E-Commerce Website Proposal

Overview

This proposal outlines three e-commerce website development packages, each tailored to different business needs and budgets. Our solutions are designed to provide a seamless shopping experience, scalability, and security.

Package 1: Basic Plan (Startup)

Ideal For: Startups and small businesses launching their first online store.

Price: \$ \$ (Budget-Friendly)

Timeline: 3-4 weeks

Tech Used: React + Next.js (Frontend), Express.js (Backend), SQL

(Database)

Why This Tech Stack?

- **React + Next.js**: Ensures fast performance, SEO optimization, and a smooth user experience.
- Express.js: Lightweight and efficient backend for handling user requests and data processing.
- SQL Database: Provides structured data storage that is reliable and secure.

Features:

- ✓ Mobile/Desktop-Friendly Design
- Essential Pages: Home, Shop, Product Details, Cart, Checkout,

Contact

- ✓ User Authentication: Sign-up, login, and password reset
- Product Catalog: Categories + search by product name
- Shopping Cart & Payments: Stripe/PayPal integration
- Admin Dashboard: Manage orders, products, and customer data
- ☑ Basic SEO: Google Analytics, meta tags, sitemaps
- Email Alerts: Order confirmations and shipping updates
- Free Security: SSL certificate + data encryption
- Inventory Alerts: Low-stock notifications
- 1-Month Support: Bug fixes post-launch

Package 2: Professional Plan (Growth)

Ideal For: Growing businesses needing advanced sales tools.

Price: \$ \$ \$ (Mid-Range)

Timeline: 6-8 weeks

Tech Used: Next.js (Frontend), NestJS (Backend), SQL/NoSQL

(Database)

Why This Tech Stack?

- Next.js: Enhances site performance, server-side rendering (SSR), and SEO benefits.
- NestJS: Nest is a scalable and modular backend framework for handling complex business logic.
- SQL/NoSQL Database: Offers flexibility, enabling structured or unstructured data management.

Features:

Includes Basic Plan +:

Advanced Search: Filter by price, brand, or features

- Customer Dashboard: Order history, saved addresses, wishlists
- Promotions: Discount codes, flash sales, holiday deals
- Social Tools: Login with Google/Facebook + product sharing
- Reviews & Ratings: Let customers rate products
- Live Chat: 24/7 Al chatbot (+ human agent upgrade)
- Abandoned Cart Recovery: Automatic reminder emails
- ▼ Tax Automation: Auto-calculate taxes by location
- Performance Boost: Faster page loading
- 3-Month Support: Updates and security checks

Package 3: Enterprise Plan (Scale)

Ideal For: Large businesses with global or complex needs.

Price: \$ \$ \$ \$ (Custom Pricing)

Timeline: 10-12 weeks

Tech Used: React/Next.js (Frontend), NestJS (Backend), NoSQL/SQL

Hybrid

Why This Tech Stack?

- React/Next.js: Combines performance, flexibility, and SEO-friendly capabilities.
- NestJS: Offers a highly scalable and enterprise-ready backend architecture.
- NoSQL/SQL Hybrid: Ensures efficient handling of large-scale data operations while maintaining relational data integrity.

Features:

Includes Basic + Professional Plans +:

Custom Design: Unique look for your brand

- Al Suggestions: "Customers also bought" recommendations
- Subscriptions: Recurring payments for memberships
- Global Sales: Multi-language + currency converter
- Business Tools: Connect to Salesforce, SAP, or HubSpot
- Flexible Backend: API-first setup for apps/devices
- ✓ Mobile Apps: PWA + optional iOS/Android (React Native)
- Advanced Security: PCI compliance, fraud detection
- ✓ Cloud Hosting: Auto-scaling (AWS/Google Cloud)
- 24/7 Monitoring: 99.9% uptime guarantee
- 6-Month Premium Support: Dedicated SLAs

Conclusion

Each package is designed to cater to different business needs. We ensure a high-quality, scalable, and secure e-commerce platform that aligns with your business goals. Please review and let us know which package suits your requirements best.

Contact Us:

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We look forward to collaborating with you on your e-commerce journey!

E-Commerce Website System Design & Workflow

1. System Overview

The system consists of three main user roles:

- **Customers**: Browse products, add to cart, make purchases, track orders.
- Admins: Manage products, orders, users, and site settings.
- Vendors (Optional, if it's a multi-vendor platform): Add/manage their own products.
- Product Manager
- Support Agent,
- Finance Manager,
- Marketing Manager.

2. Tech Stack

- Frontend: Next.js (SEO-friendly, SSR/ISR for performance)
- **Backend**: NestJS (Modular, scalable architecture)
- Database: SQL (PostgreSQL/MySQL) or NoSQL (MongoDB for flexible data)
- Payment Integration: Stripe, PayPal (Global) / SSLCommerz,
 AmarPay (Local)
- Authentication: JWT-based auth for users & admins
- **Deployment**: Dockerized with CI/CD for scalability

3. Business Logic & Workflow

Public Pages

• Home Page

- Display banner, featured products, categories.
- Search functionality for products.
- Promotional offers and best deals.

Product Listing Page

- Filters (category, brand, price range, ratings).
- Sorting (latest, best-selling, highest-rated).
- Pagination for large datasets.

Product Details Page

- Display images, descriptions, pricing, reviews.
- "Add to Cart" & "Buy Now" buttons.
- Related product suggestions.

• Sign Up / Sign In

- Users register/login via email & password (OAuth optional).
- o Admins have a separate login panel.
- o Two-factor authentication (optional).

Cart & Checkout

- View cart items, update quantities.
- Select payment & shipping methods.
- Apply discount codes.

Private Pages (User Dashboard)

Order Management

- View past & current orders.
- o Track shipping & delivery status.
- o Cancel orders before dispatch.

Wishlist

Save products for future purchases.

Profile Settings

- Edit user information.
- Change password, manage addresses.

• Payment Management

- View invoices & download receipts.
- Request refunds for eligible orders.

Admin Dashboard

• Product Management

- Add, update, or delete products.
- Bulk upload products via CSV.

Order Management

- View all orders & manage delivery status.
- o Approve or cancel orders.

• User Management

- Block/unblock user accounts.
- Assign admin roles to users.

Reports & Analytics

- o Revenue reports.
- o Best-selling products.
- Customer activity trends.

4. Payment Processing Workflow

- 1. User selects products → adds to cart → proceeds to checkout.
- 2. Chooses a payment method (SSLCommerz/Stripe/PayPal).
- 3. Payment gateway processes the transaction.

- 4. Backend verifies payment → Order status updates.
- 5. Confirmation email & invoice sent.

5. Security & Scalability

- SSL Encryption Protects user data.
- **W** JWT Authentication Secures API endpoints.
- ▼ Role-Based Access Control (RBAC) Restricts admin access.
- ▼ Rate Limiting & Captcha Prevents bot attacks.
- Auto-Scaling via Cloud Services (AWS, Google Cloud)

6. Deliverables

- ★ Fully functional e-commerce system.
- User/Admin dashboards with all features.
- API-first approach for easy integrations.
- Mobile-responsive UI.
- ★ Secure & optimized database.