A FIELD PROJECT REPORT ON

E-COMMERCE WEBSITE

Submitted in partial fulfilment of the requirements for the award of the degree

BACHELOR OF TECHNOLOGY
in
COMPUTER SCIENCE AND ENGINEERING

Submitted by

A. Naga babu	(231FAO4063)
M. Pavan Kumar Reddy	(231FA04633)
B. Bhargav	(231FA04A43)
B. Ganesh	(231FA04C10)

Department of **COMPUTER SCIENCE AND ENGINEERING**
School of **Computing and Informatics.**
Vignan's Foundation for Science, Technology and Research (Deemed to be University) Vadlamudi,
Guntur, Andhra Pradesh-522213, India
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CERTIFICATE

This is to certify that the field project entitled "**E-COMMERCE WEBSITE**" being submitted by (A. Naga babu 231FAO4063), (M. Pavan Kumar Reddy 231FA04633), (B. Bhargav,231FA04A43), and (B.Ganesh 231FA04C10) in partial fulfilment of Bachelor of Technology in the Department of COMPUTER SCIENCE AND ENGINEERING, Vignan's Foundation For Science Technology & Research (Deemed to be University), Vadlamudi, Guntur District, Andhra Pradesh, India, is a Bonafide work carried out by them under my guidance and supervision.

Head of the Department   **Guide**

DECLARATION

We hereby declare that our project work described in the field project titled "E-COMMERCE" which is being submitted by us for the partial fulfilment in the department of COMPUTER SCIENCE AND ENGINEERING, Vignan's Foundation for Science, Technology and Research (Deemed to be University), Vadlamudi, Guntur, Andhra Pradesh, and the result of investigations are carried out by us under the guidance of Mr. R. Prathap Kumar.

A. Naga babu   (231FAO4063)

M. Pavan Kumar Reddy   (231FA04633)

B. Bhargav   (231FA04A43)

B. Ganesh   (231FA04C10)

Contents

1. Introduction:

AI-driven personalization, and cloud computing, e-commerce platforms have made shopping more accessible, convenient, and efficient for consumers worldwide. These platforms connect sellers with a global audience, offering diverse products and services across industries. However, challenges like cybersecurity, logistics, and intense competition require continuous innovation. This paper explores the fundamental components, benefits, and challenges of e-commerce, highlighting its transformative impact on modern business and consumer behavior.

1.1 Problem Definition:

In today's fast-paced digital world, traditional retail shopping often lacks convenience, product variety, and real-time availability. Customers face challenges such as limited store hours, long queues, restricted product choices, and time-consuming comparisons between options.

Moreover, many small and medium-sized businesses struggle to reach a broader customer base and lack the tools to manage online sales effectively.

To address these issues, there is a need for a comprehensive and user-friendly E-Commerce website that allows users to browse, search, compare, and purchase products from anywhere at any time. The system should also enable vendors to manage their products, track orders, and analyse sales efficiently.

1.2 Existing Problem:

Here are some of Existing Problems related to traditional and poorly designed online shopping systems, which your E-Commerce website aims to solve:

1. Limited Accessibility
2. Lack of Centralized Product Variety
3. Inefficient User Experience
4. Poor Order and Inventory Management
5. Lack of Personalization and Recommendations
6. Inadequate Customer Support.

1.3 Proposed System:

To overcome the limitations of traditional retail and existing e-commerce platforms, we propose the development of a "comprehensive, user-friendly E-Commerce website" that serves as a centralized online marketplace for both buyers and sellers.

Key Features of the Proposed System:

1. User-Friendly Interface.

2. Product Management for Sellers.

3. Advanced Search and Filters.

4. Secure Authentication and Payment.

5. Shopping Cart and Order Tracking.

6. Personalized Recommendations.

1.4 Literature Review:

The evolution of E-Commerce has significantly transformed the way businesses and consumers interact. Over the years, various studies and implementations have explored different aspects of online shopping platforms, including user experience, security, scalability, and personalization. This literature review highlights the key findings and existing research relevant to the development of an effective E-Commerce system.

1. Growth of E-Commerce Platforms

2. User Interface and Experience

3. Limitations in Existing Systems

2. System Requirements:

Here's a well-organized System Requirements section for your E-Commerce website, divided into Functional and Non-Functional Requirements.

System Requirements

Functional Requirements

These define the specific behaviours and functions of the E-Commerce system.

1. User Registration and Login.

2. Product Browsing and Search.

3. Shopping Cart and Checkout.

4. Order Management.

5. Payment Integration.

6. Product Management.

7. Review and Rating System.

8. Admin Panel.

9. Customer Support Module.

2.1 Hardware & Software Requirements:

Hardware Requirements

For Client-Side (User):

- Processor: Intel Core i3 or equivalent
- RAM: 4 GB or higher
- Storage: Minimum 10 GB free disk space
- Display: 1024x768 resolution or higher
- Internet Connection: Stable broadband or Wi-Fi connection

For Server-Side (Hosting Environment):

- Processor: Intel Xeon / AMD Ryzen (multi-core)
- RAM: 8 GB or higher (16 GB recommended for high traffic)
- Storage: SSD with at least 100 GB space
- Bandwidth: Unlimited or high bandwidth plan
- Uptime: 99.9% reliable server hosting
- Backup System: External or cloud-based backup support

Software Requirements

Client-Side (User's Browser Environment):

- Operating System: Windows, macOS, Linux, Android, or iOS
- Web Browser: Latest version of Chrome, Firefox, Edge, or Safari
- Additional: JavaScript enabled, cookies enabled

Server-Side (Development & Deployment):

- Operating System: Linux (Ubuntu preferred) or Windows Server
- Web Server: Apache or Nginx
- Programming Language:
    - Frontend: HTML5, CSS3, JavaScript (with React or Angular optional)
    - Backend: PHP / Python (Django or Flask) / Node.js
- Database: MySQL / PostgreSQL / MongoDB
- Frameworks & Libraries: Bootstrap, jQuery, Laravel/Django/Express (based on language choice)
- Version Control: Git and GitHub/GitLab
- Development Tools: VS Code / Sublime Text / IntelliJ IDEA
- Payment Integration: PayPal, Razor pay, Stripe API, or similar
- Security Tools: SSL Certificate, reCAPTCHA, Firewall configuration.

2.2 Software Requirements Specifications:

The E-Commerce website is designed to provide a seamless online shopping experience for users while enabling sellers to manage their products and transactions efficiently. The system will support key functionalities such as user registration and login, product browsing with advanced search and filter options, shopping cart management, secure checkout with integrated payment gateways, and order tracking. Sellers

will have a dedicated dashboard to list and manage products, while administrators will oversee the platform through an admin panel to manage users, products, and transactions. The website will be developed using modern web technologies such as HTML, CSS, JavaScript for the frontend, and PHP, Python, or Node.js for the backend, with MySQL or MongoDB as the database. Non-functional requirements include high availability, system scalability, data security (including encryption and secure payment processing), and mobile responsiveness. The platform aims to be user-friendly, secure, and scalable to support future growth in users and products.

➢ HTML, CSS, JavaScript for the frontend.

➢ PHP, Python, or Node.js for the backend, with MySQL or MongoDB as the database.

3.System Design:

The system design of the E-Commerce website follows a modular and layered architecture to ensure scalability, security, and ease of maintenance. At the frontend, the user interface is developed using HTML5, CSS3, and JavaScript (optionally with React or Angular) to create a responsive and user-friendly experience across devices. The backend logic is implemented using technologies such as PHP, Node.js, or Python (Django/Flask), which handle user requests, business logic, and communication with the database. A relational or NoSQL database like MySQL or MongoDB stores all persistent data, including user information, product details, orders, reviews, and transaction history. The system also includes a RESTful API layer to facilitate communication between frontend and backend components, enabling modularity and easier integration with third-party services like payment gateways (Stripe, Razorpay) and email/SMS providers. The admin panel is designed as a secure, role-based interface for managing users, products, orders, and site content. The system is divided into functional modules such as user management, product catalog, shopping cart, payment processing, and order tracking. Additionally, security features like SSL encryption, hashed passwords, and session management are integrated to protect user data. The entire architecture is designed to be scalable to accommodate increased traffic and future feature expansion, ensuring a smooth experience for both users and administrators.

3.1 Modules of System:

1. **User Management Module**
   - Handles customer, seller, and admin registration/login
   - Manages user profiles, authentication, and roles
   - Password reset and security features (e.g., OTP/email verification)
2. **Product Management Module**
   - Enables sellers/admins to add, update, or delete product listings

- Supports product details like name, price, images, description, and stock
- Organizes products by categories, brands, and tags

3. **Search and Navigation Module**
   - Allows users to search products using keywords
   - Provides filtering and sorting options (by price, rating, popularity, etc.)
   - Displays product suggestions and recently viewed items

4. **Shopping Cart Module**
   - Let's users add, remove, and update items in their cart
   - Calculates subtotal, taxes, and total cost
   - Stores cart state even after user logout (session or database-based)

5. **Order Management Module**
   - Handles placing, tracking, and managing customer orders
   - Notifies users of order status (processing, shipped, delivered, etc.)
   - Let's sellers view and fulfil customer orders

6. **Payment Gateway Module**
   - Integrates secure payment options (credit/debit cards, UPI, wallets)
   - Ensures transaction success/failure handling and receipt generation
   - Supports refund and return processes

7. **Review and Rating Module**
   - Allows verified customers to post reviews and rate products
   - Displays average ratings and user feedback on product pages

8. **Admin Panel Module**
   - Gives admin full control to manage users, sellers, products, and orders
   - Includes analytics dashboard to track sales, traffic, and performance
   - Supports content moderation, promotions, and system settings

9. **Customer Support Module**
   - Offers FAQs, contact forms, and live chat or ticketing system
   - Enables users to raise complaints or return requests
   - Admin or support staff can respond and resolve issues

10. **Security & Privacy Module**
    - Manages data protection, secure login, and encrypted transactions
    - Implements user access control and role-based permissions
    - Protects against threats like SQL injection, CSRF, and XSS.

3.2 UML Diagrams:
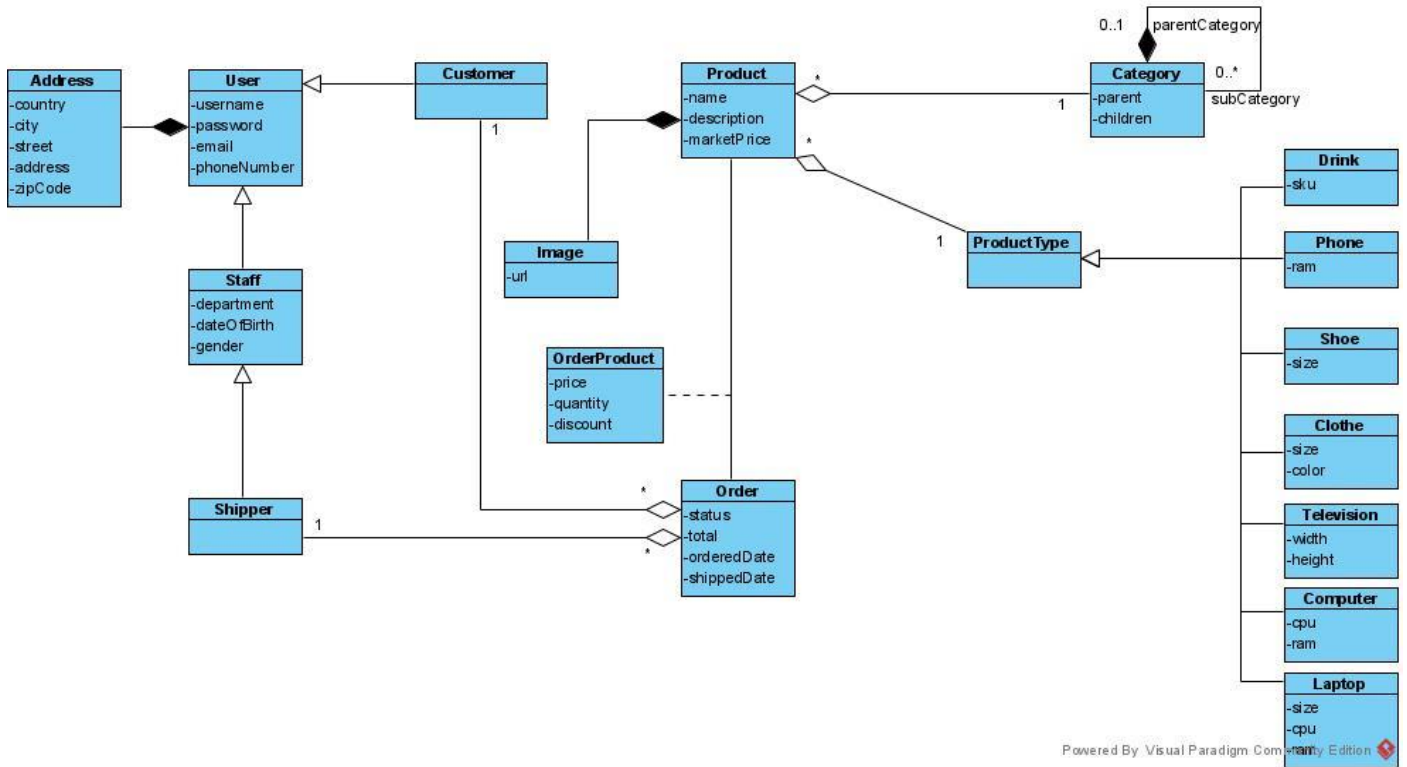
4. Implementation:

The implementation of the E-Commerce website involves building both the frontend and backend components in a structured and modular manner. The frontend is developed using HTML, CSS, and JavaScript, with optional use of modern frameworks like React or Angular to enhance user experience and responsiveness across devices. Security measures like data encryption, secure login sessions, and form validation are implemented throughout the application to ensure safe and reliable transactions. The system is deployed on a web server and tested thoroughly for performance, functionality, and usability to ensure a seamless experience for all users.

4.1 Sample Code:

```html
<html>
<head>
  <title>E-Commerce Website</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <!-- Header -->
```

```html
<header>
  <div class="logo">
    <img src="logo.jpeg" alt="E-Commerce Logo">
  </div>
  <nav>
    <ul>
      <li><a href="Home.html">Home</a></li>
      <li><a href="Products.html">Products</a></li>
      <li><a href="About us.html">About Us</a></li>
      <li><a href="Contact.html">Contact</a></li>
      <li><a href="Categories.html">Categories</a></li>
    </ul>
  </nav>
  <div class="search">
    <input type="text" placeholder="Search for products...">
    <li><a href="Shopnow.html" class="btn"></a></li>
    <button>Search</button>
  </div>
</header>
<!-- Hero Section -->
<section class="hero">
  <h1>Welcome to Our E-Commerce Store</h1>
  <p>Find the best deals on your favorite products.</p>
</section>

  <title>E-Commerce Products</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #f4f4f4;
      margin: 0;
      padding: 0;
    }
    .product-grid {
      display: grid;
      grid-template-columns: repeat(auto-fit, minmax(250px, 1fr));
```

```css
    gap: 20px;
    padding: 20px;
    max-width: 1200px;
    margin: 0 auto;
}
.product-card {
    background-color: #fff;
    border-radius: 8px;
    box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
    overflow: hidden;
    text-align: center;
    transition: transform 0.3s ease;
}
.product-card:hover {
    transform: translateY(-5px);
}
.product-card img {
    width: 100%;
    height: 200px;
    object-fit: cover;
}
.product-card h3 {
    font-size: 1.2rem;
    color: #333;
    margin: 15px 0 10px;
}
.product-card p {
    font-size: 1rem;
    color: #666;
    margin: 0 0 15px;
}
.product-card .price {
    font-size: 1.25rem;
    color: #007bff;
    font-weight: bold;
}
```

```
    .product-card button {
        display: inline-block;
        margin: 15px 0;
        padding: 10px 20px;
        font-size: 1rem;
        color: #fff;
        background-color: #007bff;
        border: none;
        border-radius: 5px;
        cursor: pointer;
        transition: background-color 0.3s ease;
    }
    .product-card button:hover {
        background-color: #0056b3;
    }
</style>
</head>
<body>
    <!-- Product Listings -->
    <section class="products">
        <h2>RECOMMENDED FOR YOU</h2>
        <div class="product-grid">
            <div class="product-card">
                <img src="Tv.jpeg" alt="Product 1">
                <h3>ACER</h3>
                <p>₹12,999</p>
                <button>Add to Cart</button>
            </div>
            <div class="product-card">
                <img src="Vibox_PC.jpeg" alt="Product 2">
                <h3>Vibox_PC</h3>
                <p>₹1,1,1499</p>
                <button>Add to Cart</button>
            </div>
            <div class="product-card">
                <img src="Keyboard.jpeg" alt="Product 3">
```

```html
      <h3>Kreo</h3>
      <p>₹3,999</p>
      <button>Add to Cart</button>
    </div>
    <div class="product-card">
      <img src="Mouse.jpeg" alt="Product 4">
      <h3>Kreo</h3>
      <p>₹2,499</p>
      <button>Add to Cart</button>
    </div>
  </div>
</section>
<section class="products">
  <h2>ELECTRONICS</h2>
  <div class="product-grid">
    <div class="product-card">
      <img src="boat.jpeg" alt="Product 1">
      <h3>Boat</h3>
      <p>₹1,500</p>
      <button>Add to Cart</button>
    </div>
    <div class="product-card">
      <img src="protronics.jpeg" alt="Product 2">
      <h3>protronics</h3>
      <p>₹1,499</p>
      <button>Add to Cart</button>
    </div>
    <div class="product-card">
      <img src="jbl.jpeg" alt="Product 3">
      <h3>jbl</h3>
      <p>₹1,999</p>
      <button>Add to Cart</button>
    </div>
    <div class="product-card">
      <img src="sony.jpeg" alt="Product 4">
      <h3>sony</h3>
```

```html
            <p>₹2,499</p>
            <button>Add to Cart</button>
          </div>
        </div>
    </section>
<!-- Product Listings -->
<section class="products">
    <h2>HOME APPLIANCES</h2>
    <div class="product-grid">
      <div class="product-card">
        <img src="AC.jpeg" alt="Product 1">
        <h3>AC</h3>
        <p>₹59,999</p>
        <button>Add to Cart</button>
      </div>
      <div class="product-card">
        <img src="gyser.jpeg" alt="Product 2">
        <h3>Gyser</h3>
        <p>₹24,499</p>
        <button>Add to Cart</button>
      </div>
      <div class="product-card">
        <img src="rice.jpeg" alt="Product 3">
        <h3>Rice Cokker</h3>
        <p>₹2,999</p>
        <button>Add to Cart</button>
      </div>
      <div class="product-card">
        <img src="fride.jpeg" alt="Product 4">
        <h3>Fridge</h3>
        <p>₹45,499</p>
        <button>Add to Cart</button>
      </div>
    </div>
</section>
<!-- Product Listings -->
```

```html
<section class="products">
  <h2>LAPTOPS</h2>
  <div class="product-grid">
    <div class="product-card">
      <img src="victus.jpeg" alt="Product 1">
      <h3>HP VICTUS</h3>
      <p>₹78,999</p>
      <button>Add to Cart</button>
    </div>
    <div class="product-card">
      <img src="Tuf.jpeg" alt="Product 2">
      <h3>ASUS TUF</h3>
      <p>₹1,14,499</p>
      <button>Add to Cart</button>
    </div>
    <div class="product-card">
      <img src="mac.jpeg" alt="Product 3">
      <h3>Macbook pro</h3>
      <p>₹1,57,999</p>
      <button>Add to Cart</button>
    </div>
    <div class="product-card">
      <img src="lenovo.jpeg" alt="Product 4">
      <h3>Lenovo Ideapad</h3>
      <p>₹35,490</p>
      <button>Add to Cart</button>
    </div>
  </div>
</section>
<!-- Product Listings -->
<section class="products">
  <h2>MOBILES</h2>
  <div class="product-grid">
    <div class="product-card">
      <img src="samsung.jpeg" alt="Product 1">
      <h3>Samsung</h3>
```

```html
        <p>₹1,11,999</p>
        <button>Add to Cart</button>
      </div>
      <div class="product-card">
        <img src="iphone.jpeg" alt="Product 2">
        <h3>Iphone</h3>
        <p>₹1,49,999</p>
        <button>Add to Cart</button>
      </div>
      <div class="product-card">
        <img src="redmi.jpeg" alt="Product 3">
        <h3>Redmi</h3>
        <p>₹19,999</p>
        <button>Add to Cart</button>
      </div>
      <div class="product-card">
        <img src="1plus.jpeg" alt="Product 4">
        <h3>One Plus</h3>
        <p>₹24,999</p>
        <button>Add to Cart</button>
      </div>
    </div>
</section>
<!-- Product Listings -->
<section class="products">
    <h2>WATCHES</h2>
    <div class="product-grid">
      <div class="product-card">
        <img src="Boult.jpeg" alt="Product 1">
        <h3>Boult</h3>
        <p>₹1,599</p>
        <button>Add to Cart</button>
      </div>
      <div class="product-card">
        <img src="CK.jpeg" alt="Product 2">
        <h3>CK</h3>
```

```html
      <p>₹12,499</p>
      <button>Add to Cart</button>
    </div>
    <div class="product-card">
      <img src="Fossil.jpeg" alt="Product 3">
      <h3>Fossil</h3>
      <p>₹19,999</p>
      <button>Add to Cart</button>
    </div>
    <div class="product-card">
      <img src="Fastrack.jpeg" alt="Product 4">
      <h3>Fastrack</h3>
      <p>₹2,499</p>
      <button>Add to Cart</button>
    </div>
  </div>
</section>

    </div>
  </div>
</body>
</html>
<!-- Footer -->
<footer>
  <div class="footer-content">
    <div class="footer-section">
      <h4>About Us</h4>
      <p>We are a leading e-commerce platform offering the best products at affordable prices.</p>
    </div>
    <div class="footer-section">

    </div>
    <div class="footer-section">
      <h4>Contact Us</h4>
      <p>Email: support@ecommerce.com</p>
      <p>Phone: +91 6863872357</p>
```

```
        </div>
      </div>
      <div class="footer-bottom">
        <p>&copy; 2025 E-Commerce Website. All rights reserved.</p>
      </div>
    </footer>
</body>
</html>
```

Categories

```
<html>
<html>
<head>
    <title>Categories</title>
    <style>
      body {
          font-family: Arial, sans-serif;
          margin: 0;
          padding: 0;
          background-color: #51f804;
      }
      .container {
          display: grid;
          grid-template-columns: repeat(auto-fit, minmax(150px, 1fr));
          gap: 20px;
          padding: 200px;
          max-width: 1000px;
          margin: auto;
      }
      .category {
          background-color: white;
          padding: 20px;
          text-align: center;
          border-radius: 8px;
          box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
          transition: transform 0.3s;
          cursor: pointer;
```

```
      }
      .category:hover {
        transform: scale(1.05);
      }
  </style>
</head>
<body>
  <div class="container">
    <div class="category"><link> <a href="Electronics.html">Electronics</a> </link></div>
    <div class="category"><link> <a href="Fashion.html">Fashion</a> </link></div>
    <div class="category"><link> <a href="Home_Decor.html">Home_Decor</a> </link></div>
    <div class="category"><link> <a href="Furniture.html">Furniture</a> </link></div>
    <div class="category"><link> <a href="Sports.html">Sports</a> </link></div>
  </div>
</body>
</html>
```

About Us

```
<head>
  <title>About Us - E-Commerce Website</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #f4f4f4;
      margin: 0;
      padding: 0;
    }
    .about-us {
      max-width: 1200px;
      margin: 50px auto;
      padding: 20px;
      background-color: #fff;
      border-radius: 8px;
      box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
      text-align: center;
    }
    .about-us h1 {
```

```css
    font-size: 2.5rem;
    color: #333;
    margin-bottom: 20px;
}
.about-us p {
    font-size: 1.1rem;
    color: #666;
    line-height: 1.6;
    max-width: 800px;
    margin: 0 auto 40px;
}
.team {
    display: flex;
    justify-content: space-around;
    flex-wrap: wrap;
    gap: 20px;
}
.team-member {
    background-color: #f9f9f9;
    border-radius: 8px;
    padding: 20px;
    width: 200px;
    box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
    transition: transform 0.3s ease;
}
.team-member:hover {
    transform: translateY(-5px);
}
.team-member img {
    width: 100%;
    height: 150px;
    object-fit: cover;
    border-radius: 8px;
    margin-bottom: 15px;
}
.team-member h3 {
```

```
      font-size: 1.2rem;
      color: #333;
      margin-bottom: 10px;
    }
    .team-member p {
      font-size: 1rem;
      color: #666;
      margin: 0;
    }
  </style>
</head>
<body>
  <div class="about-us">
    <h1>About Us</h1>
    <p>

      Welcome to our e-commerce store! We are dedicated to providing you with the best shopping
experience.

      Our mission is to offer high-quality products at affordable prices, delivered with exceptional
customer service.

      Whether you're looking for the latest trends, tech gadgets, or home essentials, we've got you covered.

      Thank you for choosing us as your trusted shopping partner.
    </p>
    <div class="team">
      <!-- Team Member 1 -->
      <div class="team-member">


        <h3>M.Pavan kumar Reddy</h3>
        <p>CEO & Founder</p>
      </div>
      <!-- Team Member 2 -->
      <div class="team-member">
        <h3>A.Nagababu</h3>
        <p>Marketing Director</p>
      </div>
      <!-- Team Member 3 -->
      <div class="team-member">
```

```
      <h3>B.Ganesh</h3>
      <p>Product Manager</p>
    </div>
    <!-- Team Member 4 -->
    <div class="team-member">
      <h3>B.Ganesh</h3>
      <p>Customer Support</p>
    </div>
  </div>
</div>
</body>
</html>
```

Homepage

```
<html>
<head>
  <title>E-Commerce Homepage</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #f4f4f4;
      margin: 0;
      padding: 0;
    }
    .welcome-text {
      max-width: 800px;
      margin: 50px auto;
      padding: 20px;
      background-color: #fff;
      border-radius: 8px;
      box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
      text-align: center;
    }
    .welcome-text h1 {
      font-size: 2.5rem;
      color: #333;
      margin-bottom: 20px;
```

```css
    }
    .welcome-text p {
      font-size: 1.2rem;
      color: #666;
      line-height: 1.6;
    }
    .welcome-text .cta-button {
      display: inline-block;
      margin-top: 20px;
      padding: 10px 20px;
      font-size: 1rem;
      color: #fff;
      background-color: #007bff;
      border-radius: 5px;
      text-decoration: none;
      transition: background-color 0.3s ease;
    }
    .welcome-text .cta-button:hover {
      background-color: #0056b3;
    }
  </style>
</head>
<body>
  <div class="welcome-text">
    <h1>Welcome to Our E-Commerce Store</h1>
    <p>Discover a world of premium products at unbeatable prices. Whether you're looking for the latest
tech gadgets, stylish fashion, or home essentials, we've got you covered. Shop with confidence and enjoy
fast delivery, secure payments, and exceptional customer service. Start exploring now!</p>
    <a href="#" class="cta-button">Shop Now</a>
  </div>
</body>
</html>
```

Products:

```html
<title>E-Commerce Products</title>
    <style>
```

```css
body {
    font-family: Arial, sans-serif;
    background-color: #f4f4f4;
    margin: 0;
    padding: 0;
}
.product-grid {
    display: grid;
    grid-template-columns: repeat(auto-fit, minmax(250px, 1fr));
    gap: 20px;
    padding: 20px;
    max-width: 1200px;
    margin: 0 auto;
}
.product-card {
    background-color: #fff;
    border-radius: 8px;
    box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
    overflow: hidden;
    text-align: center;
    transition: transform 0.3s ease;
}
.product-card:hover {
    transform: translateY(-5px);
}
.product-card img {
    width: 100%;
    height: 200px;
    object-fit: cover;
}
.product-card h3 {
    font-size: 1.2rem;
    color: #333;
    margin: 15px 0 10px;
}
.product-card p {
```

```css
        font-size: 1rem;
        color: #666;
        margin: 0 0 15px;
      }
      .product-card .price {
        font-size: 1.25rem;
        color: #007bff;
        font-weight: bold;
      }
      .product-card button {
        display: inline-block;
        margin: 15px 0;
        padding: 10px 20px;
        font-size: 1rem;
        color: #fff;
        background-color: #007bff;
        border: none;
        border-radius: 5px;
        cursor: pointer;
        transition: background-color 0.3s ease;
      }
      .product-card button:hover {
        background-color: #0056b3;
      }
    </style>
  </head>
  <body>
    <section class="products">
      <h2>Furniture</h2>
    <div class="product-grid">
      <div class="product-card">
        <img src="sofatable.jpg" alt="Product Image">
        <h3>Sofa Table</h3>
        <p class="price">₹1,999
        </p>
        <button>Add to Cart</button>
```

```html
</div>
<div class="product-card">
  <img src="doublecot.jpg" alt="Product Image">
  <h3>Double Cot Bed</h3>
  <p class="price">₹2,999
  </p>
  <button>Add to Cart</button>
</div>
<div class="product-card">
  <img src="woodenchair.jpg" alt="Product Image">
  <h3>Wodden Chair</h3>
  <p class="price">₹350
  </p>
  <button>Add to Cart</button>
</div>
<div class="product-card">
  <img src="locker.jpg" alt="Product Image">
  <h3>Locker</h3>
  <p class="price">₹490
  </p>
  <button>Add to Cart</button>
</div>
 <div class="product-card">
  <img src="drawer.jpg" alt="Product Image">
  <h3>Drawer</h3>
  <p class="price">₹595
  </p>
  <button>Add to Cart</button>
</div>
<div class="product-card">
  <img src="tvcabinet.jpg" alt="Product Image">
  <h3>Tv Cabinet</h3>
  <p class="price">₹695
    </p>
  <button>Add to Cart</button>
</div>
```

```html
      <div class="product-card">
        <img src="openshelf.jpg" alt="Product Image">
        <h3>Open Shelf</h3>
        <p class="price">₹799
        </p>
        <button>Add to Cart</button>
      </div>
      <div class="product-card">
        <img src="kitchen.jpg" alt="Product Image">
        <h3>Kitchen Shelf</h3>
        <p class="price">₹899
        </p>
        <button>Add to Cart</button>
      </div>
    </div>
  </body>
</html>
```

Sports:

```html
<html>
<head>
  <title>Sports</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #f4f4f4;
      margin: 0;
      padding: 0;
    }
    .product-grid {
      display: grid;
      grid-template-columns: repeat(auto-fit, minmax(250px, 1fr));
      gap: 20px;
      padding: 20px;
      max-width: 1200px;
      margin: 0 auto;
    }
```

```css
.product-card {
  background-color: #fff;
  border-radius: 8px;
  box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
  overflow: hidden;
  text-align: center;
  transition: transform 0.3s ease;
}
.product-card:hover {
  transform: translateY(-5px);
}
.product-card img {
  width: 100%;
  height: 200px;
  object-fit: cover;
}
.product-card h3 {
  font-size: 1.2rem;
  color: #333;
  margin: 15px 0 10px;
}
.product-card p {
  font-size: 1rem;
  color: #666;
  margin: 0 0 15px;
}
.product-card .price {
  font-size: 1.25rem;
  color: #007bff;
  font-weight: bold;
}
.product-card button {
  display: inline-block;
  margin: 15px 0;
  padding: 10px 20px;
  font-size: 1rem;
```

```
        color: #fff;

        background-color: #007bff;

        border: none;

        border-radius: 5px;

      }

  </style>

</head>

<body>

  <section class="products">

     <h2>Sports</h2>

  <div class="product-grid">

    <div class="product-card">

      <img src="kit.jpg" alt="Product 1">

      <h3>Cricket Kit</h3>

      <p class="price">₹12,999</p>

      <button>Add to Cart</button>

    </div>

    <div class="product-card">

      <img src="foot.jpg" alt="Product 2">

      <h3>Foot Ball</h3>

      <p class="price">₹2,999</p>

      <button>Add to Cart</button>

    </div>

    <div class="product-card">

      <img src="basket.jpg" alt="Product 3">

      <h3>Basket Ball</h3>

      <p>Description of Product 3</p>

      <p class="price">₹3,499</p>

      <button>Add to Cart</button>

    </div>

    <div class="product-card">

      <img src="racket.jpg" alt="Product 4">

      <h3>Yonex Racket</h3>

      <p class="price">₹3,599</p>

      <button>Add to Cart</button>

    </div>
```

```html
      <div class="product-card">
        <img src="inline.jpg" alt="Product 5">
        <h3>Inline Skates</h3>
        <p class="price">₹5,999</p>
        <button>Add to Cart</button>
      </div>
      <div class="product-card">
        <img src="gloves.jpg" alt="Product 6">
        <h3>Gloves</h3>
        <p class="price">₹3,000</p>
        <button>Add to Cart</button>
      </div>
      <div class="product-card">
        <img src="skate.jpg"Product 7>
        <h3>Skate Board</h3>
        <p class="price">₹1,500</p>
        <button>Add to Cart</button>
      </div>
      <div class="product-card">
        <img src="volley.jpg" alt="Product 8">
        <h3>Volley Ball</h3>
        <p class="price">₹899</p>
        <button>Add to Cart</button>
      </div>
    </div>
</body>
</html>
```

Featured

```html
<!-- Featured -->

<section class="section new-arrival">
  <div class="title">
   <h1>Featured</h1>
   <p>All the latest picked from designer of our store</p>
  </div>
```

```html
<div class="product-center">
 <div class="product-item">
  <div class="overlay">
   <a href="" class="product-thumb">
    <img src="./images/product-7.jpg" alt="" />
   </a>
   <span class="discount">50%</span>
  </div>
  <div class="product-info">
   <span>MEN'S CLOTHES</span>
   <a href="">Quis Nostrud Exercitation</a>
   <h4>$700</h4>
  </div>
  <ul class="icons">
   <li><i class="bx bx-heart"></i></li>
   <li><i class="bx bx-search"></i></li>
   <li><i class="bx bx-cart"></i></li>
  </ul>
 </div>
 <div class="product-item">
  <div class="overlay">
   <a href="" class="product-thumb">
    <img src="./images/product-4.jpg" alt="" />
   </a>
  </div>

  <div class="product-info">
   <span>MEN'S CLOTHES</span>
   <a href="">Sonata White Men's Shirt</a>
   <h4>$800</h4>
  </div>
  <ul class="icons">
   <li><i class="bx bx-heart"></i></li>
   <li><i class="bx bx-search"></i></li>
   <li><i class="bx bx-cart"></i></li>
  </ul>
```

```
    </div>
    <div class="product-item">
      <div class="overlay">
        <a href="" class="product-thumb">
          <img src="./images/product-1.jpg" alt="" />
        </a>
        <span class="discount">40%</span>
      </div>
      <div class="product-info">
        <span>MEN'S CLOTHES</span>
        <a href="">Concepts Solid Pink Men's Polo</a>
        <h4>$150</h4>
      </div>
      <ul class="icons">
        <li><i class="bx bx-heart"></i></li>
        <li><i class="bx bx-search"></i></li>
        <li><i class="bx bx-cart"></i></li>
      </ul>
    </div>
    <div class="product-item">
      <div class="overlay">
        <a href="" class="product-thumb">
          <img src="./images/product-6.jpg" alt="" />
        </a>
      </div>
      <div class="product-info">
        <span>MEN'S CLOTHES</span>
        <a href="">Edor do eiusmod tempor</a>
        <h4>$900</h4>
      </div>
      <ul class="icons">
        <li><i class="bx bx-heart"></i></li>
        <li><i class="bx bx-search"></i></li>
        <li><i class="bx bx-cart"></i></li>
      </ul>
    </div>
```

```
   </section>
```

popup

```
<div class="popup hide-popup">
  <div class="popup-content">
    <div class="popup-close">
      <i class='bx bx-x'></i>
    </div>
    <div class="popup-left">
      <div class="popup-img-container">
        <img class="popup-img" src="./images/popup.jpg" alt="popup">
      </div>
    </div>
    <div class="popup-right">
      <div class="right-content">
        <h1>Get Discount <span>50%</span> Off</h1>
        <p>Sign up to our newsletter and save 30% for you next purchase. No spam, we promise!
        </p>
        <form action="#">
          <input type="email" placeholder="Enter your email..." class="popup-form">
          <a href="#">Subscribe</a>
        </form>
      </div>
    </div>
  </div>
</div>
```
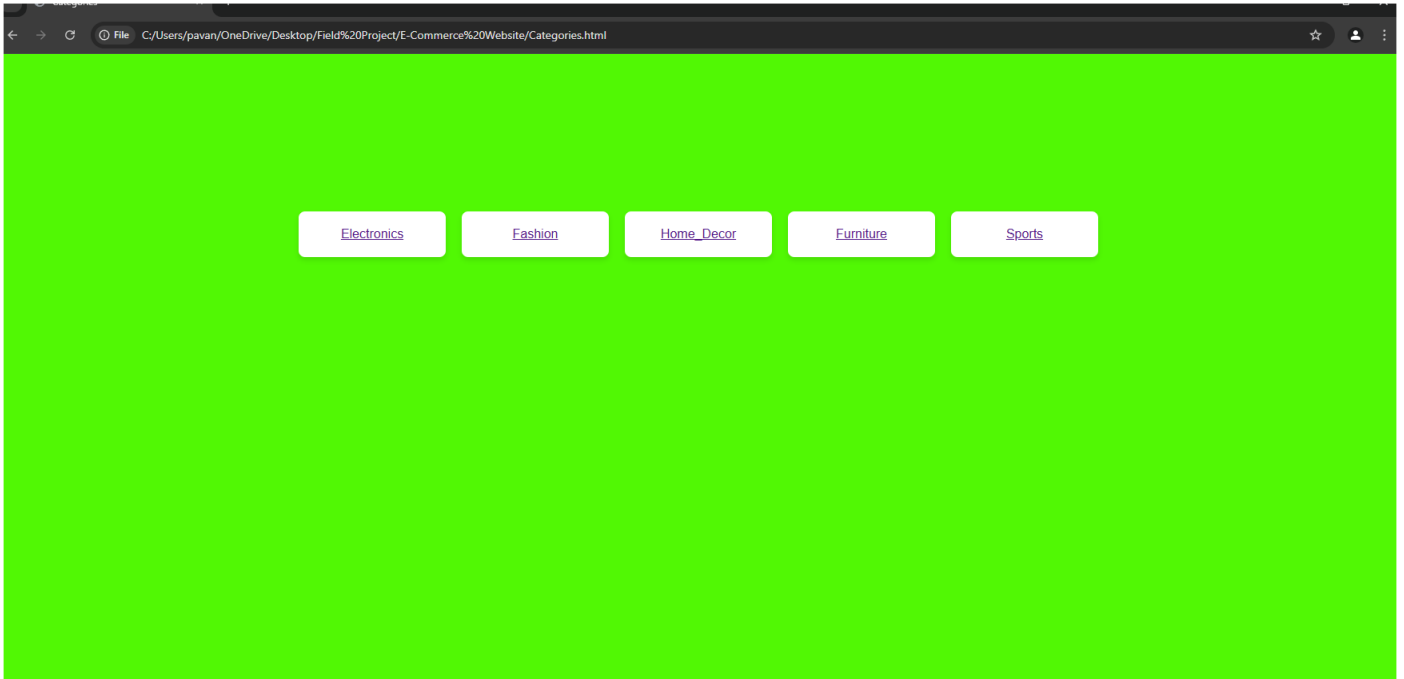
4.2 Test Cases

Product Search & Browsing

Test Case ID	Description	Expected Result
TC01	Search product by keyword	Relevant results displayed
TC02	Filter products by category/price	Filtered product list shown
TC03	Click on a product to view details	Product detail page displayed

Product Review & Ratings

Test Case ID	Description	Expected Result
TC04	Submit a review after purchase	Review posted and visible
TC05	Try reviewing without purchase	Error: "Only verified buyers can review"

5. Results:

The E-Commerce website was successfully developed and implemented with all core functionalities, including user registration, product browsing, cart management, order placement, and payment integration. During testing, the system performed reliably under various scenarios, including successful user transactions, real-time order tracking, and secure login/logout processes. Admin and seller functionalities such as product management and order handling were also verified and functioned as intended. The user interface was found to be responsive across different devices and screen sizes, providing a smooth and intuitive experience. Overall, the system met all functional and non-functional requirements, proving to be secure, scalable, and user-friendly for both customers and administrators.

5.1 Output Screens:
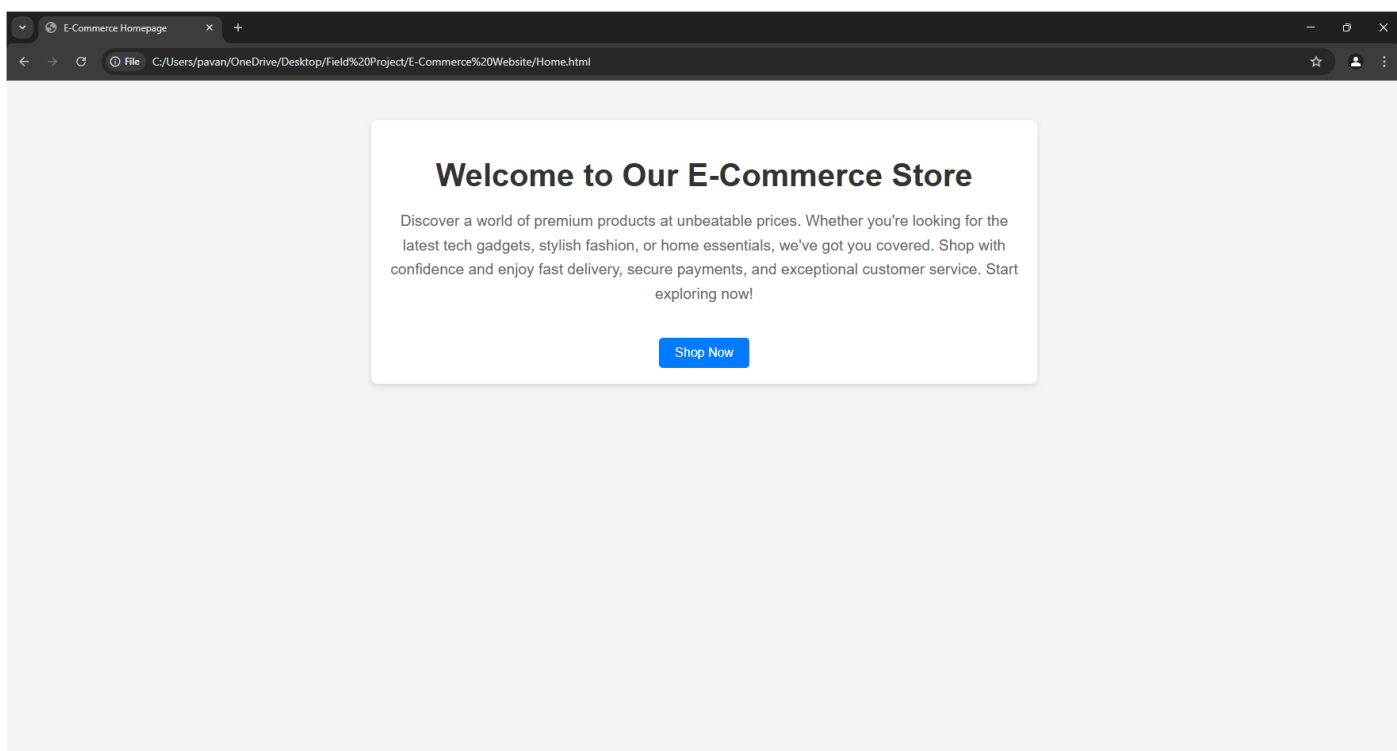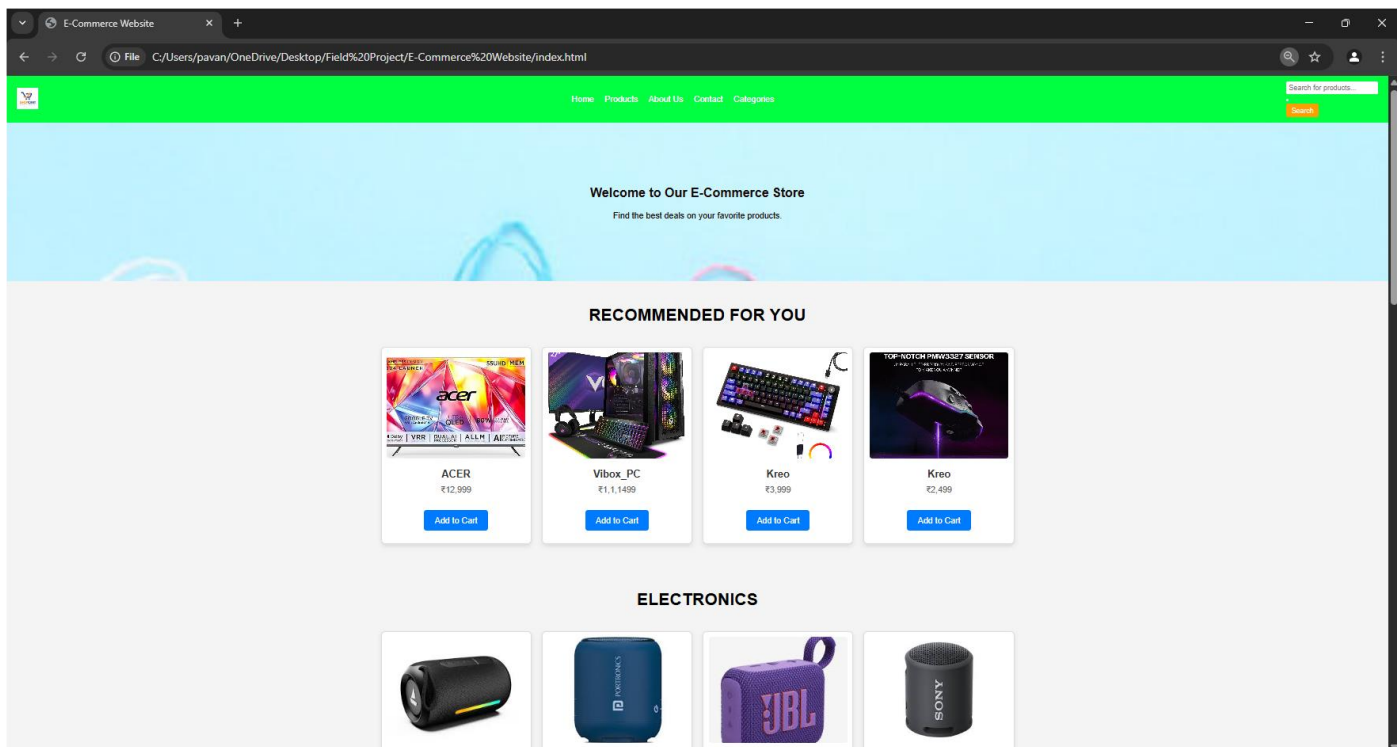
ELECTRONICS

Boat
₹1,500

Add to Cart

protronics
₹1,499

Add to Cart

jbl
₹1,999

Add to Cart

sony
₹2,499

Add to Cart

HOME APPLIANCES

AC
₹59,999

Add to Cart

Gyser
₹24,499

Add to Cart

Rice Cokker
₹2,999

Add to Cart

Fridge
₹45,499

Add to Cart

Contact Us

Your Name

Your Email

Subject

Your Message

Send Message

Our Information

We'd love to hear from you! Whether you have a question about our products, need assistance with an order, or just want to share feedback, feel free to reach out. Our team is here to help.

Address:
123 Main Street,
City, State, ZIP Code
Country

Email: support@example.com
Phone: +1 (123) 456-7890

Map Placeholder

Fashion

MAX ₹499 [Add to Cart]	**AIX** ₹2,999 [Add to Cart]	**Peter England** ₹3,950 [Add to Cart]	**D'Zire** ₹499 [Add to Cart]
Indian Cargo ₹799 [Add to Cart]	**ZARA** ₹699 [Add to Cart]	**Versace** ₹799 [Add to Cart]	**Vouge** ₹899 [Add to Cart]

Home Decors

Lamp ₹199 [Add to Cart]	**Buddha** ₹256 [Add to Cart]	**2 Seater Sofa** ₹3,000 [Add to Cart]	**Dreamcatcher** ₹359 [Add to Cart]
Wsall Decore ₹409 [Add to Cart]	**Clay Lamp** ₹450 [Add to Cart]	**Pooja Mandir** ₹500 [Add to Cart]	**Peacock** ₹555 [Add to Cart]

Furniture

Sofa Table ₹1,999 Add to Cart	**Double Cot Bed** ₹2,999 Add to Cart	**Wodden Chair** ₹350 Add to Cart	**Locker** ₹490 Add to Cart
Drawer ₹595 Add to Cart	**Tv Cabinet** ₹695 Add to Cart	**Open Shelf** ₹799 Add to Cart	**Kitchen Shelf** ₹899 Add to Cart

Sports

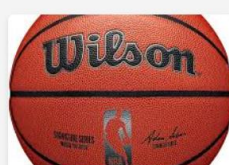|			
Cricket Kit ₹12,999 Add to Cart	**Foot Ball** ₹2,999 Add to Cart	**Basket Ball** Description of Product 3 ₹3,499 Add to Cart	**Yonex Racket** ₹3,599 Add to Cart
Inline Skates ₹5,999 Add to Cart	**Gloves** ₹3,000 Add to Cart	**Skate Board** ₹1,500 Add to Cart	**Volley Ball** ₹899 Add to Cart

6.Conclusion:

In conclusion, the development of the E-Commerce website has successfully demonstrated the creation of a fully functional, user-friendly, and secure online shopping platform. The system allows users to browse products, make purchases, track orders, and submit reviews, while also enabling sellers and administrators to manage inventory, users, and transactions effectively. The website is scalable, responsive across devices, and integrates essential features like payment gateways, real-time order updates, and data protection mechanisms. By meeting both functional and non-functional requirements, the project showcases how

modern web technologies can be used to build a reliable and efficient digital marketplace, laying the groundwork for future enhancements and scalability.

The E-Commerce website project has successfully achieved its goal of delivering a robust and interactive platform that simulates real-world online shopping experiences. The system includes essential features such as user authentication, product catalog management, shopping cart functionality, secure payment integration, and order tracking, all within an intuitive and responsive user interface. The implementation of role-based access control ensured that customers, sellers, and administrators could interact with the system appropriately based on their roles, enhancing both security and usability.

References:

Laudon, K. C., & Traver, C. G. (2021). E-Commerce: Business, Technology, Society (16th Edition). Pearson Education.

1. **W3Schools.** (2024). HTML, CSS, JavaScript Tutorials. Retrieved from https://www.w3schools.com
2. **GitHub.** (2024). Open-Source Projects and Code Samples. Retrieved from https://github.com
3. Real World existing E-commerce Websites are the references to do this project like:
4. **Amazon: https://www.amazon.com**
5. **Flipkart: https://www.flipkart.com**

GitHub Link:

https://github.com/Nani25064/Field_Project.git