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In conclusion, we extend our sincere gratitude to everyone who has contributed to our project's progress so far. Your collective support and guidance have been invaluable to us, and we look forward to continued collaboration in the upcoming phases.

1. Introuction

- This project has been developed using HTML,CSS,tailwind css,javascript, php and MySql.
- The main purpose is provide all types & all companies laptop at one plcae
- This website is developed on platform of window 11
- This application saves time, effort to find laptop

1.1) Background

The e-commerce landscape is rapidly evolving, with online shopping becoming the preferred choice for many consumers. However, navigating the vast and diverse laptop market can be overwhelming for consumers. They often face challenges such as finding the right laptop for their specific needs, comparing prices and features across different brands and models, and ensuring secure and reliable online purchases.

"NextGenLaptop" aims to address these challenges by providing a user-friendly and comprehensive online platform for laptop shopping. By aggregating information from various brands and models, the website empowers users to make informed decisions and simplifies the online purchasing process.

1.2) Objective

The primary objective of "NextGenLaptop" is to create a seamless and enjoyable online shopping experience for laptop buyers. This encompasses several key goals:

Provide a centralized platform: To serve as a one-stop shop for users to explore a wide range of laptops from different brands, compare specifications, and make informed purchase decisions.

Enhance user experience: To offer an intuitive and user-friendly interface with features such as easy navigation, advanced search filters, personalized recommendations, and secure payment gateways.

Gather valuable customer insights: To collect user feedback and data to understand customer preferences, identify areas for improvement, and tailor the platform to better meet their needs.

1.3) Purpose and scope

NextGenLaptop is designed to streamline the online shopping experience for laptops, catering to both customers and administrators. The primary purpose of the website is to provide users with a comprehensive platform where they can explore a wide range of laptops from various brands, facilitating informed purchasing decisions from the comfort of their homes. Users can easily search for laptops, add them to their cart, and complete purchases, while also tracking the delivery status of their orders. The platform enhances user engagement by allowing customers to share feedback and generate invoices post-purchase.

The scope of NextGenLaptop extends beyond basic functionalities, incorporating features that enhance usability and customer satisfaction. By leveraging technologies such as HTML, CSS, Tailwind CSS, JavaScript, PHP, and MySQL, the website aims to provide a seamless and responsive interface for both users and administrators. Ultimately, NextGenLaptop aspires to become a go-to destination for laptop shopping, fostering a community of informed consumers and efficient administrators.

2. System Analysis

2.1) Existing System Scenario

Currently, customers face challenges when purchasing laptops online, as certain models from specific brands are not available on every website. For instance, some laptops available on Amazon may not be found on Flipkart, and Dell laptops may not be available on the HP website.

Comparing and buying laptops from all popular brands in one place is difficult and time-consuming, requiring customers to visit multiple websites.

NextGenLaptop addresses this issue by offering a centralized platform where users can view, compare, and purchase all popular models of laptops from various well-known brands. Our website simplifies the laptop shopping experience and saves customers valuable time.

2.2) Requirements of New System

- Comprehensive Selection: Users can explore a wide variety of laptops from all major brands on our website.
- Informed Decision-Making: The platform enables users to make well-informed decisions by comparing specifications, prices, and features of different models.
- Time Efficiency: Users save valuable time by accessing all necessary information in one place, eliminating the need to visit multiple websites.
- Regret-Free Purchases: With detailed product information and comparisons, users can avoid future regrets by choosing the best laptop that meets their needs.

In our system there are two roles

1. Admin
2. Customer

1. Admin

- Admin can Add & Edit & Delete new products.
- Admin can manage users.
- Admin can approve orders.
- Admin can change status of delivery.
- Admin can see feedbacks.
- Admin can see feedback & contact us detail.

2. Customer

- Customer can see products.
- Customer can search products.
- Customer can purchase product.
- Customer can add product into wishlist.
- Customer can give feedback & and If they have a problem then they can contact Admin.

2.3) Feasibility Study

1) Technical Feasibility

The website's technical requirements are feasible with the chosen technologies: HTML, CSS, Tailwind CSS, JavaScript, PHP, and MySQL. These technologies are widely used, well-documented, and compatible with various platforms. The website's functionality, such as user purchase product, search products, give feedback and order processing, can be efficiently implemented using these technologies.

2) Economic Feasibility

The development and maintenance costs of the website are relatively low due to the use of open-source technologies like PHP and MySQL. The website's revenue potential is high, considering the growing demand for online laptop sales and the website's ability to offer a wide range of laptops from various companies. With effective marketing and maintenance, the website can generate significant revenue and provide a good return on investment.

3) Operational Feasibility

1) Admin :- Admins can add new laptops, delete old laptops, and update laptop details. Admins can process orders by approving or rejecting them and updating the delivery status as necessary. Admins can view and manage user feedback, addressing any issues or concerns raised by customers.

2) Customer :- customer can view laptops, search for laptop, shopping cart and wishlist, order tracking, invoice, Users can share their

feedback, Users can view the delivery status of their purchased laptops in real-time

4) Legal and Regulatory Feasibility

NextGenLaptop website complies with data protection laws (GDPR), e-commerce regulations, and consumer protection laws. It incorporates role-based access control and respects intellectual property rights, ensuring a secure and trustworthy environment for users and admins.

2.4) Functional and non-Functional Requirements

1) Functional Requirements

- ♦ **User Authentication & Role Management**: The system provides secure access with role-based authentication for users (customers) and admins.
- ♦ **Laptop Catalog Management:** Admins can add, delete, and modify laptop details, including categories and specifications.
- ♦ **Search & Filter:** Users can search and filter laptops by company, type, price, and other criteria.
- ♦ **Shopping Cart & Order Management:** Users can add laptops to their cart, view order history, and track delivery status.
- ♦ **Payment Processing & Invoice Generation**: The system securely processes payments and generates invoices for purchased laptops.
- ♦ **Feedback & Review Management**: Users can provide feedback and reviews for purchased laptops, visible to admins.

2) Non-Functional Requirements

- ♦ **Scalability**: The system is designed to accommodate a growing number of users, laptops, and orders without affecting performance.
- ♦ **High Availability:** The system should be accessible 24/7 with minimal downtime (less than 1 hour per month) to ensure continuous service.
- ♦ **User Experience**: The system provides an intuitive and user-friendly interface for users to easily navigate, search, and purchase laptops.
- ♦ **Performance:** The system responds to user requests within 2-3 seconds, ensuring a seamless and efficient user experience.

♦ **Security:** The system implements robust security measures to prevent unauthorized access, data breaches, and other malicious activities.

2.5) Overall System Design using Designing Tools

1) HTML

HTML stands for Hyper Text Markup Language. It is used to design web pages using markup language. HTML is the combination of Hypertext and Markup language. Hypertext defines the link between the web pages. Markup language is used to define the text document within tag which defines the structure of web pages. This language is used to annotate (make notes for the computer) text so that a machine can understand it and manipulate text accordingly. Most markup languages (e.g. HTML) are human readable. Language uses tags to define what manipulation has to be done on the text.

HTML uses predefined tags and elements which tell the browser how to properly display the content. Remember to include closing tags. If omitted, the browser applies the effect of the opening tag until the end of page. Attribute tell us more about elements. Attribute provide additional information about the contents of an elements. They appear on the opening tag of the element and are made up of two parts: a name and a value, separated by an equal's sign.

2) Cascading Style Sheets (CSS)

Cascading Style Sheets, fondly referred to as CSS, is a simply designed language intended to simplify the process of making web pages presentable. CSS allows you to apply styles to web pages. More importantly, CSS enables you to do this independent of the HTML that makes up each web page. CSS is easy to learn and understood but it provides powerful control over the presentation of an HTML document.

Why Css?

♦ CSS saves time.
♦ Easy Maintenance.
♦ Search Engines.
♦ Superior styles to HTML.
♦ Offline Browsing.

3) JavaScript

JavaScript is a very powerful client-side scripting language. JavaScript is used mainly for enhancing the interaction of a user with the webpage. In other words, you can make your webpage livelier and more

Interactive, with the help of JavaScript. JavaScript is also being used widely in game development and Mobile application development.

Why Javascript?
- Light Weight Scripting language.
- Dynamic Typing.
- Object-oriented programming support.
- Functional Style.
- Platform Independent.
- Prototype-based.
- Interpreted Language
- A sync Processing
- Client-Side Validation.

4) PHP

The term PHP is an acronym for PHP: Hypertext Pre-processor. PHP is a server-side scripting language designed specifically for web development. PHP can actually do anything related to server-side scripting or more popularly known as the backend of a website. For example, PHP can receive data from forms, generate dynamic page content, can work with databases, create sessions, send and receive cookies, send emails etc. There are also many hash functions available in PHP to encrypt user's data that makes PHP secure and reliable to be used as a server-side scripting language.

Features of PHP:-
- Simple.
- Interpreted.
- Faster.
- Open Source & Independent.

5) MySQL

MySQL is an open-source relational database management system (RDBMS). It is the most popular database system used with PHP. MySQL is developed, distributed, and supported by Oracle Corporation.

♦ The data in a MySQL database are stored in tables which consists of columns and rows.
♦ MySQL is a database system that runs on a server.
♦ MySQL is ideal for both small and large applications.
♦ MySQL is very fast, reliable, and easy to use database system. It uses standard SQL.
♦ MySQL compiles on a number of platforms.

Features of MySQL

♦ Easy to use.
♦ It is secure.
♦ Client/ Server Architecture.
♦ Free to download.
♦ It is scalable & Speed.

6) Tailwind CSS

Tailwind CSS is a utility-first CSS framework designed to simplify the process of building custom user interfaces. It provides a set of pre-defined classes that can be used to style HTML elements, making it easier to create consistent and responsive designs

Why Tailwind CSS?

♦ Customizable
♦ Pre-defined Classes
♦ Consistent Design
♦ Community Support

3. Data Dictionary

Table-1: List of Tables

Table No	Table Name	Purpose
1	Admin	Store Admin Information
2	User	Store User Information
3	Product	Store Product Detail
4	Wishlist	Store User's Wish List
5	Cart	Store Cart Detail
6	Order	Store Order Detail
7	Payment	Store Payment Detail.
8	Feedback	Store User's Feedback
9	Contact	Store User's Contact Us Information

Table-2: Admin

Field Name	Datatype	Size	Constrain	Description
Admin_ID	Int	5	Primary key	Admin_Id Auto Increment
Name	Varchar	35	Not Null	Store Admin Name
E_Mail	Varchar	50	Not Null	Store Admin E-Mail
Password	Varchar	100	Not Null	Store Admin Password
Mobile_No	Varchar	14	Not Null	Store Admin Mobile no

Table-3: User

Field Name	Datatype	Size	Constrain	Description
User_ID	Int	5	Primary Key	User_Id Auto Generate
First_Name	Varchar	15	Not Null	Store User First Name
Last_Name	Varchar	15	Not Null	Store User Last Name
E_Maial	Varchar	50	Not Null	Store User Email
Password	Varchar	100	Not Null	Store User Password
Mobile_No	Varchar	14	Not Null	Store User Password

Table-4: Product

Field_Name	Datatype	Size	Constrains	Description
Prod_ID	Int	5	Primary Key	Prod_ID Auto Increment
Prod_Name	Varchar	20	Not Null	Store Laptop Name
Com_Name	Varchar	20	Not Null	Store Company Name
Shipping_Charge	Int	3	Not Null	Store Ship Charge
Price	Int	6	Not Null	Store Product Price
Net_Price	Int	6	Not Null	Store Net Price
Prod_Img	Varchar	30	Not Null	Store Product Img
Description	Varchar	50	Not Null	Store Product Description

Table-5: Wishlist

Field_Name	Datatype	Size	Constrains	Description
Wishlist_Id	Int	5	Primary Key	Wishlist_ID Auto Increment
User_ID	Int	5	Primary Key	Reference Of User_Id
Prod_ID	Int	5	Primary Key	Reference Of Prod_ID

Table-6: Cart

Field_Name	Datatype	Size	Constrains	Description
Cart_ID	Int	5	Primary Key	Cart_ID Auto Increment
Prod_ID	Int	5	Foreign Key	Reference Of Prod_ID
User_ID	Int	5	Foreign Key	Reference Of User_ID
Prod_Img	Varchar	30	Not Null	Store Product Img
Prod_Name	Varchar	20	Not Null	Store Laptop Name
Quantity	Int	2	Not Null	Store Quantity of Product
Shipping_Charge	Int	3	Not Null	Store Ship Charge
Price	Int	6	Not Null	Store Product Price
Net_Price	Int	6	Not Null	Store Total Price

Table-7: Order

Field_Name	Datatype	Size	Constrains	Description
Order_ID	Int	5	Primary Key	Order_ID Auto Increment
User_ID	Int	5	Foreign Key	Reference Of User_ID
Prod_ID	Int	5	Foreign Key	Reference Of Prod_ID
Quantity	Int	2	Not Null	Store Quantity of Product
Order_Date	Timestamp		Not Null	On Update Content time stamp
Order_Status	Varchar	20	Not Null	Store Status of Order

Table-8: Payment

Field_Name	Datatype	Size	Constrains	Description
Payment_ID	Int	5	Primary Key	Payment_ID Auto Increment
User_ID	Int	5	Foreign Key	Reference Of User_ID
Prod_ID	Int	5	Foreign Key	Reference Of Prod_ID
Name	Varchar	30	Not Null	Store Name of Customer
E_Mail	Varchar	50	Not Null	Store E-Mail of Customer
Address	Varchar	50	Not Null	Store Address of Customer
City	Varchar	20	Not Null	Store City of Customer
State	Varchar	15	Not Null	Store State of Customer
Pincode	Varchar	6	Not Null	Store Pincode of Customer

Table-9: Feedback

Field_Name	Datatype	Size	Constrains	Description
Feedback_ID	Int	5	Primary Key	Feedback_ID Auto Increment
Name	Varchar	20	Not Null	Store Name Of User
E_Mail	Varchar	50	Not Null	Store E-Mail Of User
Rating	Int	1	Not Null	Store Rating Of User
Message	Varchar	50	Not Null	Store Message Of User

Table-10: Contact

Field_Name	Datatype	Size	Constrains	Description
Contact_ID	Int	5	Primary Key	Contact_ID Auto Increment
Name	Varchar	20	Not Null	Store Name Of User
E_Mail	Varchar	50	Not Null	Store E-Mail Of User
Message	Varchar	50	Not Null	Store Message Of User