ShopEZ: One-Stop Shop for Online Purchases – Project Documentation

# 1. Project Title

ShopEZ: One-Stop Shop for Online Purchases

# 2. Abstract / Overview

ShopEZ is a full-stack e-commerce web application designed to provide users with a seamless online shopping experience. The platform allows customers to browse products, add them to a cart, place orders, and make payments. It also includes an admin panel for managing products, orders, and users.

# 3. Objectives

- Build a user-friendly and secure online shopping platform.

- Implement core e-commerce features (cart, orders, payments).

- Provide admin features for store management.

- Use modern web technologies (MERN stack).

# 4. Technologies Used

Frontend: React.js, HTML5, CSS3, JavaScript

Backend: Node.js, Express.js

Database: MongoDB

Tools & Platforms: GitHub, VS Code, Postman, Vercel/Render/Netlify

Authentication: JWT (JSON Web Token)

# 5. System Architecture

- Frontend (React.js): Handles UI/UX, routing, and API calls.

- Backend (Node.js + Express): Provides RESTful APIs, handles business logic.

- Database (MongoDB): Stores product data, user data, orders.

- Authentication: Uses JWT for user sessions and role-based access.

# 6. Modules

a. User Module:

- Signup / Login

- Browse Products

- Search & Filter

- Add to Cart

- Place Orders

b. Admin Module:

- Login

- Add/Edit/Delete Products

- View & Manage Orders

- View Registered Users

# 7. Features

- 🛒 Product Listing

- 🔍 Search & Filters

- 🧾 Cart & Checkout

- 💳 Payment Gateway Integration (Mock/Real)

- 🔐 Secure Authentication

- 📊 Admin Dashboard

# 8. Screenshots

(You can paste your UI screenshots here or add them as attachments if making a report)

# 9. Installation Instructions

```bash

# Clone the repository

git clone https://github.com/ganeshNaidu432ECE/ShopEZ-One-Stop-Shop-for-Online-Purchases.git

cd ShopEZ-One-Stop-Shop-for-Online-Purchases

# For Backend

cd backend

npm install

npm start

# For Frontend

cd frontend

npm install

npm start

```

# 10. Future Enhancements

- Real-time chat support

- Wishlist and product reviews

- Personalized recommendations

- PWA (Progressive Web App) support

# 11. Conclusion

ShopEZ demonstrates how a complete e-commerce platform can be built using the MERN stack. It covers essential shopping functions and lays a strong foundation for further development and enhancements.

# 12. References

- GitHub Repository – ShopEZ: https://github.com/ganeshNaidu432ECE/ShopEZ-One-Stop-Shop-for-Online-Purchases/tree/main

- React Documentation: https://reactjs.org

- Node.js Documentation: https://nodejs.org

- MongoDB Documentation: https://www.mongodb.com/docs

- JWT Introduction: https://jwt.io