

**Project Report**  
**On**  
**EZZY Buy eStore**  
**(An E-commerce Web Application for Electronics Store)**



**Submitted in partial fulfilment for the award of  
PG-Diploma in Advanced Computing PG-DAC**

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**From**

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## 1. Introduction

Online Stores are fast gaining ground as an accepted and used business paradigm. More and more business houses are implementing websites providing functionality for performing commercial transactions over the web. It is reasonable to say that the process of shopping on the web is becoming commonplace.

The objective of this project is to develop a general-purpose electronics store “Ezzy Buy eStore”, where all the electronics products starting from simple mobile accessories to kitchen appliances can be bought from the comfort of home through the Internet.

An online store is a virtual store on the Internet where customers can browse the catalogue and select products of interest. Any item of interest can be added to the shopping cart, or wish list or can be directly bought by placing an order by the user.

At that time of buying any product(s), more information will be needed to complete the transaction. Usually, the customer will be asked to fill in or select a billing address, a shipping address, and payment information to place the order.

## 2. Project Overview

### 2.1. Purpose

This project involves the development of an e-commerce web application for an electronics store. Using this app, users can get an online shopping experience with features of searching and browsing products in various categories, adding/removing products in the shopping cart and wish list, ordering products and viewing order history.

### 2.2. Scope

Purchasing and selling products and services over the internet without the need of going physically to the market is what online shopping offers. Online shopping application is nothing but like retail store shopping that we do by going to the market, but it is done over the internet. Online shopping has made shopping painless and added more fun. Online stores offer product descriptions, pictures, comparisons, prices of the actual products and much more.

A few examples of these are amazon.com, ebay.com, framt.com and the benefits of online shopping are that by having direct access to consumers, the online stores can offer products that cater to the needs of consumers. Online shopping makes use of digital technology for managing the flow of information, products, and payment between consumers, site owners and suppliers. Online shopping can be either B2B (business to business) or B2C (business to consumer). The following points are considered in the scope of this project:

- Secure registration and profile management facilities for customers.
- Browsing through the e-store to see the items that are there in each category of products like kitchen appliances, Mobile Phones, Watches etc.
- A searching mechanism, where customers can provide queries to search for the item of their interest.
- Catalogue of recently added products and most popular products on the home page of the app for convenience to the customers to buy the latest and in-demand products.
- A wishlist, so that the customer can add products to the wishlist and if the customer wants to revisit the product later, he/she can directly get in the wishlist.
- A shopping cart, so that customers browse different goods and services and once they select an item to purchase they can place the item in the shopping cart and continue browsing other products till placing the final order. Customers can even remove the items from the shopping cart that were selected earlier before they place the final order. It reminds us of the shopping basket that we carry in the departmental stores/shopping malls.
- A secured mechanism in doing payment transactions for placing orders.

- Order History, so that customers can view all orders made by them.
- A mechanism to view the status of orders successfully placed by the customers, so that they can track order status until the final delivery of the product(s).
- A mechanism for customers to download copies of the tax invoices of their purchase made on the website.

### 2.3. Feasibility Study

A feasibility study is a high-level capsule version of the entire system analysis and design process. The study begins by classifying the problem definition. The feasibility study is the process of determination of whether or not a project is worth doing. Feasibility studies are undertaken within tight time constraints and normally culminate in a written and oral feasibility report. The contents and recommendations of this feasibility study helped us as a sound basis for deciding how to proceed with the project. It helped in making decisions such as which software to use, hardware combinations, etc.

There are 3 parts to the feasibility study.

➤ Technical Feasibility:

Technical feasibility determines whether the work for the project can be done with the existing equipment, software technology and available personnel. Technical feasibility is concerned with specifying equipment and software that will satisfy the user's requirements. This project is feasible on technical remarks also, as the proposed system is more beneficiary in terms of having a soundproof system with new technical components installed on the system. The proposed system can run on any machine supporting any javascript enabled browser and works on the best software and hardware that had been used while designing the system, so it would be feasible in all technical terms of feasibility.

➤ Operational Feasibility:

Operational feasibility is a measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development.

It is mainly related to human organization and political aspects. The points to be considered are that we need to train our staff so that system will be handled efficiently. As the system developed is very user-friendly and easy to operate, any person with minimum computing knowledge is also able to handle our system. It is also easy to operate due to the user-friendly interface developed using React.

➤ Economical Feasibility:

Economical feasibility determines whether there are sufficient benefits in creating to make the cost acceptable, or if the cost of the system is too high. As this signifies cost-benefit analysis and savings. The basic software, which is

required for the implementation of the system, is Java which is easily available. Also with the basic training user can use this software thus reducing the training cost to the organization. Thus, using this system is feasible for the organization and loading Java and the proposed system is economically feasible for the organization.

### 3. Overall Description

#### 3.1. Product Features

“Ezzy Buy eStore” has the following features which enhance the online shopping experience of the customers and also help the administrators to easily manage products and orders.

1. Any user can browse for the products through the catalogue serving recently added and most popular products in the application and another way to browse products is through various categories and sub-categories provided on the homepage.
2. Any user can search for the products through the search bar provided on the homepage.
3. Searching and browsing
4. Any user can view product details and add/remove products in the application’s shopping cart.
5. Any user can register and create an account in the application.
6. After successful registration, any user can log in to their account using the Sign-In page
7. Registered users can edit their profile details and change passwords on the profile page.
8. Registered users can view and add/remove products in the application’s wishlist.
9. Registered users can buy products directly from the product’s page or by adding products to the application’s shopping cart.
10. Registered users can add or remove multiple addresses except for the user’s default address in their accounts on the checkout page.
11. Registered users can view the order summary on the checkout page.
12. Registered users can place orders on the checkout page and after placing an order, users will be redirected to the Razorpay payment portal where they can do payments for their respective orders.
13. After payment is successful, registered users can view the status of payment and download the tax invoice for their order.
14. Registered users can view the order status and download the tax invoice of previously placed orders on the order page.
15. ContactUs page is available to contact administrators for support.

16. There are three roles available: Visitor, User and Admin.
17. Visitors can view available products.
18. Users can view and purchase products.
19. Admin can add/remove products along with the images of the products.
20. Admin can view orders successfully placed by the users.
21. Admin can change the status of the orders so that users track their orders.

### 3.2. Technology Used

➤ Back End

- Framework - Spring Boot 2  
(Spring Security, Spring Web, Spring Data MongoDB)
- Database - MongoDB
- Build Tool - Maven
- Language - Java 11
- Libraries - JWT, JasperReports

➤ Front End

- Language - JavaScript XML
- Libraries - React, react-router-dom, Axios, MUI

### 3.3. User Roles

➤ Visitor

- Any user who is not signed in to the application will be considered a visitor.
- Visitors can browse and search for products on the homepage of the application.
- Visitors can register using the Sign-up page by providing the required details.
- Visitors can sign in as registered users on the Sign-in page using login credentials.
- Visitors can add products to the shopping cart and after signing in to

the application as a registered user, products added to the shopping cart of visitors will get automatically added to the shopping cart of the registered user.

➤ User

- Registered users' profile details, shopping cart, wishlist, addresses and order history are saved to the database and are retrieved from there when they sign in.
- Registered users can see their profiles and update their respective profiles.
- Registered users can buy products.
- Registered users can add/remove addresses.
- Registered users can view order history and download tax invoices of their orders.

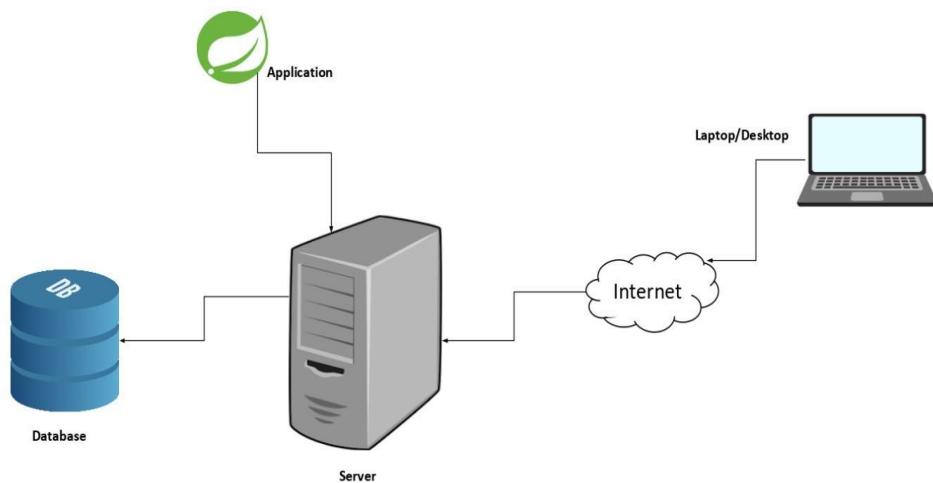
➤ Admin

- This role represents complete authority over the application and has more privileges than other users.
- Admin users can add another admin.
- Admin users can update their own profiles.
- Admin users can view orders placed by registered users.
- Admin users can change the status of orders

### 3.4. General Constraints

The “Ezzy Buy eStore” should run on all Internet Browsers and all processors which support the Javascript enabled Internet Browser.

➤ Architecture Diagram:

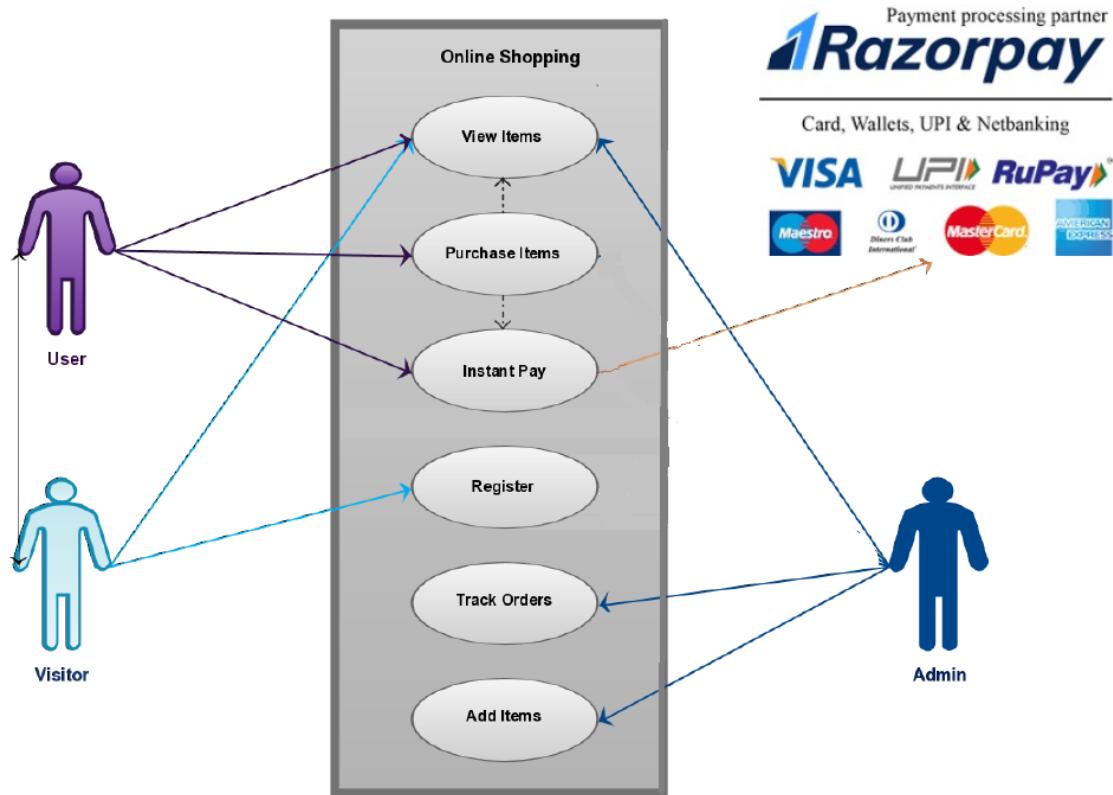


**Figure 1. Architecture Diagram**

## 4. Software Requirement Specification

The Software Requirements Specification is produced at the culmination or the analysis task. The function and performance allocated to software as part of system engineering are refined by establishing a complete information description, a detailed functional and behavioural description, an indication of performance requirements and design constraints, appropriate validation criteria, and other data pertinent to requirements.

### 4.1. Functional Requirement



**Figure 2: Use case diagram**

There is an entry interface that is intended for admin and user to log in to the system by their own account. If the users are not registered, they can register using sign-up. The user has to enter the login credentials i.e., Email-ID and Password information to log in.

- Scenario 1: Visiter Sequence

System:

1. Display the Home Page where visitors can see the products.
2. View products by category and subcategory.
3. Search products by giving queries in the search bar.

4. View the product catalogue with the recently added products and most popular products.
  5. Add the product to the shopping cart.
- Scenario 2: User Sequence
- User:
1. Enter user Email-Id and Password.
- System:
1. Display the Home Page where users can see the products and buy the product.
  2. View products by category and subcategory.
  3. Search products by giving queries in the search bar.
  4. View the product catalogue with the recently added products and most popular products.
  5. Add a product to a Wish List or purchase the product by adding it to the cart or directly buying it as per the required quantity.
- Scenario 3: Admin Sequence

Admin:

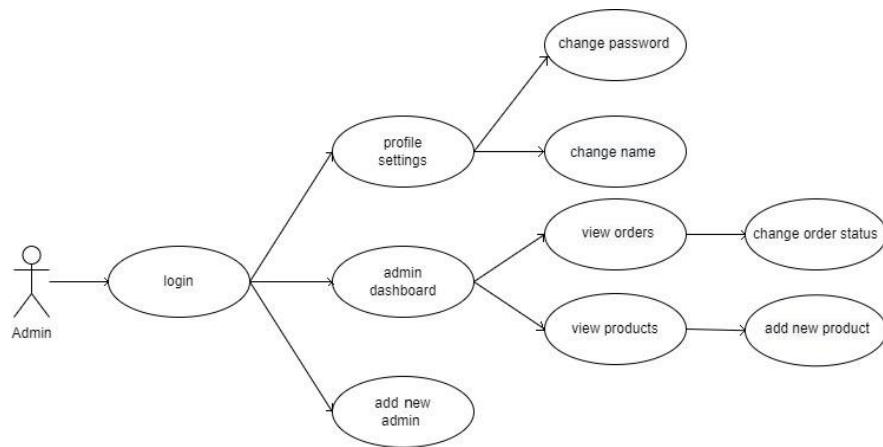
1. Enter Admin Email-Id and Password.

System:

1. Display the Admin dashboard where the admin can see the option to update their profile.
2. Admin can add another Admin.
3. Admin can fulfil orders and change the status of orders accordingly.

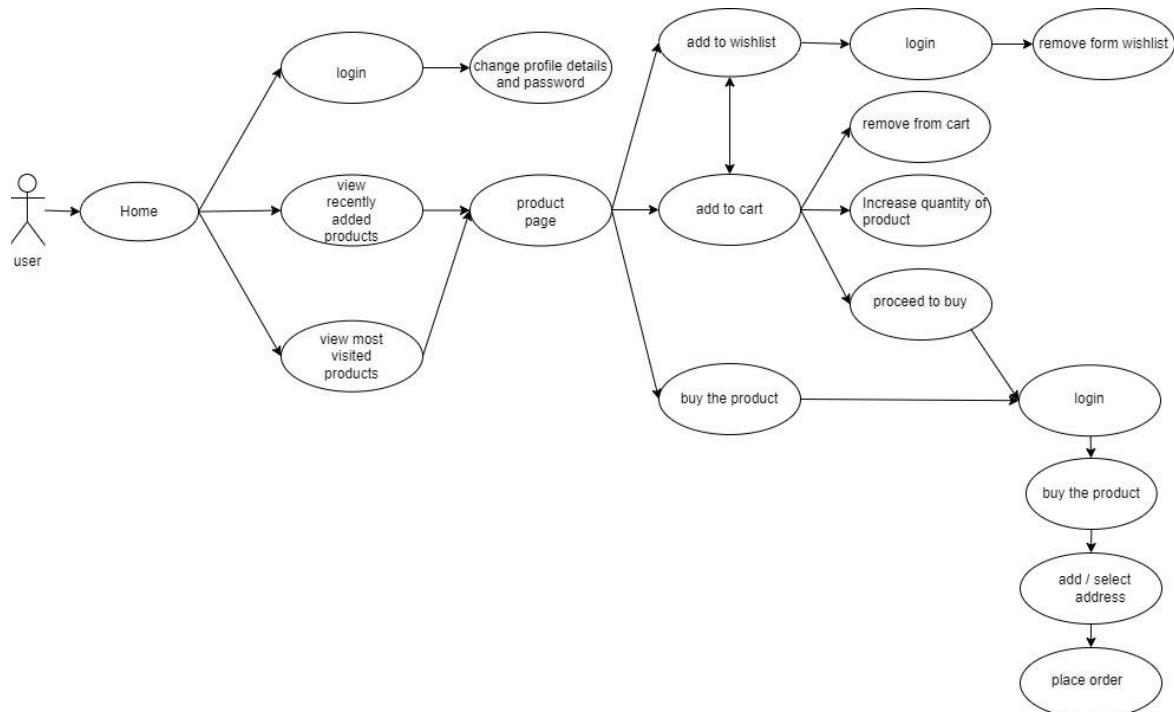
## 5. Sequence Details

### ➤ Admin Sequence



**Figure 3: Admin Sequence**

### ➤ User Sequence



**Figure 4: User Sequence**

## 6. Non Functional Requirements

### 6.1. Performance Requirement

- Page loads should be returned and formatted in a timely fashion depending on the request being made.
- Administrators will have the ability to edit the aspects of the order forms, product descriptions, prices and website directly.

### 6.2. Security Requirement

- Only one active user can be logged in at a time.
- Passwords shall never be viewable at the point of entry or at any other time.
- Duplicate orders will not be generated in the same month and year.
- Administrators can only perform the administrative task on pages they are privileged to access. Customers will not be allowed to access the administrator pages.

## 7. Database Collections

### Show collections

```
Atlas atlas-fxqk3g-shard-0 [primary] test_db> use ecommerce_db
switched to db ecommerce_db
Atlas atlas-fxqk3g-shard-0 [primary] ecommerce_db> show collections
categories
orders
products
roles
users
```

### Roles Collection

```
db.roles.find()
```

```
Atlas atlas-fxqk3g-shard-0 [primary] ecommerce_db> db.roles.find()
[
  { _id: ObjectId("622f09f3126121e0851f8ea5"), name: 'ROLE_USER' },
  { _id: ObjectId("622f0a0d126121e0851f8ea6"), name: 'ROLE_ADMIN' }
]
```

### Categories Collection

```
db.categories.find().limit(1)
```

```
Atlas atlas-fxqk3g-shard-0 [primary] ecommerce_db> db.categories.find().limit(1)
[
  {
    _id: ObjectId("6240a13fed4fb20ec50f1f20"),
    categoryName: 'Mobiles',
    imageName: 'Mobile.jpeg',
    subCategory: [ 'Smart Phones', 'Feature Phones' ]
  }
]
```

## Users Collection

`db.users.find().limit(1)`

```
Atlas atlas-fxqk3g-shard-0 [primary] ecommerce_db> db.users.find().limit(1) [1/4532]
[{"_id": ObjectId("62496a55b5bb9c374a9160a5"),
 "first_name": "Anant",
 "last_name": "Gehi",
 "email": "anantgehag.com",
 "password": "$2a$10$ajjdI0s1/g/kgq0/P.DcQuOUjL1N4JaRHAYg9iR9UyM96KknW3Evu",
 "roles": [ DBRef("roles", ObjectId("622f09f3126121e0851f8ea5")) ],
 "wish_list": [],
 "shopping_cart": [],
 "addresses": {
   "744084527": {
     "_id": 744084527,
     "type_address": "HOME",
     "country": "INDIA",
     "state": "Rajasthan",
     "full_name": "Aman Gangwar",
     "mobile_number": Long("7068398252"),
     "pincode": 302022,
     "line1": "Sitapura",
     "line2": '',
     "landmark": "Near Bank of India",
     "town_city": "Jaipur"
   }
 },
 "billing_address": {
   "_id": 744084527,
   "type_address": "HOME",
   "country": "INDIA",
   "state": "Rajasthan",
   "full_name": "Aman Gangwar",
   "mobile_number": Long("7068398252"),
   "pincode": 302022,
   "line1": "Sitapura",
   "line2": '',
   "landmark": "Near Bank of India",
   "town_city": "Jaipur"
 },
 "shipping_address": {
   "_id": 744084527,
   "type_address": "HOME",
   "country": "INDIA",
   "state": "Rajasthan",
   "full_name": "Aman Gangwar",
   "mobile_number": Long("7068398252"),
   "pincode": 302022,
   "line1": "Sitapura",
   "line2": '',
   "landmark": "Near Bank of India",
   "town_city": "Jaipur"
 },
 "order_history": [
   DBRef("orders", ObjectId("624988f77d2cccd62eda9200b")),
   DBRef("orders", ObjectId("6249ca3f33382707f484913e")),
   DBRef("orders", ObjectId("6249caa433382707f4849140")),
   DBRef("orders", ObjectId("6249cae533382707f4849142")),
   DBRef("orders", ObjectId("6249cb0f33382707f4849144")),
   DBRef("orders", ObjectId("6249cbfe33382707f4849146")),
   DBRef("orders", ObjectId("6249dad4fc8ea47027e89355"))
 ],
 "_class": "com.ecommerce.app.models.User"}]
```

## Orders Collection

```
db.orders.find({"payment_status": "SUCCESS"}).limit(1)
```

```
Atlas atlas-fxqk3g-shard-0 [primary] ecommerce_db> db.orders.find({"payment_status": "SUCCES
S"}).limit(1)
[
  {
    _id: ObjectId("6249ba8aff748609071cc02c"),
    order_amount: 150000,
    transaction_id: '123456789',
    order_items_list: [
      {
        _id: ObjectId("6241bb025d8d7f1ceb76e1fe"),
        name: 'Iphone 12 Pro Max',
        image: 'Apple iPhonx.jpeg',
        price: 150000,
        quantity: 1,
        subTotal: 150000
      }
    ],
    order_date: ISODate("2022-04-03T15:17:30.065Z"),
    order_status: 'PLACED',
    payment_status: 'SUCCESS',
    shipping_address: {
      _id: -1544164493,
      type_address: 'HOME',
      country: 'INDIA',
      state: 'Maharashtra',
      full_name: 'Anant Gehi',
      mobile_number: Long("7387578060"),
      pincode: 444606,
      line1: 'MIDC ROAD',
      line2: 'Amravati',
      landmark: 'Near Sai Baba School',
      town_city: 'Amravati'
    },
    billing_address: {
      _id: -1544164493,
      type_address: 'HOME',
      country: 'INDIA',
      state: 'Maharashtra',
      full_name: 'Anant Gehi',
      mobile_number: Long("7387578060"),
      pincode: 444606,
      line1: 'MIDC ROAD',
      line2: 'Amravati',
      landmark: 'Near Sai Baba School',
      town_city: 'Amravati'
    },
    _class: 'com.ecommerce.app.models.Order'
  }
]
```

## Products Collection

```
db.products.find().limit(1)
```

```
Atlas atlas-fxqk3g-shard-0 [primary] ecommerce_db> db.products.find().limit(1)
[
  {
    _id: ObjectId("6241bb025d8d7f1ceb76e1fe"),
    name: 'Iphone 12 Pro Max',
    description: 'Super Retina XDR Display\n' +
      '5G Enabled Phone\n' +
      'All-screen OLED Display\n' +
      'Fingerprint-resistant Oleophobic Coating Screen\n' +
      'Rated IP68 Splash, Water and Dust Resistant\n' +
      'A14 Bionic Chip\n' +
      'Pro 12 MP Camera System: Ultra Wide, Wide and Telephoto Cameras\n' +
      '12 MP TrueDepth Camera\n' +
      'Face ID Enabled by TrueDepth Camera\n' +
      'Wireless Charging Compatible\n' +
      '"date_added": "2014-01-22T14:56:59.301Z"',
    price: 100000,
    rating: 4.3,
    product_added_date: ISODate("2022-01-22T14:56:59.301Z"),
    stock: 9,
    visits: 227,
    subCategoryName: 'IOS',
    additional_details: { brand: 'Apple' },
    image: 'Apple iPhone 12 Pro Max.jpeg',
    _class: 'com.ecommerce.app.models.Product'
  }
]
```

## 8. Entity Relationship Diagram

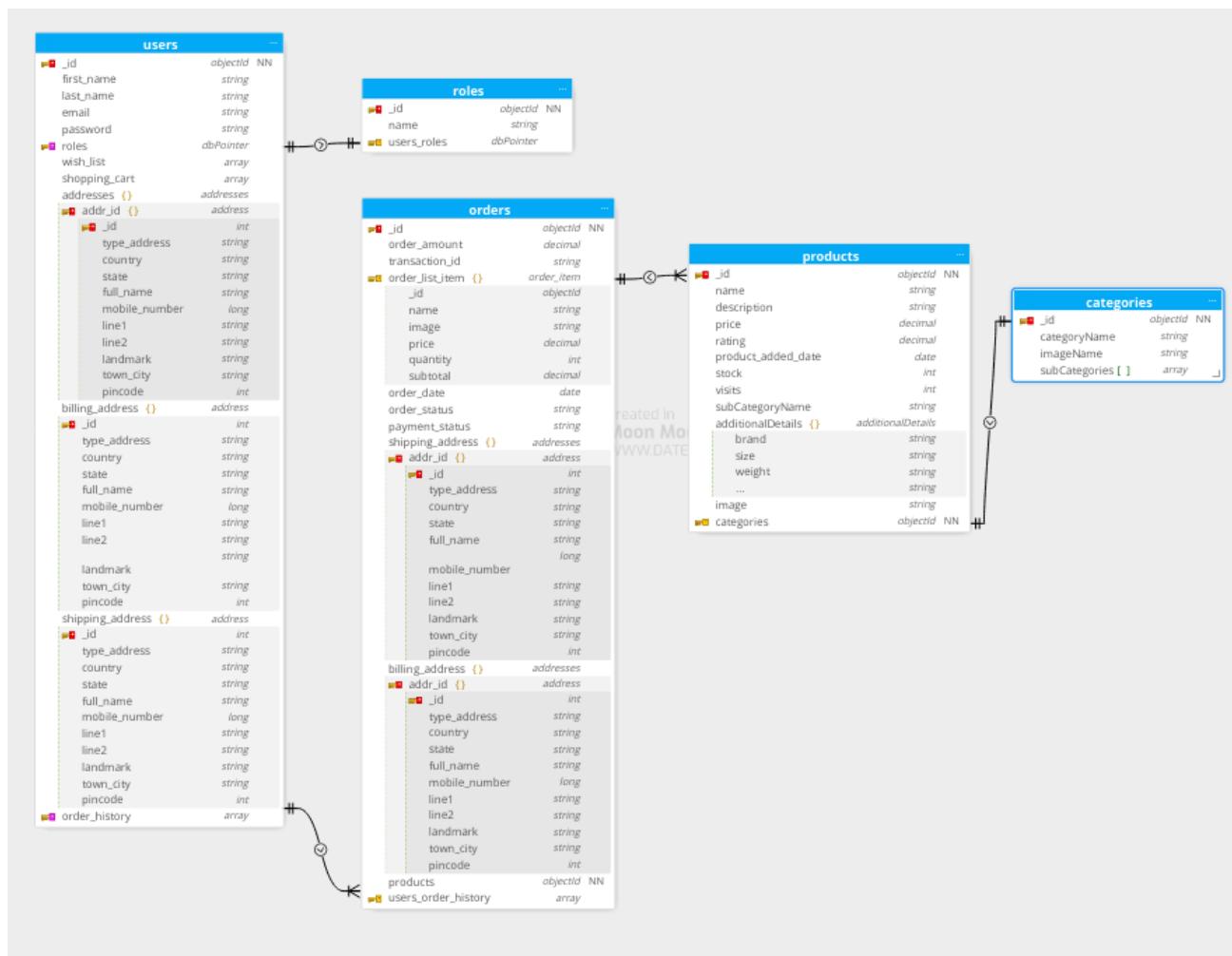


Figure 5: Entity Relationship Diagram

## 9. UML Diagram

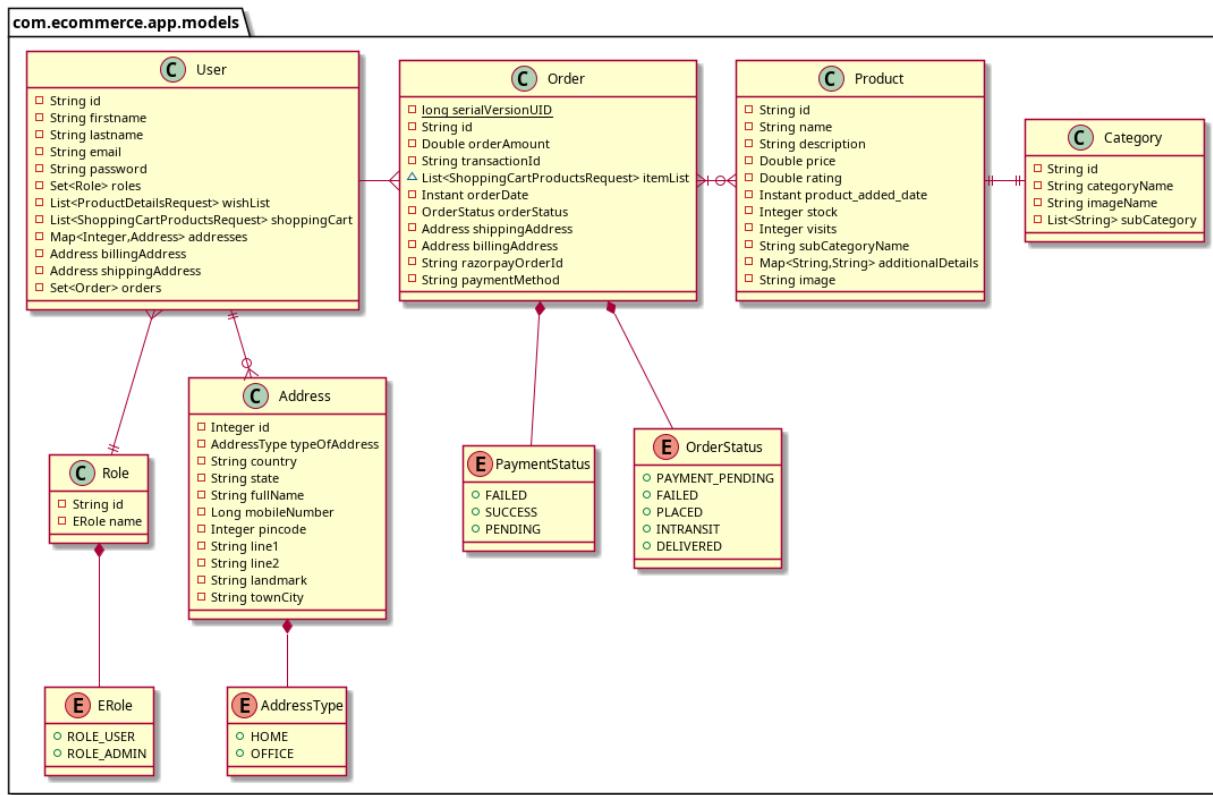


Figure 6: UML Diagram

## 10. Activity Diagram

### 10.1. User Activity Diagram

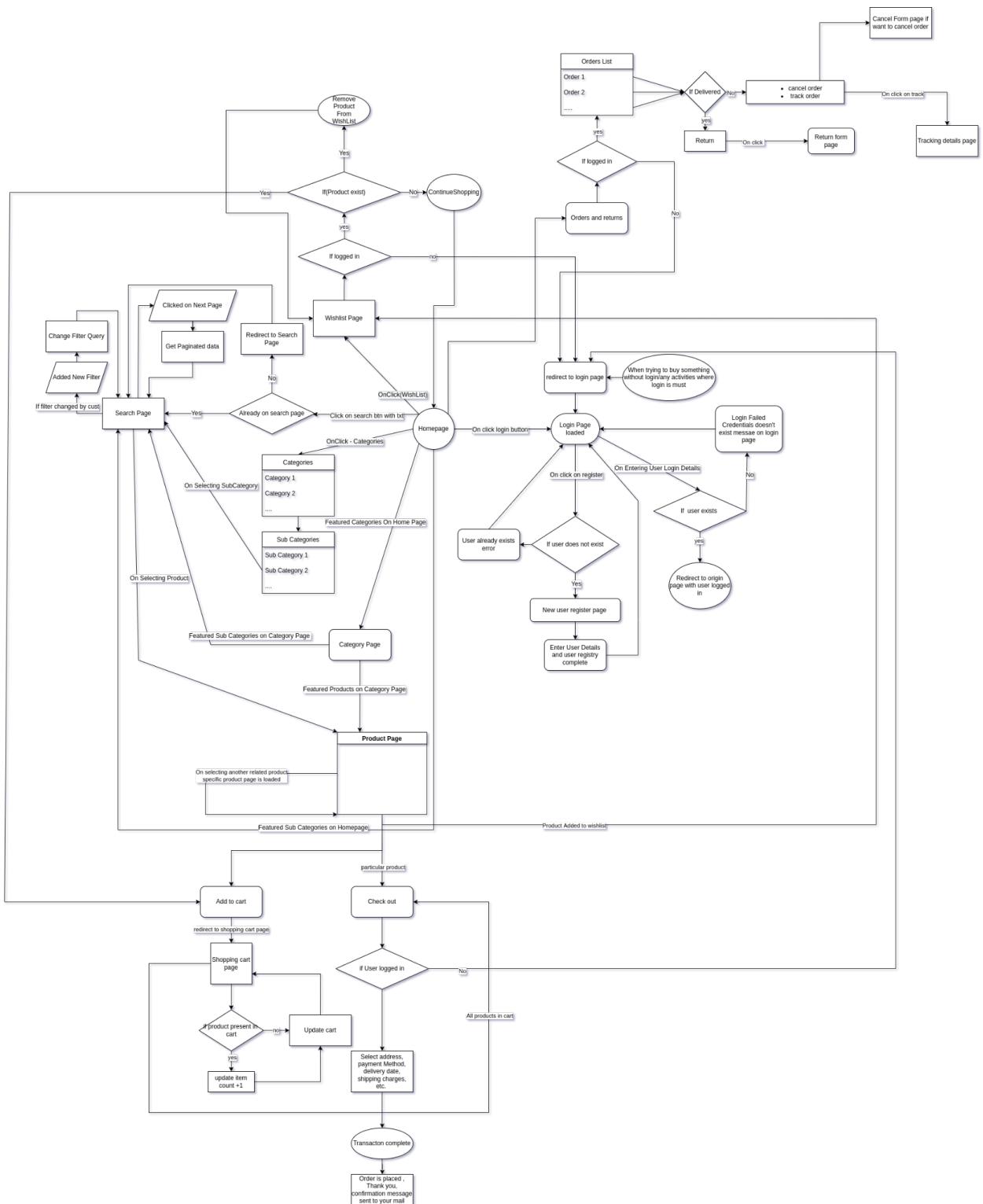
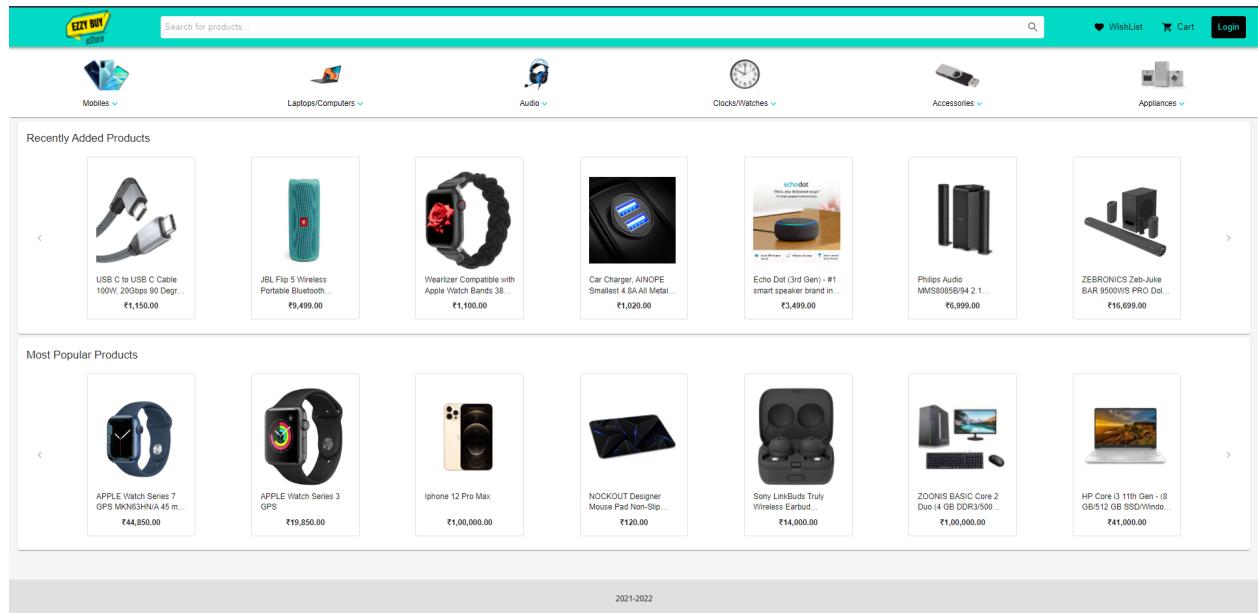


Figure 5: User Activity Diagram

## 11. Interfaces

### 1. Homepage



### 2. Sign Up Screen

The sign-up form includes fields for First Name, Last Name, Email Address, Password, and Confirm Password. A large teal 'SIGN UP' button is at the bottom. A link 'Already have an account? Sign in' is located below the button.

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## 2.1. Various Constraints on SignUp Form

The screenshot shows a 'Sign up' form with the following fields and validation message:

- First Name: Akshay
- Last Name: Deopurkar
- Email Address: akshay@gmail.com
- Password: (redacted)
- Confirm Password: (redacted)

A red validation message at the bottom left of the form states: "Password length must be at least 8 characters".

**SIGN UP**

[Already have an account? Sign in](#)

Copyright © Ezzy\_Buy\_2022

The screenshot shows a 'Sign up' form with the following fields and validation message:

- First Name: Akshay
- Last Name: Deopurkar
- Email Address: akshay@gmail.com
- Password: (redacted)
- Confirm Password: \*

A red validation message at the bottom center of the form states: "Password and Confirm Password field should match".

**SIGN UP**

[Already have an account? Sign in](#)

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## 2.2. On successful registration



## 3. Login Page

The login page has a light gray background. At the top center is a teal circular icon containing a white padlock symbol. Below it, the word "Sign in" is centered in a large, dark gray font. Below the title are two input fields: one for "Email Address" containing "akshay@gmail.com" and another for "Password" containing a series of asterisks. To the right of the password field is a "Remember me" checkbox, which is currently unchecked. Below these fields is a large teal button with the text "SIGN IN" in white capital letters. At the bottom of the page, there are two links: "Forgot password?" and "Don't have an account? Sign Up". The footer contains the copyright notice "Copyright © Ezzy\_Buy\_2022".

## 4. After Login

The home page features a teal header bar with the "EZZY BUY" logo on the left, a search bar in the center, and user profile information ("WishList", "Cart", and "Akshay") on the right. Below the header is a navigation menu with categories: Mobiles, Laptops/Computers, Audio, Clocks/Watches, Accessories, and Appliances. The main content area is divided into two sections: "Recently Added Products" and "Most Popular Products", each displaying six product cards with images, names, and prices. At the bottom of the page, a thin gray footer bar displays the year "2021-2022".

## 5. Product Page (Adding Product to WishList)

**Wearlizer Compatible with Apple Watch Bands 38mm 40mm 41mm 42mm 44mm 45mm Slim Elastic Braided Women Solo Loop Strap Wristband Stretchy Woven Replacement Bracelet Accessories for iWatch Series SE 7 6 5 4 3 2 1**

**₹1,100.00**  
Inclusive Of All Taxes

0 ★  
Qty 1

**BUY NOW** **ADD TO CART**

**Description**  
The thin watch bands for iWatch is stylish with special stretchable braided design, makes it a perfect decoration to brighten up your watch. The fashion style and various colors can be perfectly matched with your different styles of clothes, highlight you unique taste.

**Highlights**

Material	polyester
Novel Design	The thin watch bands for iWatch is stylish with special stretchable braided design, makes it a perfect decoration to brighten up your watch. The fashion style and various colors can be perfectly matched with your different styles of clothes, highlight you unique taste.
Size	4 available sizes for your choices, XS: Fit 5.3"-5.9" (135mm-150mm) wrist; S: Fit 5.9"-6.5" (150mm-165mm) wrist; M: Fit 6.5"-7.1" (165mm-180mm) wrist; L: Fit 7.1"-7.7" (180mm-195mm) wrist. Please measure the wrist size accurately before purchasing and choose the right watch size (38mm/40mm or 42mm/44mm).
Comfy & Stretchy	Made of 100% elastic woven polyester, lightweight, breathable and durable to provide you more comfortable and well-pleasing wearing experience. Compatible with apple watch cute stretchy band and fits snugly without constriction.
Compatible Models	The Wearlizer slim elastic bands are compatible with Apple watch 38mm 40mm 41mm 42mm 44mm 45mm Series 7 6 5 4 3 2 1 SE. It is a perfect gift for birthday, Christmas, Valentine's Day, Mother's Day for family and friends.
Easy Installation & Removal	Compatible with Apple watch bands for women come with stainless steel adapters on both ends, which locks onto your watch precisely and securely, enjoy the comfort and security of solo loop bands. No Buckle, easy to put on or take off.

2021-2022

**Wearlizer Compatible with Apple Watch Bands 38mm 40mm 41mm 42mm 44mm 45mm Slim Elastic Braided Women Solo Loop Strap Wristband Stretchy Woven Replacement Bracelet Accessories for iWatch Series SE 7 6 5 4 3 2 1**

**₹1,100.00**  
Inclusive Of All Taxes

0 ★  
Qty 1

**BUY NOW** **ADD TO CART**

**Description**  
The thin watch bands for iWatch is stylish with special stretchable braided design, makes it a perfect decoration to brighten up your watch. The fashion style and various colors can be perfectly matched with your different styles of clothes, highlight you unique taste.

**Highlights**

Material	polyester
Novel Design	The thin watch bands for iWatch is stylish with special stretchable braided design, makes it a perfect decoration to brighten up your watch. The fashion style and various colors can be perfectly matched with your different styles of clothes, highlight you unique taste.
Size	4 available sizes for your choices, XS: Fit 5.3"-5.9" (135mm-150mm) wrist; S: Fit 5.9"-6.5" (150mm-165mm) wrist; M: Fit 6.5"-7.1" (165mm-180mm) wrist; L: Fit 7.1"-7.7" (180mm-195mm) wrist. Please measure the wrist size accurately before purchasing and choose the right watch size (38mm/40mm or 42mm/44mm).
Comfy & Stretchy	Made of 100% elastic woven polyester, lightweight, breathable and durable to provide you more comfortable and well-pleasing wearing experience. Compatible with apple watch cute stretchy band and fits snugly without constriction.
Compatible Models	The Wearlizer slim elastic bands are compatible with Apple watch 38mm 40mm 41mm 42mm 44mm 45mm Series 7 6 5 4 3 2 1 SE. It is a perfect gift for birthday, Christmas, Valentine's Day, Mother's Day for family and friends.
Easy Installation & Removal	Compatible with Apple watch bands for women come with stainless steel adapters on both ends, which locks onto your watch precisely and securely, enjoy the comfort and security of solo loop bands. No Buckle, easy to put on or take off.

2021-2022

## 6. WishList(Adding Product to Cart from WishList)



## 7. Adding Multiple quantities of a product to cart from Product Page.

**JBL Flip 5 Wireless Portable Bluetooth Speaker, JBL Signature Sound with Powerful Bass Radiator, Vibrant Colors with Rugged Fabric Design, JBL PartyBoost, IPX7 Waterproof & Type C (Without Mic, Teal)**

**₹9,499.00**  
Inclusive Of All Taxes

Quantity: 5

**ADD TO CART**

Successfully added product to cart.

**Description**

SIGNATURE SOUND. Enjoy JBL Pure Bass Sound with Party Boost, driven by Wearlizer Bands in a compact package 12 HOURS PLAYTIME. Keep the music going longer with 12 hours of battery life. With audio settings IPX7 WATERPROOF rated, the Flip 5 allows you to enjoy music in rain or at your pool party PARTY BOOST. PartyBoost allows you to pair two JBL PartyBoost-compatible speakers together for stereo sound or link multiple JBL PartyBoost-compatible speakers to pump up your party TOUGH AND RUGGED: Covered with Durable Fabric material along with Rubber housing, the Flip 5 is little gem for outdoors WHAT'S IN THE BOX: 1 x JBL Flip 5, 1 x Type C USB cable, 1 x Safety Sheet, 1 x Quick Start Guide, 1 x Warranty Card BATTERY CAPACITY: 4000 mAh | Charging Time: 2.5 Hrs

**Highlights**

Brand	JBL
Manufacturer	Harman International Industries, Inc
Model	Flip 5
Model Name	Flip
Product Dimensions	6.9 x 18.1 x 7.4 cm, 540 Grams
Batteries	1 Lithium Metal batteries required. (included)
Item Model Number	Flip 5

## 8. Cart Page

### Akshay's Cart

<b>Wearlizer Compatible With Apple Watch Bands 38mm 40mm 41mm 42mm 44mm 45mm Slim Elastic Braided...</b>		<b>SubTotal: ₹1,100.00</b>
Price: ₹1,100.00	- 1 +	
<b>Order Summary</b>		
<b>Items</b>	<b>2</b>	
<b>Subtotal</b>	<b>₹48,595.00</b>	
<b>Proceed To Buy</b>		

<b>JBL Flip 5 Wireless Portable Bluetooth Speaker, JBL Signature Sound With Powerful Bass Radiator, Vibrant...</b>		<b>SubTotal: ₹47,495.00</b>
Price: ₹9,499.00	- 5 +	

## 9.1. Checkout Page(Add new Address)

**Checkout**

① Select Address    ② Review your order    ③ Process Payment    ④ Order Status

Addresses:  
No Addresses Available

**CLOSE** \*Selected address will be both billing & shipping address

Shipping address

Full name \*

Address line 1 \*

Address line 2

Landmark

City \*

State \*

Pin code \*

Country

Mobile \*

Address Type

**ADD**

**CANCEL** **NEXT**

**Checkout**

① Select Address    ② Review your order    ③ Process Payment    ④ Order Status

Addresses:  
No Addresses Available

**CLOSE** \*Selected address will be both billing & shipping address

Shipping address

Full name \*

Address line 1 \*

Address line 2

Landmark

City \*

State \*

Pin code \*

Country

Mobile \*

Address Type

**ADD**

**CANCEL** **NEXT**

## 9.2. Checkout Page(Select Address)

The screenshot shows the EZZY Buy eStore Checkout process at step 1: Select Address. The page has a header "Checkout" and a progress bar with four steps: 1. Select Address, 2. Review your order, 3. Process Payment, and 4. Order Status. Step 1 is highlighted with a teal circle. Below the progress bar, there's a section titled "Addresses:" containing a single address entry:

**Akshay Deopurkar**  
204, Padman Sarkar,  
Manvelpada Road,  
Opp. Nidan, Virar,  
Maharashtra, INDIA  
401305,  
Mobile: 9876543210

At the bottom, there are buttons for "ADD ADDRESS" (teal), "CANCEL" (light blue), and "NEXT" (teal).

## 10. Checkout Page(Placing Order)

The screenshot shows the EZZY Buy eStore Checkout process at step 2: Review your order. The page has a header "Checkout" and a progress bar with four steps: 1. Select Address, 2. Review your order, 3. Process Payment, and 4. Order Status. Step 2 is highlighted with a teal circle. Below the progress bar, there's a section titled "Order summary" showing two items:

- Wearlizer Compatible With Apple Watch Bands 38mm 40mm 41mm 42mm 44mm 45mm Slim Elastic Braided Women Solo...**  
Price: ₹1,100.00  
Quantity: 1  
SubTotal: ₹1,100.00
- JBL Flip 5 Wireless Portable Bluetooth Speaker, JBL Signature Sound With Powerful Bass Radiator, Vibrant Colors With...**  
Price: ₹9,499.00  
Quantity: 5  
SubTotal: ₹47,495.00

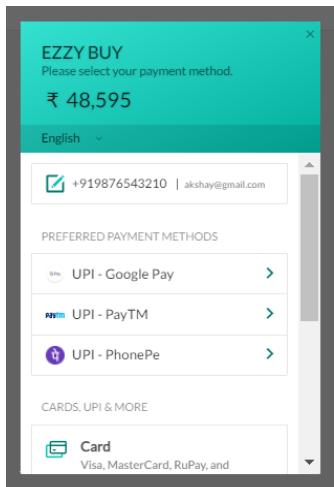
Below the order summary, there's a breakdown of shipping and billing information:

**Total** ₹48,595.00

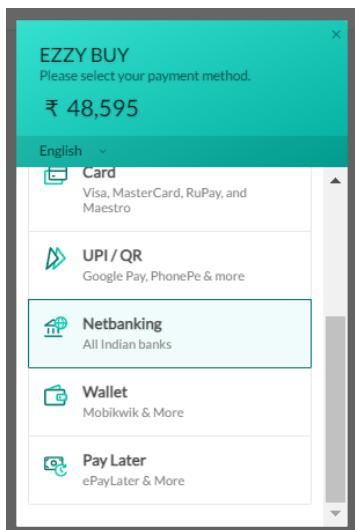
<b>Shipping</b>	<b>Billing</b>
<b>Akshay Deopurkar</b>	<b>Akshay Deopurkar</b>
204, Padman Sarkar, Manvelpada Road, Opp. Nidan, Virar, Maharashtra, 401305, INDIA, 9876543210	204, Padman Sarkar, Manvelpada Road, Opp. Nidan, Virar, Maharashtra, 401305, INDIA, 9876543210

At the bottom, there are buttons for "CANCEL" (light blue), "BACK" (light blue), and "PLACE ORDER" (teal).

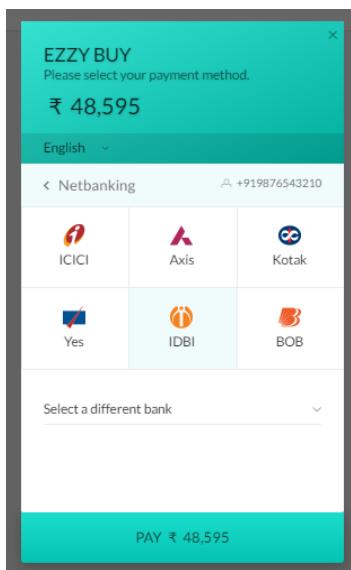
## 11. RazorPay Popup



### 11.1. Selection Payment Method(NetBanking)



## 11.2. Selecting Bank(IDBI)



## 12. Dummy Bank Page for transaction(Selection Success for successful Payment)

1

### Welcome to Razorpay Software Private Ltd Bank

This is just a demo bank page.

You can choose whether to make this payment successful or not:

[Success](#)

[Failure](#)

## 13. Payment Successful Page

Checkout

Select Address   Review your order   Process Payment   Order Status

**Payment Successful**

Your order with order id #order\_Jlo4IS0UIF9clE has been successfully placed.  
Payment has been successfully processed with transaction id #pay\_Jlo53DNvuaW824

DOWNLOAD INVOICE   DONE

Copyright © Ezzy\_Buy\_2022

14. Cart is emptied after successful order

Akshay's Cart

Your cart is empty. [Continue Shopping](#)

Order Summary

Items	0
Subtotal	₹0.00

[Proceed To Buy](#)

15. Order Page

My Orders

Order Id : 6256a50d984c49445acb4399 Status : Placed

Wearizer Compatible With Apple Watch Bands 38mm 40mm 41mm...		
Price: ₹1,100.00	Quantity: 1	SubTotal: ₹1,100.00
JBL Flip 5 Wireless Portable Bluetooth Speaker, JBL Signature Soun...		
Price: ₹9,499.00	Quantity: 5	SubTotal: ₹47,495.00

Order Total ₹48,595.00

Order Date : 13/4/2022 [DOWNLOAD INVOICE](#)

## 16. Invoice



## TAX INVOICE

Invoice Date : 13-04-2022  
 Invoice No : INV\_6256a50d984c49445

Billing Address	Shipping Address
Akshay Deopurkar Address Type : HOME 204, Padman Sarkar Manvelpada Road Opp. Nidan Virar Maharashtra, INDIA 401305 9876543210	Akshay Deopurkar Address Type : HOME 204, Padman Sarkar Manvelpada Road Opp. Nidan Virar Maharashtra, INDIA 401305 9876543210

Sr. No	Product	Price (INR)	Quantity (Nos)	Tax (10%)	Sub Total (INR)
1	Wearlizer Compatible with Apple Watch Bands 38mm 40mm 41mm 42mm 44mm 45mm Slim	1000.00	1	100.00	1100.00
2	JBL Flip 5 Wireless Portable Bluetooth Speaker, JBL Signature Sound with Powerful Bass Radiator,	8635.45	5	4317.73	47495.00
TOTAL				4417.73	48595.00

Invoice Value	48595.00 INR
Payment Transaction ID	pay_Jlo53DNvuaW824

Ezzy Buy Pvt. Ltd.  
 C-DAC Innovation Park,  
 Panchavati, Pashan,  
 Pune - 411 008, Maharashtra (India)  
 PAN No: ABC007NAMO  
 GST Registration No: 27AANAMASTE123

For EzzyBuy Pvt. Ltd.

A handwritten signature in black ink, appearing to read "AV Deopurkar".

Authorized Signatory

## 17. Profile Page

**My Profile**

First Name	Akshay
Last Name	Deopurkar

**EDIT**      **CHANGE PASSWORD**

Addresses ^

**Akshay Deopurkar**  
204, Padman Sarkar,  
Manvelpada Road,  
Opp. Nidan, Virar,  
Maharashtra, INDIA  
401305,  
Mobile: 9876543210

**DELETE**

### 17.1. Editing User Details

**My Profile**

First Name	Akshay
Last Name	Deopurkar

**UPDATE**      **CHANGE PASSWORD**

Addresses ^

### 17.2. Changing Password

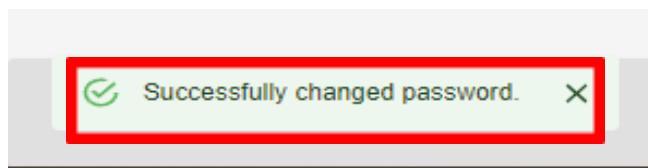
Change Password

Old Password	<input type="password"/> .....
Password	<input type="password"/> .....
Confirm Password	<input type="password"/> .....

**SAVE**      **CANCEL**

Manvelpada Road,  
Opp. Nidan, Virar

### 17.3. Password Change Successful



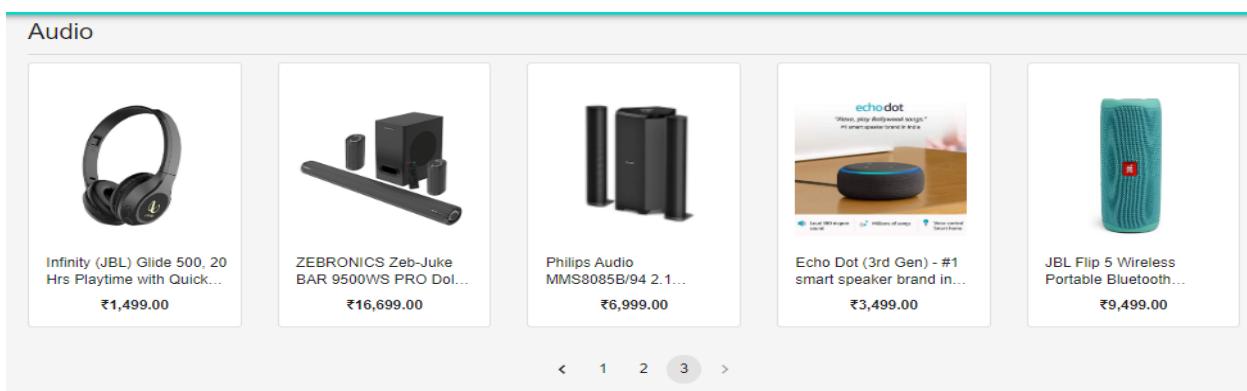
#### 18.1.1. Search By Category(For Audio)

A screenshot of the EZZY Buy eStore homepage. At the top, there is a navigation bar with categories: Mobiles, Laptops/Computers, Audio (which is highlighted with a red box), Clocks/Watches, Accessories, and Appliances. Below the navigation bar, there are sections for "Recently Added Products" and "Most Popular Products". Each product listing includes an image, the product name, and its price. The "Audio" category section shows products like the Sony LinkBuds Truly Wireless Earbuds, boAt BassHeads 182 Wired earphone, realme Buds 2 Wired in-Ear Earphones, boAt Bassheads 242 in-Ear Wired Earphones, and realme Buds Classic Wired in-Ear Earphones.

#### 18.1.2. Result Page 1 of Search by Category

A screenshot of the search results page for the "Audio" category. The page title is "Audio". It displays five product cards: 1. Sony LinkBuds Truly Wireless Earbuds (₹14,000.00). 2. boAt BassHeads 182 Wired earphone (Active... ₹449.00). 3. realme Buds 2 Wired in-Ear Earphones with Mic... ₹599.00). 4. boAt Bassheads 242 in-Ear Wired Earphones wi... ₹499.00). 5. realme Buds Classic Wired in-Ear Earphones... ₹399.00). Below the cards is a navigation bar with page numbers 1, 2, 3, and >.

### 18.1.3. Result Page 3 of Search by Category



### 18.2.1. Search by Sub Category(For Computer Accessories)

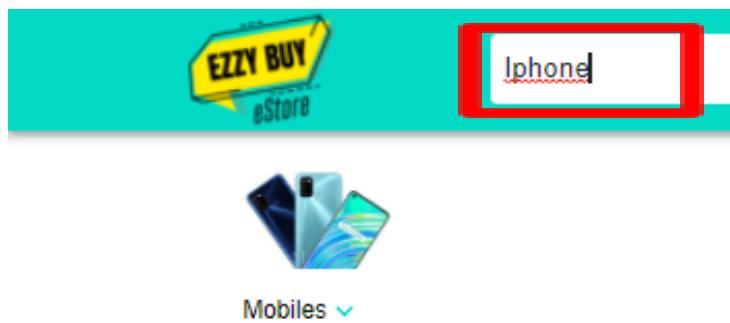
The screenshot shows a teal header bar with a search icon, a heart icon labeled 'WishList', a shopping cart icon labeled 'Cart', and a user profile 'Akshay'. Below the header, there are two main categories: 'Accessories' (with a USB drive icon) and 'Appliances' (with a speaker icon). A red rectangular box highlights the 'Accessories' section. A dropdown menu for 'Accessories' is open, showing three options: 'Mobile Accessories', 'Computer Accessories' (which is highlighted in grey), and 'Miscellaneous Accessories'. Below the dropdown, there is a small image of a keyboard.

### 18.2.2. Result Page of Search By Sub Category

**Computer Accessories**

Logitech M510 Wireless Computer Mouse for PC... ₹2,120.00	SAMSUNG 970 EVO Plus SSD 2TB - M.2 NVMe... ₹15,621.00	Logitech C920x HD Pro Webcam, Full HD... ₹6,122.00	HP 24mh FHD Monitor - Computer Monitor with... ₹15,000.00	Sceptre 24" Professional Thin 75Hz 1080p LED... ₹10,500.00
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### 18.3.1 Search By name(For Iphone)



### 18.3.2. Result Page for Search by name

#### Showing Results For *Iphone*

 Car Charger, AINOPE Smallest 4.8A All Metal... ₹1,020.00	 USB Charger, 4-Port 45W Wall Charger, Mobile... ₹935.00	 Mgnaooi Magnetic Case for iPhone 13 Pro Max... ₹1,800.00	 Iphone 12 Pro Max ₹1,00,000.00
--	---	--	---

## 12. Future Scope

The future scope of the project is as follows:

1. We can implement this application using elastic search for finding and displaying more relevant results through query search.
2. We can add personalized filters according to the product category to find a more precise product list.
3. We can implement comparisons of related products so that the user finds it convenient to go for the right product as per their needs.
4. Different sorting criteria like Sort by Price, Sort by latest first, etc. So that the user can view the list according to the required criterion.
5. Creating a separate admin microservice to keep admin processes separate from that of customers.
6. Creating an Admin UI which can be used for implementing all admin APIs.
7. Adding vendors to products and creating a separate API base for them to perform actions like managing inventory, managing orders, etc.
8. We can host the application on a more advanced online platform for better performance of the website.
9. Integrating multiple load balancers to distribute loads of the system.
10. We can improve the working of UI for a better user experience.

The above-mentioned points are the enhancements that can be done to increase the applicability and usage of the project. We have left all the options open so that if there are any other future requirements in the application by the user for the enhancement of the system then it is possible to implement them.

## 13. References

1. <https://docs.oracle.com/en/java/javase/11/docs/api/index.html>
2. <https://docs.spring.io/spring-framework/docs/5.2.2.RELEASE/javadoc-api/>
3. <https://docs.spring.io/spring-data/jpa/docs/current/reference/html/#reference>
4. <https://youtu.be/MU2e6-CC3Pc>
5. Google for resolving minor errors and runtime exceptions in code.

## 14. Conclusion

Our project is only a humble venture to satisfy the needs to manage the project work. Several user-friendly coding has also been adopted. This package shall prove to be a powerful package in satisfying all the basic requirements of an e-commerce web application.

In the end, it is concluded that we have made effort on the following points:

1. A description of the background and context of the project and its relation to work already done in this area.
2. Converting the aims and objectives of the project to a working model.
3. To describe the Purpose, Scope, and applicability of the application.
4. We define the problem on which we are working in the project.
5. We describe the requirement Specifications of the system and the actions that can be done on this system.
6. We understand the problem domain and produce a model of the system, which describes operations that can be performed on the system.
7. We included features and operations in detail, including screen layouts.
8. We designed the user interface and security issues related to the system.

Finally, the system is implemented and tested according to test cases.