

## Project Plan: E-Commerce Marketplace

### Pages:

1. Home Page
  - Displays featured items, promotions and categories.
  - Search bar for quick navigation.
  - Banner or carousel for deals and promotions.
2. Product Listing Page
  - Displays all products under a category.
  - Sorting and filtering options (e.g., by price, rating, popularity).
3. Product Details Page
  - Show detailed information about a product.
  - Includes images, descriptions, price, reviews, and an “Add to Cart” button.
4. Shopping Cart
  - Displays items added by the user.
  - Options to update quantity or remove items.
  - Shows subtotal, tax, and total cost.
5. Checkout Page
  - Captures user details such as shipping address and payment information.
  - Option for guest checkout or login.
6. User Account Page
  - Displays user profile information (name, email, etc...).
  - Allows users to view order history and update account details.
7. Admin Dashboard
  - Accessible only by administrators.
  - CRUD (Create, Read, Update, Delete) operations for products and categories.
  - Order Management.
8. Login/Signup Page
  - Authentication for users (buyers and admins).
  - Includes password reset functionality.
9. Order Confirmation Page
  - Displays after a successful purchase.
  - Includes order details and confirmation message.
10. About Us / Contact Us Page
  - Information about the marketplace.
  - Contact for or details.

### Features to Include:

1. User Authentication
  - Signup, login, logout functionality.
  - Role-based access (e.g. admin vs user).
2. Product Management
  - Admins can add, update or delete products.
  - Users can view products and their details.
3. Shopping Cart
  - Add/remove/update items.
  - Store cart data persistently (even when user refreshes page).
4. Search and Filtering

- Search bar for keyword-based search.
  - Filters for categories, price range, and ratings.
- 5. Responsive Design
  - Ensure the site works on desktops, tablets and phones.
- 6. Payments
  - Payment gateway like Stripe or PayPal
- 7. Email Notifications
  - Send confirmation emails for orders, account creation, etc.

#### Core Functionalities:

1. Backend with Node.js and Express.js
  - Set up the server.
  - Handle API routes for user, product, and order data.
2. Frontend with React.js
  - Dynamic rendering of pages and components.
  - State management using React hooks or Redux
3. Database with MongoDB
  - Store user accounts, product details, and order information.
  - Create relationships between collections (e.g., users and orders).
4. Responsive Styling
  - Use Bootstrap for mobile-friendly and clean UI.
5. Version Control
  - Git for tracking changes.