

ONE STOP SHOP FOR ONLINE PURCHASES

1. Introduction

Project Title: One Stop Shop for Online Purchases

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Overview:

One Stop Shop for Online Purchases is a full-stack e-commerce web application designed to provide multiple online services in a single platform. This system allows users to shop for products, order groceries, book food delivery, and access other online services in one centralized application. It provides secure login, product browsing, cart management, order tracking, and online payment integration.

2. Project Overview

Purpose:

To develop a centralized, convenient, and secure platform where users can perform multiple online purchases without switching between different applications.

Key Features:

- User Registration and Login
- Product Browsing (Electronics, Clothes, Groceries)
- Add to Cart & Wishlist
- Secure Online Payment
- Order Tracking
- Admin Panel for Product Management
- Search & Filter Options

3. System Architecture

Frontend: React.js / HTML, CSS, JS

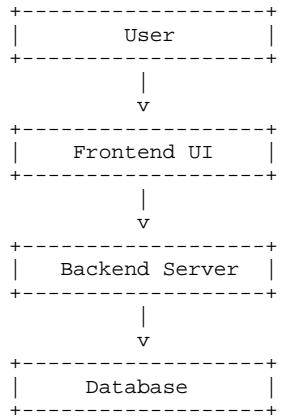
- Responsive UI Design
- Product Listing Page
- Shopping Cart Interface
- User Dashboard
- Axios for API communication

Backend: Node.js + Express.js

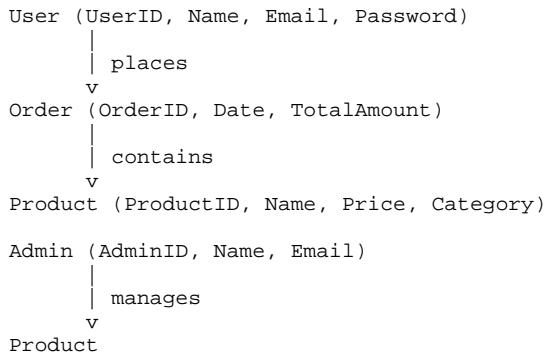
- REST API Architecture
- User Authentication (JWT)
- Order Management
- Payment Gateway Integration

Database: MongoDB
Collections: Users, Products, Orders, Payments, Admin

4. System Architecture Diagram



5. ER Diagram



6. Folder Structure

Frontend:

```
client/  
  public/  
  src/  
    components/  
    pages/  
    context/  
    App.js
```

Backend:

```
server/  
  controllers/  
  routes/  
  models/  
  config/  
  middleware/  
  server.js
```

7. API Documentation

```
POST /api/users/register  
POST /api/users/login  
GET /api/products  
POST /api/cart/add  
POST /api/orders/create  
GET /api/orders/:id  
POST /api/payments/order  
POST /api/payments/verify
```

8. Authentication & Authorization

- JWT Based Authentication
- Role-Based Access (User / Admin)
- Secure Password Hashing
- Protected Routes

9. Testing

Tools Used:

- Postman (API Testing)
- Browser Developer Tools
- Manual Testing

Testing Includes:

- Login/Logout Validation
- Cart Functionality
- Payment Success & Failure
- Order Confirmation

10. Future Enhancements

- AI-based Product Recommendation
- Chatbot Support
- Real-time Order Tracking
- Mobile Application Version
- Multiple Payment Gateway Support

11. Conclusion

One Stop Shop for Online Purchases provides a complete online shopping solution in a single platform. It simplifies online purchasing by integrating multiple services into one application while maintaining security and user convenience. This project demonstrates full-stack development skills including frontend design, backend API development, database management, and payment integration.