

Summer Project On Customize Shoes

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Sardar Patel Institute of Technology
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2022-23

CERTIFICATE OF APPROVAL

This is to certify that the following students

Prashant Gowda (2021510019)
Nikhil Maurya (2021510034)

Have satisfactorily carried out work on the project
entitled

“Customize shoes”

Towards the fulfilment of project, as laid down
by
Sardar Patel Institute of Technology
during year
2022-23.

Project Guide:
Sakina Salmani

PROJECT APPROVAL CERTIFICATE

This is to certify that the following students

Prashant Gowda (2021510018)
Nikhil Maurya (2021510034)

Have successfully completed the Project report on

“Customize Shoes”,

which is found to be satisfactory and is approved

at

SARDAR PATEL INSTITUTE OF TECHNOLOGY,
ANDHERI (W), MUMBAI

INTERNAL EXAMINER

EXTERNAL EXAMINER

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PRINCIPAL

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Abstract

This project is built for all the shoe lover out there and wants to customize there own shoe according to the color. This project helps you to customize your own shoe, the color you want and let you preview the shoe in the 3D. So that it makes it more User friendly and helps the user to be more creative.

The project is based on a website of online customization system that allows user/customer to customize their shoes easily. The system first checks whether the user has registered/login or not. If not then the user won't get an access for further steps of customizing shoes and if user try to directly navigate to that web page he/she will redirect to registered/login page.

If the user has registered with the website then he/she can get an access to make customize shoes. User will get all the features and functionalities (categories, colors, size, text, styles, logo) provided by website to make their preferred choices for shoes.

Objectives

The Website based Application "Customize shoe" is used

- To customize his/her shoes according to ones need.
- To experience the shoes model in 3D view.
- To provide the best user experience by giving option of multiple brand and there design.

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1 Introduction

1.1 Problem Definition

To give user with more customization option on the website with 360 viewer where user can customize and view the shoes in 360 Degree. Also, with a better user friendly interface.

1.2 Objectives and Scope

1.2.1 Objectives

The Website based Application "Customize shoe" is used

- To customize his/her shoes according to ones need.
- To experience the shoes model in 3D view.
- To provide the best user experience by giving option of multiple brand and there design.

1.2.2 Scope

The user can customize the shoes according to his/her need and view in 3D mode.

In this website user has to select colour from the provided list and give their personal detail in the profile section

This website is made for shoes lover who wants to decide the color and models of shoes and select the shoes according to there need with the help of full customization.

1.3 Existing System

Currently on the internet there is multiple E-commerce website for buying shoes by category, brands etc. but the problem here is in the website user can buy the product by category or brand but they can't customize that product on their own according to his/ her need.

- Flexibility to customize shoes
There is no service for user to customize his/her shoes on their own and because of that user get limited option of shoes in a particular design.
- 360 Degree View
There is no better provision to view the shoes in 3d which gives better understanding to the users.
- Dynamic Customization
As there is no service available to provide the user with customization the user also cannot view the changes dynamically.

1.4 Proposed System

The main purpose of the project is allowing user to customize shoes by his/her choice. In this website user can customize the shoes with different features like change size, category, color, text, logo etc. User can buy the shoes after customizing the shoes and the data will be store in Firebase.

Some of the advantages of our system are as follows :

- Flexibility to customize shoes
It provides user to customize his/her shoes on their own and because of that user get a lot of options of shoes in a particular design.
- 360 Degree View
It provides 360 degree view to the user which gives a better understanding of the shoe and the design.
- Dynamic Customization
Every customization done on the Website is dynamic which gives better understanding to the user of what he is doing.

1.5 System Requirements

- Hardware Requirements on Server Side

Table 1.5.1: Hardware Requirements on Server Side

Processor	Dual Core Processor or Above
RAM	Minimum 4 GB RAM
Storage	Minimum 10 GB Hard Disk Space for smooth run

- Hardware Requirements on Client Side

Table 1.5.2: Hardware Requirements on Client Side

Device	Any Android/IOS/Desktop Device with proper net connection
Processor	Dual Core Processor or Above
RAM	Minimum 2 GB RAM
Storage	Minimum 500 MB Storage Space

- Software Requirements on Server Side

Table 1.5.3: Software Requirements on Server Side

Operating System	OS Independent
Database	Firebase

- Software Requirements on Client Side

Table 1.5.3: Software Requirements on Client Side

Operating System	Android/IOS/Windows
Server	Not Required

2 Software Requirement Specification (SRS) and Design

2.1 Purpose

The main purpose of the project is allowing user to customize shoes by his/her choice. In this website user can customize the shoes with different features like change size, category, color, text, logo etc. User can buy the shoes after customizing the shoes and the data will be store in Firebase.

2.2 Definition

To build a Shoe Customization Website so that the user can customize their shoe based on their requirements and view in 360 Degree.

2.3 Overall Description

2.3.1 Product Functions

The product function includes:

1. Login/Registration: This module will allow the user to set up their accounts. They can easily login or register themselves before getting started. Before redirecting the user to the main screen, a validation would be performed. During the registration, data of the user will be stored in the database for further processing.
2. Customize Shoes Module: In this module, the user will be allowed to customize his/her shoes with all required functionality (categories, colours, size, text, styles, logo, views) etc.
3. Order Module: In this module, user can see his/her order details after placing an order and also the generation of previous list of order data summary will be provided to the user.
4. 3D view Module: In this module, user can view the shoes in full 360 degree mode.

2.3.2 User Characteristics

There is one types of users:

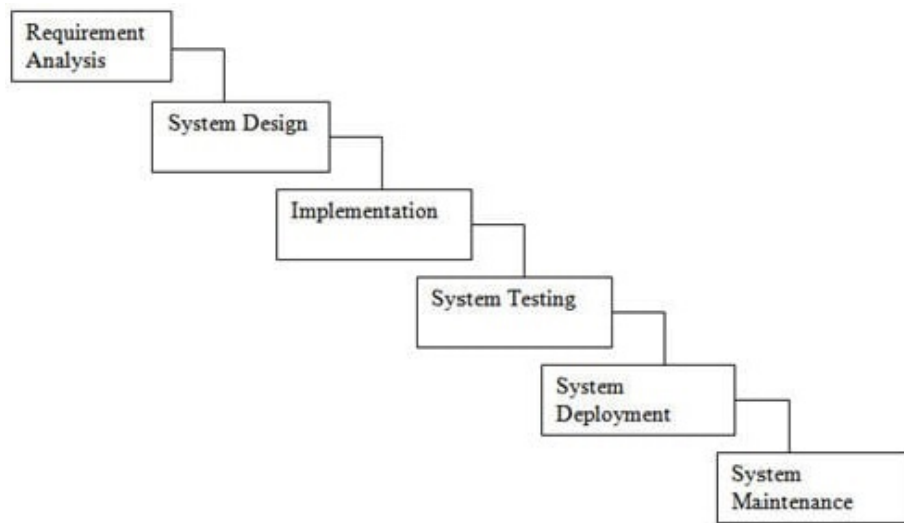
- User/Customer: Once the User/Customer register's herself/himself on the website they can use the all the feature available on the website.

3 Project Analysis and Design

3.1 Methodologies Adapted

In Waterfall model, very less customer interaction is involved during the development of the product. Once the product is ready then only it can be demonstrated to the end users.

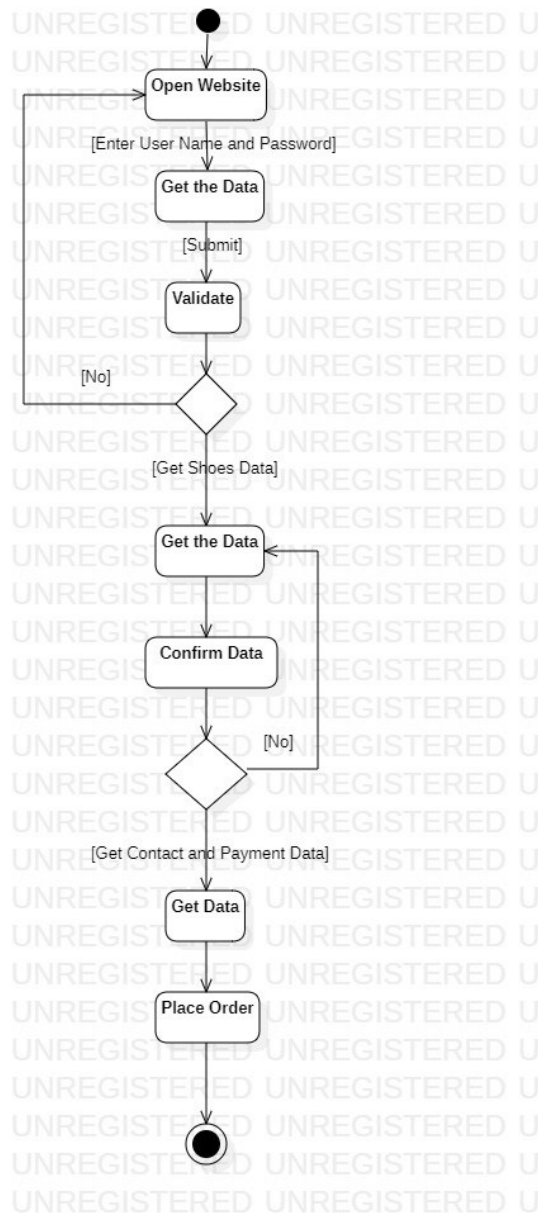
Once the product is developed and if any failure occurs then the cost of such issues is very high, because we need to update everything from document till the logic.



3.1.1: Diagrammatic Representation of Waterfall Model

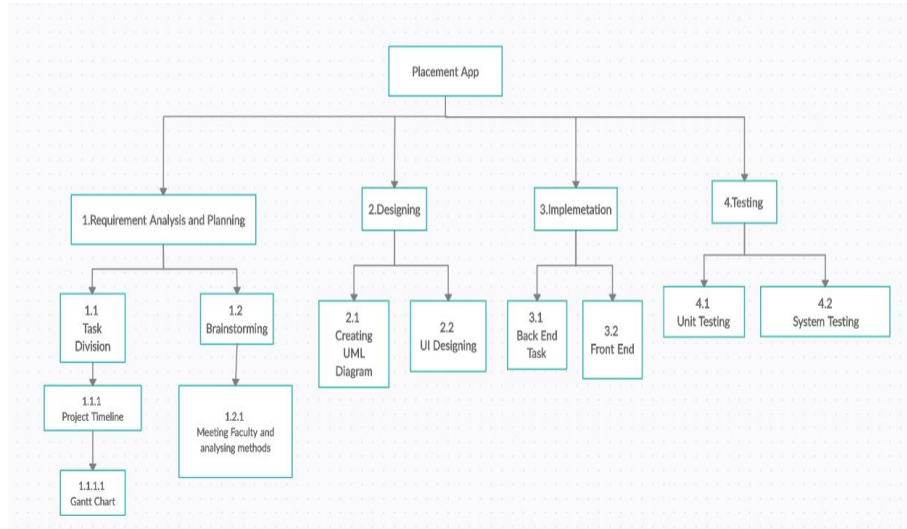
3.2 Modules

3.2.1 Activity diagram



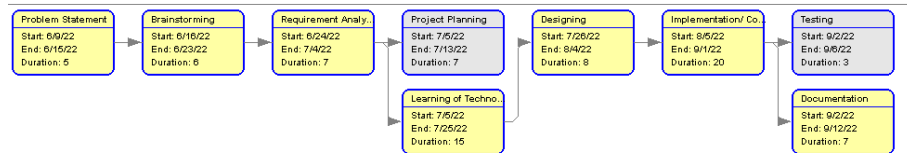
3.2.1: Activity Diagram

3.2.2 Work Breakdown Structure



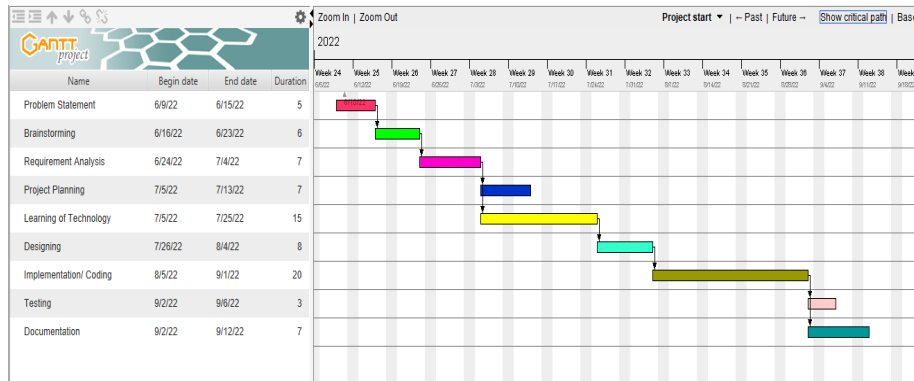
3.2.2: Work Breakdown Structure

3.2.3 PERT Chart

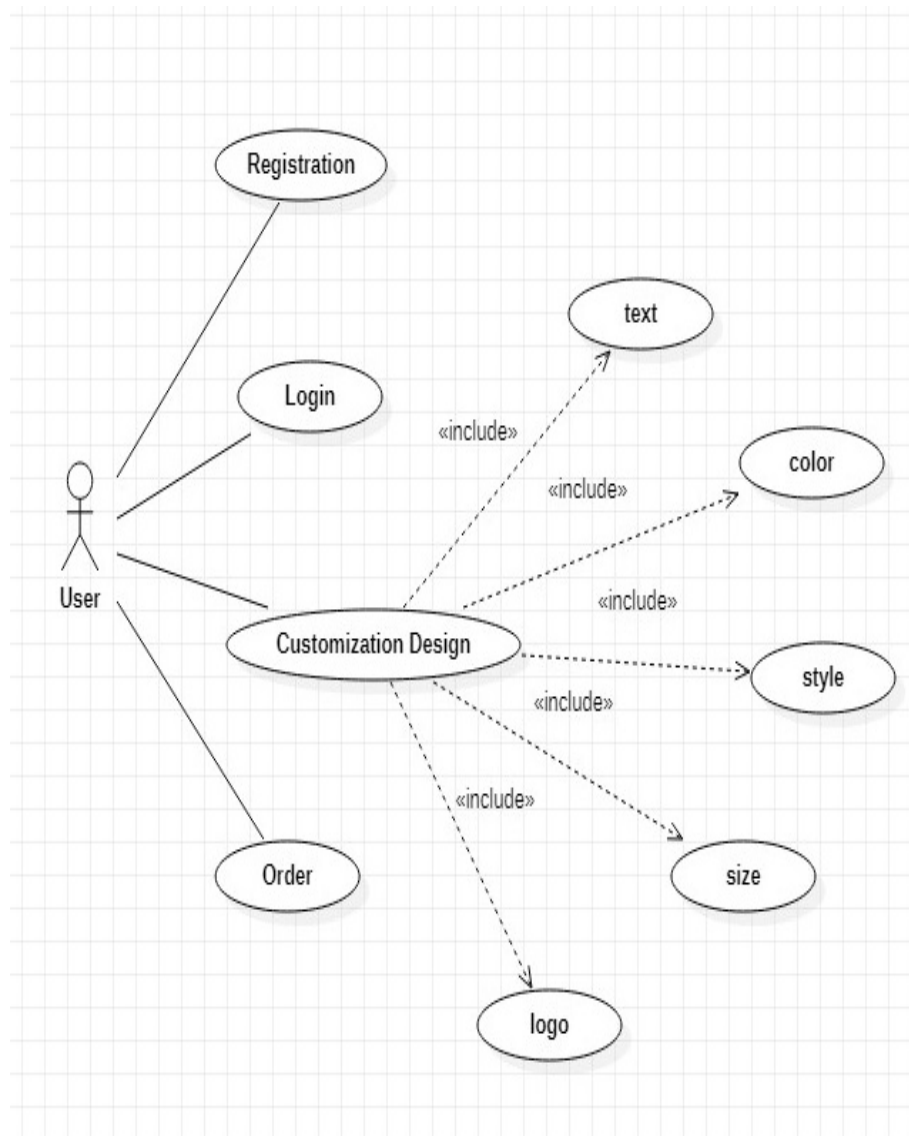


3.2.3: PERT Chart

3.2.4 Gantt Chart



3.2.4: Gantt Chart

3.2.5 Use-Case

3.2.5: Use-Case Diagram

Use Cases:

1. Register
2. Login
3. Add Text
4. Edit Colour
5. Edit Size
6. Edit Style
7. Add Logo
8. Order Detail

Table 4.2.1: Use Case Table - Register

Use Case ID	1
Use Case Name	Register
Actor	Website user
Pre-Condition	They must register themselves first
Post-Condition	User can login
Flow of events	Login, Register or Customize the shoes

Table 4.2.2: Use Case Table - Login

Use Case ID	2
Use Case Name	Login
Actor	Website User
Pre-Condition	They must register themselves first.
Post-Condition	User can view the order and customize the shoes.
Flow of events	Login, Register or Customize the shoes.

Table 4.2.3: Use Case Table - Add Text

Use Case ID	3
Use Case Name	Add Text
Actor	Website user
Pre-Condition	Login
Post-Condition	User can edit the text written on shoes

Table 4.2.4: Use Case Table - Edit Colour

Use Case ID	4
Use Case Name	Edit Colour
Actor	Website user
Pre-Condition	Login
Post-Condition	User can edit colour of shoes component

Table 4.2.5: Use Case Table - Edit Size

Use Case ID	5
Use Case Name	Edit size
Actor	Website User
Pre-Condition	Login
Post-Condition	User can edit the size of the shoes

Table 4.2.6: Use Case Table - Edit Style

Use Case ID	6
Use Case Name	Edit Style
Actor	Website User
Pre-Condition	Login
Post-Condition	User can select from the multiple shoes style

Table 4.2.7: Use Case Table - Add Logo

Use Case ID	7
Use Case Name	Add Logo
Actor	Website user
Pre-Condition	Login
Post-Condition	User can add their own logo on shoes model.

Table 4.2.8: Use Case Table - Order Detail

Use Case ID	8
Use Case Name	Order Detail
Actor	Website user
Pre-Condition	Login
Post-Condition	User can see the order history.

4 Project Implementation and Testing

4.1 Login and Register

Register

Email

email@example.com

Password

enter your password

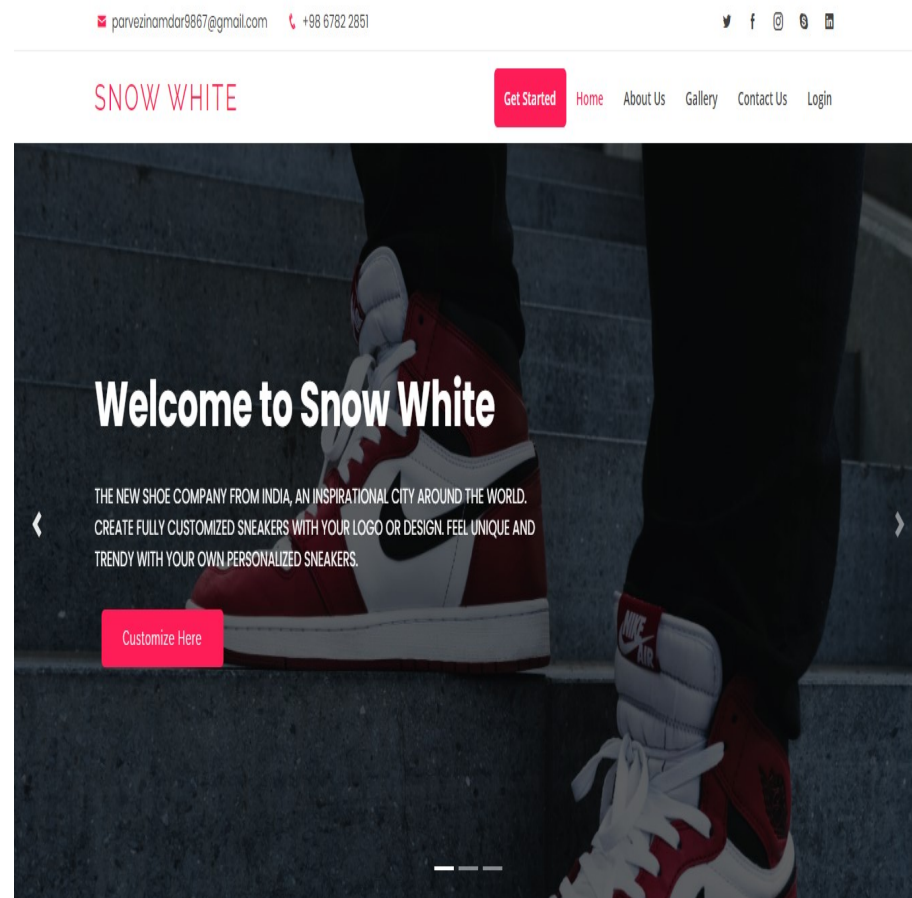
Register

Already have an account? [Login here](#)



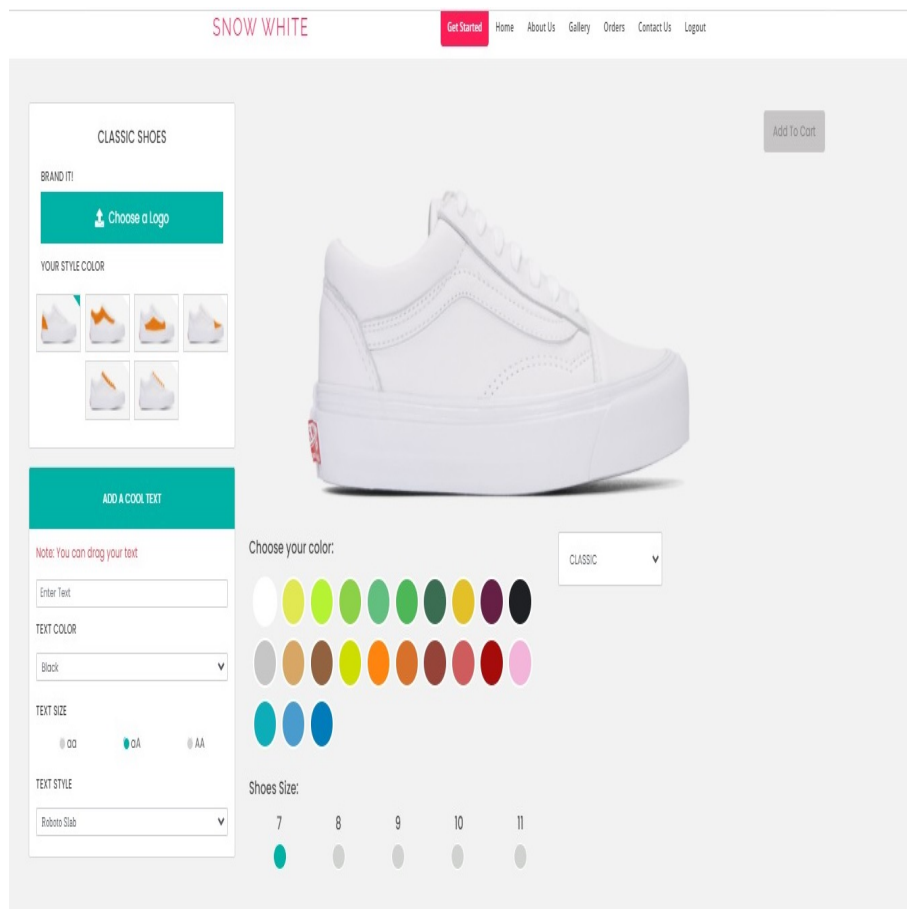
4.1.1: Login and Register

4.2 Home - Landing View



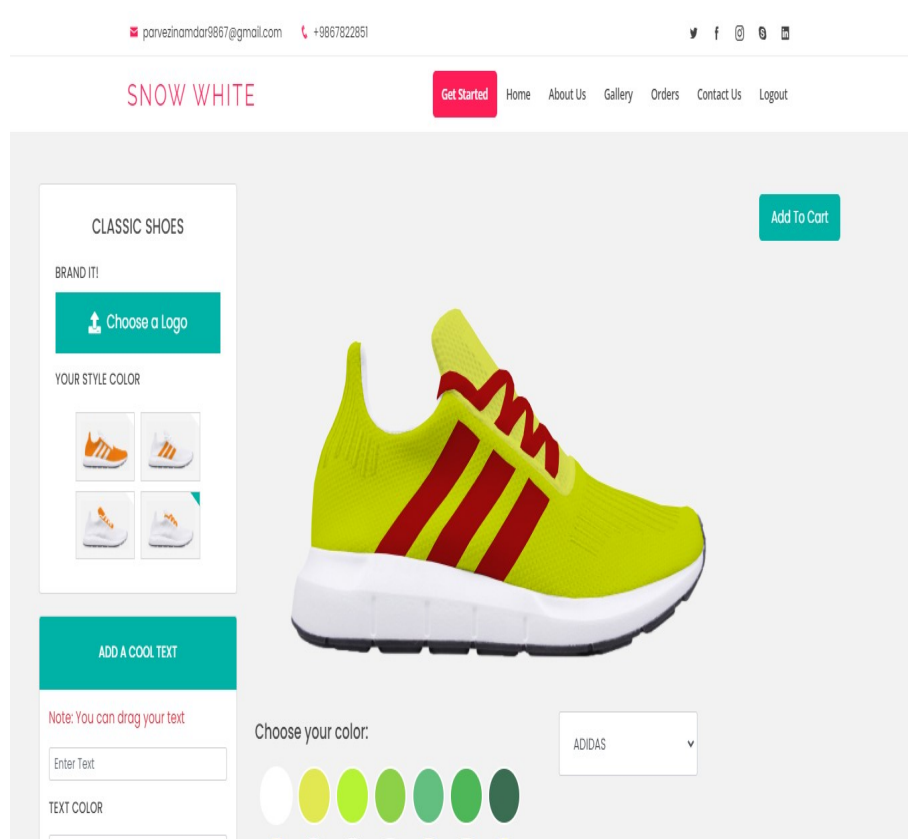
4.2.1: Home View

4.3 Customize



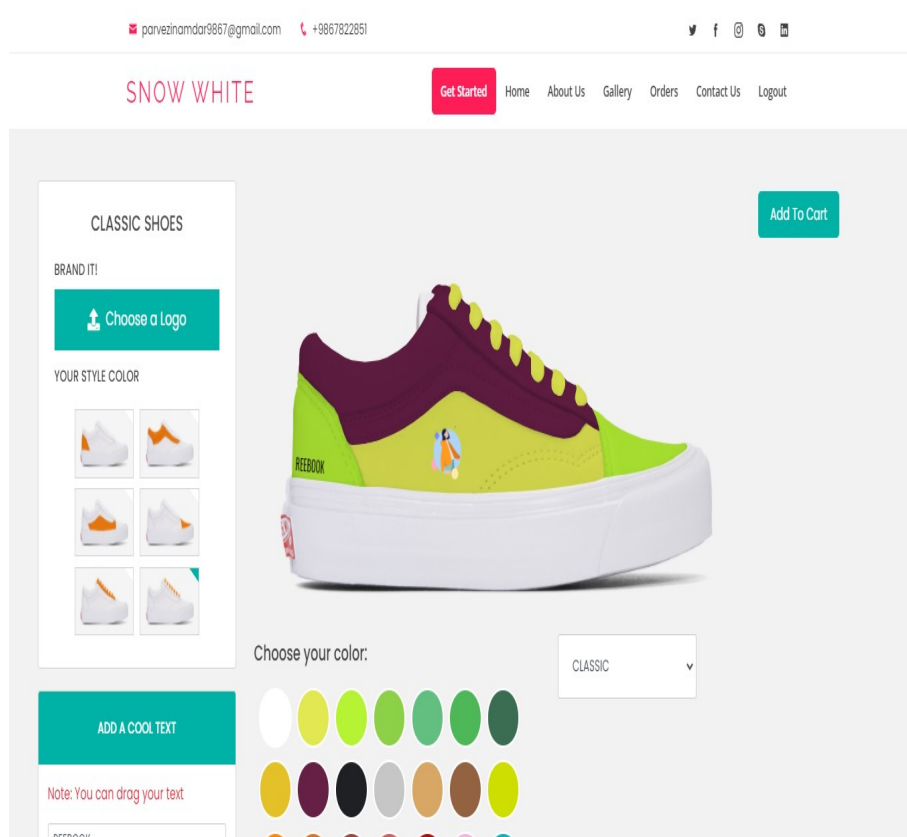
4.3.1: Customize

4.4 Customization Shoe - Color and Size



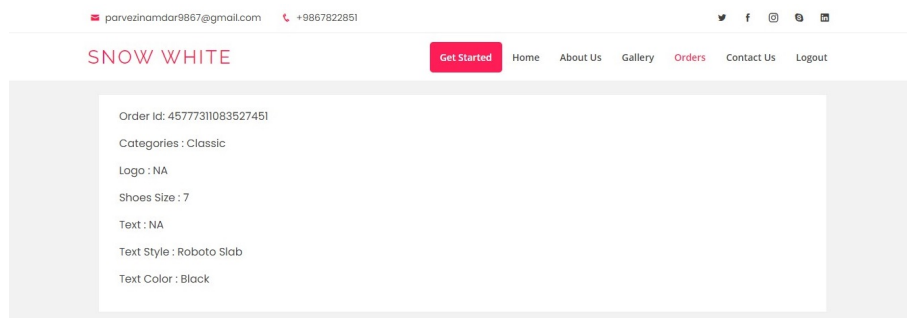
4.4.1: Customization Shoe - Color and Size

4.5 Customization Shoe - Text and Components



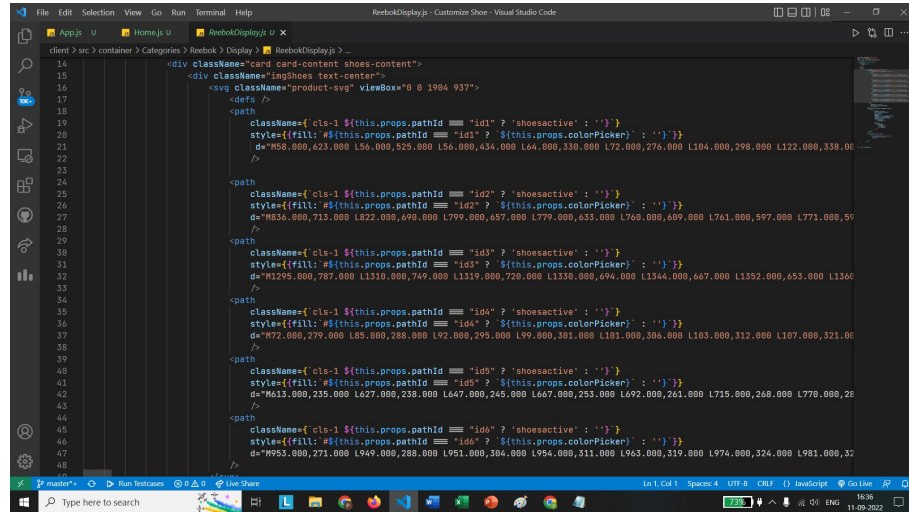
4.5.1: Customization Shoe - Text and Components

4.6 Order



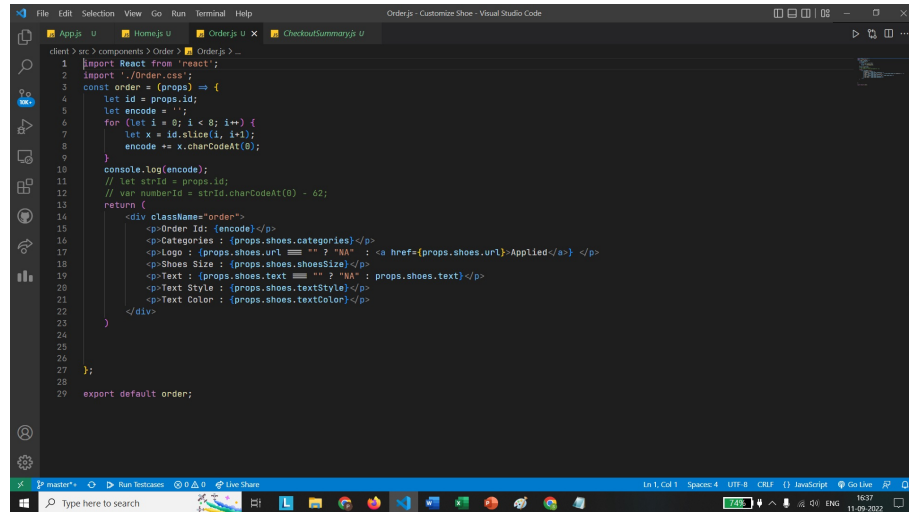
4.6.1: Order

4.7 Code 1



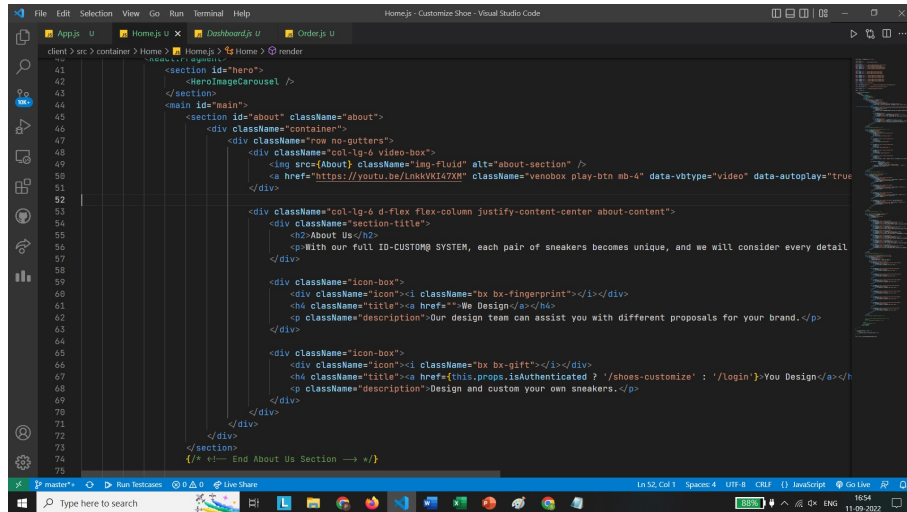
```
client> src> container> Categories> Reebok> Display> ReebokDisplay.js ...
14 <div className="card card-content shoes-content">
15 <div className="imgShoes text-center">
16 <svg className="product-svg" viewBox="0 0 1904 937">
17 <defs>
18 <path
19   className={cls-1 ${this.props.pathId === "id1" ? 'shoesactive' : ''}}
20   style={{fill: ${this.props.pathId === "id1" ? ${this.props.colorPicker} : ''}}}
21   d="M58.000,623.000 L54.000,525.000 L56.000,434.000 L64.000,330.000 L72.000,276.000 L104.000,298.000 L122.000,338.00
22   />
23 </path>
24 <path
25   className={cls-1 ${this.props.pathId === "id2" ? 'shoesactive' : ''}}
26   style={{fill: ${this.props.pathId === "id2" ? ${this.props.colorPicker} : ''}}}
27   d="M36.000,713.000 L82.000,690.000 L799.000,657.000 L779.000,633.000 L768.000,609.000 L761.000,597.000 L771.000,55
28   />
29 </path>
30 <path
31   className={cls-1 ${this.props.pathId === "id3" ? 'shoesactive' : ''}}
32   style={{fill: ${this.props.pathId === "id3" ? ${this.props.colorPicker} : ''}}}
33   d="M1295.000,787.000 L1310.000,749.000 L1319.000,720.000 L1330.000,694.000 L1344.000,667.000 L1352.000,653.000 L1366
34   />
35 </path>
36 <path
37   className={cls-1 ${this.props.pathId === "id4" ? 'shoesactive' : ''}}
38   style={{fill: ${this.props.pathId === "id4" ? ${this.props.colorPicker} : ''}}}
39   d="M72.000,279.000 L85.000,288.000 L92.000,295.000 L99.000,301.000 L101.000,306.000 L103.000,312.000 L107.000,321.00
40   />
41 </path>
42 <path
43   className={cls-1 ${this.props.pathId === "id5" ? 'shoesactive' : ''}}
44   style={{fill: ${this.props.pathId === "id5" ? ${this.props.colorPicker} : ''}}}
45   d="M613.000,235.000 L627.000,238.000 L647.000,245.000 L667.000,253.000 L692.000,261.000 L715.000,268.000 L778.000,28
46   />
47 </path>
48 <path
49   className={cls-1 ${this.props.pathId === "id6" ? 'shoesactive' : ''}}
50   style={{fill: ${this.props.pathId === "id6" ? ${this.props.colorPicker} : ''}}}
51   d="M953.000,271.000 L949.000,288.000 L951.000,304.000 L954.000,311.000 L963.000,319.000 L974.000,324.000 L981.000,32
52   />
53 </path>
54 </defs>
55 </svg>
56 </div>
57 </div>
58 </div>
```

4.8 Code 2



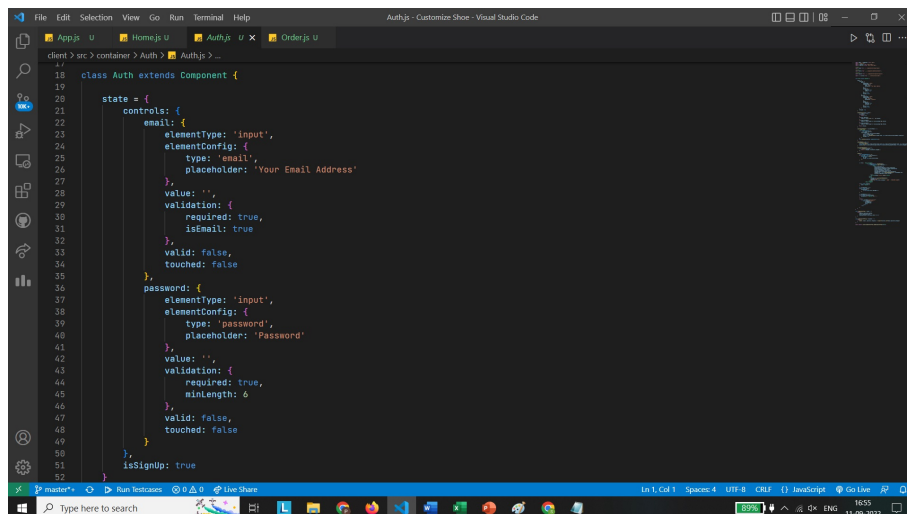
```
client> src> components> Order> Order.js ...
1 import React from 'react';
2 import './Order.css';
3 const Order = (props) => {
4   let id = props.id;
5   let encode = '';
6   for (let i = 0; i < 8; i++) {
7     let x = id.slice(i, i+1);
8     encode += x.charCodeAt(0);
9   }
10  console.log(encode);
11  // let strId = props.id;
12  // let numberId = strId.charCodeAt(0) - 62;
13  return (
14    <div className="order">
15      <p>Order Id: {encode}</p>
16      <p>Categories : {props.shoes.categories}</p>
17      <p>Logo : {props.shoes.url} <a href={props.shoes.url}>Applied</a> </p>
18      <p>Shoes Size : {props.shoes.shoesSize}</p>
19      <p>Text : {props.shoes.text} <span style={props.shoes.textStyle}></span></p>
20      <p>Text Style : {props.shoes.textStyle}</p>
21      <p>Text Color : {props.shoes.textColor}</p>
22    </div>
23  );
24 }
25
26
27
28
29 export default Order;
```

4.9 Code 3



```
41 <div>
42   <section id="hero">
43     <HeroImageCarousel />
44   </section>
45   <main id="main">
46     <section id="about" className="about">
47       <div className="container">
48         <div className="row no-gutters">
49           <div className="col-lg-6 video-box">
50             <img src={About} className="img-fluid" alt="about-section" />
51             <a href="https://youtu.be/LnkkVKI47XM" className="venobox play-btn mb-4" data-vbtype="video" data-autoplay="true">
52             </div>
53           <div className="col-lg-6 d-flex flex-column justify-content-center about-content">
54             <div className="section-title">
55               <h2>About Us</h2>
56               <p>With our full ID-CUSTOM SYSTEM, each pair of sneakers becomes unique, and we will consider every detail</p>
57             </div>
58             <div className="icon-box">
59               <div className="icon"><i className="bx bx-fingerprint"></i></div>
60               <h4 className="title"><a href="#">We Design</a></h4>
61               <p className="description">Our design team can assist you with different proposals for your brand.</p>
62             </div>
63             <div className="icon-box">
64               <div className="icon"><i className="bx bx-gift"></i></div>
65               <h4 className="title"><a href={this.props.isAuthenticated ? '/shoes-customize' : '/login'}>You Design</a></h4>
66               <p className="description">Design and custom your own sneakers.</p>
67             </div>
68           </div>
69         </div>
70       </div>
71     </section>
72   </main>
73   </div>
74   </div>
75   </div>
```

4.10 Code 4



```
18 class Auth extends Component {
19   state = {
20     controls: {
21       email: {
22         elementType: 'input',
23         elementConfig: {
24           type: 'email',
25           placeholder: 'Your Email Address'
26         },
27         value: '',
28         validation: {
29           required: true,
30           isEmail: true
31         },
32         valid: false,
33         touched: false
34       },
35       password: {
36         elementType: 'input',
37         elementConfig: {
38           type: 'password',
39           placeholder: 'Password'
40         },
41         value: '',
42         validation: {
43           required: true,
44           minLength: 6
45         },
46         valid: false,
47         touched: false
48       }
49     },
50     isSignUp: true
51   }
52 }
```

5 Test Cases

Table 6.1: Test Case - Login and Register

Test Case ID	Test Case Name	Test Data	Expected Output	Actual Output	Result
1	User enter user email and password	Enters the correct user email and password	Log in Successful	Home Page	Pass
2	User enter user email and password	Enters the user email and password	Prompt error	Prompt error	Pass
3	User enter user email and password	Valid user email and password which doesn't exist in Database	Registered Successfully	Login Page	Pass
4	User enter user email and password	Invalid user email and password which contains in Database	Prompt error	Prompt error	Pass

Table 6.2: Test Case - Others

Test Case ID	Test Case Name	Test Data	Expected Output	Actual Output	Result
1	User enters invalid information in marks section	Invalid marks Details	Prompt Message showing error	Successful Updated	Fail
2	User enters valid information in Profile	Valid Profile Details	Profile Updated successful	Profile Updated successful	Pass

6 Limitations

- It needs internet to be accessed.
- There is no admin panel so admin have to check the Firebase for user data collection
- Loading of the 3D Model takes times as 3d model take time and good speed internet.

7 Future Enhancements

- First future enhancement will be to add a admin panel where admin can see and manage the user data (Inventory Management).
- Another future enhancement will be to make complete customize website where all the shoes and recommended shoes will be able to design with all suitable functionalities.

8 User Manual

Part 1 – Register

Upon opening the application, user will be greeted with the registration screen.

If the user has no account, user can click on register and register self.

After verification of user id, User's account will be saved in our database. The user can now proceed to login.

Part 2 – Login

User needs to enter email first and then password. If there is an active internet connection, user can proceed to login.

Part 3 – Customize

User can customize the shoes according to his/her choice. Customize include Color, Size, Text and Component.

Part 4 – Order

User can view the every shoes order with the current account and it's description.

9 Bibliography

9.1 Web References

- [1.] <https://threejs.org/>
- [2.] <https://firebase.google.com/docs>
- [3.] <https://www.youtube.com/user/Firebase>
- [4.] <https://stackoverflow.com/>
- [5.] <https://reactjs.org/>
- [6.] <https://www.blender.org/>
- [7.] <https://www.geeksforgeeks.org/>
- [8.] <https://www.youtube.com/watch?v=QFaFicGhPoM>
- [9.] <https://www.youtube.com/watch?v=H-LZ90pZ3rY>