



## **PROJECT REPORT**

On

**Online Store Web App**

Submitted to

**LOVELY PROFESSIONAL UNIVERSITY**

For

Bachelor of Computer Science and Engineering

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Introduction**

The project ‘Online Store Web App’ is built by using Nodejs, Express JS and MongoDB, in which various concepts are implemented and innovative features are added to upgrade the app’s functionality. There are many components available with the help of which, app’s webpages are designed.

So here, I have designed an e-commerce site of online store for Room Décor Items Shop. In this build, customers can create an account and shop for different, fascinating décor items for interiors of their respective houses. They can add selected items to their cart and place an order. Moreover, admin role has also been added and his functions.

Furthermore, in order to execute certain insightful ideas, integration of Nodejs modules, framework and other powerful packages has also been done. This helped in levelling up the project in numerous ways.

#### **1.1.1 Bonus feature: Tracking system**

As mentioned above, users can add items to their respective carts and place an order online, however, after placing an order, they can also track their orders’ status. Therefore, in order to do so, real-time tracker feature has been implemented in this build. Basically, as soon as the admin will approve of status updates, the customer will be able to see those updates on app.

### **1.2 Notification Library: Awesome-Notifications npm library**

Notification library has been used in the project to make app more user friendly. As soon as the customer will add items to the cart and status will get updated, success message popup would appear on screen to acknowledge. Similarly, for admin, success message popup will appear as soon as the new order gets added. In case of any warning, alert message popup would appear on screen.

## **CHAPTER 2**

### **TECHNOLOGIES USED**

#### **2.1 Nodejs Technology**

This whole project's core is this amazing technology, Nodejs, for building fast and scalable applications. Since it uses an event-driven and non-blocking I/O model, this project has real-time features added.

#### **2.2 Express JS Technology**

Express.js has been used as a flexible Nodejs back-end web application framework to provide robust features to the build such as integration of EJS template engine, setting up middlewares to respond to HTTP request, routing, express-flash for flashing messages, session management etc.

#### **2.3 MongoDB Technology**

MongoDB has been used for maintaining database by creating collections to provide unlimited scalability. Its document data model has been used to support the JSON. Data for orders, sessions, store and users has been maintained flexibly by using its tool MongoDB Compass. Furthermore, to model the data, mongoose is installed and for maintaining MongoDB session store for Express, connect-mongo npm package is installed to finally connect with the project.

#### **2.4 Tailwind CSS**

Tailwind CSS has been used for front-end as CSS framework. It helped in making the app responsive.

#### **2.5 Passport.js Technology**

Passport has been used to implement authentication system by acting as an authentication middleware for Nodejs. It provides various strategies to use in applications which are chosen by developers according to their respective needs. In this project, passport-local strategy has been chosen to use username and password for local authentication.

#### **2.6 Socket.IO Technology**

In order to upgrade the features of app, real-time order tracking system has been added by using Socket-io. This library enables real-time and event-based communication between browser and server. In this project, bidirectional channel between server and client is established with a connection.

## **2.7 Laravel-Mix Technology**

This project follows MVC concept for directory-structure, same as is followed while building Laravel app. So, in order to compile assets, Laravel-mix has been used for stand-alone project, that is provided by Laravel. Management of compilation has been done in webpack.mix.js file, acting as a configuration layer on top of webpack for sass and JavaScript.

## **CHAPTER 3**

### **MODULES**

### **3.1 Resources folder**

Under this folder, there are 3 subfolders which are js, scss and views having different files.

#### **3.1.1 JS**

In this folder, there are 2 files maintained, named admin.js and app.js for all the functions on server side and client side respectively.

#### **3.1.2 Views**

Different ejs files are created for customers and admin like login-register pages, home page, orders page etc.

### **3.2 App folder**

Under this folder, there are 3 subfolders, config, http and models and http subfolder is further divided into 2 subfolders, controllers and middlewares.

#### **3.2.1 Config**

In this folder, configuration of third-party module is done which is passport.js. Here, strategy is defined for authentication system by 'passport-local' strategy.

#### **3.2.2 Http**

### **3.2.2.1 Controllers**

Firstly, to implement the functionality of authentication and using database, authController.js is created. Similarly for rendering data by using models on home page, factory function is created in homeController.js.

Secondly, for customer role to execute properly, various controllers are created under customers subfolder and for admin role, functions are defined in controllers created in admin subfolder.

### **3.2.2.2 Middlewares**

There are certain middlewares used in this project to make changes to the requests and the response objects and also, ending the cycle to call the next middleware in the stack.

So, 3 middlewares are created in this sub-folder, admin.js, auth.js and guest.js.

### **3.2.3 Models**

In this project, 3 models are defined using the schema interface to define all the fields stored in each document along with their validation requirements. These models are order.js, store.js and user.js.

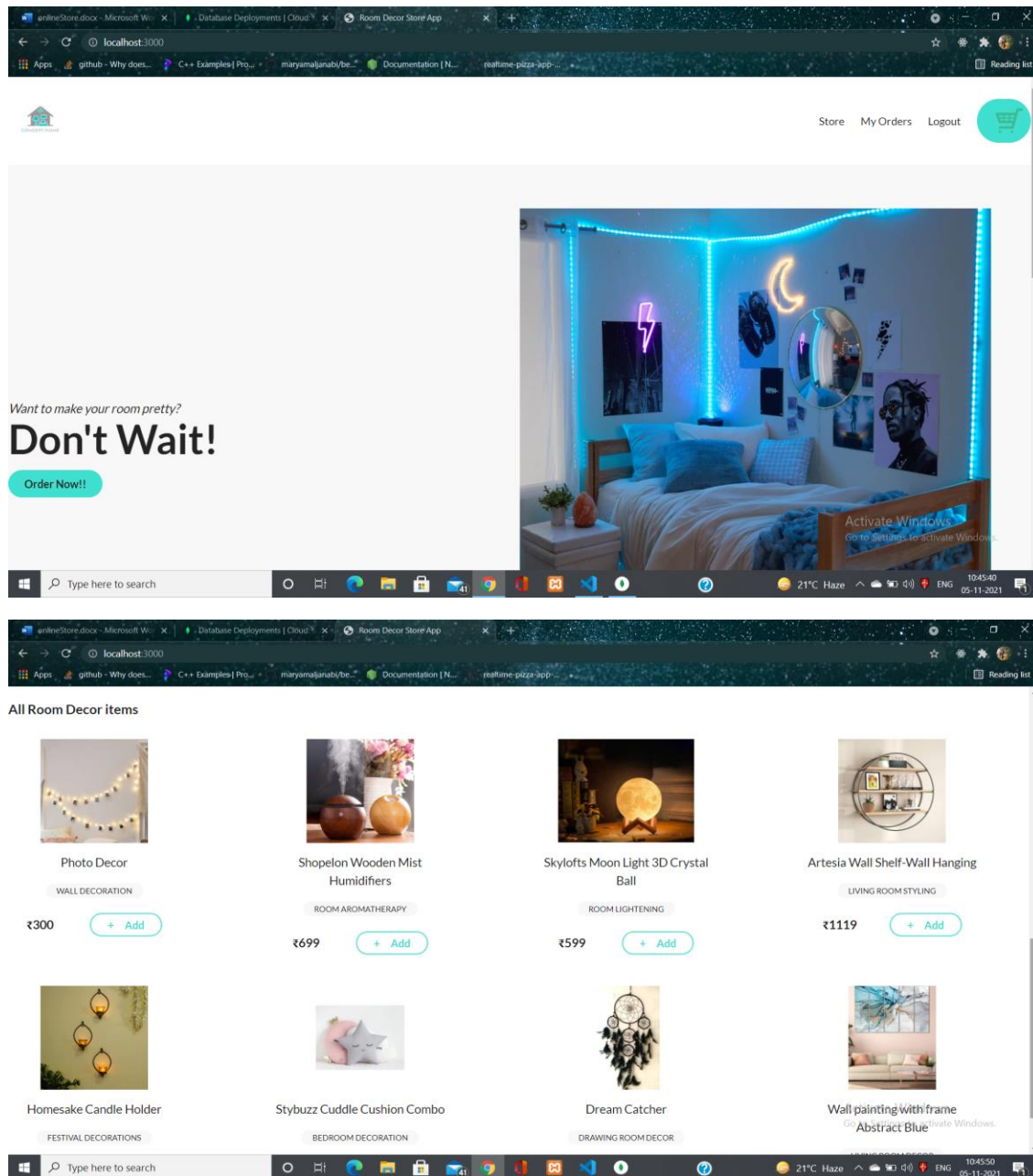
### **3.3 Server.js**

In this file, all the required modules are defined, configuration of third-party apps is done, events module is used and setting up template engine along with socket-io connection is established.

## **CHAPTER 4**

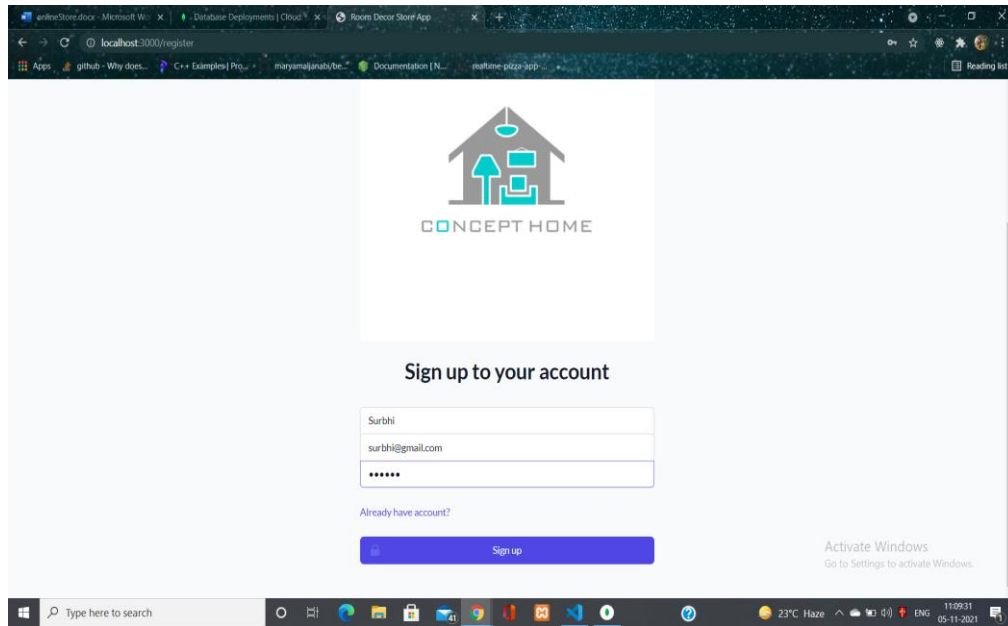
## **WEBSITE SNAPSHOTS**

### **4.1 Home page**

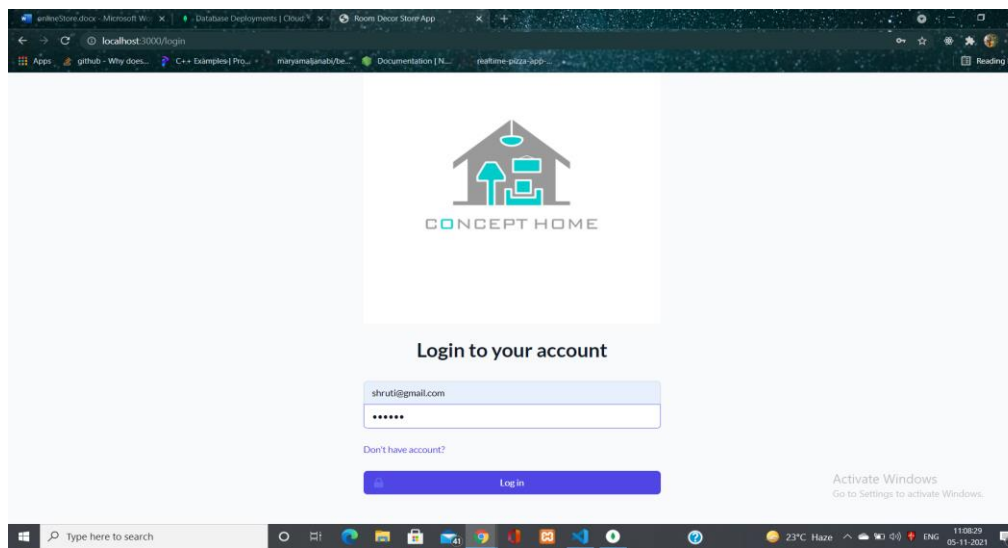


## 4.2 Customer role

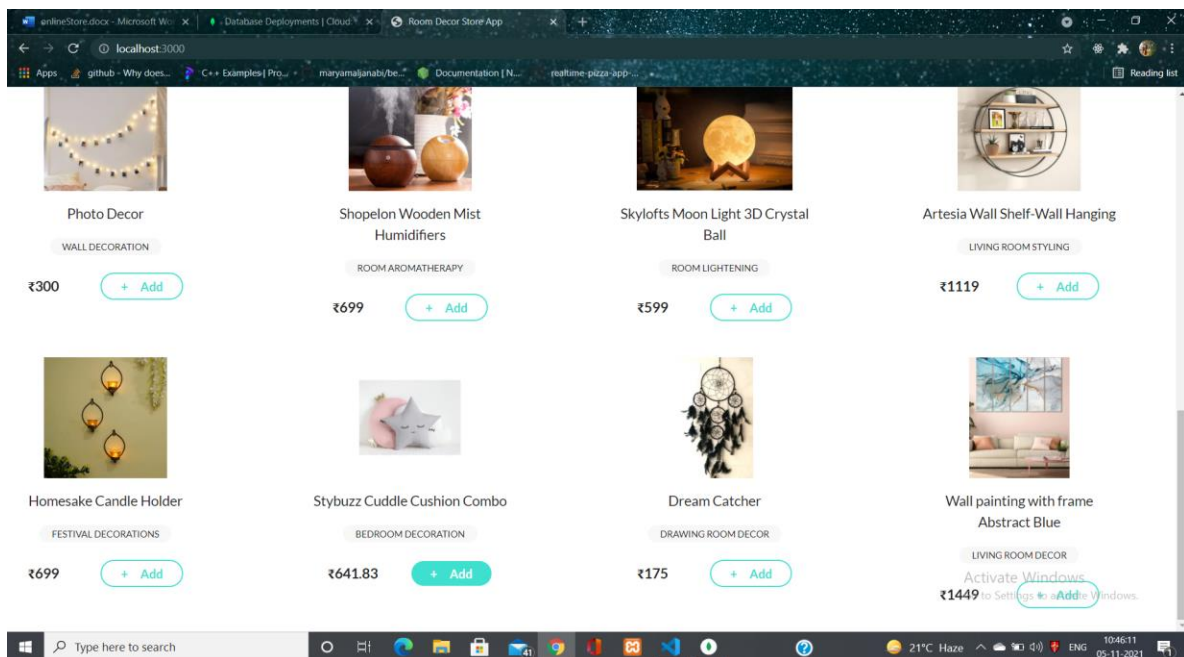
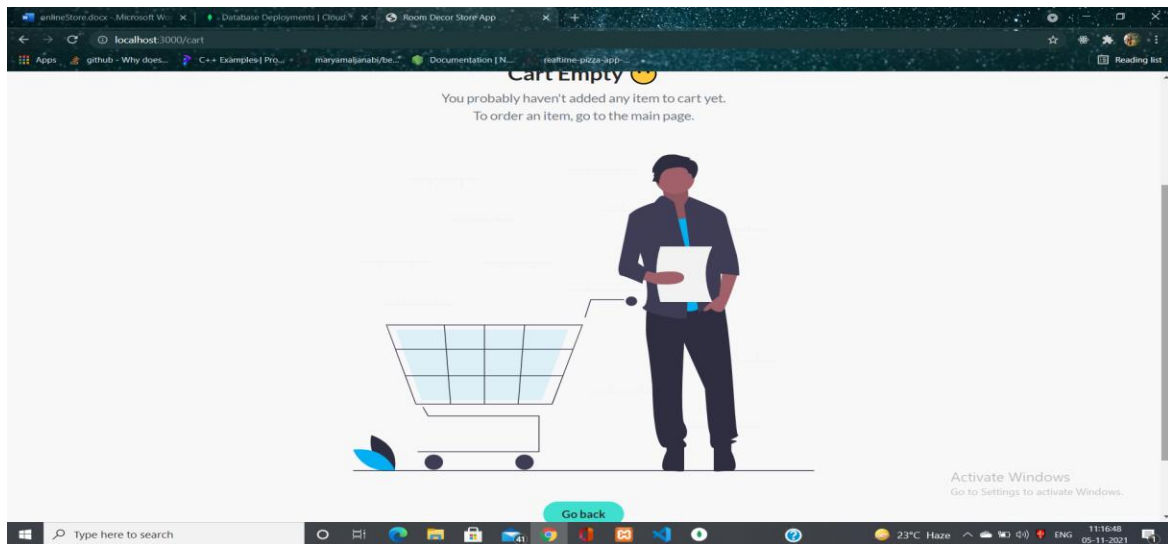
### 4.2.1 Register page



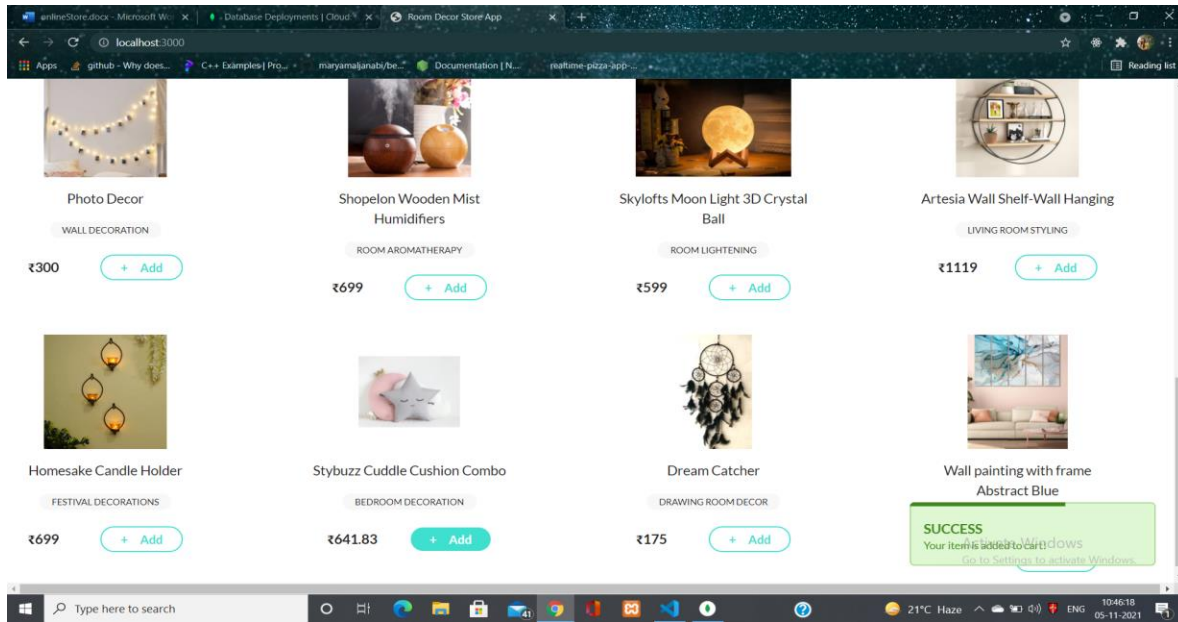
## 4.2.2 Login page



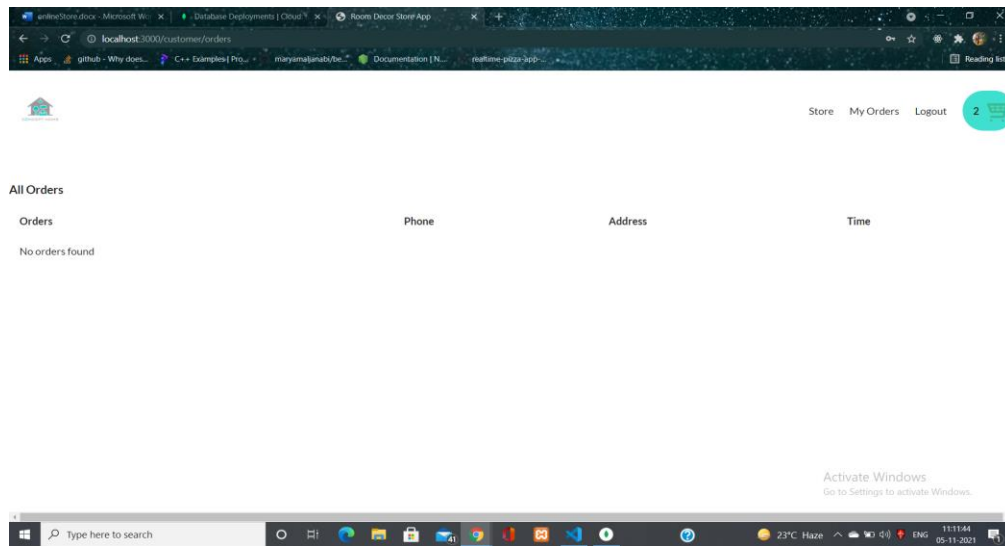
## 4.2.3 Adding items to cart

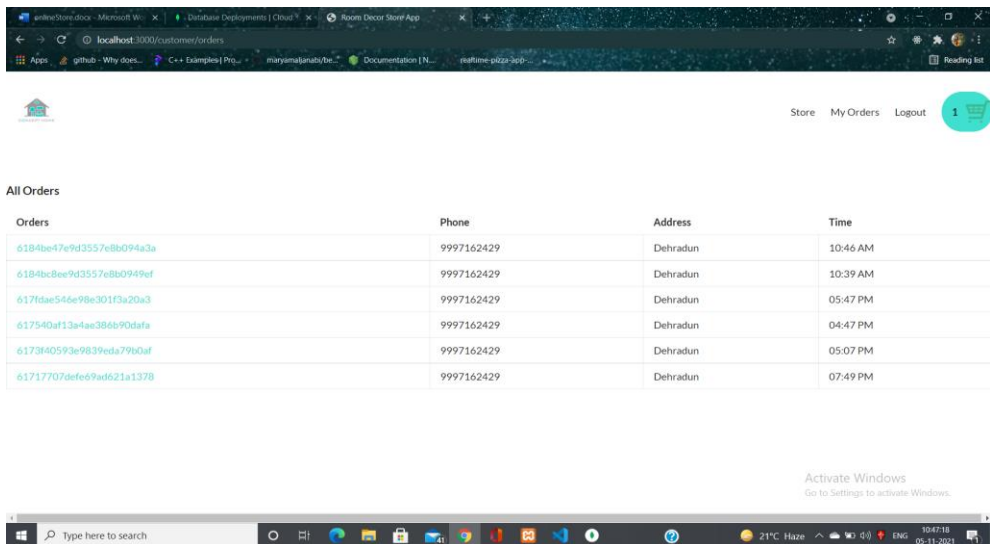
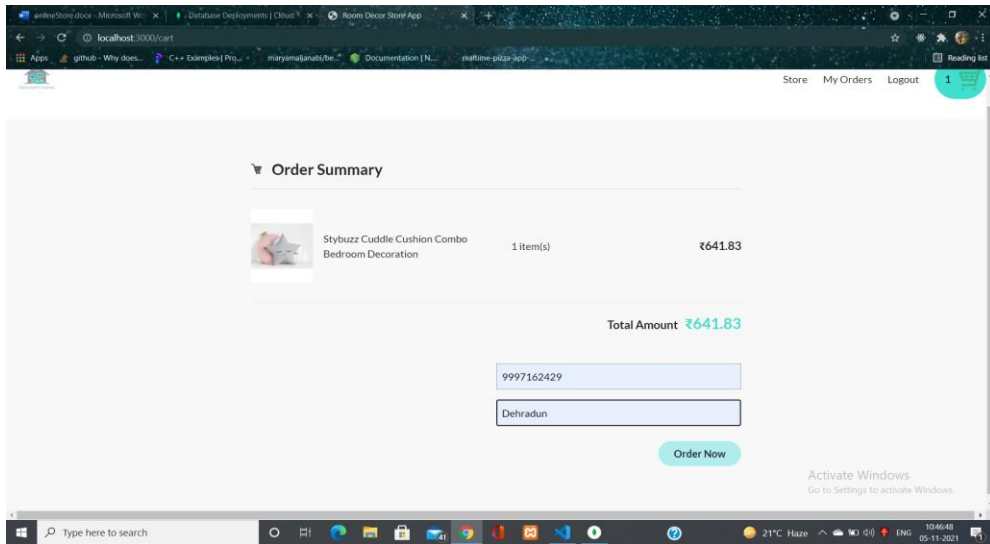




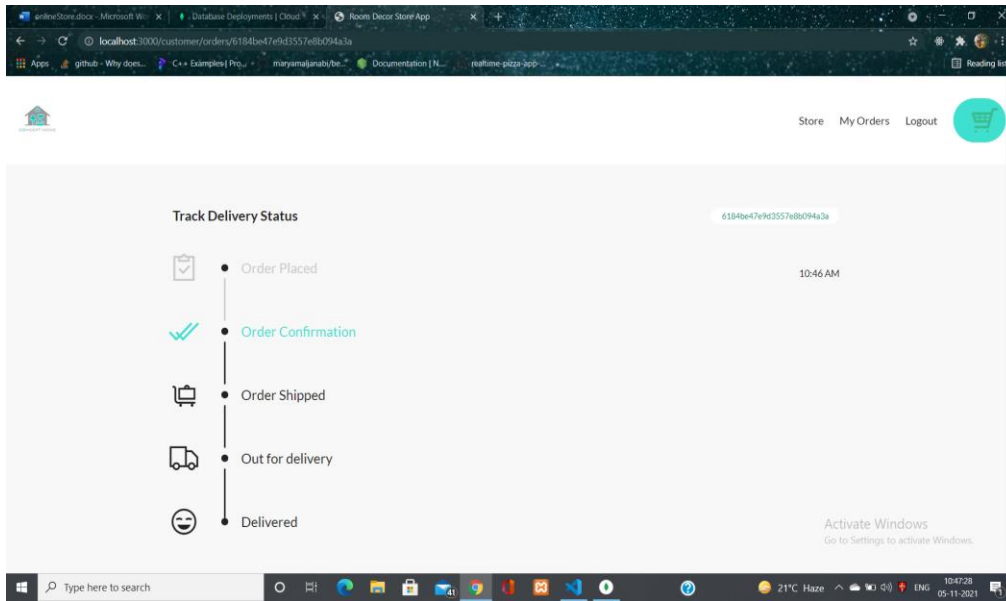


## 4.2.4 Orders page



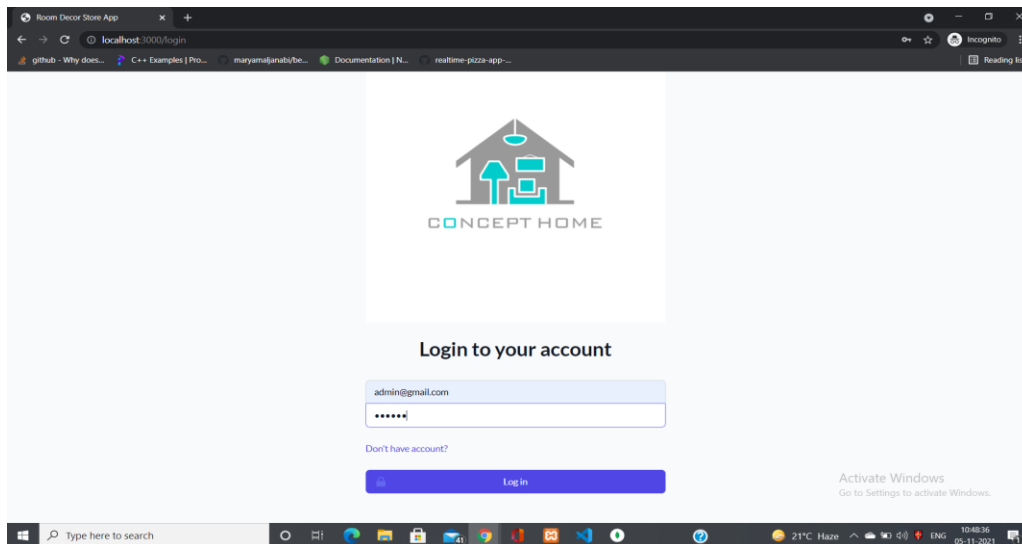


## 4.2.5 Order tracking page

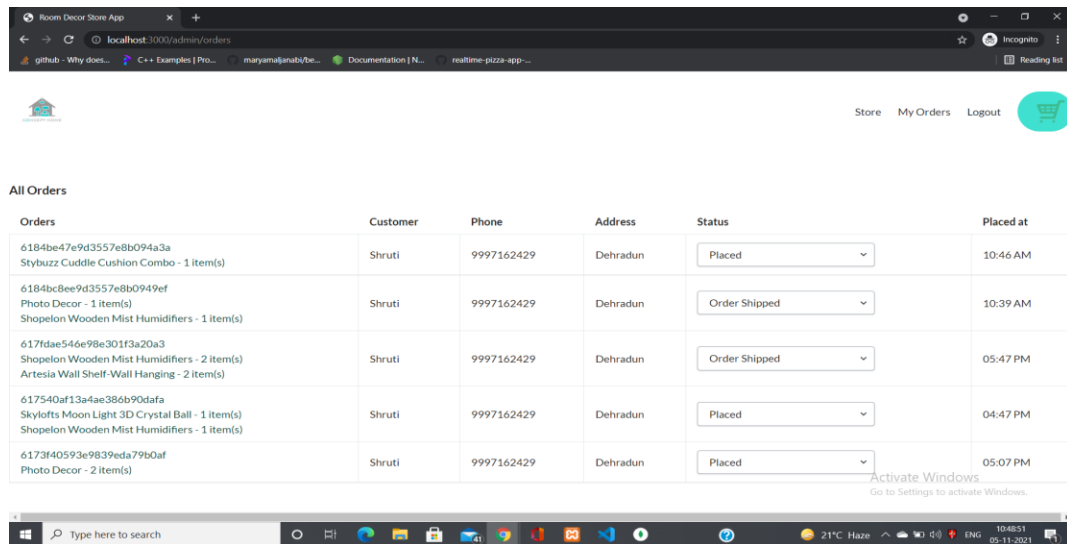


## 4.3 Admin role

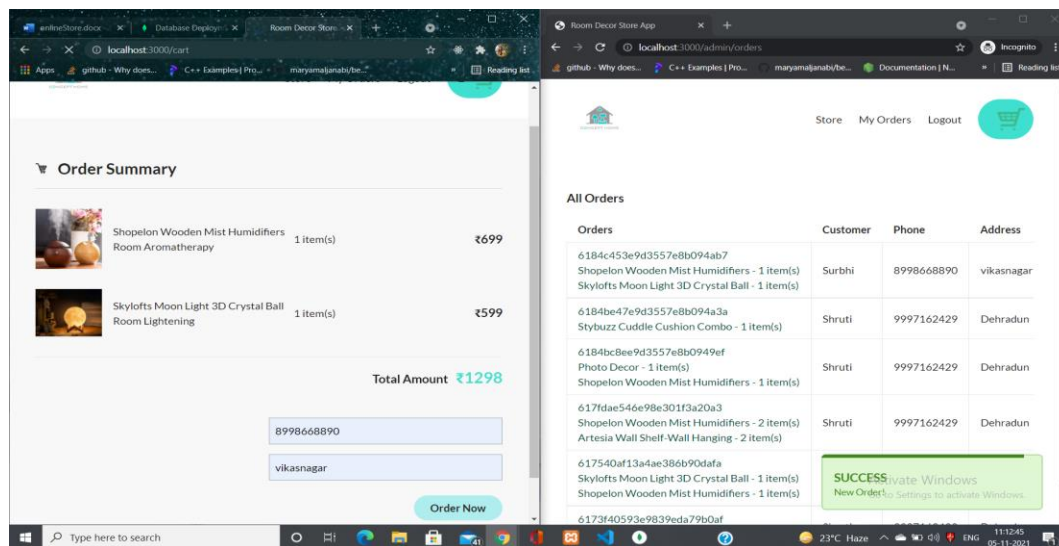
### 4.3.1 Login page



### 4.3.2 Orders page



## 4.4 Real-time Tracking Order response



Room Decor Store

Store My Orders Logout

Order placed successfully!

Orders	Phone	Address	Time
6184c47e9d3557e8b094ade	8998668890	vikasnagar	11:13 AM
6184c453e9d3557e8b094ab7	8998668890	vikasnagar	11:12 AM

Room Decor Store App

Store My Orders Logout

All Orders

Orders	Customer	Phone	Address
6184c47e9d3557e8b094ade Photo Decor - 1 item(s)	Surbhi	8998668890	vikasnagar
6184c453e9d3557e8b094ab7 Shopelon Wooden Mist Humidifiers - 1 item(s) Skylotts Moon Light 3D Crystal Ball - 1 item(s)	Surbhi	8998668890	vikasnagar
6184be47e9d3557e8b094a3a Stybuzz Cuddle Cushion Combo - 1 item(s)	Shruti	9997162429	Dehradun
6184bcBee9d3557e8b0949ef Photo Decor - 1 item(s) Shopelon Wooden Mist Humidifiers - 1 item(s)	Shruti	9997162429	Dehradun
617fdae546e98e301f3a20a3 Shopelon Wooden Mist Humidifiers - 2 item(s) Artesia Wall Shelf-Wall Hanging - 2 item(s)	Shruti	9997162429	Dehradun
617540af13a4ae386b90dafa Skylotts Moon Light 3D Crystal Ball - 1 item(s) Shopelon Wooden Mist Humidifiers - 1 item(s)	Shruti	9997162429	Dehradun

Room Decor Store

Store My Orders Logout

Track Delivery Status

6184c47e9d3557e8b094ade

Order Placed

Order Confirmation

Order Shipped

Out for delivery

Delivered

11:13 AM

Room Decor Store App

Store My Orders Logout

All Orders

id	Phone	Address	Status	Placed at
bhi	8998668890	vikasnagar	<div>Placed</div>	11:13 AM
uti	9997162429	Dehradun	<div>Confirmed</div>	10:46 AM
uti	9997162429	Dehradun	<div>Out for Delivery</div>	10:39 AM
uti	9997162429	Dehradun	<div>Placed</div>	04:47 PM
uti	9997162429	Dehradun	<div>Placed</div>	05:07 PM

Room Decor Store

Store My Orders Logout

Track Delivery Status

6184c47e9d3557e8b094ade

Order Placed

Order Confirmation

Order Shipped

Out for delivery

Delivered

11:16 AM

SUCCESS  
Order status updated!

Room Decor Store App

Store My Orders Logout

All Orders

id	Phone	Address	Status	Placed at
bhi	8998668890	vikasnagar	<div>Confirmed</div>	11:13 AM
uti	9997162429	Dehradun	<div>Order Shipped</div>	10:46 AM
uti	9997162429	Dehradun	<div>Out for Delivery</div>	10:39 AM
uti	9997162429	Dehradun	<div>Placed</div>	04:47 PM
uti	9997162429	Dehradun	<div>Placed</div>	05:07 PM

## **CHAPTER 5**

### **LINK**

#### **5.1 Github Link**

<https://github.com/ShrutiSemwal/Online-Store>

## **CHAPTER 6**

### **REFERENCES**

**6.1** Study Material provided by mentor

**6.2** Documentations of all technologies used

**6.3** Internet/Youtube

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