



B.M.S. COLLEGE OF ENGINEERING

(Autonomous college under VTU)

Bull Temple Rd, Basavanagudi, Bengaluru, Karnataka 560019

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Department of Computer Applications

Report is submitted for fulfillment of AAT Report in the subject

**“Advanced Web Programming”
(22MCA2PEAW)**

By

THARUN M A (1BM23MC106)

SUNIL A (1BM23MC101)

Under the Guidance

Prof. V PADMAPRIYA
(Assistant Professor)

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1. Title:

Project Report on [**EG-SHOP**: Online Grocery Store]

2. Introduction:

This report introduces the concept of **EG-SHOP**, an online grocery platform designed to revolutionize the way consumers purchase everyday essentials. E-G SHOP provides a convenient, user-friendly shopping experience where individuals can browse, compare, and purchase groceries from the comfort of their homes. The platform is designed to cater to a diverse range of customers by offering a wide variety of products, including fresh produce, packaged goods, and household items, all delivered directly to the customer's doorstep.

By providing a seamless and efficient online shopping experience, E-G SHOP aims to make grocery shopping more accessible and time-efficient, empowering users to manage their shopping needs with ease. With a focus on sustainability and affordability, the platform ensures that customers receive high-quality products while supporting eco-friendly practices such as minimal packaging and local sourcing.

3. Objectives:

The primary objective of **EG-SHOP** is to create a comprehensive online grocery platform that provides a hassle-free shopping experience for consumers. The key goals include:

1. **Convenience and Accessibility:** EG-SHOP aims to offer an easy-to-navigate platform that allows users to shop for groceries at their convenience, anytime and anywhere. The platform is designed to be accessible on various devices, ensuring that all consumers, including those in underserved areas, can access the service.
2. **Product Variety and Quality:** EG-SHOP ensures a wide range of grocery items, from fresh produce to pantry staples, catering to different dietary preferences and cultural needs. Quality control measures are implemented to ensure that customers receive fresh and high-quality products consistently.
3. **Affordability and Value:** The platform prioritizes offering competitive prices, regular promotions, and discounts to make grocery shopping affordable for everyone. Loyalty programs and subscription services are also available to enhance customer satisfaction.
4. **Sustainability and Local Sourcing:** EG-SHOP is committed to promoting sustainable practices by minimizing waste, using eco-friendly packaging, and partnering with local farmers and suppliers. This not only reduces the carbon footprint but also supports the local economy.

4. Roles of Team Members

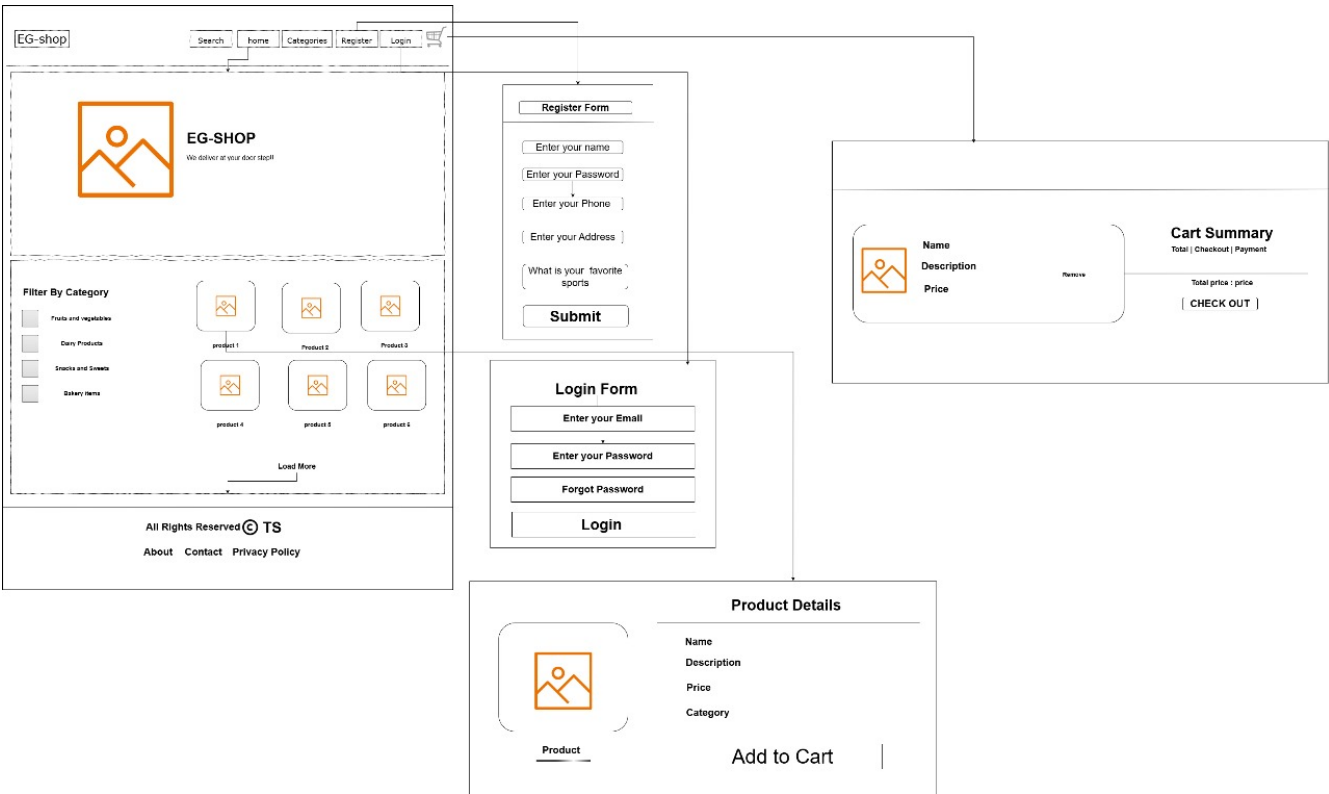
1. Team Member 1: [THARUN M A] – Front End Developer:

- Developed the online grocery store's user interface, ensuring the website is responsive, intuitive, and easy to navigate for users.
- Responsible for implementing the visual and interactive elements of the platform, including product listings, shopping cart functionality, and checkout process.

2. Team Member 2: [SUNIL A] – Backend Developer:

- Designed and maintained the server-side logic of the online store, focusing on building APIs for product management, order processing, and user authentication using Node.js and Express.
- Responsible for integrating the database, handling payment gateways, and ensuring secure transactions within the platform.

5. WIRE FRAME AND NAVIGATION:



6. STATES/EVENTS FOR EACH ELEMENT:

1. Button (e.g., Login, Submit, Add to Cart)

- **States:**
 - **Default:** The button appears normally, ready for interaction (e.g., "Login," "Submit," "Add to Cart").
 - **Hover:** The button changes color or style when the user hovers over it with the cursor.
 - **Active/Pressed:** When clicked, the button might change appearance (e.g., darken) to indicate the action is being processed.
 - **Disabled:** If the button is inactive (e.g., login disabled until a valid input is given), it will appear grayed out or faded.
 - **Focused:** If navigated to via keyboard, the button has a focus state (e.g., a border highlight).
- **Events:**
 - **Click:** Triggers a function when the button is clicked (e.g., submit form, add product to cart).
 - **Mouse Enter/Leave:** The button reacts when the mouse hovers or leaves (e.g., background color changes).
 - **Keydown/Keyup:** When pressing Enter or Space on the keyboard while the button is focused.

2. Input Fields (e.g., Login, Register forms)

- **States:**
 - **Default:** The fields show placeholder text, waiting for user input (e.g., "Enter your email").
 - **Focused:** The input field is highlighted or outlined when the user starts typing in it.
 - **Disabled:** If fields are disabled (e.g., incomplete form sections), they appear grayed out.
 - **Error:** Input fields might turn red or show error text when invalid data is entered (e.g., wrong email format).
 - **Valid:** When the input meets all validation criteria (e.g., password or email format), it could show a green checkmark.
- **Events:**
 - **Change:** When the value of the input changes (e.g., as the user types).
 - **Focus/Blur:** When the user enters or leaves the input field.
 - **Keydown/Keyup:** Triggered when the user presses or releases a key while focused on the input.
 - **Submit:** When the form is submitted via the Enter key.

3. Card (e.g., Product cards, Cart summary)

- **States:**
 - **Default:** Cards display the product's name, price, and image.
 - **Hover:** When the user hovers over the card, the product card may zoom in slightly or change style to indicate it is clickable.
 - **Active:** If the card is clickable (e.g., product details), it may change color or border upon selection.
- **Events:**
 - **Click:** A click on the card opens product details or adds the product to the cart.

- **Mouse Enter/Leave:** Cards can display a hover effect when the user moves the mouse over or away from them.

7. THE MONGODB DATABASE STRUCTURE:

User:

```
{
  "_id": ObjectId("66db24f11420086f7b3eddc"),
  "name": "test",
  "email": "test@test.com",
  "password":
"52651054SPSXR17.P3MCBOWOVTW3eFg71.Xhny4Xi6R241jIlcUfPzwgn.M2",
  "phone": "123456789",
  "address": "Bengaluru ams",
  "role": null,
  "createdAt": ISODate("2024-09-05T16:22:39.766Z"),
  "updatedAt": ISODate("2024-09-06T16:22:39.766Z")
}

{
  "_id": ObjectId("66e1f362f71799293061faba"),
  "name": "tham",
  "email": "tharun@gmail.com",
  "password": "52651tharunsCvcQ0hvSUzxQBFukkCVUYuZpsgVZjz4c0iiLMzdeA17xo",
  "phone": "987654321",
  "address": "bengaluru",
  "answer": "tennis",
  "role": null,
  "createdAt": ISODate("2024-09-11T19:45:38.110Z"),
  "updatedAt": ISODate("2024-09-11T19:46:24.051Z")
}
```

CATEGORIES:

```
{  
  "_id": ObjectId("101sttaccacccabdad"),  
  "name": "EG-Shop",  
  "slug": "eg-shop"  
}
```

```
{  
  "_id": ObjectId("102ccaddadacccbada"),  
  "name": "Fresh Produce",  
  "slug": "fresh-produce"  
}
```

```
{  
  "_id": ObjectId("103ddbbacbdaaccacb"),  
  "name": "Dairy Products",  
  "slug": "dairy-products"  
}
```

PRODUCTS:

```
{  
  "_id": ObjectId("05ec47557"),  
  "name": "Apple",  
  "slug": "apple",  
  "description": "Fresh and organic apples",  
  "price": 2.5,  
}
```



```
"category": ObjectId("63cclaffes@eccca0d2d"),
"quantity": 100,
"createdAt": ISODate("2023-02-04T12:34:14.816Z"),
"updatedAt": ISODate("2023-02-04T12:34:14.610Z")
}
```

```
{
  "_id": ObjectId("05ec47558"),
  "name": "Milk",
  "slug": "milk",
  "description": "1 liter of organic milk",
  "price": 1.2,
  "category": ObjectId("63cclaffes@eccca0d2d"),
  "quantity": 50,
  "createdAt": ISODate("2023-02-04T12:34:14.816Z"),
  "updatedAt": ISODate("2023-02-04T12:34:14.610Z")
}
```

```
{
  "_id": ObjectId("05ec47559"),
  "name": "Bread",
  "slug": "bread",
  "description": "Whole grain bread loaf",
  "price": 1.0,
  "category": ObjectId("63cclaffes@eccca0d2d"),
  "quantity": 200,
  "createdAt": ISODate("2023-02-04T12:34:14.816Z"),
  "updatedAt": ISODate("2023-02-04T12:34:14.610Z")
}
```

ORDERS:

```
{
  "_id": ObjectId("63ee298535f4c225d8e5b927"),
  "products": [
    {
      "productId": ObjectId("63ec47557f4c225d8e5b927"),
      "name": "Apple",
      "quantity": 5,
      "price": 2.5
    },
    {
      "productId": ObjectId("63ec47558f4c225d8e5b928"),
      "name": "Milk",
      "quantity": 2,
      "price": 1.2
    }
  ],
  "payment": {
    "method": "Credit Card",
    "transactionId": "7h28fa8d92b7f",
    "amount": 15.6,
    "status": "Paid"
  },
  "buyer": ObjectId("63d81ca3526bf24d4894f5d8"),
  "status": "Not Processed",
  "createdAt": ISODate("2023-02-16T13:03:01.700Z"),
  "updatedAt": ISODate("2023-02-16T13:03:01.700Z"),
  "__v": 0}
```

8. WEB PROFILE LINK:

1. <https://zesty-belekoy-be82f1.netlify.app/>