

Group No. - 11



Image Recognition based Advanced E-commerce Website



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Introduction

1. E-commerce has transformed the way we shop for goods and services.
2. The Image Recognition Based Advance E-commerce Website specializes in retailing electronic items.
3. The website is designed to cater to the needs of customers who require a more efficient and seamless way to shop online.
4. The key differentiator is its state-of-the-art image recognition technology, which allows customers to search for products by merely uploading an image.


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5. The algorithm generates a list of comparable products available on the website, streamlining the search process for customers.
 6. The website is user-friendly and responsive, accessible to a wide range of customers across various devices.
 7. The admin panel provides a comprehensive overview of all transactions and messages received by the website, enabling administrators to manage the inventory and add new products.
 8. Customers can submit any queries related to their purchases through the "Contact Us" section, providing a reliable way to communicate with the website's customer support team.

Advantages

1. **Improved user experience:** Image recognition technology improves the user experience by allowing customers to search for products by uploading an image which make it easier for customers to find products they're looking for.
2. **Password encryption:** The website prioritizes the privacy and security of users by using encrypted storage of user passwords in the database, ensuring that even the admin cannot access or know the end user's password.
3. **User-Friendly interface:** The website has a simple and intuitive interface that is easy to navigate, even for first-time users, providing a seamless and enjoyable shopping experience.

Potential Future Modifications

1. **Expansion of Inventory:** Adding more products to the website can attract new customers, increase website traffic, and improve customer retention and satisfaction.
2. **Enhanced Product Filters:** Providing more filter options can improve the user experience and help customers find products more efficiently, leading to increased sales and customer satisfaction.
3. **Wishlist Feature:** Allowing customers to save products for later can improve customer engagement and loyalty, as well as provide insights for inventory management and increase the chances of a sale.



4. **Improved Image Recognition System:** By using image analysis techniques, the website can provide more relevant search results, stand out from competitors, and improve customer satisfaction and sales.

5. **Database Redundancy:** Implementing database redundancy can improve website reliability, data security, compliance with regulations, and customer trust and satisfaction.

6. **Enhanced Order Management System:** Adding features such as separate classification of orders and the ability to update or delete multiple orders at once can improve the efficiency and organization of the order management process, leading to better customer service and satisfaction.



Tools and Technology Used

- Visual Studio Code
- Xampp
- Apache Tomcat
- MySQL – Version 10.4.28

Programming Languages Used

- Python
- Javascript
- PHP

Markup Language Used

- HTML

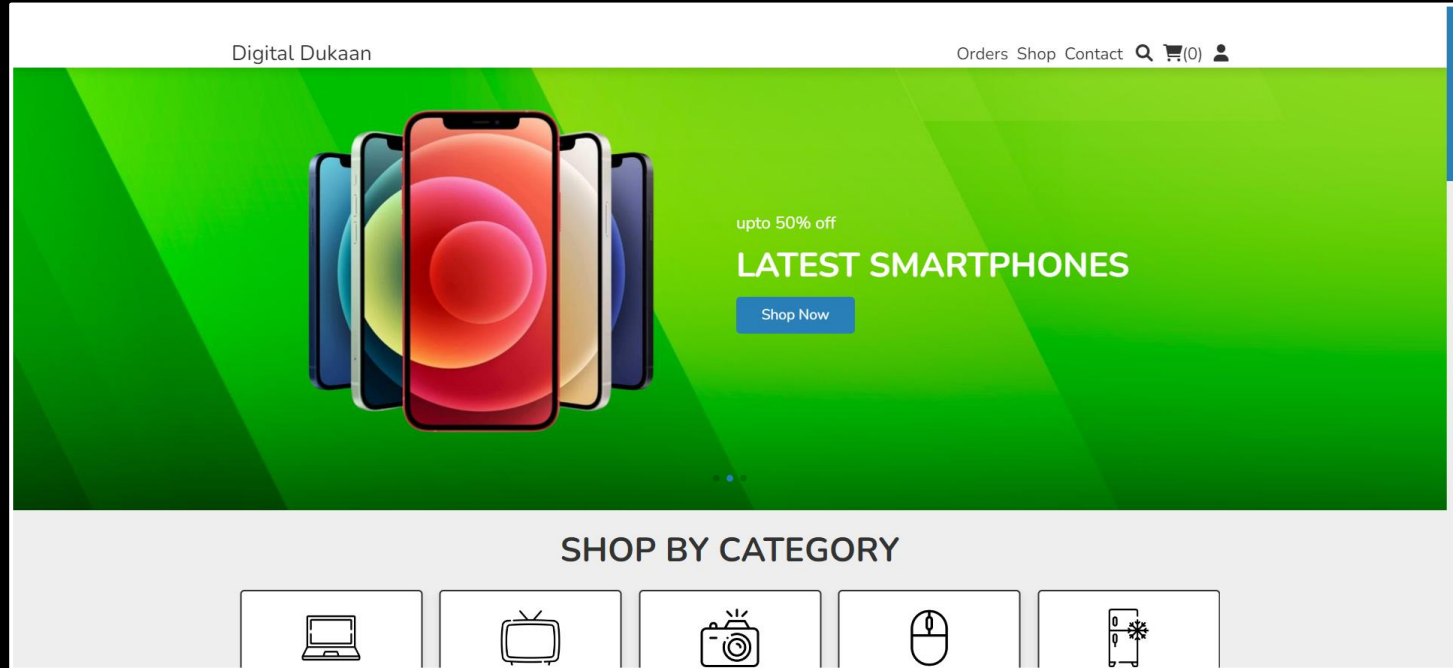
Scripting Language Used

- CSS

Navigating the Website

User Interface

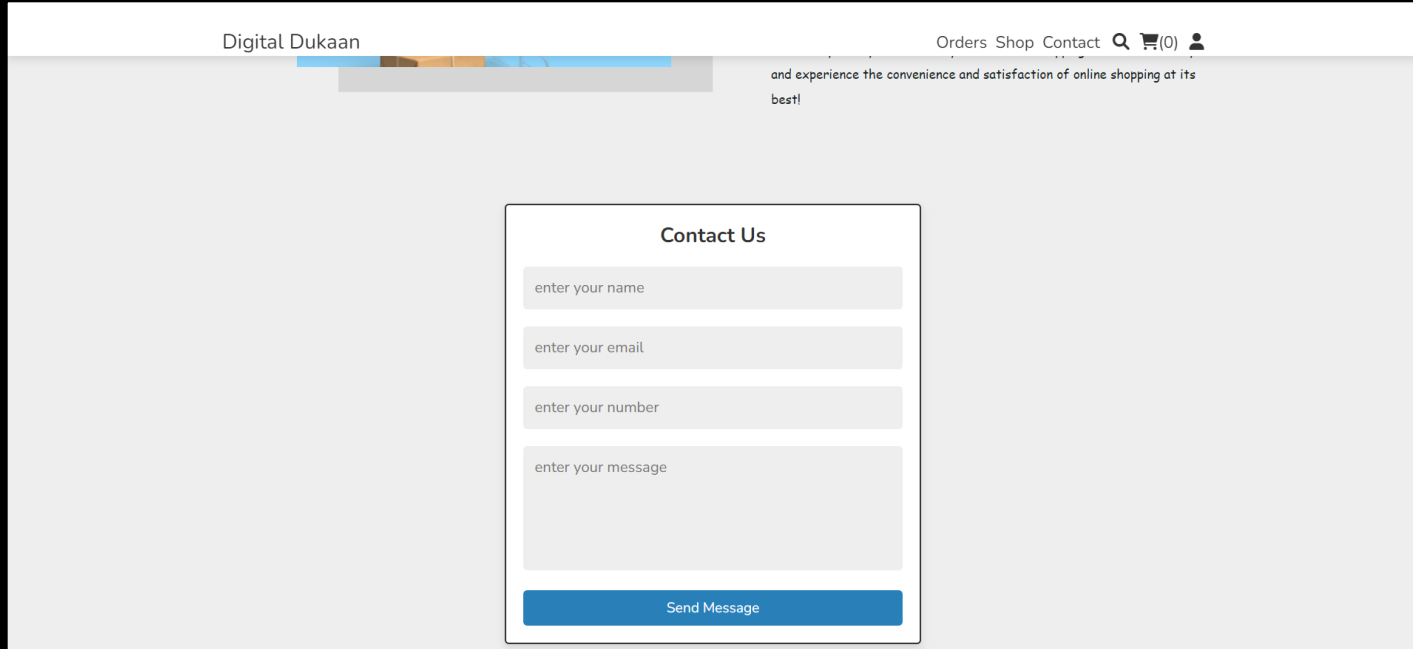
Home page



Navigating the Website

User Interface

Home page > Contact Us section



The screenshot displays the 'Contact Us' section of the Digital Dukaan website. The header includes the brand name 'Digital Dukaan' on the left and navigation links 'Orders', 'Shop', and 'Contact' on the right, accompanied by a search icon, a shopping cart icon showing '(0)', and a user profile icon. Below the header, a light gray banner contains the text: 'and experience the convenience and satisfaction of online shopping at its best!'. The main content area features a central white box with a blue border titled 'Contact Us'. Inside this box are four input fields: 'enter your name', 'enter your email', 'enter your number', and 'enter your message'. A blue 'Send Message' button is positioned at the bottom of the form.

Digital Dukaan

Orders Shop Contact 🔍 🛒(0) 👤

and experience the convenience and satisfaction of online shopping at its best!

Contact Us

enter your name

enter your email

enter your number

enter your message

Send Message

Navigating the Website

User Interface

Login / Register Page

Digital Dukaan

Orders Shop Contact 🔍 🛒(0) 👤

REGISTER NOW

Register Now

already have an account?

Login Now

Digital Dukaan

Home | About | Orders | Shop | Contact

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Kanke Road
Ranchi

☎️

+91-9806754231

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digitaldukan@gmail.com

About the company

Digital Dukaan is guided by four principles: customer obsession rather than competitor focus, passion for invention, commitment to operational excellence, and long-term thinking.

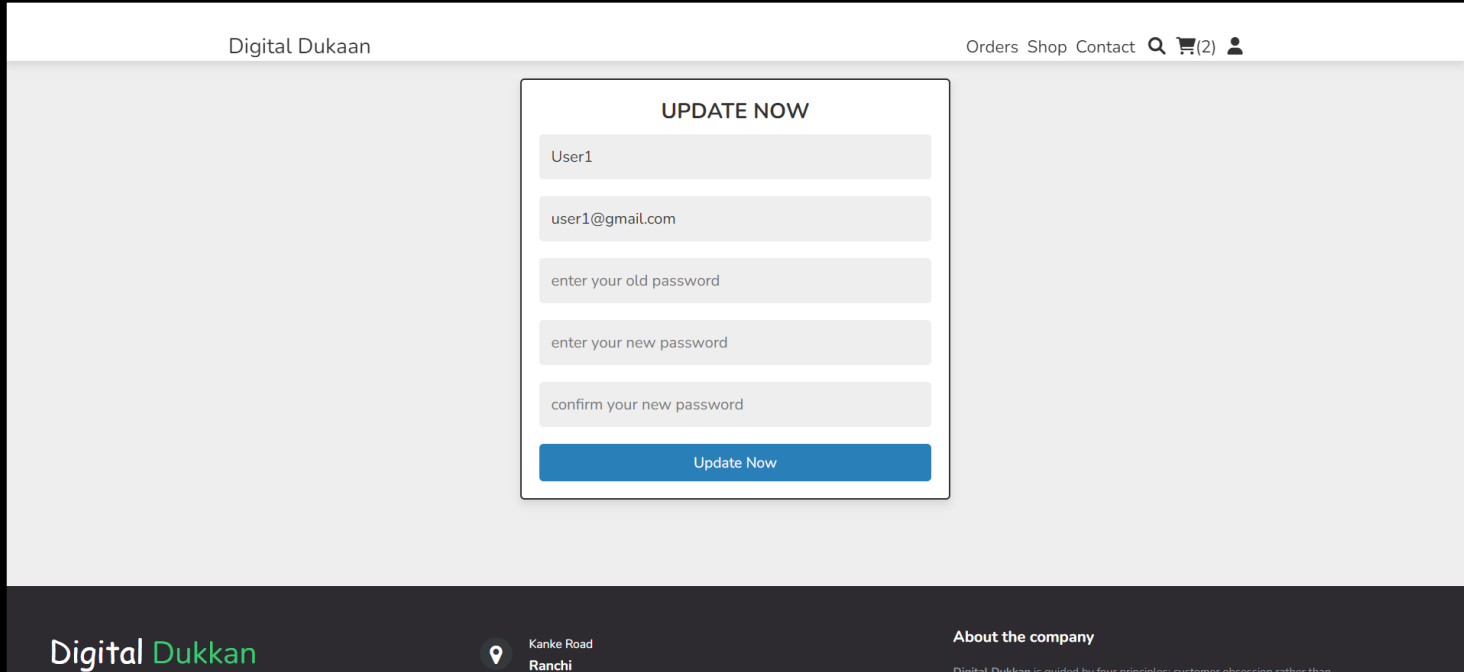
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Navigating the Website

User Interface

Update Page



The screenshot displays the 'Update Page' of the Digital Dukaan website. The page has a white header with the brand name 'Digital Dukaan' on the left and navigation links 'Orders', 'Shop', 'Contact', a search icon, a shopping cart icon with '(2)' items, and a user profile icon on the right. The main content area is light gray and features a central white card with a black border titled 'UPDATE NOW'. Inside the card, there are five text input fields: 'User1', 'user1@gmail.com', 'enter your old password', 'enter your new password', and 'confirm your new password'. Below these fields is a blue button labeled 'Update Now'. The footer is dark gray and contains the 'Digital Dukaan' logo, a location pin icon with the address 'Kanke Road, Ranchi', a link to 'About the company', and a small tagline: 'Digital Dukaan is guided by four principles: customer obsession rather than'.

Digital Dukaan

Orders Shop Contact 🔍 🛒(2) 👤

UPDATE NOW

User1

user1@gmail.com

enter your old password

enter your new password

confirm your new password

Update Now

Digital Dukaan

📍 Kanke Road
Ranchi

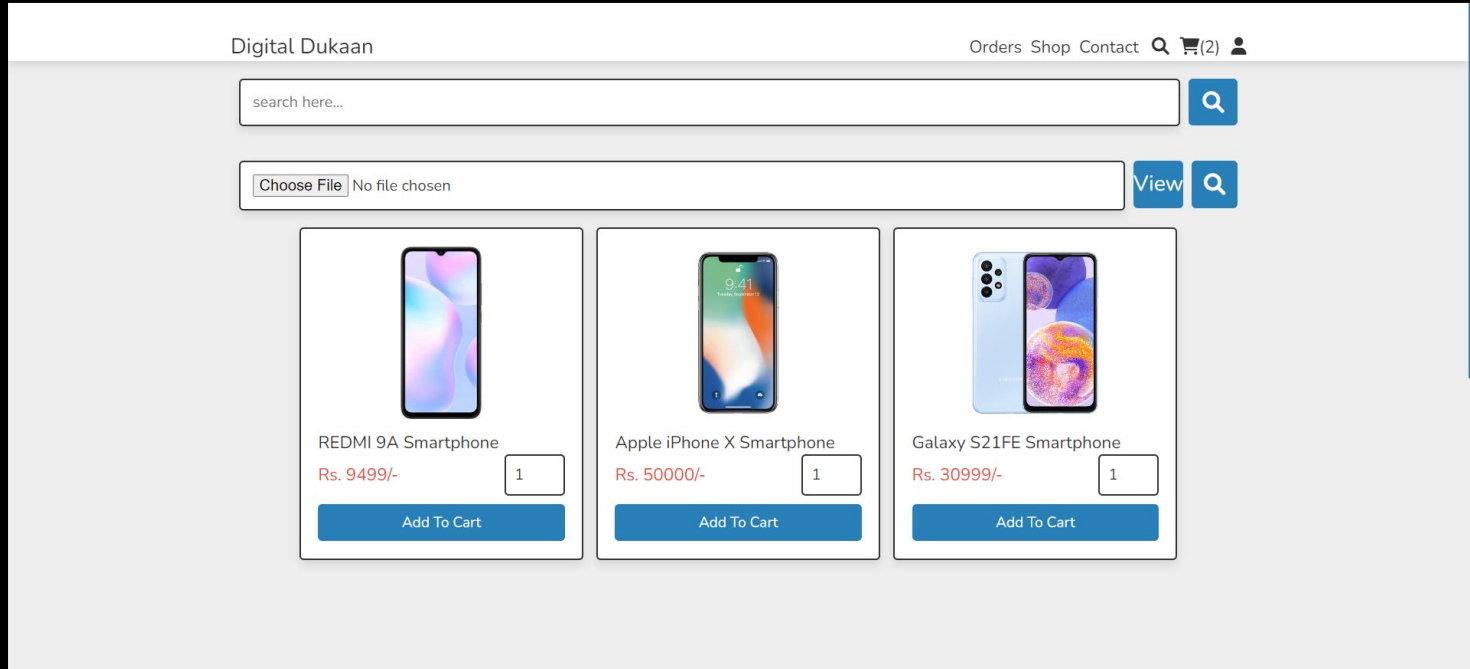
About the company

Digital Dukaan is guided by four principles: customer obsession rather than

Navigating the Website

User Interface

Product Search page



Working of Image Search

1. The website is an advance ecommerce website that uses image recognition technology for searching products.
2. Instead of comparing the uploaded image directly with images in the database, the website generates a name (string class) for the uploaded image using the ResNet152V2 model.
3. The generated string name is then compared with the name of similar category of inventory products in the database.
4. This comparison produces results for the end user, showing them products that are similar to the searched image.

Working of Image Search

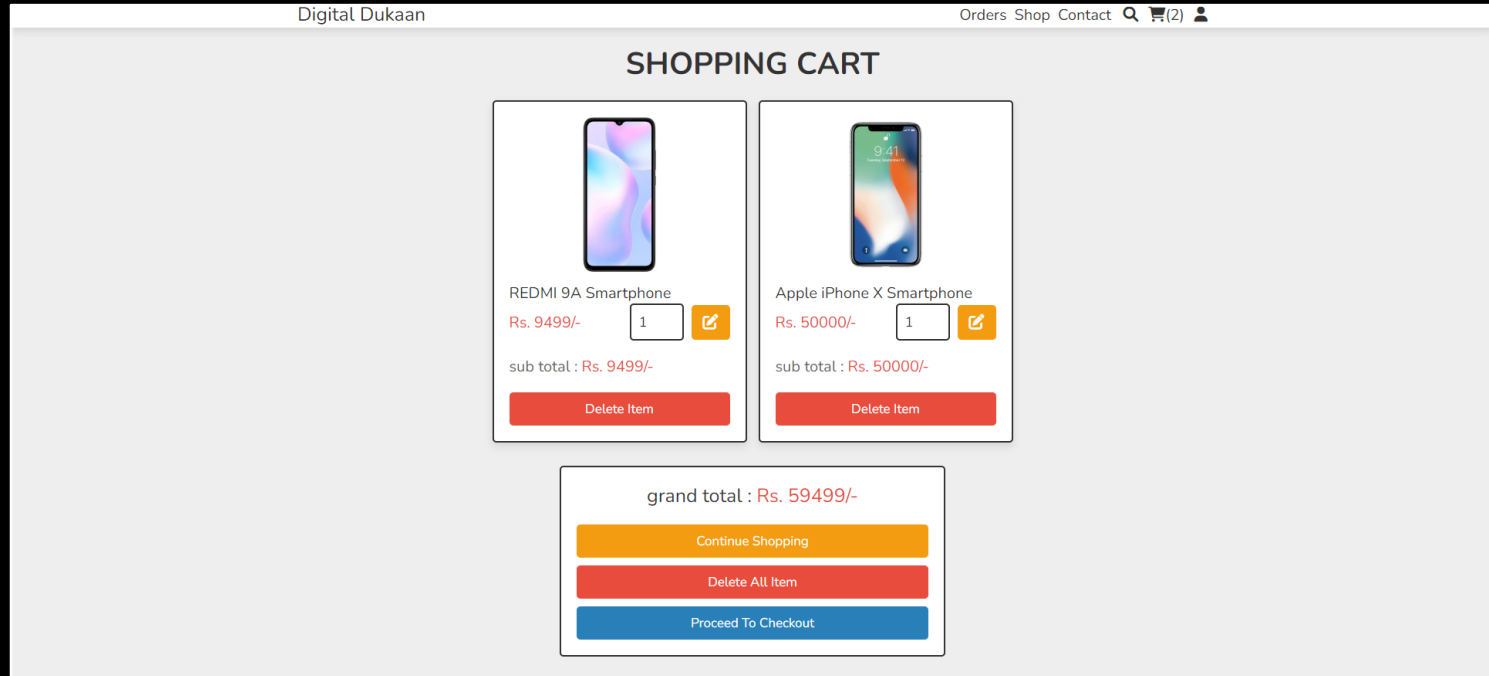
ResNet152V2 model

1. ResNet152V2 is a deep neural network architecture.
2. It has 152 layers and uses skip connections to enable training of very deep networks.
3. It uses residual blocks and bottleneck blocks as its basic building blocks.
4. ResNet152V2 has achieved state-of-the-art performance on a variety of image classification tasks, including the ImageNet dataset.
5. It can be computationally expensive to train and requires a lot of memory.

Navigating the Website

User Interface

Add to Cart page



Navigating the Website

User Interface

Proceed to Checkout page

Digital Dukaan

Orders Shop Contact 🔍 🛒(2) 👤

YOUR ORDERS

REDMI 9A Smartphone (Rs. 9499/- x 1)

Apple iPhone X Smartphone (Rs. 50000/- x 1)

grand total : Rs. 59499/-

PLACE YOUR ORDERS

your name :

your number :

your email :

payment method :

cash on delivery ▼

address line 01 :

address line 02 :

city :

state :

country :

pin code :

Place Order

Navigating the Website

User Interface

View Order Page

Digital Dukaan

Orders Shop Contact 🔍 🛒(0) 👤

PLACED ORDERS

placed on : 2023-05-02

name : user1

email : user1@gmail.com

number : 3234567897

address : flat no. 123, Lalpur, Ranchi, Jharkhand, India - 245676

payment method : cash on delivery

your orders : REDMI 9A Smartphone (9499 x 1) - Apple iPhone X Smartphone (50000 x 1) -

total price : Rs. 59499/-

payment status : pending

Digital Dukaan

Home | About | Orders | Shop | Contact

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Kanke Road
Ranchi

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+91-9806754231

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digitaldukaan@gmail.com

About the company

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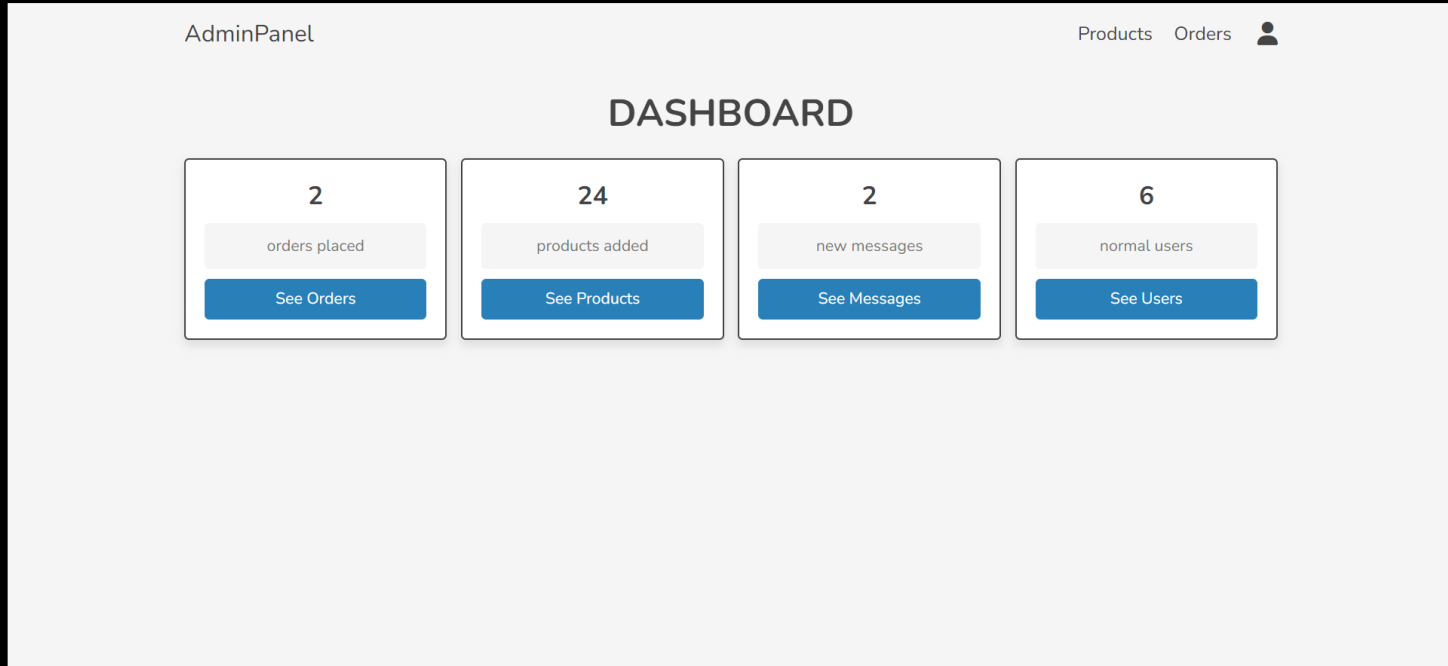
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Navigating the Website

Admin Interface

Admin Dashboard




Navigating the Website

Admin Interface

Placed Orders page

AdminPanel

ProductsOrders

PLACED ORDERS

placed on : 2023-05-01
name : User1
number : 1234567892
address : flat no. 12E, Lalpur,
Ranchi, Jharkhand, India -
345678
total products : Apple iPhone X
Smartphone (50000 x 1) -
REDMI 9A Smartphone (9499 x
1) -
total price : Rs. 59499/-
payment method : cash on
delivery
completed

UpdateDelete

placed on : 2023-05-01
name : User2
number : 5678909876
address : flat no. Kanke Road,
Gandhi Nagar, Ranchi,
Jharkhand, India - 834008
total products : HP 255 G8
Notebook Laptop (37188 x 1) -
REDMI 9A Smartphone (9499 x
1) -
total price : Rs. 46687/-
payment method : cash on
delivery
pending

UpdateDelete

Navigating the Website

Admin Interface

Product page

AdminPanel

ProductsOrders

ADD PRODUCT

product name (required)

enter product name

product price (required)

enter product price

image 01 (required)

Choose FileNo file chosen

image 02 (required)

Choose FileNo file chosen

image 03 (required)


Choose FileNo file chosen


product details (required)

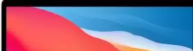
enter product details

Add Product

PRODUCTS ADDED








Navigating the Website

Admin Interface

Messages page

AdminPanel

Products Orders 

MESSAGES

user id : 6
name : User1
email : user1@gmail.com
number : 2345678654
message : Wow! This site is amazing

Delete

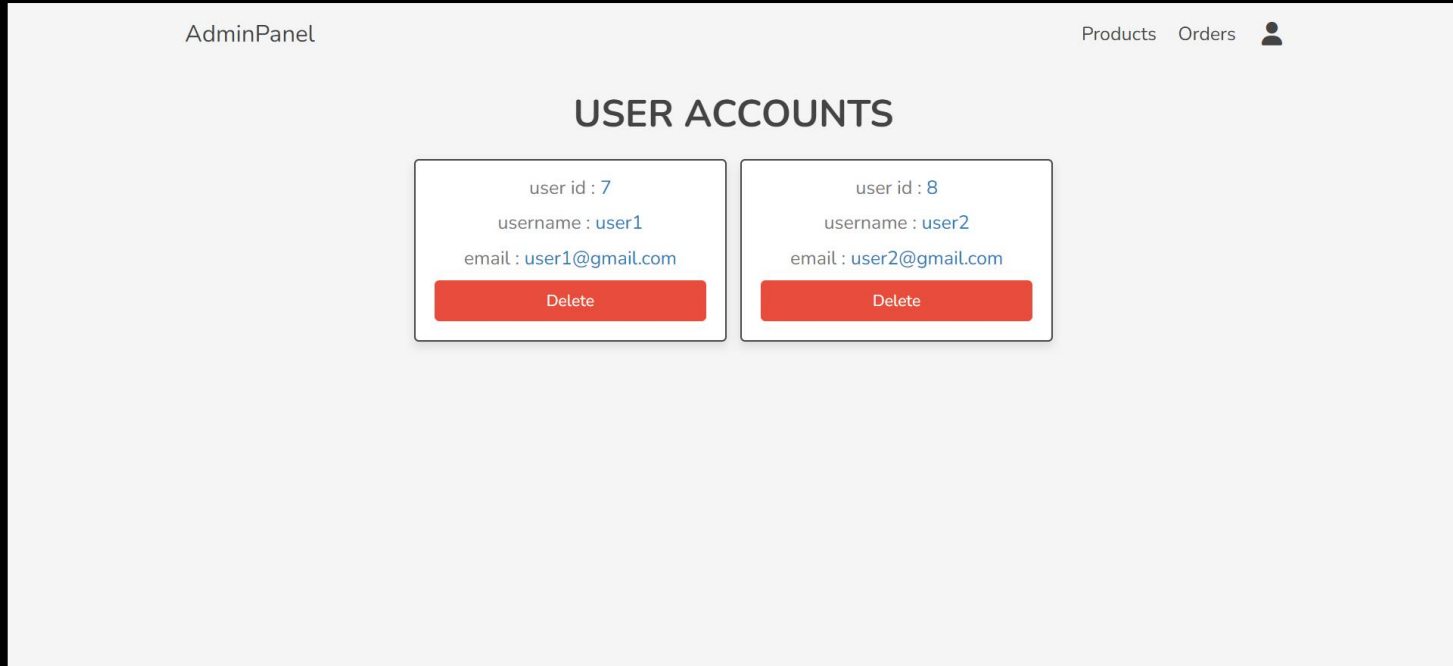
user id : 6
name : user2
email : user2@gmail.com
number : 8765435678
message : I'm impressed with the quality of these products, especially considering how affordable they are! It's rare to find such a great value online

Delete

Navigating the Website

Admin Interface

Users accounts page



Limitations

1. **Limitation of image search:** Searched images are compared based on string class, not image similarity.
2. **Absence of Wishlist feature:** Lack of a feature that allows users to save products for future purchase.
3. **Risk of data loss:** Data stored in a single centralized database without a backup, increasing the risk of permanent data loss.
4. **Address input repetition:** Users must enter their address manually each time they make a purchase.

Limitations

5. **Limitation in order management system:** Lack of a separate classification of pending and completed orders for the website admin.
6. **Limitation in multiple order management:** Inability to update or delete multiple orders at once.

THANK YOU