

## Sprint Plan for Backend

### Sprint 1: 02/17/2025 – 03/03/2025 (15 days)

Focus: Project Setup, Authentication, and Product Management (Backend)

#### Tasks:

- Project Initialization
  - Set up the Express.js backend
  - Configure MongoDB database (Mongoose schemas)
  - Setup environment variables & config files
  - Implement custom error handling and middleware
- User Authentication
  - Implement JWT-based refresh token authentication
  - API for user registration & login
  - API for admin login with role-based access control
  - Implement forgot password & reset password
- Product Management (Backend API)
  - Define Product Model (Liquor categories, ABV, volume, price, etc.)
  - Implement CRUD APIs for products
  - Implement upload feature for product images (Multer / Cloud storage)

#### Sprint Review:

- Test all APIs using Postman
  - Ensure authentication & product APIs are functional
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## **Sprint 2: 03/04/2025 – 03/19/2025 (16 days)**

Focus: Cart, Orders, and Payment Integration

### **Tasks:**

- Shopping Cart API
  - API for adding/removing items to/from cart
  - API for viewing cart contents & total price
- Checkout & Payment Gateway
  - Integrate Stripe, Razorpay, or PayPal API
  - API for placing orders & handling payment success/failure
  - Apply discount coupons & promo codes
- Order Management
  - API to track order status (Processing, Shipped, Delivered)
  - Implement order history API
  - API for order cancellation & refund processing

### **Sprint Review:**

- Ensure secure payment transactions
  - Test cart & order flow using mock users
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### **Sprint 3: 03/20/2025 – 04/04/2025 (16 days)**

Focus: Delivery Management, Notifications, and Reviews

#### **Tasks:**

- Delivery & Logistics
  - API to assign delivery driver
  - Implement location-based shipping restrictions (if required)
- Notifications & Emails
  - Implement email notifications (order updates, promotions)
  - Implement push notifications for offers & order tracking
- Reviews & Ratings
  - API to allow users to review products
  - Admin moderation of user-generated reviews

#### **Sprint Review:**

- Test delivery status updates
  - Ensure notification system is working correctly
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## **Sprint 4: 04/05/2025 – 04/19/2025 (15 days)**

Focus: Admin Panel, Security, and Deployment

### **Tasks:**

- Admin Panel Backend
  - API for managing users, orders, and products
  - API for sales analytics & reports
  - Implement discount & promotional campaign management
- Security & Compliance
  - Implement age verification system
  - Restrict shipping based on local liquor laws
  - Secure API endpoints (rate limiting, CORS, authentication enforcement)
- Final Testing & Deployment
  - End-to-end backend testing
  - Deploy backend to cloud server
  - Ensure smooth integration with frontend

### **Sprint Review:**

- Final security & compliance check
- Test full e-commerce workflow

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## **Final Deliverable (04/19/2025)**

Fully functional liquor shop e-commerce backend with authentication, product management, payments, order tracking, and admin panel.