

# Online Art Gallery Management System with E-Commerce Integration

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**Year of Study:** Third Year– 5 Semester

## **Abstract**

The Online Art Gallery Management System is a web-based platform that connects artists with art buyers through digital commerce. Artists can register, upload their artwork, set prices, and track their sales, while users can browse collections, purchase artwork, and manage their orders. The system includes an admin panel for managing artists, approving artworks, and monitoring all platform activities.

Built using ASP.NET Web Forms and SQL Server, the system provides secure authentication, shopping cart functionality, order processing, and sales reporting. It features three user roles with distinct dashboards and capabilities. Testing confirms all modules work correctly and the system provides a smooth experience for artists selling their work and users purchasing art online.

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## **Introduction to Project**

The Online Art Gallery Management System is a complete web application that allows artists to showcase and sell their artwork online while providing art enthusiasts with an easy platform to discover and purchase art. Artists can create profiles, upload their creations with descriptions and pricing, view their sales performance, and manage customer inquiries. Regular users can browse through different categories of artwork, add items to their cart, complete purchases, and track their order history.

The system is divided into three main roles with separate interfaces. Artists get a personalized dashboard to manage their portfolio and sales. Users have access to browse artwork, make purchases, and view their orders. Administrators control the entire platform by verifying artists, approving artwork submissions, managing users, and generating comprehensive sales reports. The project uses ASP.NET Web Forms for the frontend and backend, with SQL Server handling all data storage and retrieval operations.

## **Problem Statement**

- Artists lack a proper platform to showcase and sell their artwork.
- Traditional galleries have high commissions and limited display space.
- Art buyers struggle to discover diverse artwork and connect with artists.
- Existing online platforms lack verification, good portfolio management, and charge high fees.
- A centralized system is needed with secure payments, portfolio management, and admin verification tools.

## **Objectives and Scope**

### **Objectives**

1. Create a platform where artists can register, get verified, and upload their artwork with complete details.
2. Provide users with an easy browsing experience to discover artwork by categories and make secure purchases.
3. Implement a shopping cart and order management system for smooth transactions.
4. Build an admin panel to verify artists, approve artworks, and monitor all platform activities.
5. Generate sales reports for artists and administrators to track performance and revenue.

### **Scope**

1. Artists can create profiles, upload unlimited artwork with images, descriptions, and pricing information.
2. Users can browse categorized artwork, add items to cart, checkout, and view their complete order history.
3. The system includes secure login authentication for all three user roles with role-based access control.
4. Admin can approve or reject artist registrations, manage artwork submissions, and view comprehensive sales analytics.
5. The platform maintains detailed records of all transactions including buyer information, artwork details, and payment status.
6. Future expansion can include online payment gateway integration, artist rating systems, artwork auctions, and mobile application development.

## **Literature Review / Existing System**

### **Literature Review**

Most artists today rely on social media platforms like Instagram and Facebook to showcase their work, but these platforms don't provide proper e-commerce features or sales management tools. Existing art marketplace websites often charge high commission fees ranging from 20% to 40% on each sale, which significantly reduces artist earnings. Some platforms focus only on established artists and require lengthy approval processes, making it hard for new artists to enter the market.

Current online art galleries either provide basic listing services without proper portfolio management or they offer complex enterprise solutions that are too expensive for individual artists. Many platforms lack proper admin controls to verify artist authenticity, leading to copyright issues and fake artwork listings. There's also a gap in providing artists with detailed sales analytics and customer management tools. No comprehensive solution exists that combines artist verification, portfolio management, e-commerce functionality, and sales reporting in one affordable platform.

### **Limitations of Existing System**

1. High commission fees discourage artists from using online platforms for selling their work.
2. No proper artist verification system leads to fake profiles and copyright infringement issues.
3. Lack of integrated shopping cart and order management makes the buying process complicated for users.
4. Artists don't get detailed sales reports or insights about their artwork performance and customer preferences.
5. Most platforms don't provide admin tools to monitor and control platform activities effectively.

## **Proposed System**

The proposed Online Art Gallery Management System provides a complete solution by combining artist portfolio management with e-commerce functionality in a single platform. Artists can register and get verified by administrators before uploading their artwork. The system allows artists to manage their complete portfolio, set prices, update artwork details, and view comprehensive sales reports showing which pieces are popular and generating revenue.

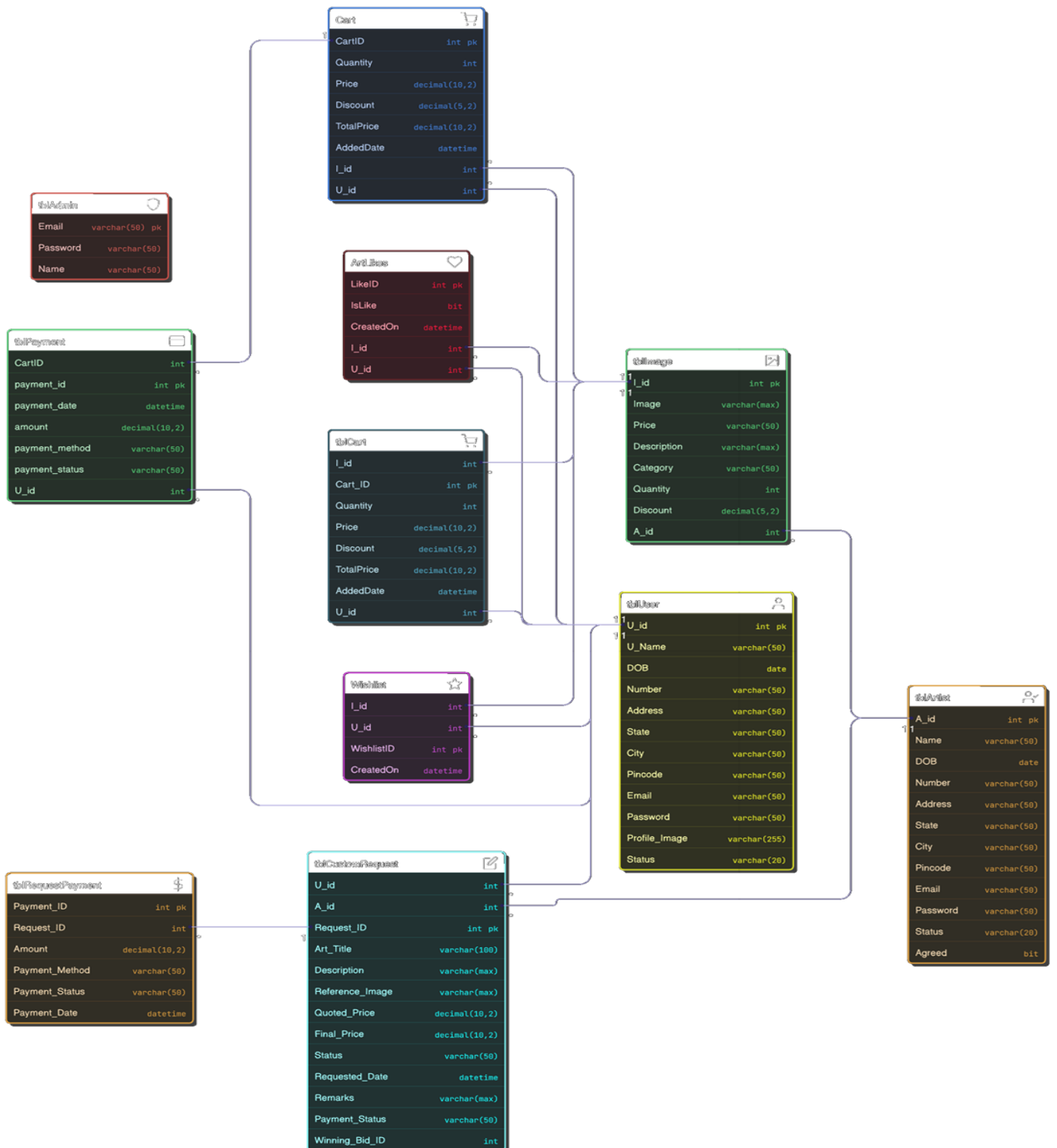
Users get a clean browsing interface to discover artwork organized by categories, with detailed views showing artist information, artwork descriptions, and pricing. The integrated shopping cart allows users to add multiple items and complete purchases through a streamlined checkout process. Administrators have full control over the platform with dashboards showing all registered artists, uploaded artwork pending approval, completed sales transactions, and revenue analytics.

### **Advantages of Proposed System**

1. Single platform solution that handles artist registration, portfolio management, e-commerce, and sales reporting.
2. Admin verification ensures only authentic artists can sell artwork, maintaining platform quality and user trust.
3. Integrated shopping cart and order management provide smooth purchasing experience for buyers.
4. Detailed sales reports help artists understand their performance and make informed decisions about pricing and artwork styles.
5. Role-based access control ensures security with separate interfaces for artists, users, and administrators.
6. Low operational costs allow the platform to charge minimal or no commission, benefiting artists directly.

# System Analysis

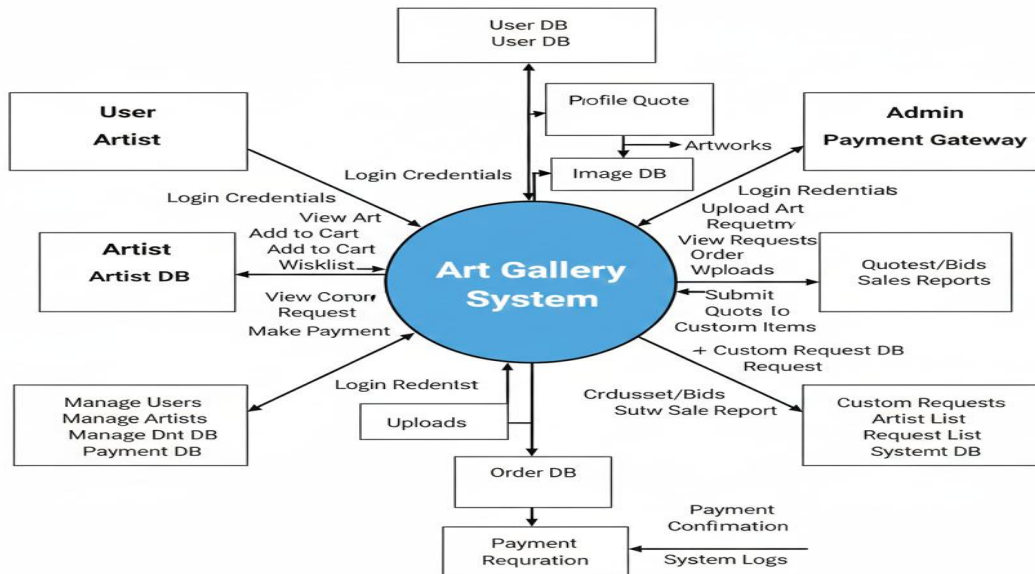
## ER Diagram





# System Analysis

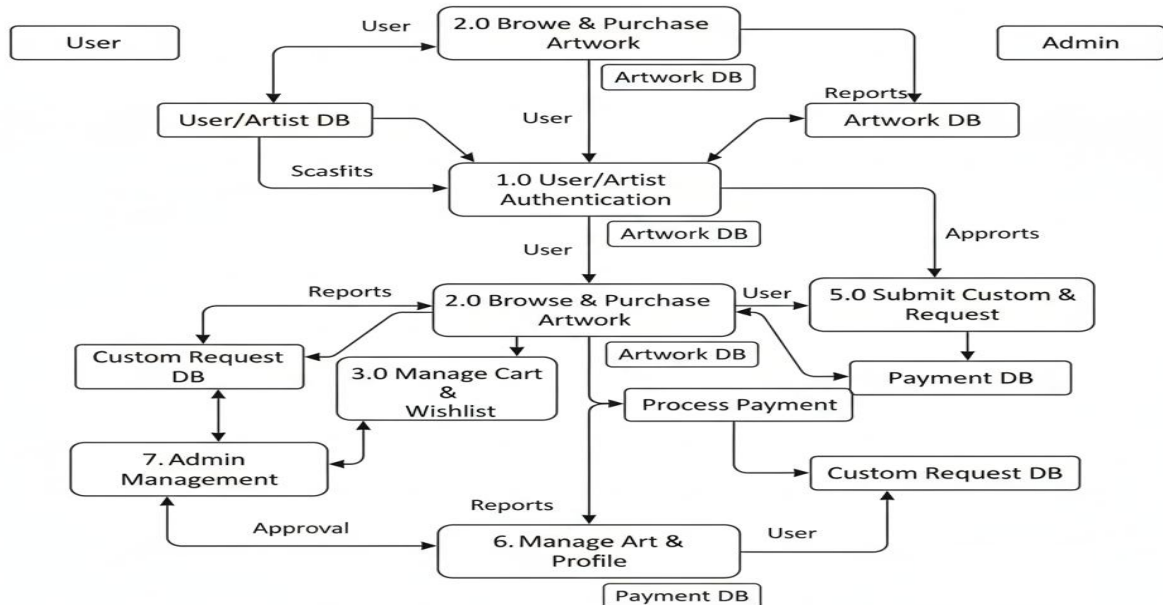
- DFD Level 0



- DFD Level 1

## Art Gallery System

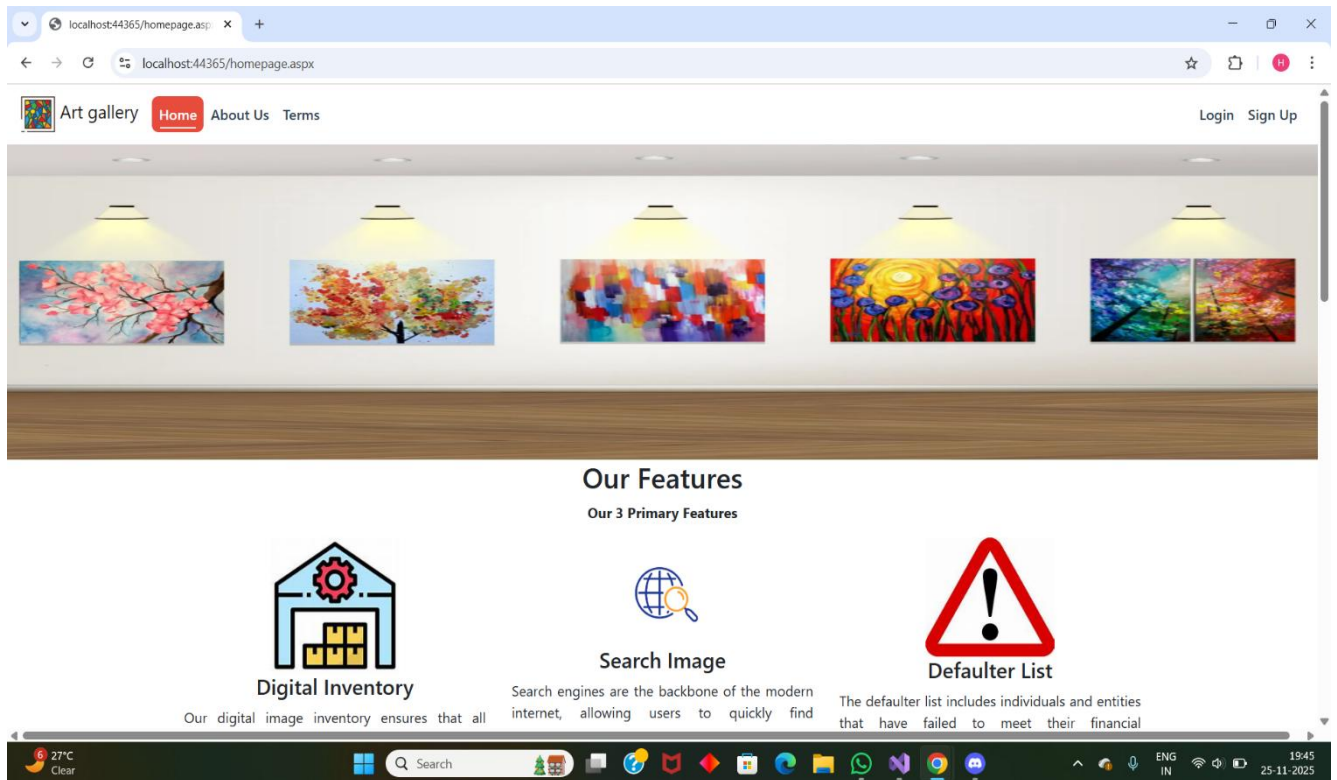
Level 1



# System Design

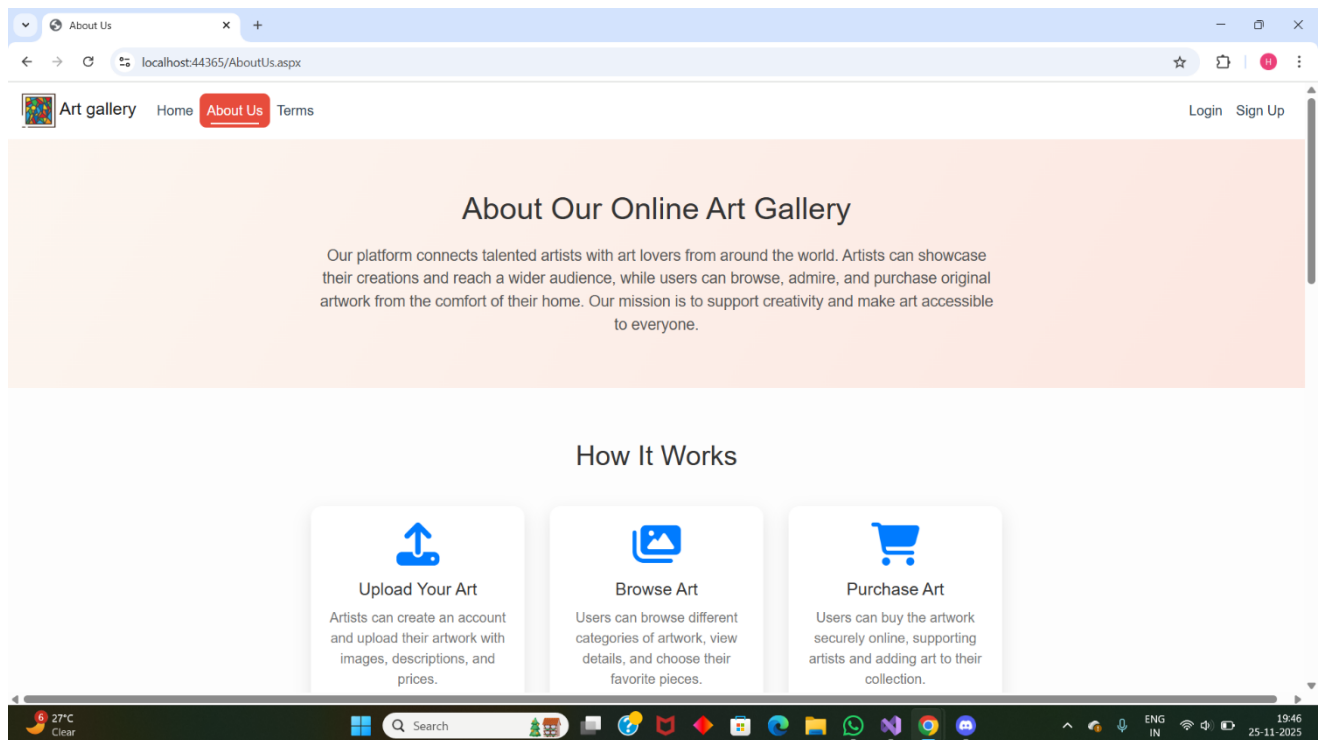
## Online Art Gallery Platform Overview

### 1. Welcome to Our Art Gallery



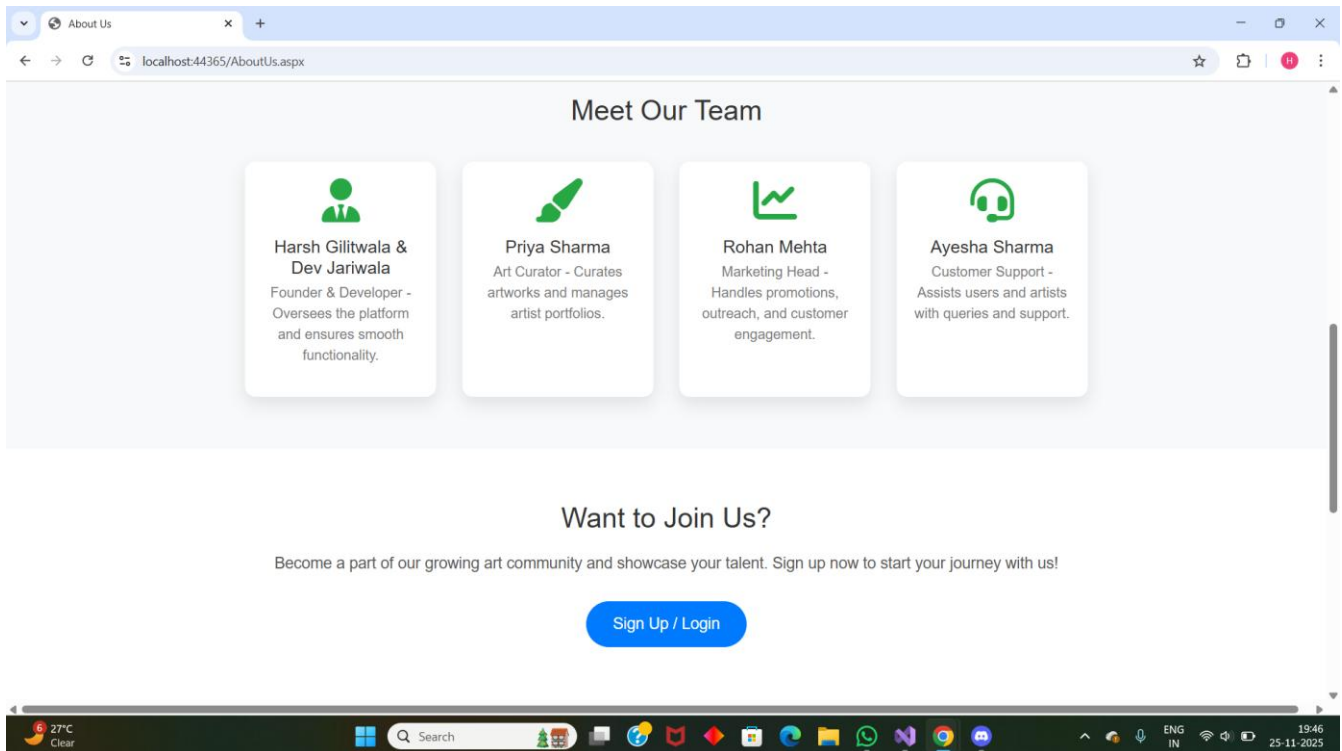
The Home page introduces users to a vibrant digital art space that showcases a variety of stunning artwork. It highlights the platform's key features such as digital inventory, image search, and a defaulter list for safety. Beautiful sample paintings displayed at the top create a warm, gallery-like experience. Visitors can easily navigate to sign up, log in, or explore more sections of the platform.

## 2. About Our Online Art Community



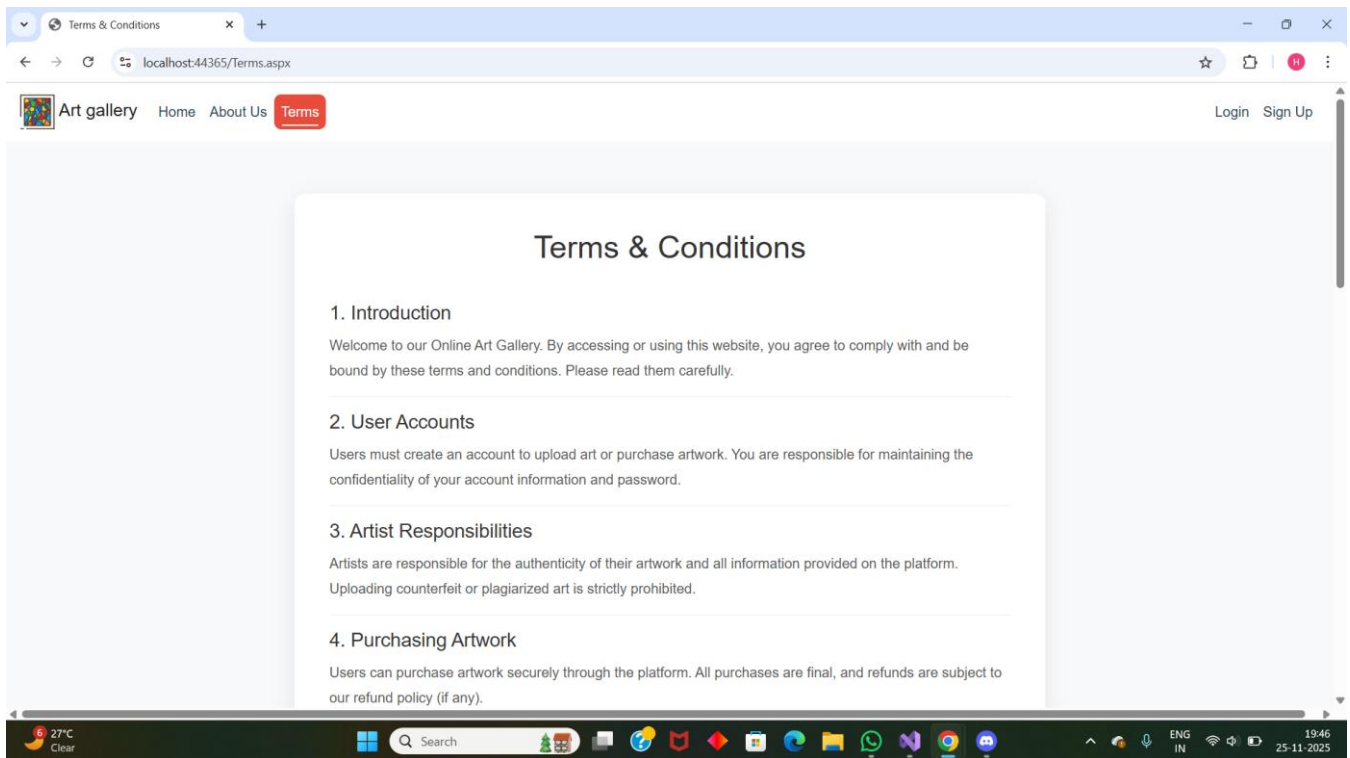
The About Us page explains the mission of connecting talented artists with art lovers worldwide. It describes how users can browse, upload, and purchase artwork from the comfort of their home. The page outlines the simple working process of the platform: upload art, browse art, and buy art. A dedicated “Meet Our Team” section introduces the people behind the platform. It ends with an invitation for artists and users to join the growing creative community.

### 3. Meet Our Creative Team



This page highlights the core members who run and manage the art gallery platform. It features founders, curators, marketing leads, and support representatives who contribute to the project. Their roles are clearly described, showing their involvement in curation, management, and user support. The layout is clean and modern, helping users connect with the people behind the platform. It reinforces trust by showing transparency and dedication in building the community.

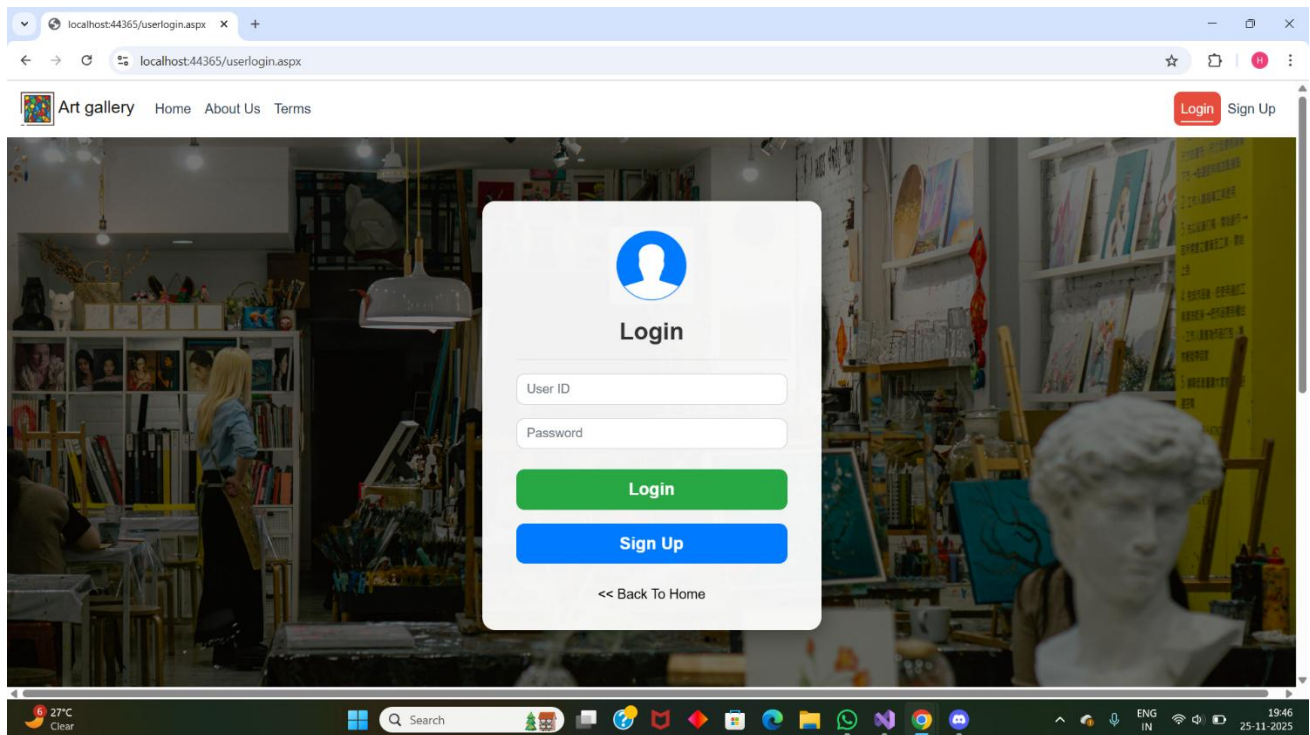
## 4. Terms and Conditions of Use



The Terms & Conditions page outlines the rules for using the online art gallery platform. It covers key topics such as account creation, artist responsibilities, and purchasing artwork. Users are reminded to protect their login details and upload only authentic, original art. Clear guidelines help maintain transparency, trust, and safety for all participants.

UserSide:

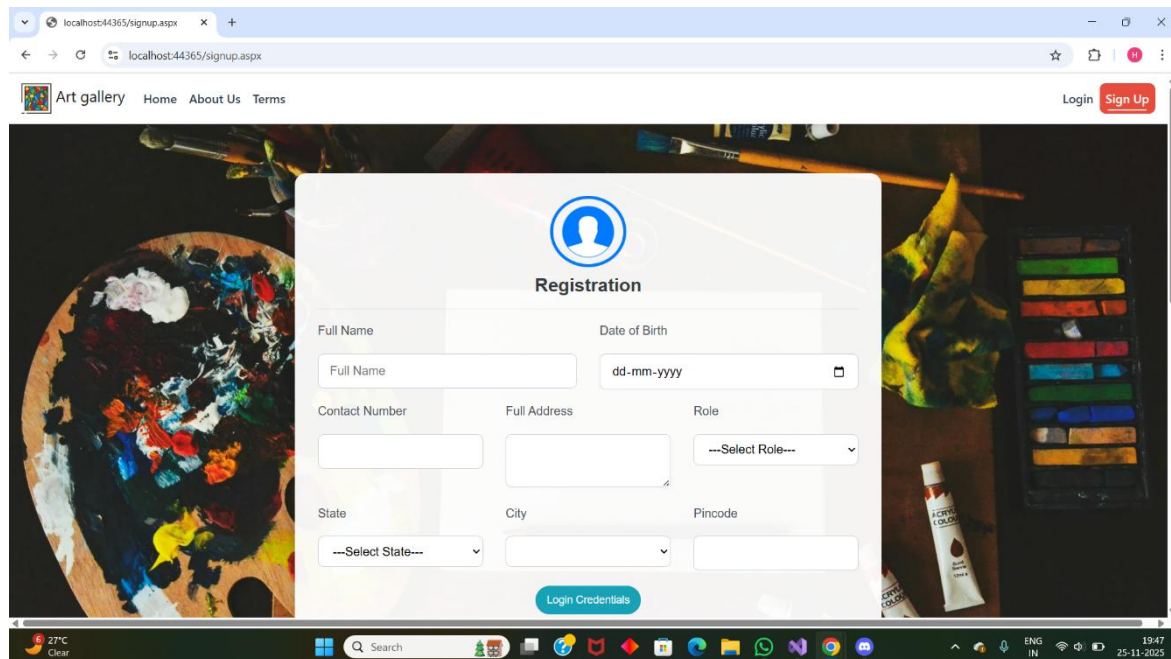
## 5. User Login Interface



This login page features a clean and modern design centered over a blurred art-studio background, creating a visually appealing user experience. The form includes fields for User ID and Password, along with clear Login and Sign-Up buttons for easy navigation. A circular user-profile icon enhances the UI, while the top navigation bar provides quick access to Home, About Us, and Terms pages. The overall layout is simple, user-friendly, and professional.



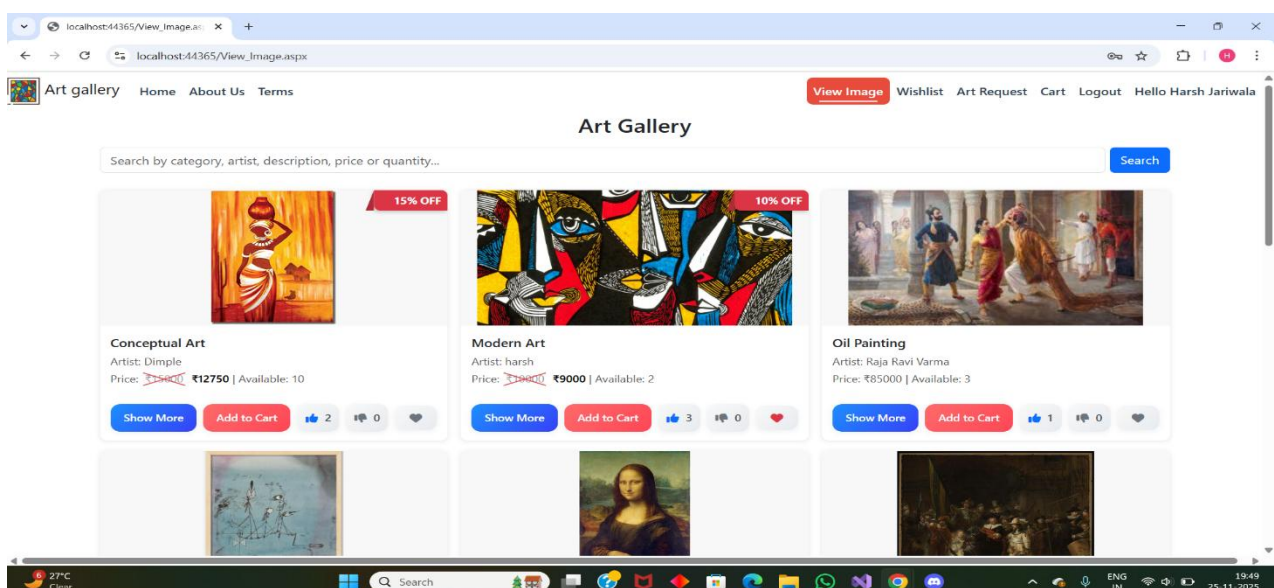
## 6. User Registration Interface



The screenshot shows a web browser at localhost:44365/signup.aspx. The page features a navigation bar with 'Art gallery', 'Home', 'About Us', and 'Terms'. A 'Login' link and a red 'Sign Up' button are in the top right. The main content is a centered 'Registration' card with a blue profile icon. The form includes fields for 'Full Name', 'Date of Birth' (dd-mm-yyyy), 'Contact Number', 'Full Address', 'Role' (a dropdown menu), 'State' (a dropdown menu), 'City', and 'Pincode'. A blue 'Login Credentials' button is at the bottom of the card. The background is a vibrant art-themed image of a palette and paint tubes.

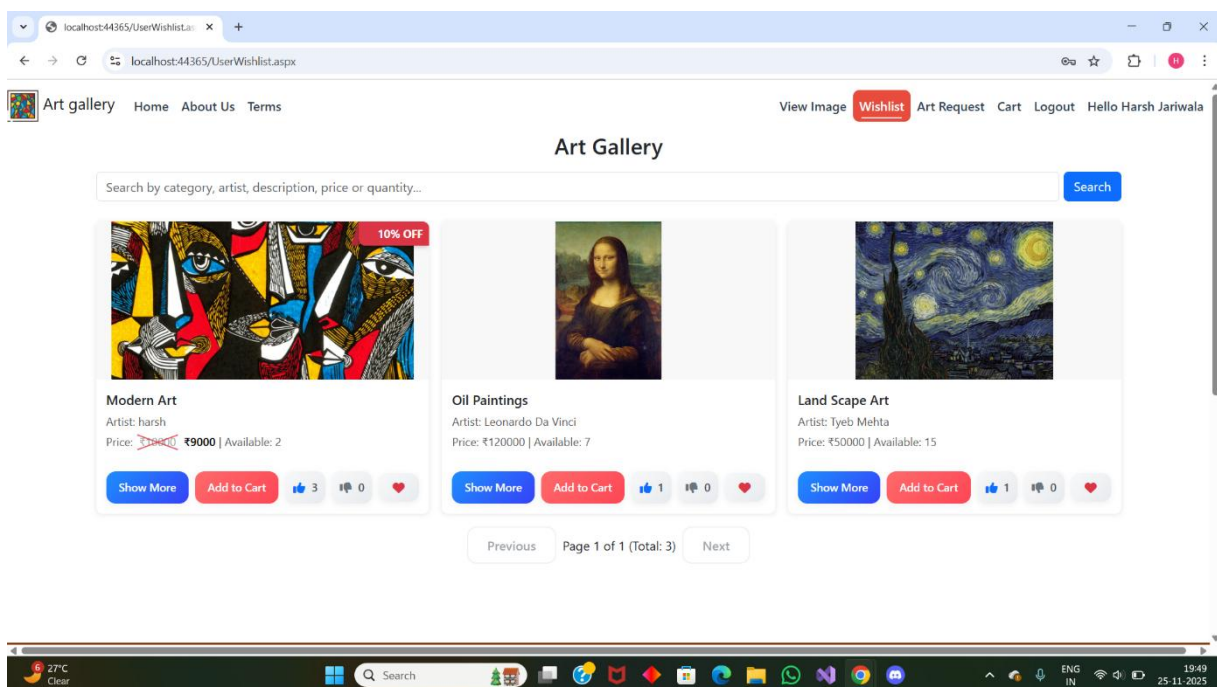
The registration page presents a clean and centered card layout over a vibrant art-themed background, creating a professional and creative visual appeal. Users can enter key details such as Full Name, Date of Birth, Contact Number, Address, and select their Role, State, City, and Pincode. A simple icon header reinforces the user profile theme, while the top navigation bar provides quick access to Home, About Us, and Terms pages. The overall design is modern, responsive, and optimized for user-friendly onboarding.

## 7. Artwork Listing & Shopping Interface



This page displays a modern and user-friendly artwork gallery where users can browse paintings by category, artist, description, price, or quantity through an integrated search bar. Each artwork card highlights the image, title, artist name, discounted price, availability count, and promotional offers like “10% OFF” or “15% OFF.” Users can quickly interact with artworks using buttons such as **Show More**, **Add to Cart**, **Like**, and **Wishlist**. The top navigation menu provides access to key features including Wishlist, Art Request, Cart, and user account options. The layout is clean, responsive, and visually appealing, offering a seamless shopping experience for art buyers.

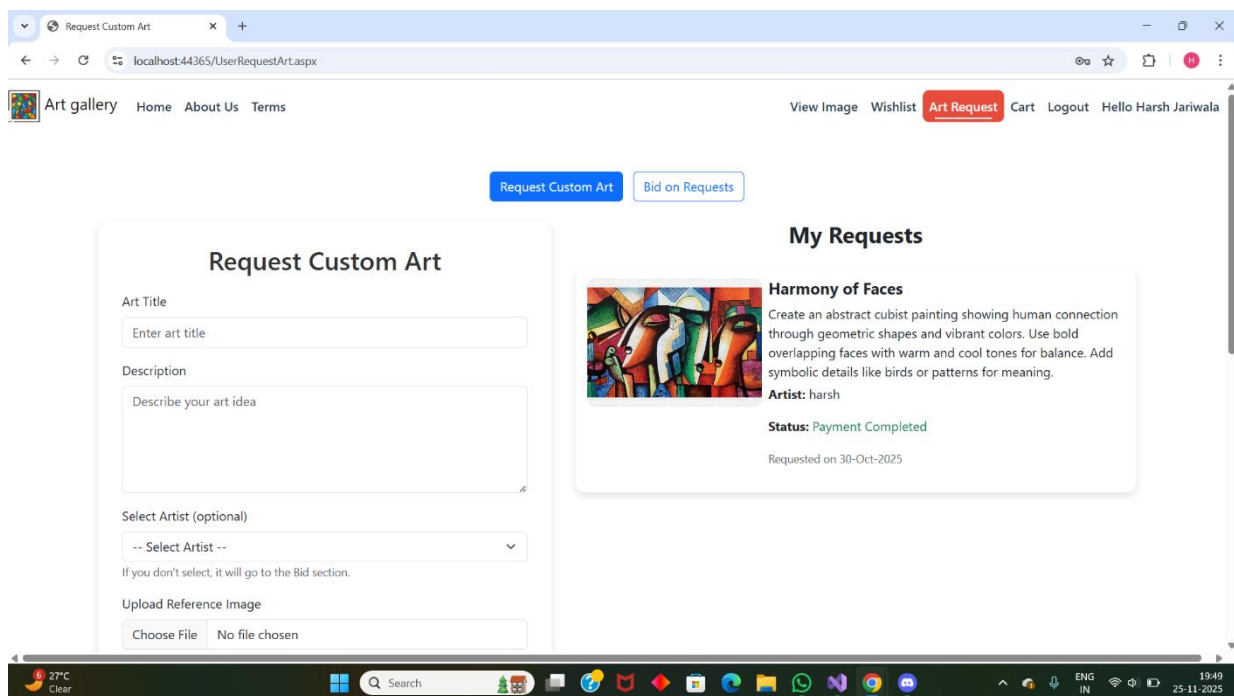
## 8. Art Gallery Wishlist Page



The image shows a clean and modern art gallery website displaying three artworks—modern abstract art, a classic oil painting, and a night landscape. Each card includes details like the artist, price, availability, and options to view more or add to the cart.



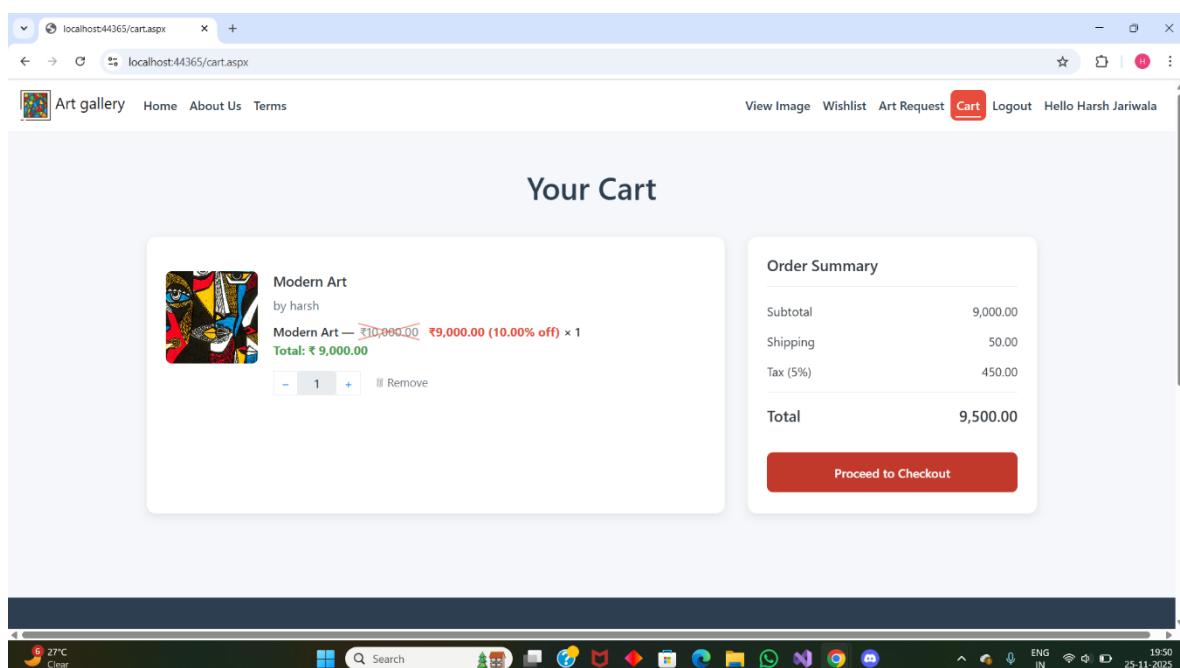
## 9. Custom Art Request Dashboard



The screenshot shows a web browser window with the URL `localhost:44365/UserRequestArt.aspx`. The page has a navigation bar with links: Art gallery, Home, About Us, Terms, View Image, Wishlist, Art Request (highlighted), Cart, Logout, and Hello Harsh Jariwala. Below the navigation bar, there are two buttons: Request Custom Art and Bid on Requests. The main content area is divided into two sections. The left section, titled 'Request Custom Art', contains a form with the following fields: Art Title (text input), Description (text area), Select Artist (optional) (dropdown menu with '-- Select Artist --'), and Upload Reference Image (file upload button). Below the form, there is a note: 'If you don't select, it will go to the Bid section.' The right section, titled 'My Requests', displays a list of requests. The first request is titled 'Harmony of Faces' and includes a thumbnail image of a cubist painting. The description for this request is: 'Create an abstract cubist painting showing human connection through geometric shapes and vibrant colors. Use bold overlapping faces with warm and cool tones for balance. Add symbolic details like birds or patterns for meaning.' The artist is listed as 'harsh', the status is 'Payment Completed', and it was requested on '30-Oct-2025'.

The page allows users to submit custom artwork requests by entering details, selecting an artist, and uploading a reference image. A section on the right displays previously requested artworks along with their status.

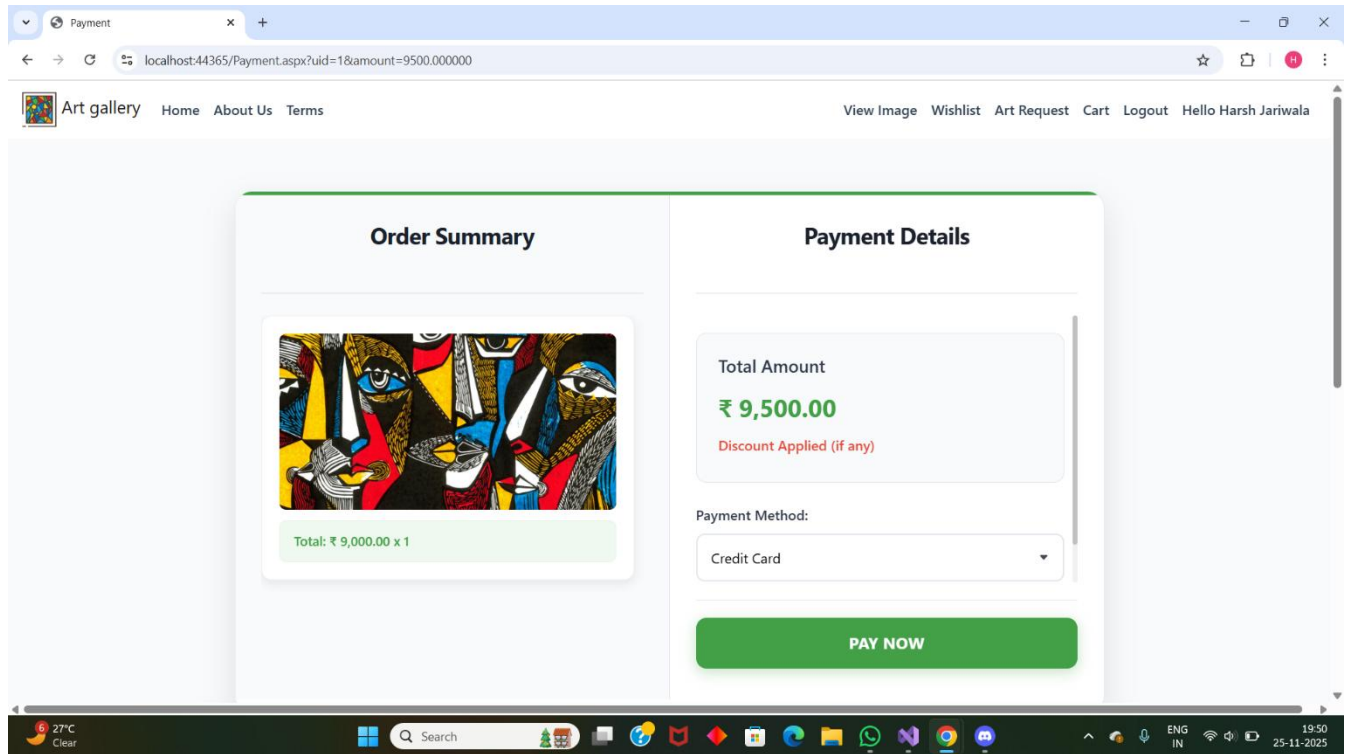
## 10. User Shopping Cart Overview



The screenshot shows a web browser window with the URL `localhost:44365/cart.aspx`. The page has a navigation bar with links: Art gallery, Home, About Us, Terms, View Image, Wishlist, Art Request, Cart (highlighted), Logout, and Hello Harsh Jariwala. The main content area is titled 'Your Cart' and displays a list of items in the cart. The first item is 'Modern Art' by harsh, with a thumbnail image of a cubist painting. The price is shown as ~~₹10,000.00~~ ₹9,000.00 (10.00% off) x 1. The total for this item is ₹9,000.00. Below the item, there is a quantity selector (1) and a 'Remove' button. To the right of the cart items, there is an 'Order Summary' section with the following details: Subtotal (9,000.00), Shipping (50.00), Tax (5%) (450.00), and Total (9,500.00). Below the order summary, there is a 'Proceed to Checkout' button.

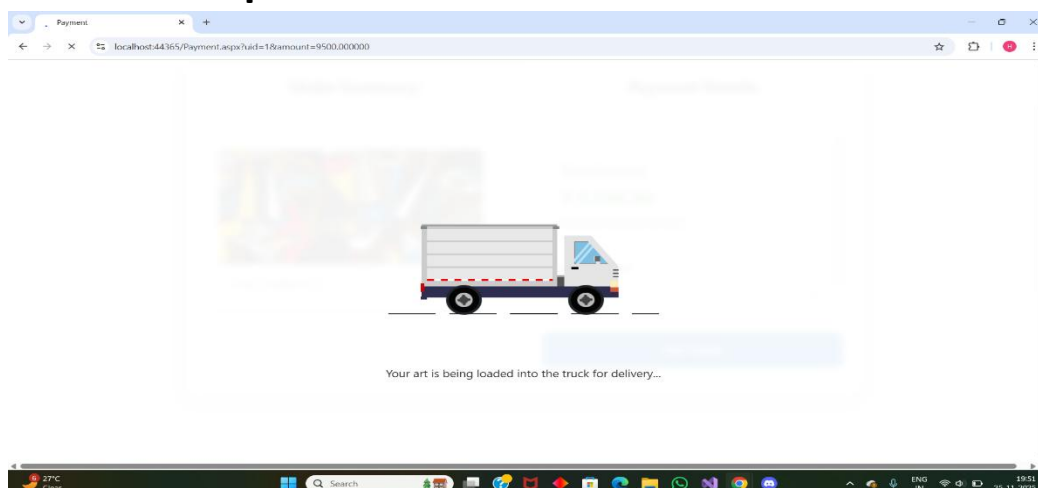
This screen shows items added to the cart with quantity controls, discount details, and an order summary. Users can review pricing, shipping, and tax before proceeding to checkout.

## 11. Secure Payment Checkout



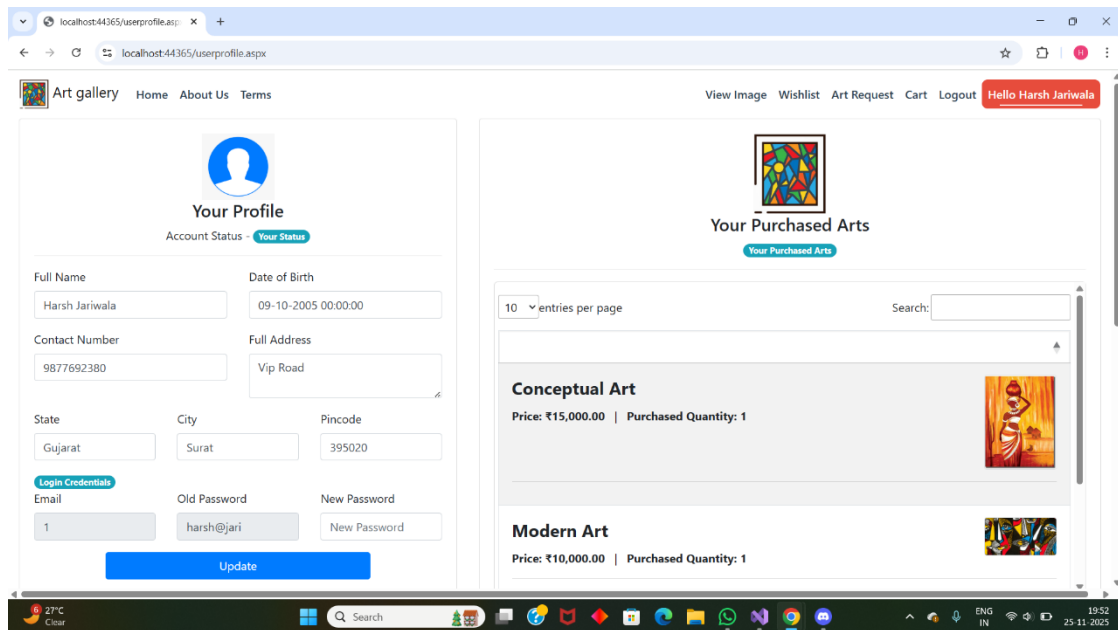
The payment page summarizes the selected artwork with the final amount payable. Users can choose their preferred payment method and complete the transaction using the “Pay Now” button.

## 12. Order Dispatch Animation



A delivery animation indicates that the purchased artwork is being prepared and loaded for shipment. It provides a smooth transition after successful payment.

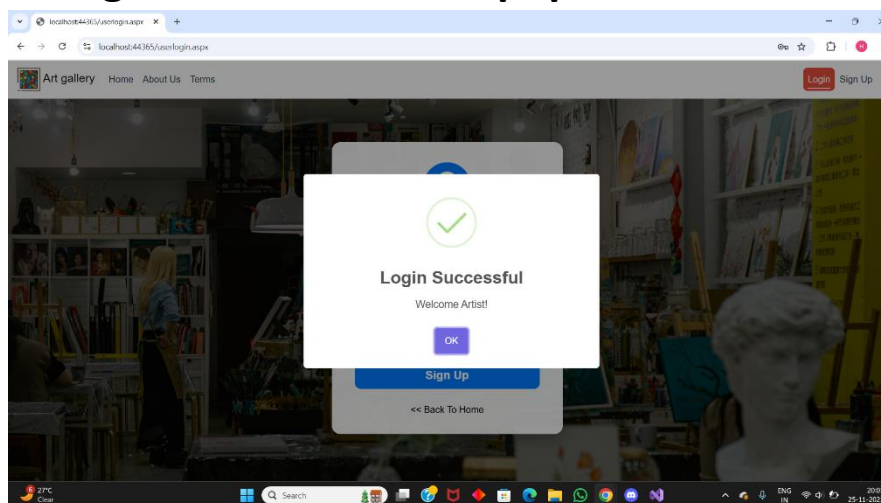
### 13. User Profile and Purchase History



This page displays detailed user information including contact, address, and login credentials. A dedicated section lists all purchased artworks with pricing and quantity details.

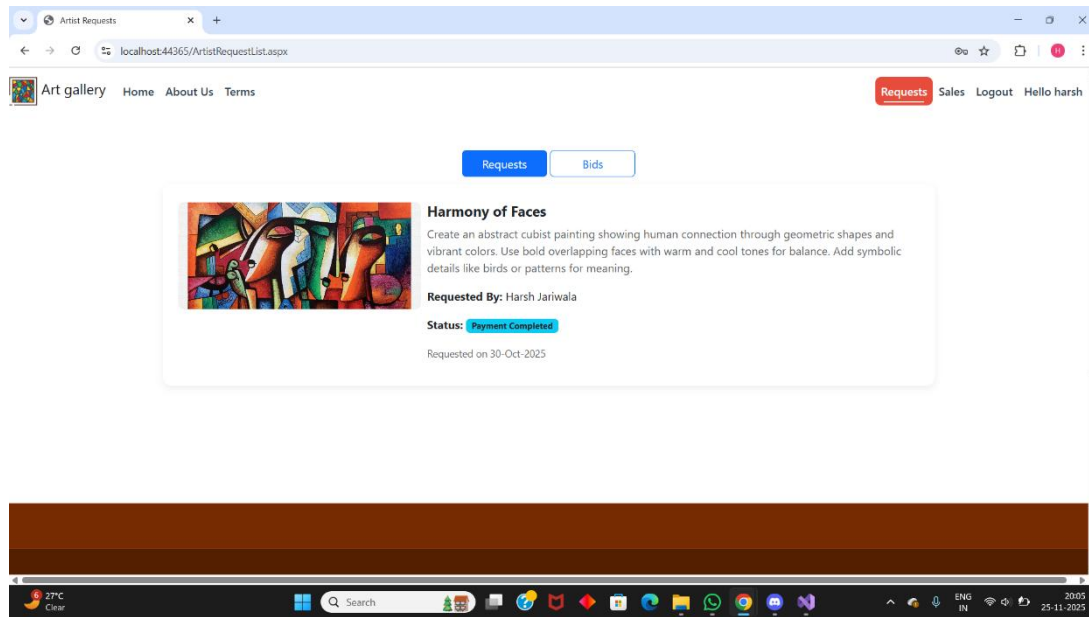
ArtistSide:

### 14. Login Confirmation Popup



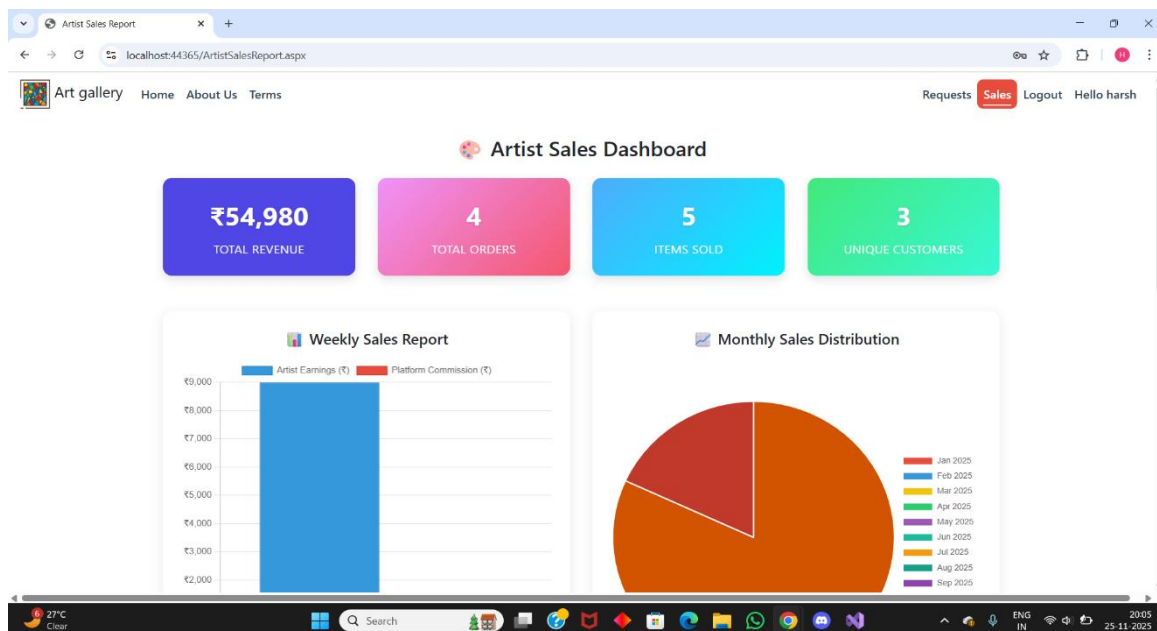
This popup appears after a successful login, confirming the user's authentication. It features a clean success icon, a welcome message, and a single "OK" button.

## 15. Artist Request Overview



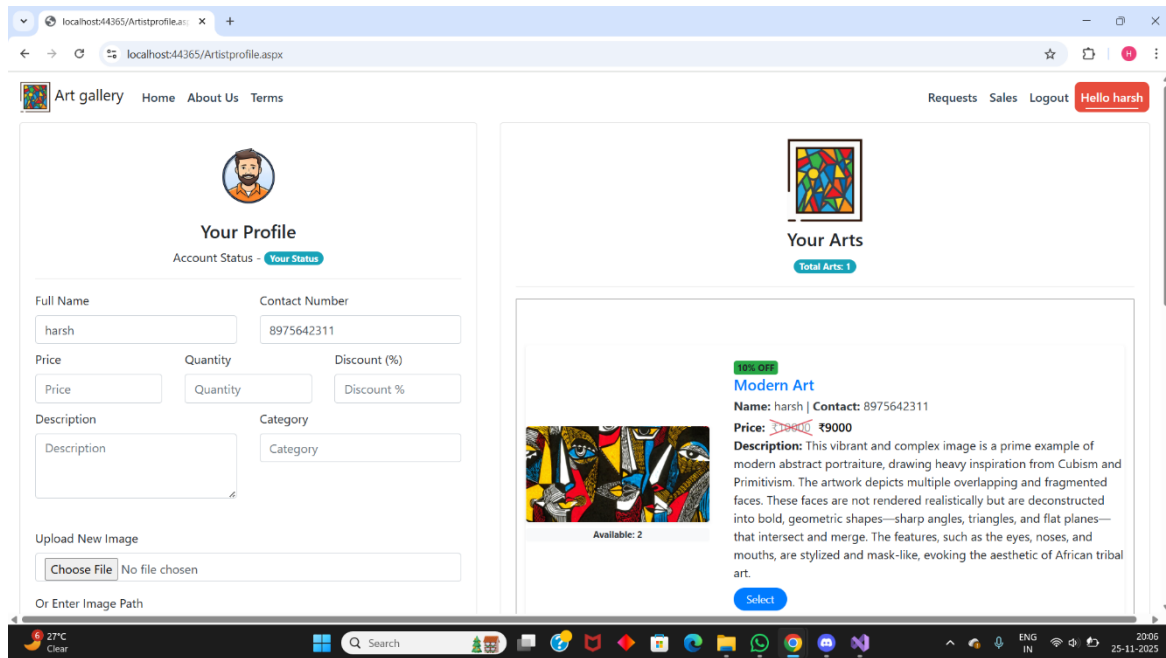
This page displays custom art requests received by the artist, along with artwork previews. Each request includes details such as title, description, requester name, and payment status. The clean layout helps artists easily track ongoing commissions and work priorities.

## 16. Artist Sales Analytics Dashboard



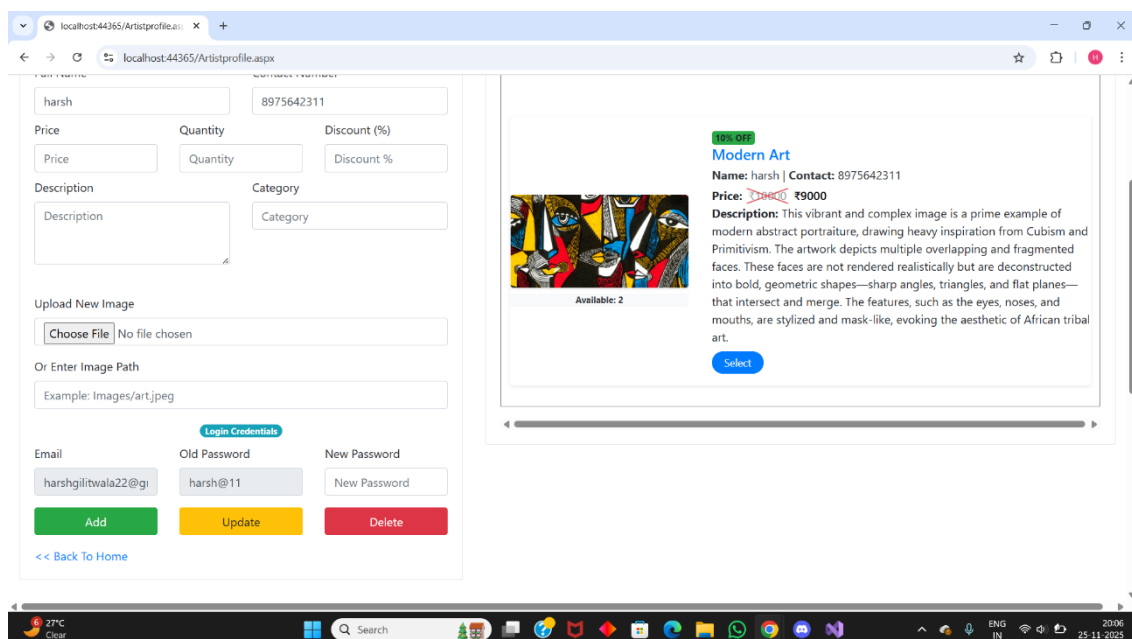
The dashboard provides a detailed summary of the artist's sales performance. It features metrics like total revenue, total orders, items sold, and customer count. Charts visualize weekly earnings and monthly distribution, helping artists analyze trends.

## 18. Artist Profile and Art Listing Panel



This screen allows the artist to manage personal details, artwork details, and uploaded images. The right section displays the artist's listed artworks with pricing, contact info, and discount badges. It enables easy editing, uploading, and managing of artwork inventory.

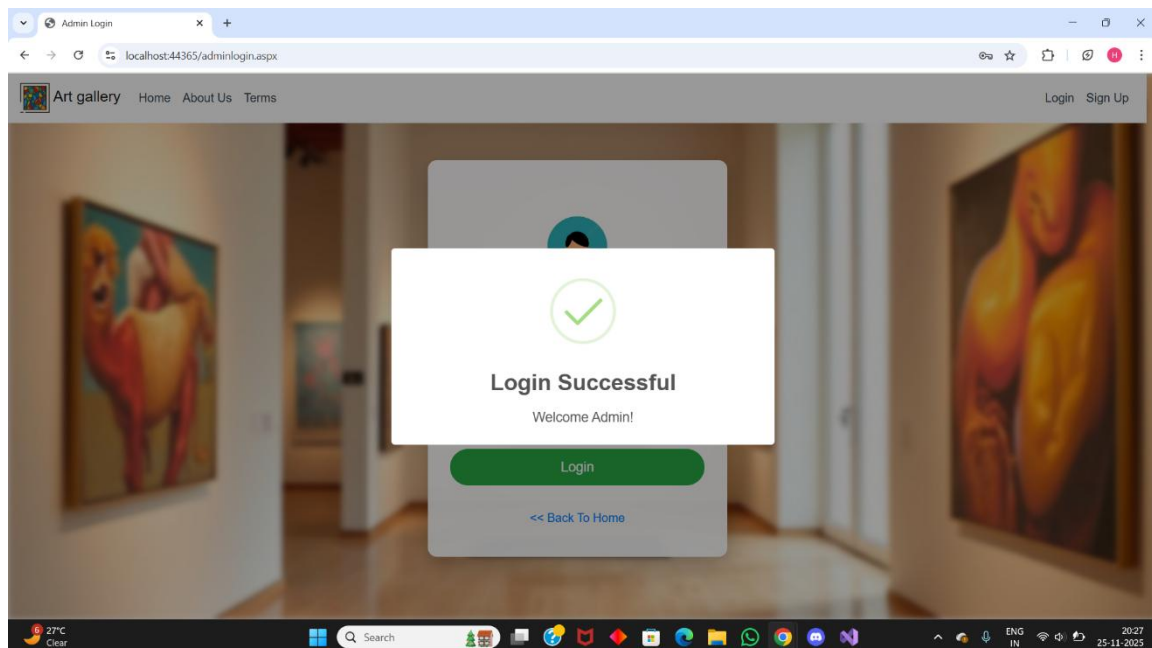
## 19. Artist Profile Editing & Login Management



This section provides options to upload new artwork images and update account details. Artists can add or edit artwork specs like price, quantity, and categories.

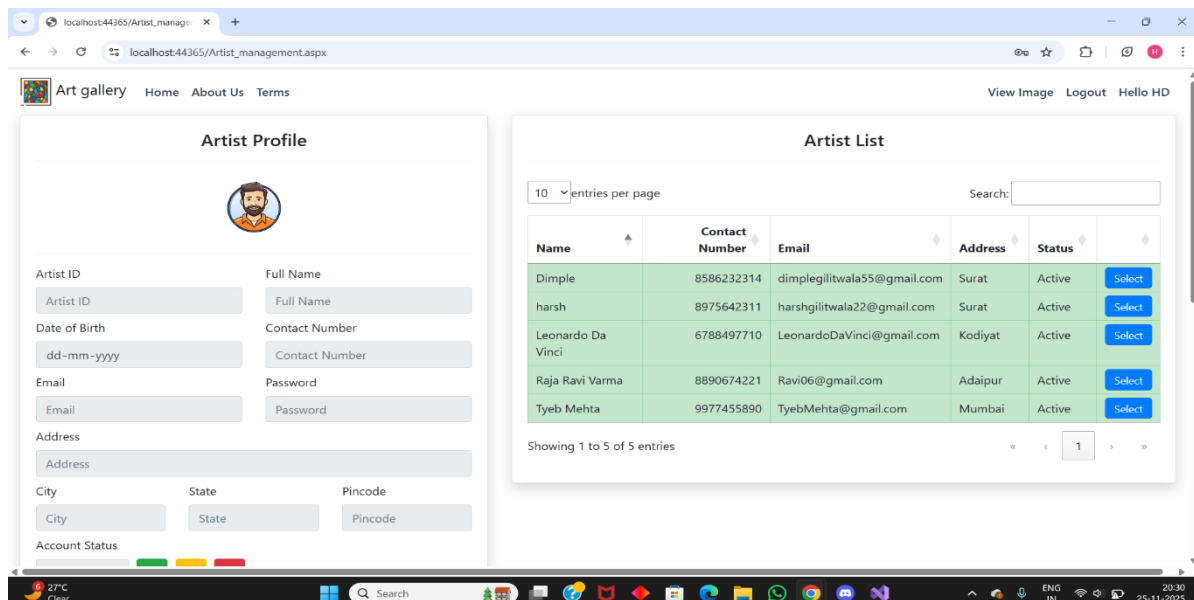
## AdminSide:

### 20. Admin Login Confirmation



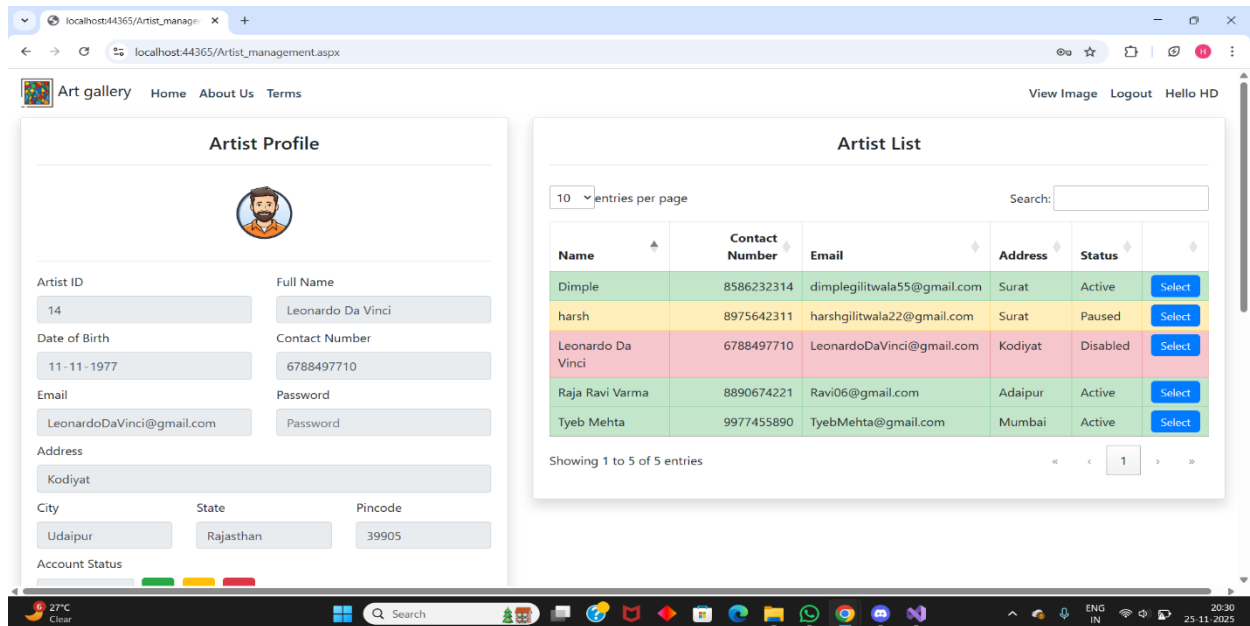
This screen displays a confirmation popup indicating a successful admin login. A clean white box with a green checkmark reassures the user that authentication was successful. The blurred art-gallery background maintains the website's aesthetic. A button allows the admin to return to the home page.

### 21. Artist Management Dashboard



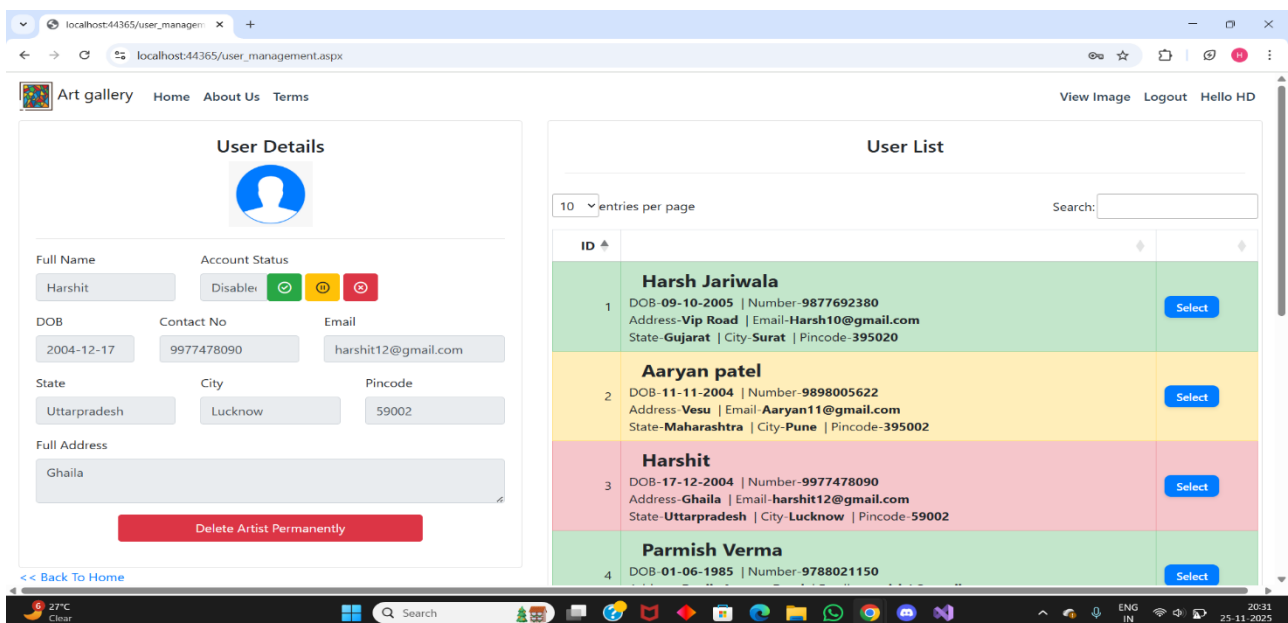
This page provides an interface for managing artist records, featuring a detailed profile form on the left. Administrators can search, select, and edit artists from the table on the right. The clean layout helps staff efficiently manage artist details.

## 22. Artist Detail View and Status Update



After selecting an artist from the list, all corresponding details are displayed in the profile section. The table highlights each artist's status with color-coded rows such as Active, Paused, and Disabled. This view allows administrators to modify the artist's information quickly. The intuitive interface helps streamline administrative workflows.

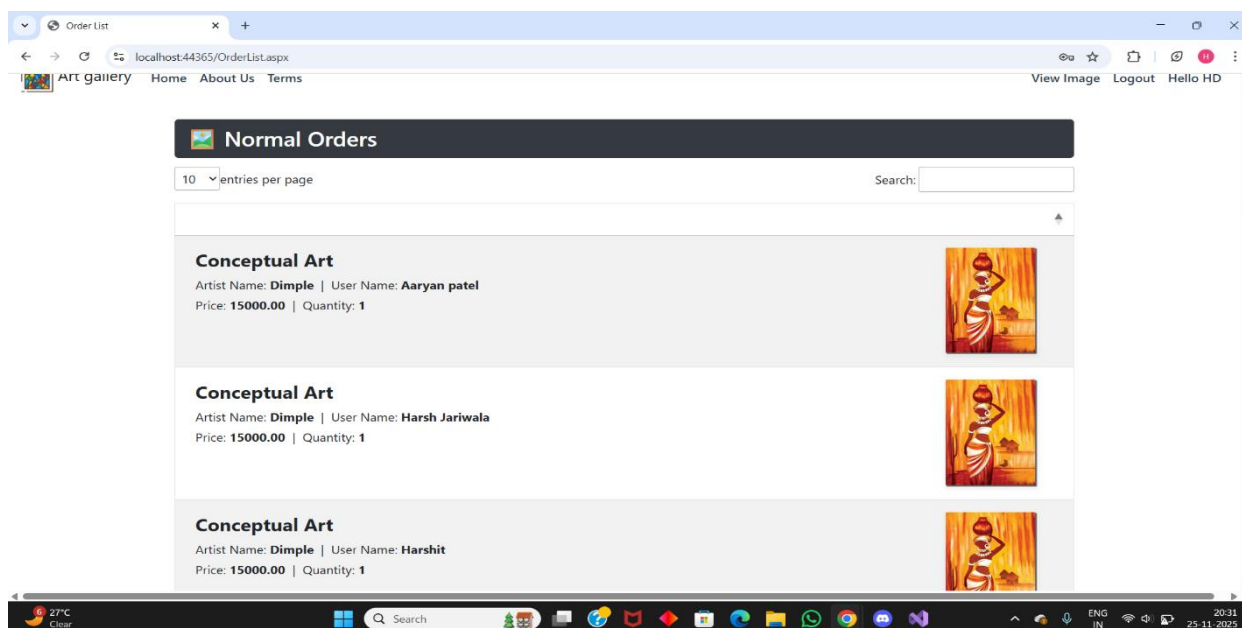
## 23. User Account Management Panel



This section displays a selected user's complete profile including personal details, contact information, and address. Admins can update account status using interactive buttons or permanently delete the user.

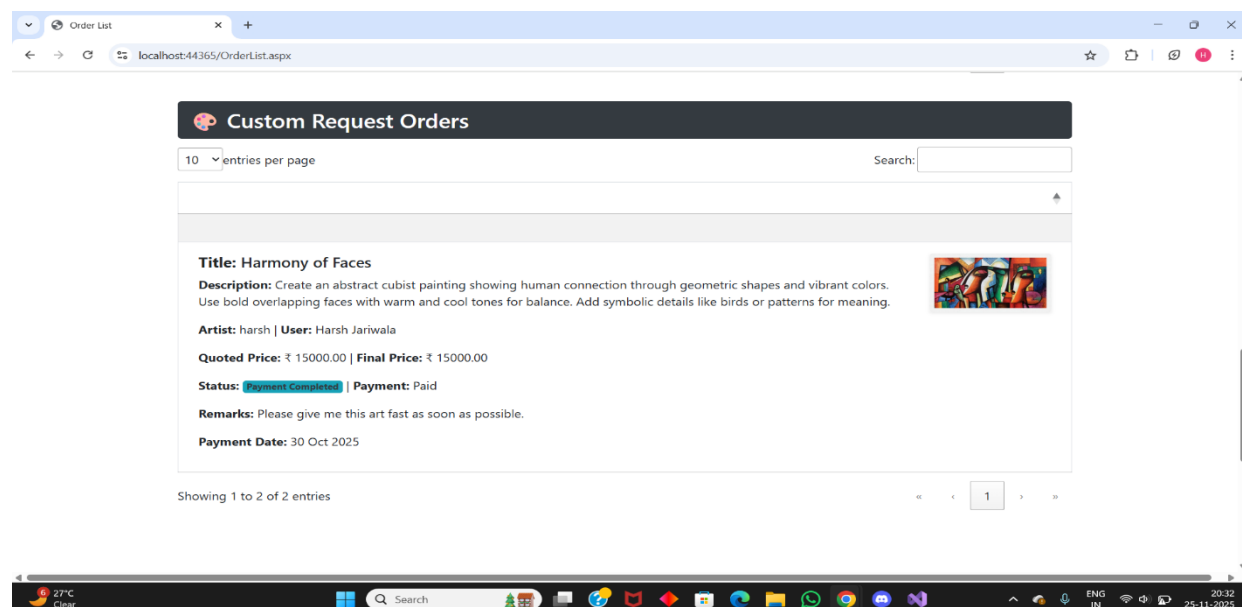


## 24. Standard Artwork Orders Overview



This screen lists customers' normal purchase orders along with artwork thumbnails. Each entry includes the artwork name, artist, user, price, and quantity. The layout ensures quick review of all purchases at once. It allows admins to track customer activity and order flow efficiently.

## 25. Custom Artwork Order Summary



This page presents complete details of a custom art request submitted by a user. The order includes a title, description, artist, user, pricing, payment status, and special remarks. An image preview helps verify the requested concept. The interface provides clarity for managing custom commission workflows.



## **Implementation Details**

### **Technology Stack:**

#### **Backend Technologies**

- ASP.NET Web Forms 4.7.2 for server-side application logic
- C# for business logic implementation in code-behind files
- ADO.NET for database connectivity and operations
- SQL Server for relational database management
- IIS (Internet Information Services) for web server hosting

#### **Frontend Technologies**

- HTML5 for page structure and content
- CSS3 with Bootstrap 4 for responsive design and styling
- JavaScript for client-side validation and dynamic interactions
- AJAX for asynchronous data updates without page refresh

#### **Development Tools**

- Visual Studio 2019/2022 as integrated development environment
- SQL Server Management Studio for database design and management
- FileUpload control for handling artist profile and artwork images

## **Conclusion and Future Scope**

### **Conclusion:**

- The Online Art Gallery Management System provides a complete digital platform that connects artists and buyers through a secure, organized, and user-friendly interface.
- It solves the problem of limited online visibility for artists by offering easy artwork uploads, browsing, and purchasing features.
- Built with ASP.NET Web Forms and SQL Server, the system ensures stable performance, secure data storage, and proper role-based access control.
- Core functions like artist approval, artwork management, shopping cart operations, order processing, and sales reporting work correctly and maintain transaction accuracy.
- The system offers smooth navigation and intuitive interfaces for admins, artists, and users, making it a practical solution for online art commerce.

### **Future Scope:**

- Integrate real payment gateways (Razorpay, PayPal, Stripe) and add powerful search filters to improve transactions and artwork discovery.
- Introduce rating & review systems, social media sharing, and wishlist features to increase user engagement and trust.
- Add an auction feature for bidding on unique artworks, and implement a messaging system for direct artist-buyer communication.
- Develop Android/iOS mobile applications enabling users to browse, purchase, and manage artwork from anywhere.
- Enhance analytics dashboards and add print-on-demand services to provide better insights and additional revenue opportunities for artists.