FULL STACK II PROJECT

(2021-22)

"Shopping Cart"

Project End Report

Institute of Engineering & Technology

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<u>Declaration</u>

I/we hereby declare that the work which is being presented in the Bachelor of technology. Project **"Shopping Cart"**, in partial fulfillment of the requirements for the award of the ***Bachelor of Technology*** in Computer Science and Engineering and submitted to the Department of Computer Engineering and Applications of GLA University, Mathura, is an authentic record of my/our own work carried under the supervision of **Mandeep Singh, Technical Trainer, Dept. of CEA, GLA University.**

The contents of this project report, in full or in parts, have not been submitted to any other Institute or University for the award of any degree.

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<u>Certificate</u>

This is to certify that the project entitled "Shopping Cart", carried out in Full Stack II Project Lab, is a bonafide work by Ravi Varshney, Mayank Shrivastava, Ayush Gupta and Sanidhya Varshney and is submitted in partial fulfillment of the requirements for the award of the degree Bachelor of Technology (Computer Science & Engineering).

Signature of Supervisor:

Name of Supervisor: Mandeep Singh

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Training Certificates

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ACKNOWLEDGEMENT

Presenting the ascribed project paper report in this very simple and official form, we would like to place my deep gratitude to GLA University for providing us the instructor Mandeep Singh, our technical trainer and supervisor.

He has been helping us since Day 1 in this project. He provided us with the roadmap, the basic guidelines explaining on how to work on the project. He has been conducting regular meeting to check the progress of the project and providing us with the resources related to the project. Without his help, we wouldn't have been able to complete this project.

And at last but not the least we would like to thank our dear parents for helping us to grab this opportunity to get trained and also my colleagues who helped me find resources during the training.

Thanking You

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ABSTRACT

In this project, we are creating Ecommerce website which we have named Shopping Cart. The Online Shopping is a web based application intended for online retailers. The main objective of this application is to make it interactive and its ease of use.

It would make searching, viewing and selection of a product easier. It contains a sophisticated search engine for user's to search for products specific to their needs. The search engine provides an easy and convenient way to search for products where a user can Search for a product interactively and the search engine would refine the products available based on the user's input. The user can then view the complete specification of each product. They can also view the product reviews and also write their own reviews. The application also provides a drag and drop feature so that a user can add a product to the shopping cart by dragging the item in to the shopping cart. The main emphasis lies in providing a user-friendly search engine for effectively showing the desired results and its drag and drop behavior.

CHAPTER-1

INTRODUCTION

CONTEXT

This Website "Shopping Cart" has been submitted in partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in Computer Science and Engineering at GLA University, Mathura supervised by Mandeep Singh. This project has been completed approximately three months and has been executed in modules, meetings have been organised to check the progress of the work and for instructions and guidelines.

MOTIVATION

In the recent years, we have realized the importance of virtual learning and how important it is for us to have our resources online

In the century we are living the world is progressing at a really great pace, a lot number of technologies come up every single day. To keep up with the technology is also important to survive in this world of digitalization and learning. Along with this we need to have a place to keep the resources for areas of our interest so we thought of developing a website which could provide us a platform where we could purchased products.

OBJECTIVE

There are large numbers of commercial Online Shopping websites offering large number of products   tailored to meet the shopping interests of large number of customers. These online marketplaces have thousands of products listed under various categories.

EXISTING SYSTEM

In day to day life, we will need to buy lots of goods or products from a shop. It may be food items, electronic items, house hold items etc etc. Now a days, it is really hard to get some time to go out and get them by ourselves due to busy life style or lots of works. In order to solve this, B2C E-Commerce websites have been started. Using these websites, we can buy goods or products online just by visiting the website and ordering the item online by making payments online.

This existing system of buying goods has several disadvantages. It requires lots of

time to travel to the particular shop to buy the goods. Since everyone is leading busy life now a days, time means a lot to everyone. Also there are expenses for travelling from house to shop. More over the shop from where we would like to buy some thing may not be open 24*7*365. Hence we have to adjust our time with the shopkeeper's time or vendor's time.

In order to overcome these, we have e-commerce solution, i.e one place where we can get all required goods/products online. The proposed system helps in building a website to buy, sell products or goods online using internet connection. Purchasing of goods online, user can choose different products based on categories , online payments , delivery services and hence covering the disadvantages of the existing system and making the buying easier and helping the vendors to reach wider market.

Some of the existing system's are
1. X-Cart
2.ShopifyPlus
3.Amazon
4.BigCommerce and many more………..

HARDWARE AND SOFTWARE REQUIREMENTS

Hardware Requirement

Processor   :i3
Operating System   :Windows,Ubuntu etc.
RAM   :4 GB
Hardware Devices   :Laptop,PC,Mobile
Hard Disk   :500 GB
Display   : 1920x1080

Software Requirement

Technology Implemented   : Front-End+Back-End(Fire-Base)
Language used   : HTML,CSS,JS,ReactJs
Database   : Fire-Base
User Interface Design   : Bootstrap
Web Browser   : Firefox,Chrome etc.

The functionalities provided by the user interface is:

1.Home Page

2.Add products to shopping cart

3.Modify products to shopping cart

4.Delete products from the shopping cart

CHAPTER-2
TECHNOLOGY USED

1. HTML

- HTML (**H**yper**t**ext **M**arkup **L**anguage) is the code that is used to structure a web page and its content. For example, content could be structured within a set of paragraphs, a list of bulleted points, or using images and data tables. As the title suggests, this article will give you a basic understanding of HTML and its functions.

The main parts of our element are as follows:

The opening tag: This consists of the name of the element (in this case, p), wrapped in opening and closing **angle brackets**. This states where the element begins or starts to take effect — in this case where the paragraph begins.

The closing tag: This is the same as the opening tag, except that it includes a *forward slash* before the element name. This states where the element ends — in this case where the paragraph ends. Failing to add a closing tag is one of the standard beginner errors and can lead to strange results.

The content: This is the content of the element, which in this case, is just text.

The element: The opening tag, the closing tag, and the content together comprise the element.

An attribute should always have the following:

A space between it and the element name (or the previous attribute, if the element already has one or more attributes).

The attribute name followed by an equal sign.

The attribute value wrapped by opening and closing quotation marks.

2. CSS

Let's start at the beginning. CSS stands for Cascading Style Sheets, and it's used to add style to a web page by dictating how a site is displayed on a browser. CSS is unique in that it doesn't create any new elements, like HTML or JavaScript. Instead, it's a language used to style HTML elements.

CSS is responsible for the text style, size, positioning, color, and more on a website. It's also what controls how a website's style shifts between desktop and mobile versions. Without CSS, websites would look pretty boring.

Advantages of CSS

There are many reasons why you'll want to use CSS in web design. First, CSS can save you time. Once you have a style sheet created, you can use it multiple times. The best practice for CSS is to save it as a .css file, separate from your .html file. The style sheet can then be linked to your HTML file. When you find a style that you like, you can apply it to as many pages as you'd like.

Second, CSS is efficient. Only a few lines of code are required to dictate the style on a webpage, which speeds up loading time and keeps files relatively lightweight. Lastly, it's easy for users to learn and update, which makes global changes to style simple and quick.

Types of CSS

There are three types of CSS styling: internal, external, and inline. The types of CSS refer to how CSS is implemented. Internal CSS, which is also called embedded CSS, is the practice of inserting the CSS code in the <head> section of the HTML document that defines a specific website.

While an internal style sheet is a nice way to have all the code in one file, it makes that file rather large and doesn't allow for style changes to be applied globally across different web pages. You can see that if you wanted to make a change to an element across a few pages, it would be easy to make a mistake when you use an internal style sheet.

The second type of CSS is external, where the style sheet is kept in a file separate from the HTML code. As we discussed earlier, this is the preferred type of CSS for many developers and companies.

If you or your team is working on a large project or has a large company website, standardization of style will be important. Keeping the style separate from the structure

means that global style changes can be done efficiently and more accurately than with an internal style sheet.

The final type, inline CSS, is where the CSS code is applied within the HTML code but is not globally applied to a particular element. Instead, the CSS code is used within the HTML code to alter a single element.

Generally speaking, inline CSS isn't recommended. But as you're developing a web page, and you want to modify a single element, you could use inline CSS. In another scenario, if there's a bug on a website and you need to fix it fast, inline CSS could be the ticket — that is, until you can go back in later and fix the issue more globally with external CSS.

3. JavaScript

JavaScript is a text-based programming language used both on the client-side and server-side that allows you to make web pages interactive. Where HTML and CSS are languages that give structure and style to web pages, JavaScript gives web pages interactive elements that engage a user. Common examples of JavaScript that you might use every day include the search box on Amazon, a news recap video embedded on The New York Times, or refreshing your Twitter feed.

Incorporating JavaScript improves the user experience of the web page by converting it from a static page into an interactive one. To recap, JavaScript adds **behavior** to web pages.

JavaScript allows users to interact with web pages. There are almost no limits to the things you can do with JavaScript on a web page – these are just a few examples:

- Show or hide more information with the click of a button

- Change the color of a button when the mouse hovers over it

- Slide through a carousel of images on the homepage

- Zooming in or zooming out on an image

- Displaying a timer or count-down on a website

- Playing audio and video in a web page

- Displaying animations

- Using a drop-down hamburger menu

4. BootStrap

Bootstrapping describes a situation in which an **entrepreneur** starts a company with little capital, relying on money other than outside investments. An individual is said to be bootstrapping when they attempt to found and build a company from personal finances or the operating revenues of the new company. Bootstrapping also describes a procedure used to calculate the zero-coupon **yield curve** from market figures.

Bootstrapping a company occurs when a business owner starts a company with little to no assets. This is in contrast to starting a company by first raising capital through angel investors or venture capital firms. Instead, bootstrapped founders rely on personal savings, sweat equity, lean operations, quick inventory turnover, and a cash runway to become successful. For example, a bootstrapped company may take preorders for its product, thereby using the funds generated from the orders actually to build and deliver the product itself.

Compared to using venture capital, bootstrapping can be beneficial because the entrepreneur is able to maintain control over all decisions. On the downside, this form of financing may place unnecessary financial risk on the entrepreneur. Furthermore, bootstrapping may not provide enough investment for the company to become successful at a reasonable rate.

5. FireBase

Google Firebase is a Google-backed application development software that enables developers to develop iOS, Android and Web apps. Firebase provides tools for tracking analytics, reporting and fixing app crashes, creating marketing and product experiment.

Firebase offers a number of services, including:

Analytics – Google Analytics for Firebase offers free, unlimited reporting on as many as 500 separate events. Analytics presents data about user behavior in iOS and Android apps, enabling better decision-making about improving performance and app marketing.

Authentication – Firebase Authentication makes it easy for developers to build secure authentication systems and enhances the sign-in and onboarding experience for users. This feature offers a complete identity solution, supporting email and password accounts, phone auth, as well as Google, Facebook, GitHub, Twitter login and more.

Cloud messaging – Firebase Cloud Messaging (FCM) is a cross-platform messaging tool that lets companies reliably receive and deliver messages on iOS, Android and the web at no cost.

Realtime database – the Firebase Realtime Database is a cloud-hosted NoSQL database that enables data to be stored and synced between users in real time. The data is synced across all clients in real time and is still available when an app goes offline.
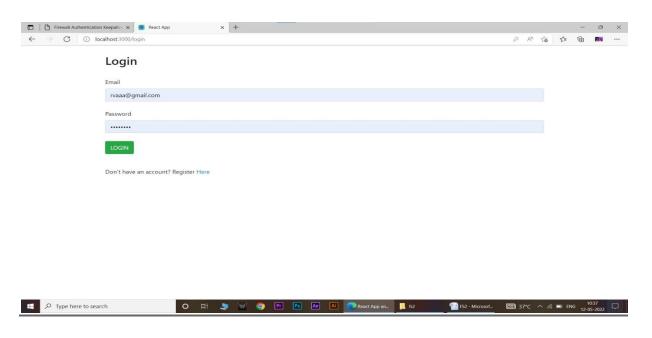
Crashlytics – Firebase Crashlytics is a real-time crash reporter that helps developers track, prioritize and fix stability issues that reduce the quality of their apps. With crashlytics, developers spend less time organizing and troubleshooting crashes and more time building features for their apps.

Performance – Firebase Performance Monitoring service gives developers insight into the performance characteristics of their iOS and Android apps to help them determine where and when the performance of their apps can be improved.
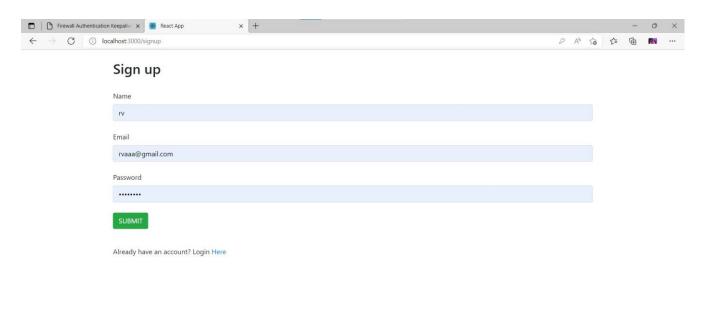
Test lab – Firebase Test Lab is a cloud-based app-testing infrastructure. With one operation, developers can test their iOS or Android apps across a variety of devices and device configurations. They can see the results, including videos, screenshots and logs, in the Firebase console.
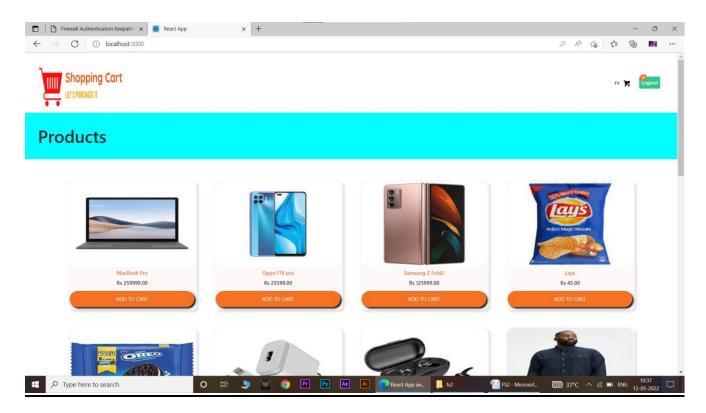
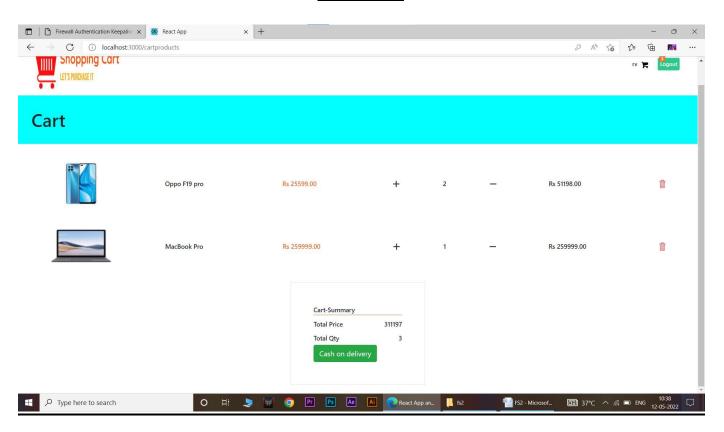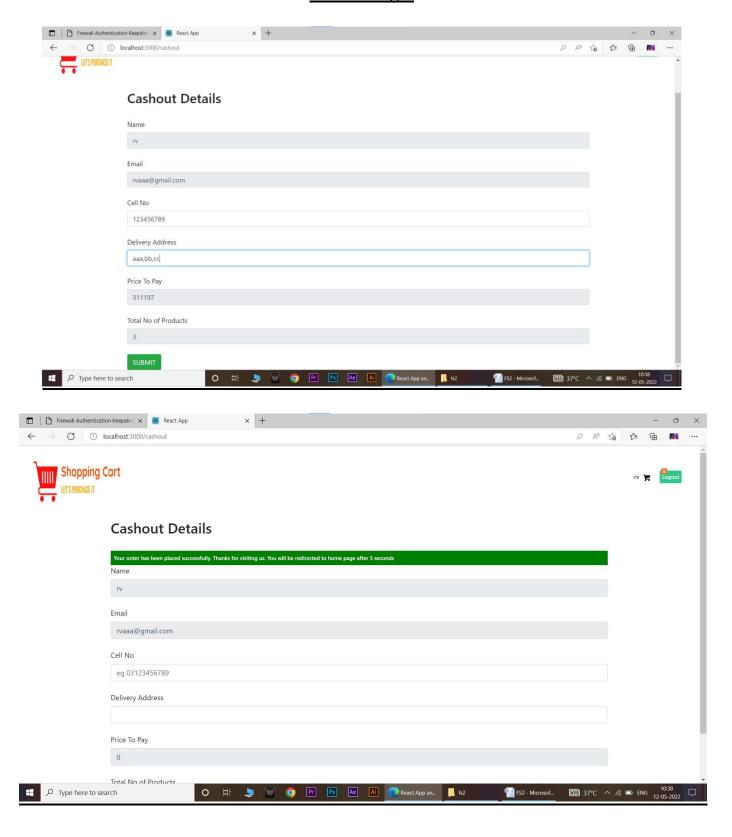# USER INTERFACES

Login Page-

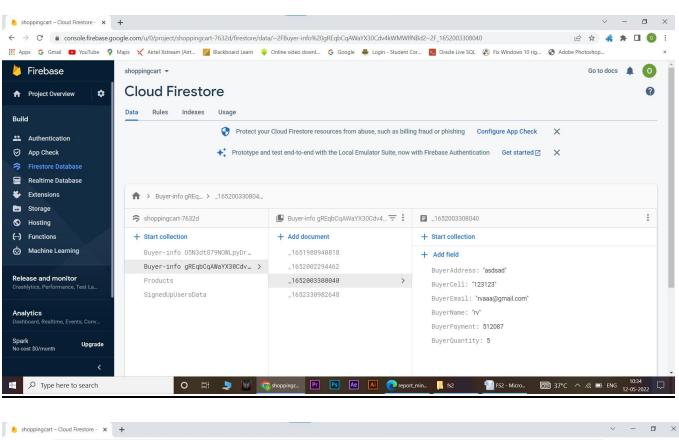

Sign Up Page-

Home Page-
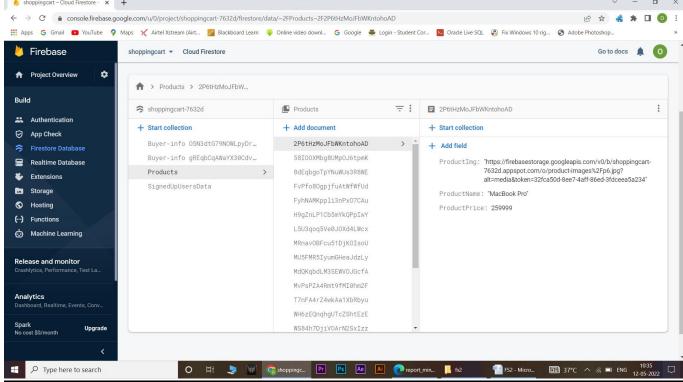

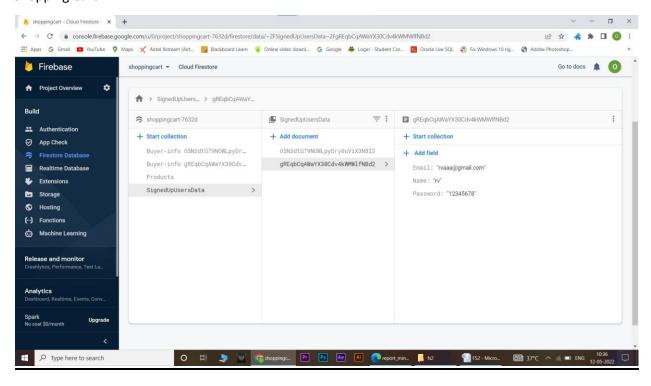# Cart Page-

Details Page-

FIREBASE USER DATABASE

Shopping Cart

<u>CONCLUSION</u>

Shopping cart is an E-commerce website that helps the user to buy items of theoir choice from anywhere in the world at any time.Our interace is very user friendly simply user have to login their credentials to access our website .

Shop page contains all the user want to purchase the items. Future scope of E-Commerce:-

1.Increasing number of mobile shoppers thanks to the high mobile penetration in India

2.We may see wearables becoming more commonplace with more small stores going online, local marketing and branding may get a further boost

3.Greater personalization of ads, retargeting, and automated marketing to ensure maximum conversion of visitors, abandoned cart shoppers etc.

4.The subscriber model of shopping may become more popular here. Already in a few western countries, this concept has caught on.

For example, Amazon offers monthly grocery packages: x no. of detergent powder, toilet paper, toothpaste, bath soaps, garbage bags etc. Consumers pay in advance – say for 6 months, or 3, or even 12; and they get the stuff delivered in the first week of the month, without having to place an order every time. The advantage for the seller is getting money in bulk. It's a win-win.