**ZESIFY WEB SITE STRUCTURE AND ARCHITECTURE.**

Introduction.

In this field of web development, we shall ensure clarity, feasibility, and successful implementation. This document outlines the structure of the web site designed to streamline online shopping and business ideas for both customers and business managers from business organizations. Creating an effective e-commerce web site involves careful planning to ensure it meets the needs of both customers and suppliers.

This project is to provide access to online shopping of products at lower costs and also delivery of goods for customers to access variety of the products and different organizations will be able to access most of their customers and their needs from this web site .

Objective and Target Audience

Objective: To provide a platform for online shopping that facilitates business management, product delivery, and customer and supplier engagement.

Target Audience: customers, suppliers, corporate trainers, and business organizations seeking to ease engagement of customers.

Problems identified in the business sectors

An e-commerce website can face various challenges that affect both the business and its customers. Identifying these problems and understanding their solutions is crucial for creating a successful online retail experience. Here are common problems and their corresponding solutions:

* Cart Abandonment

A significant number of customers add products to their cart but do not complete the purchase, often due to high shipping costs, complicated checkout processes, or lack of trust.

Customers are often hesitant to share personal and payment information online due to fears of fraud and data breaches.

* Poor User Experience: A confusing or cluttered website can drive customers away.
* Inventory Management Issue: Businesses may face challenges in managing stock levels, leading to overselling or stockouts.
* Market Competition: Competing with larger retailers can be difficult for small businesses.
* Shipping and Fulfillment Challenges: High shipping costs, slow delivery times, and logistical issues can lead to poor customer satisfaction.
* Customer Retention: Attracting new customers can be costly, and retaining them is equally crucial for sustainable growth.
* Inadequate Product Information: Customers may hesitate to purchase if detailed product information, specifications, or images are lacking.
* Limited Payment Options: Customers may abandon their carts if their preferred payment method is not available.

Web based solutions for e-commerce.

* Customers are often hesitant to share personal and payment information online due to fears of fraud and data breaches.
* Integrate a variety of payment options, including credit/debit cards, digital wallets (like PayPal and Apple Pay), and even cryptocurrency, to accommodate diverse customer preferences. Simplify the checkout process with a guest checkout option.
* Provide transparent shipping fees and options upfront.
* Use retargeting strategies such as email reminders and discounts to encourage users to return and complete their purchases.
* Implement robust security measures such as SSL certificates, data encryption, and secure payment gateways. Display trust signals, such as security badges and privacy policies, to build customer confidence.
* Focus on creating a user-friendly design with intuitive navigation, clear product categories, and a responsive layout. Conduct regular usability tests and gather user feedback for continuous improvement.
* Simplify the checkout process with a guest checkout option.
* Provide comprehensive product descriptions, high-quality images from multiple angles, and customer reviews to enhance the shopping experience and inform purchasing decisions.

Wire frame over view (key features of the web site).

Home Page

* Hero Banner: Eye-catching images and promotional messages for featured products or sales.
* Navigation Bar: Clear links to product categories, offers, and user account functions.
* Search Bar: Prominently placed for easy product searches.
* Featured Products: Highlight bestsellers, new arrivals, or seasonal items.
* Promotions: Display current sales, discounts, or announcements.
* Product Categories
* Category Pages: Organize products into categories (e.g., Clothing, Electronics, Home Goods) for easy browsing.
  + Subcategories: Further divide categories into relevant subcategories (e.g., Men, Women, Accessories).
* Filters and Sorting Options: Allow users to filter products by price, brand, size, etc., and sort by popularity, price, or newest.
* Product Detail Page
* Product Images: High-quality images with zoom-in functionality.
* Product Description: Detailed description, specifications, and features.
* Price Information: Clearly display price, discounts, and shipping costs.
* Add to Cart Button: Prominently placed for easy access.
* Customer Reviews: Allow users to leave and read reviews.
* Related Products: Showcase similar items to encourage additional purchases.

Shopping Cart

* Cart Summary: List of selected products with quantities, prices, and a subtotal.
* Edit Options: Allow users to update quantities or remove items easily.
* Continue Shopping Button: Links back to product categories to encourage further browsing.
* Proceed to Checkout Button: Enables users to move to the checkout process.

Checkout Page

* Guest Checkout Option: Allow users to check out without creating an account.
* Account Creation: Option to create an account for returning customers.
* Billing and Shipping Information: Form fields for user information, shipping address, and billing details.
* Payment Options: Integration with various payment methods (credit/debit cards, PayPal, etc.).
* Order Summary: Review of order details before final submission.
* Promotional Code Field: Option to input discount codes.

User Account Section

* Account Overview: Summary of recent orders and account activity.
* Profile Management: Option to edit personal information, passwords, and addresses.
* Order History: List of past purchases with details and re-order functionality.
* Saved Items/Wish List: Enable users to save products for future reference.

Content Section

* Educational Content: Articles on product usage, trends, or lifestyle tips relevant to the target audience.
* SEO Optimization: Use blog content to improve search engine visibility and attract organic traffic.

Customer Support

* FAQ Page: Address common questions regarding shipping, returns, and product information.
* Contact Us: Contact form, email address, and phone number for customer inquiries.
* Live Chat Support: Real-time assistance option for immediate customer support.

About Us Page

* Company Information: Share the brand story, mission, and values to build trust.
* Team Profiles: Introduce key team members to humanize the brand.

Policies

* Privacy Policy: Outline how customer data is collected and used.
* Return Policy: Clear guidelines on returns, exchanges, and refunds.
* Shipping Policy: Information on shipping methods, costs, and delivery times.

Footer

* Quick Links: Links to important pages (Terms of Service, Privacy Policy, FAQs).
* Social Media Links: Icons linking to social media profiles.
* Newsletter Sign-Up: Option for users to subscribe for updates and special offers.

System Architecture Overview

The Zesify web site will follow a three-tier architecture:

1. Frontend (Client Side): React.js, HTML, CSS, JavaScript
2. Backend (Server Side): PHP (Laravel Framework)
3. Database: MySQL

Database Schema

| Table Name | Columns | Description |
| --- | --- | --- |
| Users | user\_id tech, name, email, role | Stores user information |

Technology Stack

Frontend

HTML, CSS, JavaScript – For structuring and styling the website.  
React.js – To build an interactive and dynamic user interface.

Backend

PHP (Laravel Framework) – Handles API requests and database interactions.

Database

MySQL – Stores book and user records efficiently.

Hosting

GitHub Pages, Netlify, Heroku, or AWS – For hosting and deployment.

Research & References

Sources Used

* MDN Web Docs & W3C – Web development best practices.
* IEEE Xplore Digital library – Digital library management case studies.
* GitHub & Stack Overflow – Coding solutions.

| Phase | Task | | Timeline |
| --- | --- | --- | --- |
| 1 | Research & Planning | | 1 Week |
| 2 | Database & Backend Development | | 2 Weeks |
| 3 | Frontend Development | | 2 Weeks |
|  | |

Implementation Plan