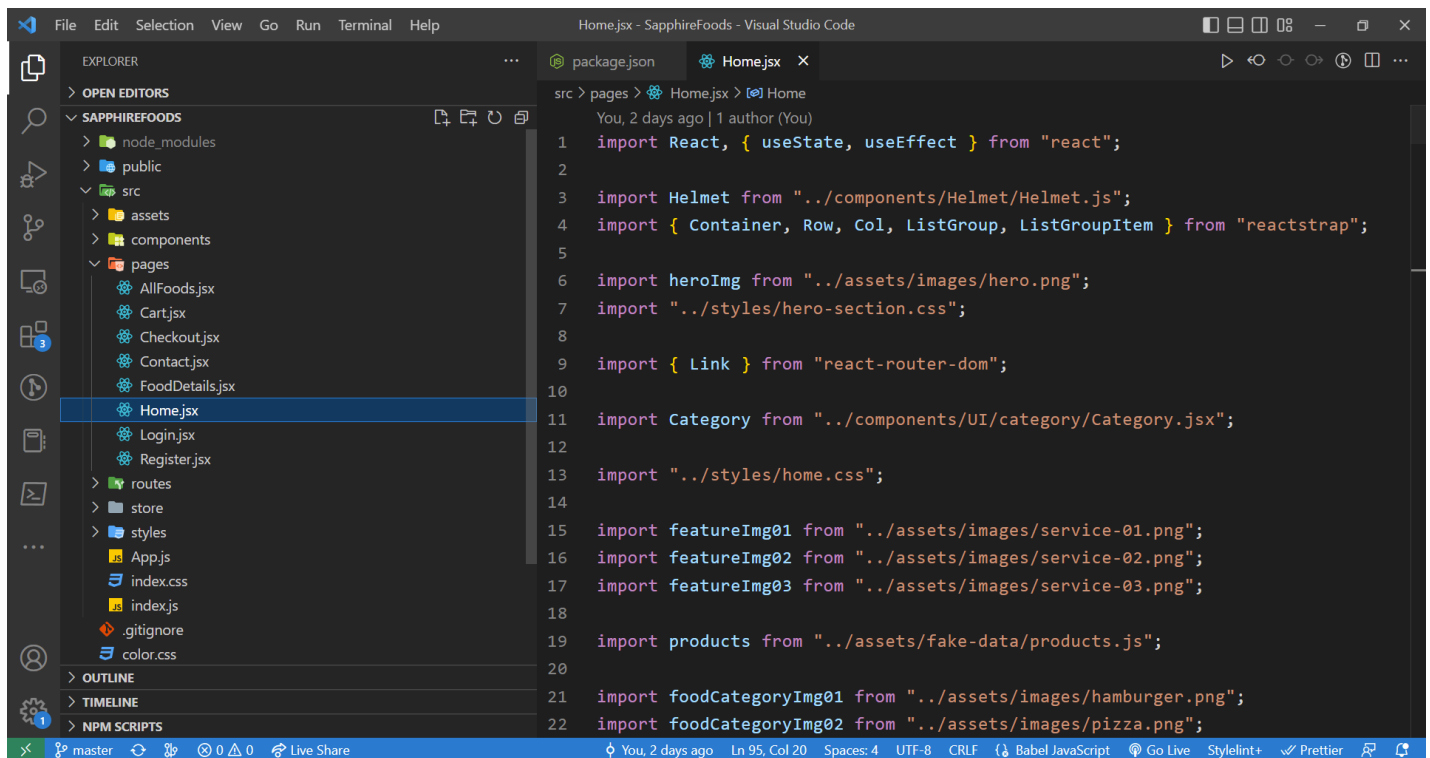
RESPONSIVE FOR SMART PHONE
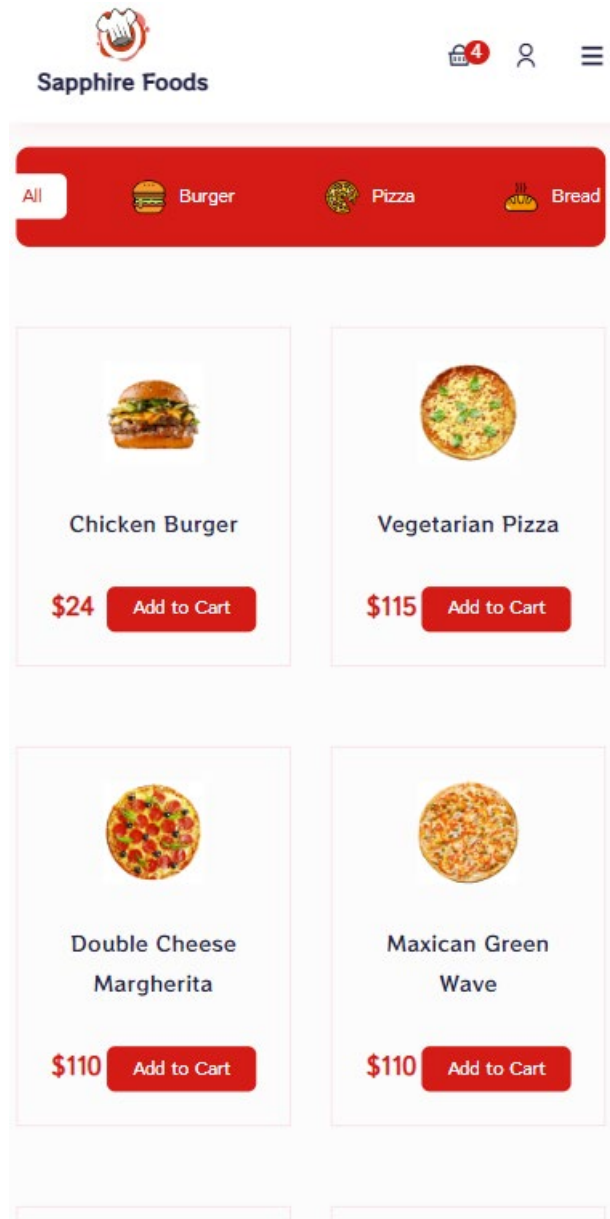
FOLDER/FILE STRUCTURE

PAGES JSX

STYLES & DESIGN

REACT COMPONENTS

<u>Conclusion</u>

So, we can say that MERN Stack has bright future ahead. In order to get started with MERN Stack development, all we really need is a good understanding of JavaScript and ES6 Fundamentals, but also at least some familiarity with the basic concepts of React and Node.js.

There are many MERN Stack online training that will have you building your own dynamic web applications in no time. All you really have to do is pick the one that seems best to you and get started right away!

<u>REFERENCES</u>

WEBSITES:-

- ❖ https://react-bootstrap.github.io/
- ❖ https://reactjs.org/
- ❖ https://nodejs.org/en/docs/
- ❖ https://docs.github.com/
- ❖ https://devcenter.heroku.com/articles/heroku-cli
- ❖ https://stackoverflow.com/
- ❖ https://developer.mozilla.org/en-US/docs/Web/JavaScript

Video Links:-

- ❖ https://youtu.be/JxzZxdht-XY
- ❖ https://youtu.be/Ib2FlirtcmE
- ❖ https://youtu.be/5d8AQFF0Ot0
- ❖ https://youtu.be/Pwwz4_AvHDU
- ❖https://youtu.be/1k0fRG098Cu