INTEGRATED PROJECT REPORT

On

ShopEzzy (E-Commerce Website)

Submitted in partial fulfillment of the requirement for the
Course Integrated Project (CS 203) of

COMPUTER SCIENCE AND ENGINEERING
B.E. Batch-2019

in

JUNE-2022

Under the Guidance of:

Ms.Sakshi

Name of the Project Guide:

Ms.Sakshi

Designation of the Project Guide:

Submitted by:

Aayush Yadav (1910991386)

Sukrit Verma (1910991406)

Aditya Singh (1910991404)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
CHITKARA UNIVERSITY
PUNJAB

CERTIFICATE

This is to be certified that the project entitled **"ShopEzzy (E-Commerce Website)"** has been submitted for the Bachelor of Computer Science Engineering at Chitkara University, Punjab during the academic semester January 2022- May-2022 is a bonafide piece of project work carried out by **Aayush Yadav (1910991386), Sukrit Verma (1910991406), Aditya Singh (1910991404)** towards the partial fulfillment for the award of the course Integrated Project (CS 203) under the guidance of **"Sakshi"** and supervision.

Sign. of Project Guide:

Name of Project Guide

(Designation & Department)

CANDIDATE'S DECLARATION

We **Aayush Yadav (1910991386), Sukrit Verma (1910991406), Aditya Singh (1910991404)** B.E.-2019 of the Chitkara University, Punjab hereby declare that the Integrated Project Report entitled **"ShopEzzy (E-Commerce Website)"** is an original work and data provided in the study is authentic to the best of our knowledge. This report has not been submitted to any other Institute for the award of any other course.

Aayush Yadav   Sukrit Verma   Aditya Singh

1910991386   1910991406   1910991404

Place:
Date: 24th June, 2022

ACKNOWLEDGEMENT

It is our pleasure to be indebted to various people, who directly or indirectly contributed in the development of this work and who influenced our thinking, behavior and acts during the course of study.

We express our sincere gratitude to all for providing us an opportunity to undergo Integrated Project as the part of the curriculum.

We are thankful to **"Ms. Sakshi"** for his support, cooperation, and motivation provided to us duringthe training for constant inspiration, presence and blessings.

Lastly, we would like to thank the almighty and our parents for their moral support and friends with whom we shared our day-to day experience and received lots of suggestions that improve our quality of work.

Aayush Yadav   **Sukrit Verma**   **Aditya Singh**

1910991386   **1910991406**   **1910991404**

Table of Contents

ABSTRACT / KEYWORDS

Luxury e-commerce has increased rapidly during the past years, especially among younger generations. While some luxury firms were fast to endorse the idea of selling luxury online, others were more doubtful arguing that the characteristics of the internet are contradictory to the core dynamics of luxury brands. The experience in the physical shopping environment and online shopping experience are two different things and there is a risk that luxury brands follow the e-commerce trend without considering the potential risks and the potential damage that could be incurred on the brand image. Few studies have previously assessed the challenges that luxury brands are facing when they attempt to apply conventional luxury brand concepts in a digital environment as well as how firms can overcome these challenges. This project tries to come out with successful outcomes of this shortcoming by developing an e-commerce web site for online product sale. The users, in this web site will be providing a producer category to choose from his/her needs. In order to easy the process, a shopping cart is provided to the web registered users who will be able to add products from the product list.

Keywords: Luxury brand management, e-commerce, consumer behavior, differentiation strategy, brand extension

INTRODUCTION TO THE PROJECT

2.1 BACKGROUND:

Online shopping or online retailing is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. Alternative names are: e-shop, e-store, internet shop, web-shop, web-store, online store, and virtual store. An online shop evokes the physical analogy of buying products or services at a bricks-and-mortar retailer or shopping centre; the process is called business-to-consumer (B2C) online shopping. In the case where a business buys from another business, the process is called business-to-business (B2B) online shopping (OS – Online Shopping).

E-commerce is a fast growing business solution. Many a business organizations are adapting and implementing this new art of business by implementing websites and web solutions providing all the functionalities for choosing and performing commercial transactions over the web. This process is becoming a bigger hit as the days are passing by. Online store is a store on the Internet that has various customers to find out their needed product or service and buy their product of interest. These online shopping applications support the interaction between different parties participating in a commercial transaction via a computer network.
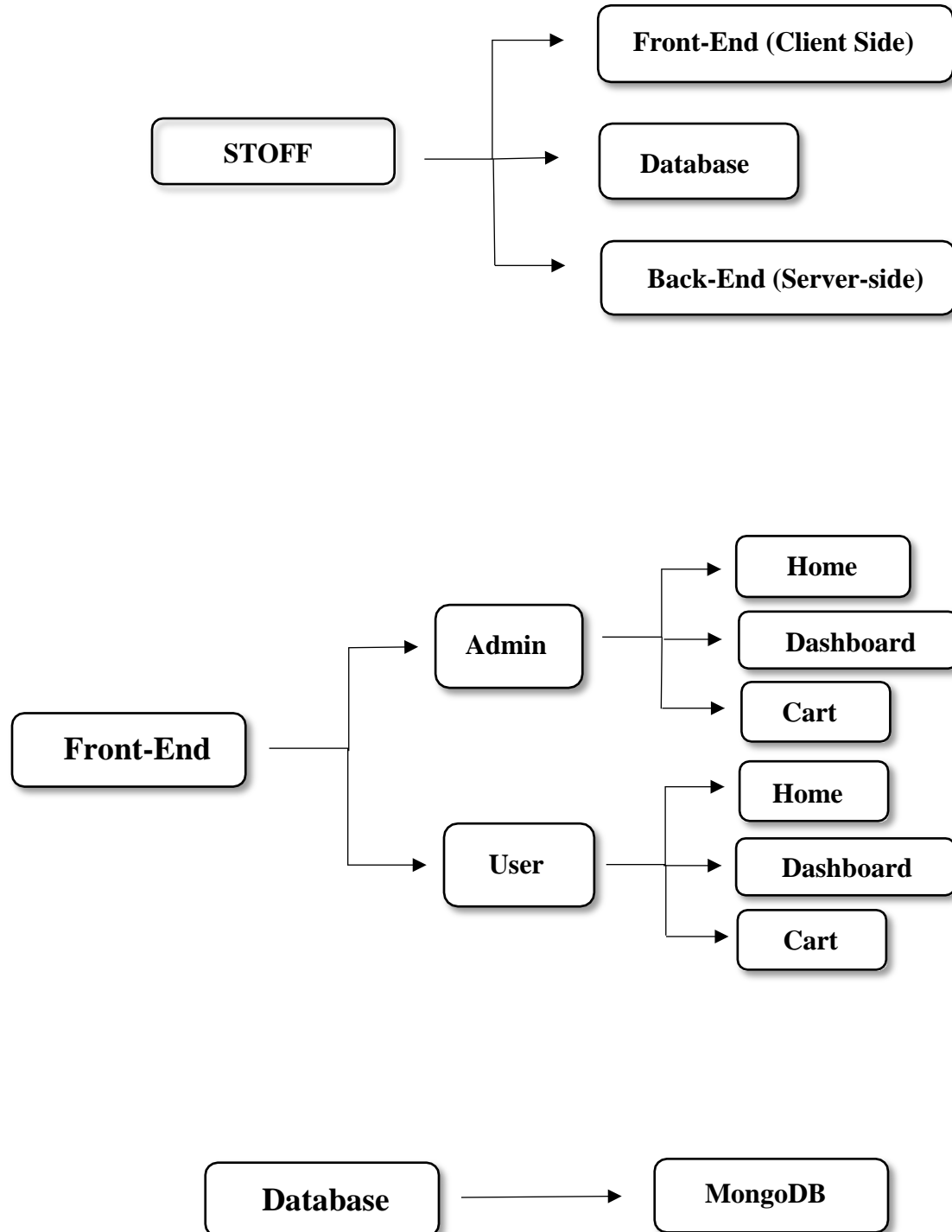
2.2 PROBLEM STATEMENT:

Moving sales online poses another possible difficulty for brands, since the actual store serves an important role in providing customers with personal service and an overall shopping experience. The store is further where the firm can communicate its brand image and the value proposition to the consumers. There is a fundamental difference between creating an online luxury experience and a traditional physical shopping experience, thus the methods used to create a special shopping experience in physical stores are difficult to transfer to a digital context.
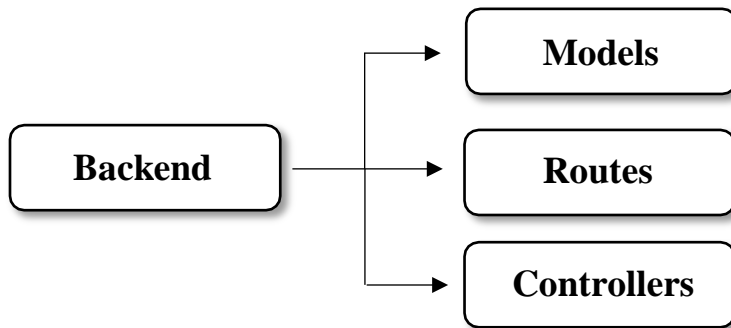
Even though more people choose to buy luxury online, the desire to receive a luxurious sensation that justifies the high price remains. Because of this, it is necessary for luxury firms to understand how this luxury sensation can be established online and how to respond to the increasing demand for e-commerce without hurting the brand image.

SOFTWARE REQUIREMENT SPECIFICATION

3.1 DESIGN APPROACH

```
                              ┌──────────────────────────┐
                         ┌───▶│ Front-End (Client Side)  │
                         │    └──────────────────────────┘
┌──────────────┐        │    ┌──────────────────────────┐
│    STOFF     │────────┼───▶│       Database           │
└──────────────┘        │    └──────────────────────────┘
                         │    ┌──────────────────────────┐
                         └───▶│ Back-End (Server-side)   │
                              └──────────────────────────┘
```

```
                                           ┌────────────┐
                                      ┌───▶│    Home    │
                                      │    └────────────┘
                        ┌─────────┐   │    ┌────────────┐
                   ┌───▶│  Admin  │───┼───▶│ Dashboard  │
                   │    └─────────┘   │    └────────────┘
                   │                  │    ┌────────────┐
┌──────────────┐   │                  └───▶│    Cart    │
│  Front-End   │───┤                       └────────────┘
└──────────────┘   │                       ┌────────────┐
                   │                  ┌───▶│    Home    │
                   │    ┌─────────┐   │    └────────────┘
                   └───▶│  User   │───┼───▶│ Dashboard  │
                        └─────────┘   │    └────────────┘
                                      │    ┌────────────┐
                                      └───▶│    Cart    │
                                           └────────────┘
```

```
┌──────────────┐              ┌──────────────┐
│   Database   │─────────────▶│   MongoDB    │
└──────────────┘              └──────────────┘
```

```
                    ┌──────────▶  ┌──────────────┐
                    │             │    Models    │
                    │             └──────────────┘
          ┌──────────────┐        ┌──────────────┐
          │   Backend    │───────▶│    Routes    │
          └──────────────┘        └──────────────┘
                    │             ┌──────────────┐
                    └──────────▶  │  Controllers │
                                  └──────────────┘
```

3.2 PROGRAMMING / WORKING ENVIRONMENT

Admin	Customers	Users
Login Access	Login Access	Cannot Login
Can add products	Can add to cart	Cannot add to cart
Can edit products	Can edit products in cart	Cannot edit products in cart
Can view stats	None	None
Can delete customer	None	None

3.3 REQUIREMENTS TO RUN THE APPLICATION

MongoDB ExpressJS Node.js HTML CSS. These are the five technologies that help us to construct or to build this web application.

MongoDB:
It is an open-source cross-platform program. It comes under the NoSQL database classification. It was a document-oriented database. It uses JSON format documents with optional Schemas.
- Data Flexibility available means we can any every data in a separate file.
- Large data can be distributed into several connected applications.
- High speed of fetching of data possible because it only depends on indexing.
- It is a horizontally scalable database so it can handle the data make us easy to distribute to serval machines.

NodeJS:
NodeJS is a runtime JavaScript environment that works outside the web page. It is mainly used for server-side applications.
- NodeJS is open source and it is free of cost.
- NodeJS uses asynchronous programming by default.
- NodeJS will always store the data in only JSON format.

ExpressJS:
It is a famous Library in node.js used for routing. It has some methods like a router which help to do curd operations like put, get, post, and delete request.
- Robust routing
- It will focus on high performance
- It is an HTTP helper like it will redirection, catching.

HTML:
The HyperText Markup Language **or** HTML is the standard markup language for documents designed to be displayed in web browser**.** It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting Languages such as JavaScipt**.**

CSS:
Cascading Style Sheets (CSS) is a stylesheet language used to describe the presentation of a document written in HTML or XML. CSS describes how elements should be rendered on screen, on paper, in speech, or on other media.

Database Analyzing, Design and Implementation

A database design is a collection of stored data organized in such a way that the data requirements are satisfied by the database. The general objective is to make information access easy, quick, inexpensive and flexible for the user. There are also some specific objectives like controlled redundancy from failure, privacy, security and performance. A collection of relative records makes up a table. To design and store data to the needed forms database tables are prepared. Two essential settings for a database are:

1. Primary key: – The field that is unique for all the record occurrences.

2. Foreign key: -The field used to set relation between tables. Normalization is a technique to avoid redundancy in the tables.
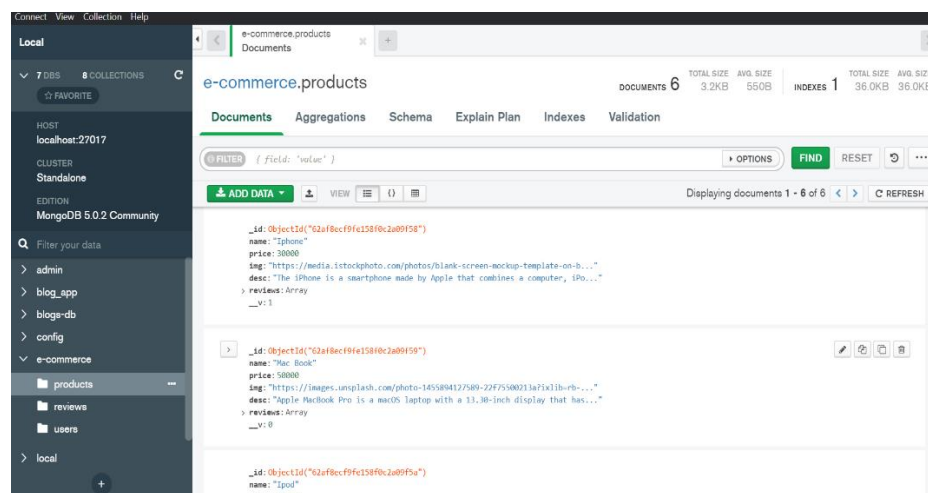
Fig 4.1: MongoDB
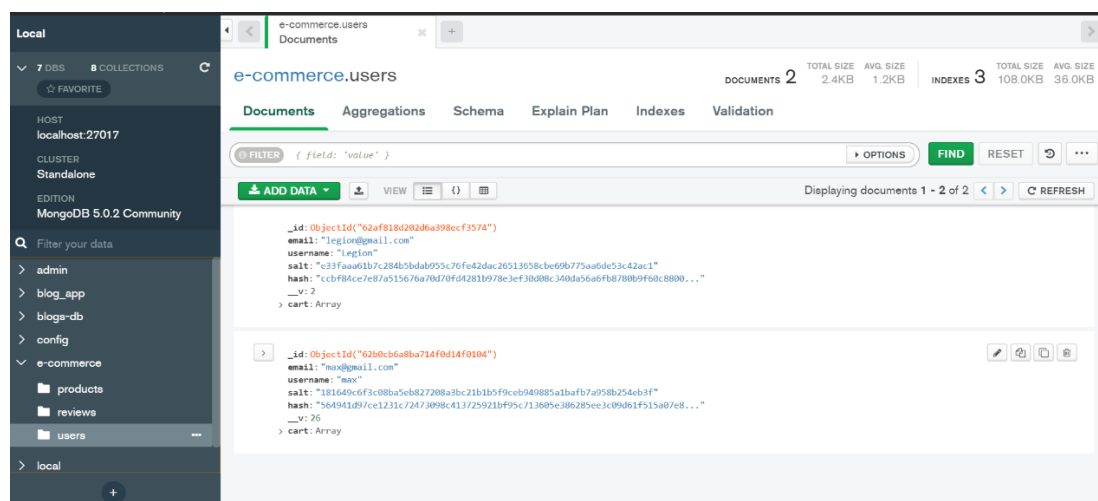
Fig 4.2:MongoDB

Program's Structure Analyzing and GUI Constructing

5.1 Front-End:

- **Home Page:** The home page of the E-commerce website mainly contains a list of the luxury items which are saved in the database. And there will be some options for "Sign in" and "Sign up" features in the website. The home page will show you all types of products and they will be displayed to customers and users both. We can give different prices for different products based upon their quality, customers have the facility to add the product to the cart which they like, all these things have appeared preview image is mentioned below:
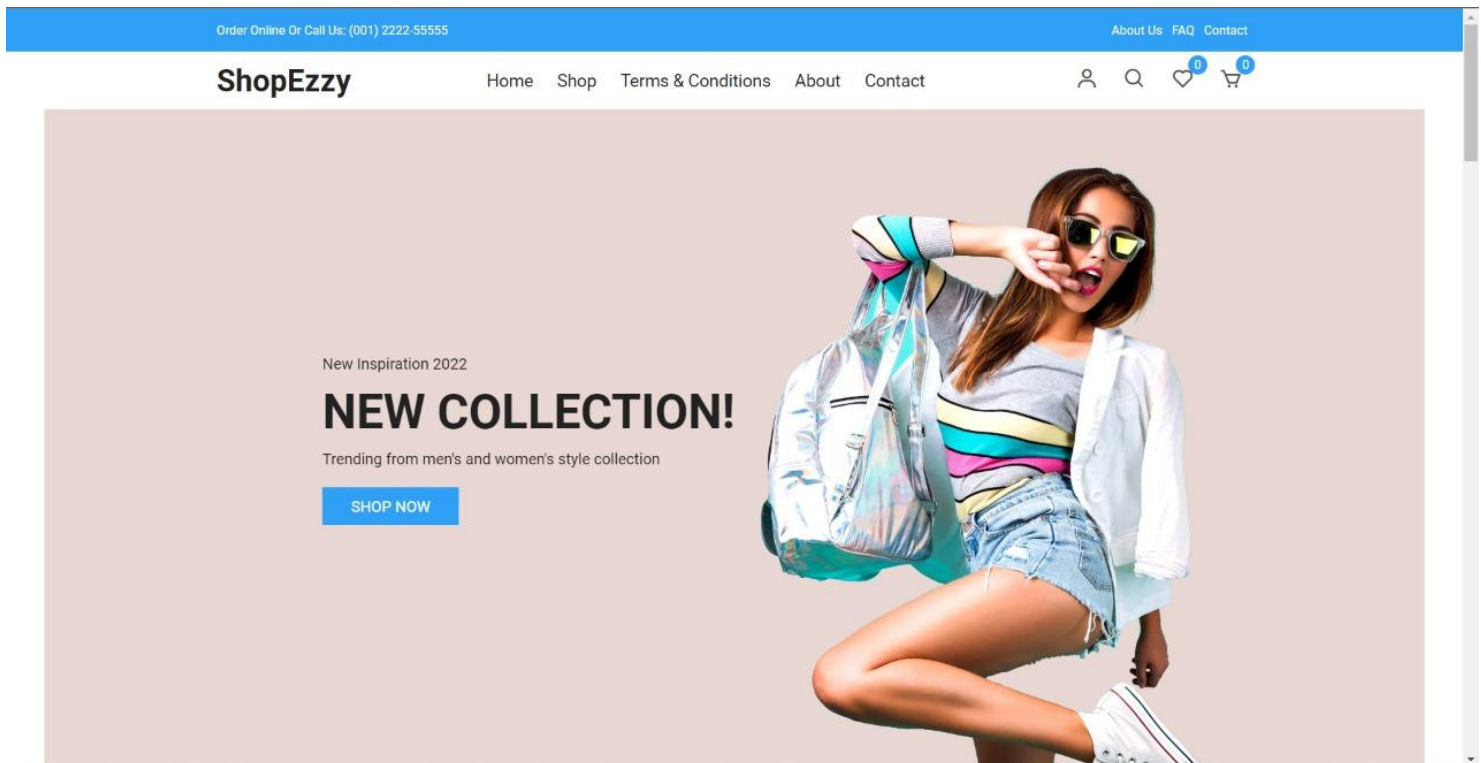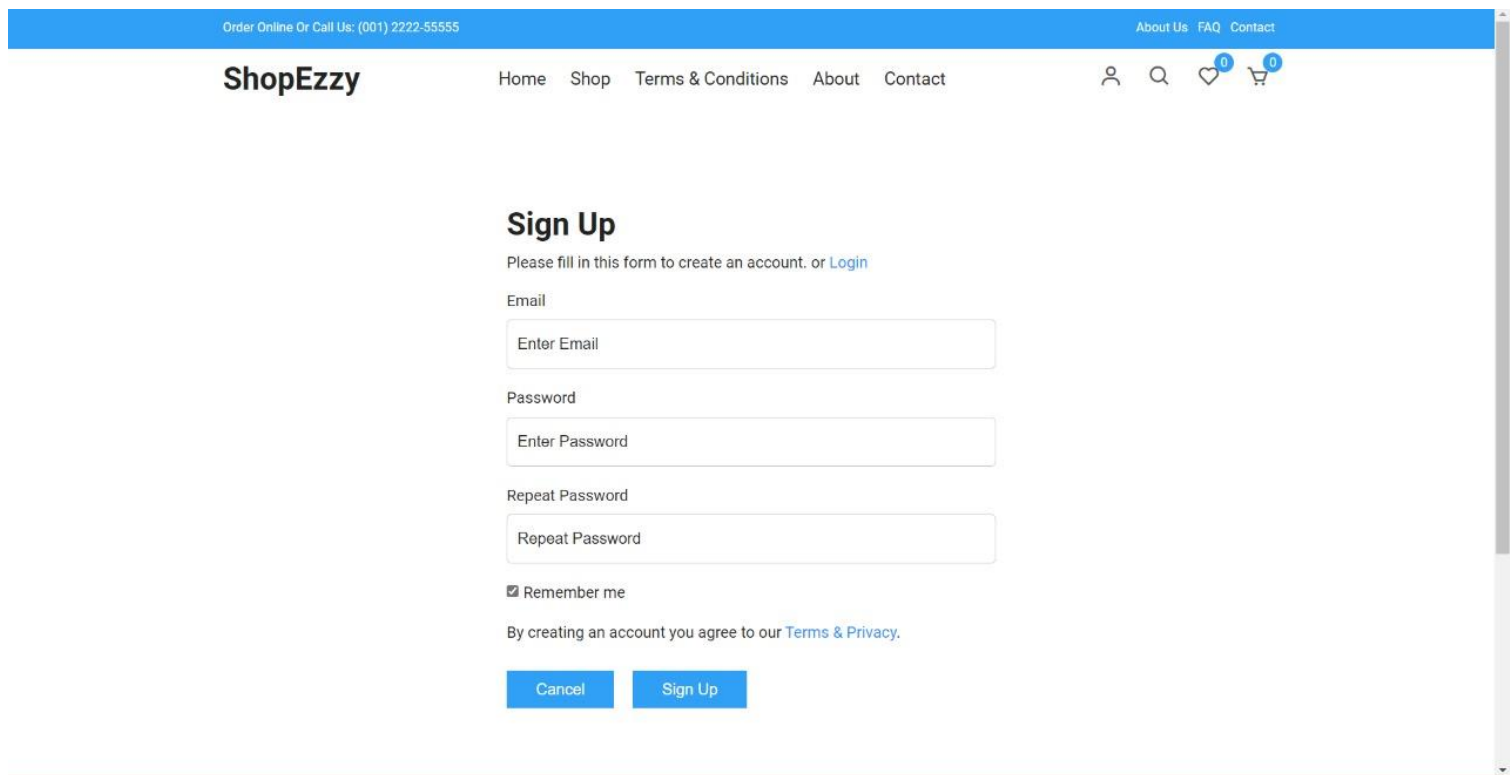
Fig 5.1: Snapshot of home page

- **Sign up:** This option redirect to the page where the user can find a form to fill to create an account.

Fig 5.2: Sign Up page

- **Cart:** After selecting any product users can see their product on this page and the total payable price is mentioned. As in the picture mentioned below.

Fig 5.3: Cart page

Fig 5.4: Payment page

- **Backend:**

    Models: Here we define the structure of the data that should in the database. By using some models which help to store the data in the database like mongoose, it is one of the famous libraries in NodeJS.

    Creating the schemas by mongoose with can mentions the names and type of the data.

    Routers: All the work related to the routing of the pages was done here. ExpressJS is a popular library form routing. CURD operations and routing-related code are saved in this folder.

    Controllers: In controllers, the definitions of the functions which are declared in the routing will be stored and also the codes of the middleware are stored in this folder. In the controller phase, the function definitions of the function which are declared in the Routers will be done. We are having some middleware also defined here.

Limitations

Until very recently high brands have been distrustful and excessively cautious for their own sake about the integration of e-commerce into the sector, fearing that enlarged digital strategies could diminish brand integrity and believing that customers would be unlikely to buy expensive items online without seeing and touching them first. After all, the in-store purchase ceremony is an in intrinsic part of the value proposition. However, against their odds, it would appear that clients are getting comfortable and used to buy all sorts of items online, regardless price points. Furthermore, relevant and dynamic digital strategies have proven to boost engagement and sentiments towards the brands with a strong effective presence online.

Conclusion

As the most powerful marketing tool that will drive businesses forward in the next century, the Internet has become indispensable for luxury to reinforce brand presence, break into new territories, engage clients on a higher level and demonstrate overall value.

The economic downturn and the influence of the social web have increased the bargaining power of consumers that have been placed in the center of the relation with brands. The traditional superior position of luxury brands responsible for dictating tastes and trends to clients in the past has been challenged.

Empowered by their constant use of Internet, wealthy consumers have become experts on scanning the web and looking for websites that provide real value and those that have little to offer. They evolved along with certain pages, building specific expectations that lead them to easily discard websites that fail to meet them. More than brand loyal, shoppers online have become more web loyal. For instance: Amazon Premium users.

They're mastering the channel and have a total control on the information and news they receive online, carefully filtering and choosing what to see and what to ignore to then interact with the information, create or co-create their own content, share, discuss it or endorse influencing others purchasing decisions.

Future Scope

Business and retailers are now increasingly using digital technologies to capture emerging customer preferences and enhance customer relationships. While the pandemic has reinforced the growth of luxury e-commerce at the expense of physical retail, the importance of brick-and-mortar within e-commerce remains undisputed. Both channels thus require luxury brands to create smooth customer journeys – which includes optimizing payment processes – something for which we believe might just have the key.

Bibliography/References

1. E-commerce Definition – What is E-commerce? [Internet]. Shopify.com. Available from: https://www.shopify.com/encyclopedia/what-is-ecommerce
2. Advantages of E-commerce [Internet]. Thebalancesmb.com 2019 [cited 20 November 2019]. Available from: https://www.thebalancesmb.com/ecommercepros-and-cons-1141609
3. JavaScript [Internet]. Mozilla.org. Available from: https://developer.mozilla.org/en-US/docs/Web/JavaScript
4. NodeJS Introduction [Internet]. Tutorialspoint.com. Available from: https://www.tutorialspoint.com/nodejs/nodejs_introduction.htm
5. NodeJS Pros and Cons [Internet]. Mindinventory.com. Available from: https://www.mindinventory.com/blog/pros-and-cons-of-node-js-web-app-development/
6. 6. NodeJS use cases [Internet]. Credencys.com. Available from: https://www.credencys.com/blog/node-js-development-use-cases/
7. Express.js Introduction [Internet]. Mozilla.org. Available from: https://developer.mozilla.org/en-US/docs/Learn/Server-side/Express_Nodejs/Introduction
8. MongoDB [Internet]. Mongodb.com. Available from: https://docs.mongodb.com/manual/introduction/