

ART ENCLAVE - ONLINE ART GALLERY WEBSITE

A MINI PROJECT REPORT

Submitted by

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In partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE



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2024-2025

BONAFIDE CERTIFICATE

Certified that this project report "**ART ENCLAVE**" is the bonafide work of

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who carried out the project work under my supervision.

Submitted for the Practical Examination held on _____

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ACKNOWLEDGEMENT

I express my sincere thanks to my beloved and honorable chairman **MR. S. MEGANATHAN** and the chairperson **DR.M.THANGAM MEGANATHAN** for their timely support and encouragement.

I am greatly indebted to my respected and honorable principal **Dr. S.N .MURUGESAN** for his able support and guidance. No words of gratitude will suffice for the unquestioning support extended to us by my head of the department **Dr. P. KUMAR**, and my Academic Head **Dr.N.DURAIMURUGAN**, for being ever supporting force during my project work.

I also extend my sincere and hearty thanks to my internal guide **Mrs. JANANEE V** for her valuable guidance and motivation during the completion of this project.

My sincere thanks to my family members, friends and other staff members of Computer Science and Engineering.

Maheswari R J 2116220701155

ABSTRACT

Art Enclave is an innovative digital platform that revolutionizes how artists and art enthusiasts connect, transforming the art world into a more accessible and inclusive digital space. The platform provides a dedicated online gallery where artists can create profiles, upload artwork, and interact directly with a global audience of buyers, art lovers, and fellow creators. By empowering artists to manage their digital presence and sales independently, Art Enclave removes traditional barriers like physical gallery constraints, high commission fees, and geographical limitations.

Central to Art Enclave's mission is its user-friendly interface, designed with both artists and art lovers in mind. For artists, the platform offers tools to create an immersive and tailored portfolio, allowing them to organize work by style, genre, or theme and set their own pricing. High-resolution image uploads showcase artwork in great detail, while analytics provide insights into audience engagement and preferences. Art Enclave also hosts virtual events, like live art sessions and exhibitions, creating opportunities for artists to expand their reach and gain recognition in a supportive community.

Art Enclave provides an engaging experience for buyers and art lovers, offering advanced search and filtering tools that make it easy to discover art based on personal tastes, specific artists, or even color schemes. The platform integrates secure payment systems and offers multiple transaction methods, ensuring a safe and convenient purchasing process. By following their favorite artists, buyers receive notifications on new uploads or upcoming virtual shows, fostering a continuous and dynamic connection with the art they love.

Art Enclave's comprehensive approach to art presentation and sale, community engagement, and technological accessibility makes it a transformative digital space for the art world. By bridging the gap between artists and a global audience, Art Enclave not only empowers creators to succeed on their terms but also democratizes access to art, making it available to enthusiasts worldwide. Through this inclusive, interactive, and community-driven platform, Art Enclave is redefining the digital art experience.

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1. INTRODUCTION

1.1. INTRODUCTION

Art has long been confined to physical galleries and exhibitions. With the rapid growth of digital platforms, there is a pressing need for an online space dedicated solely to artists where they can exhibit their creations. Art Enclave addresses this gap by providing an easy-to-use platform for artists to upload their work, receive feedback, and even sell their pieces. This system caters to the needs of both emerging and established artists by providing a vast, global audience at their fingertips.

1.2. SCOPE OF THE WORK

The scope of this project includes the creation of an interactive online gallery system where artists can register, upload their work, manage their portfolio, and interact with buyers. The platform will also allow users to browse through different art categories, search for specific artists or artworks, and engage in secure purchases. Additionally, Art Enclave offers administrators the ability to manage user accounts, moderate uploaded content, and oversee sales.

1.3. AIM AND OBJECTIVE OF THE PROJECT

The primary aim of Art Enclave is to create an accessible digital space for artists and art enthusiasts to interact. The key objectives include:

- Creating a user-friendly interface for both artists and buyers.
- Enabling secure art uploads and transaction processes.
- Providing easy navigation and search capabilities.
- Facilitating direct interaction between artists and their audience

2. SYSTEM SPECIFICATIONS

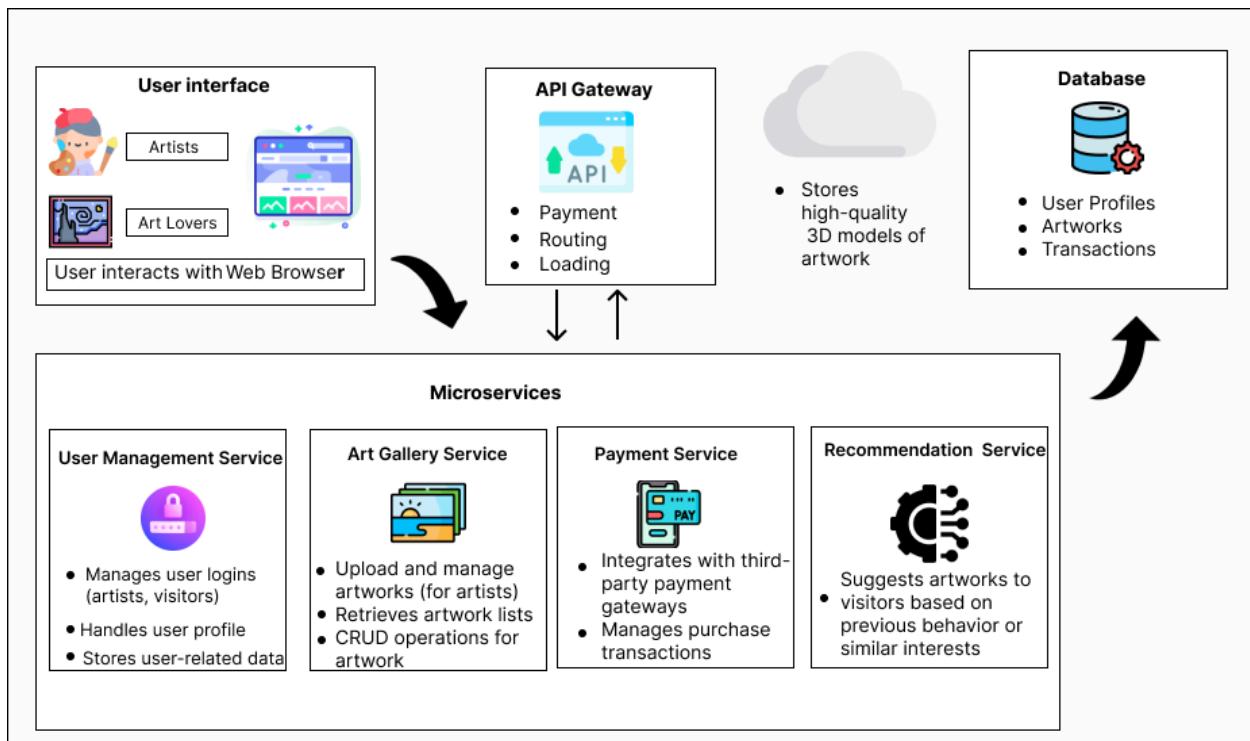
2.1. Hardware Specifications

- **Server:** AWS Cloud (Elastic Compute Cloud – EC2)
- **Storage:** AWS S3 for media storage and backup
- **RAM:** 16 GB DDR4 for development and hosting servers
- **Processor:** Intel Xeon processor
- **Internet Connection:** Minimum 10 Mbps for deployment servers

2.2. Software Specifications

- **Front-End:** HTML5, CSS3, JavaScript
- **Back-End:** Node.js, Express.js
- **Database:** MongoDB for storing user and artwork information
- **API:** RESTful services for communication between client and server
- **Version Control:** Git, GitHub
- **Development Tools:** Visual Studio Code, Postman for API testing

3. ARCHITECTURE DIAGRAM



4. MODULE DESCRIPTION

User Interface

- **Artists & Art Lovers:**

These are the two main types of users interacting with the platform. Artists use the system to upload and manage their artwork, while art lovers (or buyers) browse and purchase artworks. The interface is accessed through a web browser, ensuring ease of use for both parties.

API Gateway

- The **API Gateway** serves as the middleman between the user interface and the back-end services. It handles:
 - **Payment** processing, routing requests to the payment service.
 - **Routing** various requests like viewing artworks, making purchases, or updating user profiles.
 - **Loading** different services by routing them to the appropriate microservice based on the user's request.

Database

- The platform's database stores:
 - **User Profiles:** Information about both artists and visitors.
 - **Artworks:** Details and metadata about each uploaded piece of artwork.
 - **Transactions:** Data on the transactions between buyers and artists.

Microservices/Modules

1. **User Management Module**

- **Manages user logins:** Handles the authentication and authorization of users.
- **Handles user profile:** Artists can manage their personal information and portfolio, while visitors can update their preferences.
- **Stores user-related data:** All relevant information about users is stored securely in the database.

2. Art Gallery Module

- **Upload and manage artworks:** Artists can upload new artworks, update existing ones, and manage their portfolio.
- **Retrieves artwork lists:** Art lovers can browse through various artwork collections using different filters.
- **CRUD operations:** Supports Create, Read, Update, and Delete (CRUD) actions for artwork, allowing flexible management of the gallery.

3. Payment Module

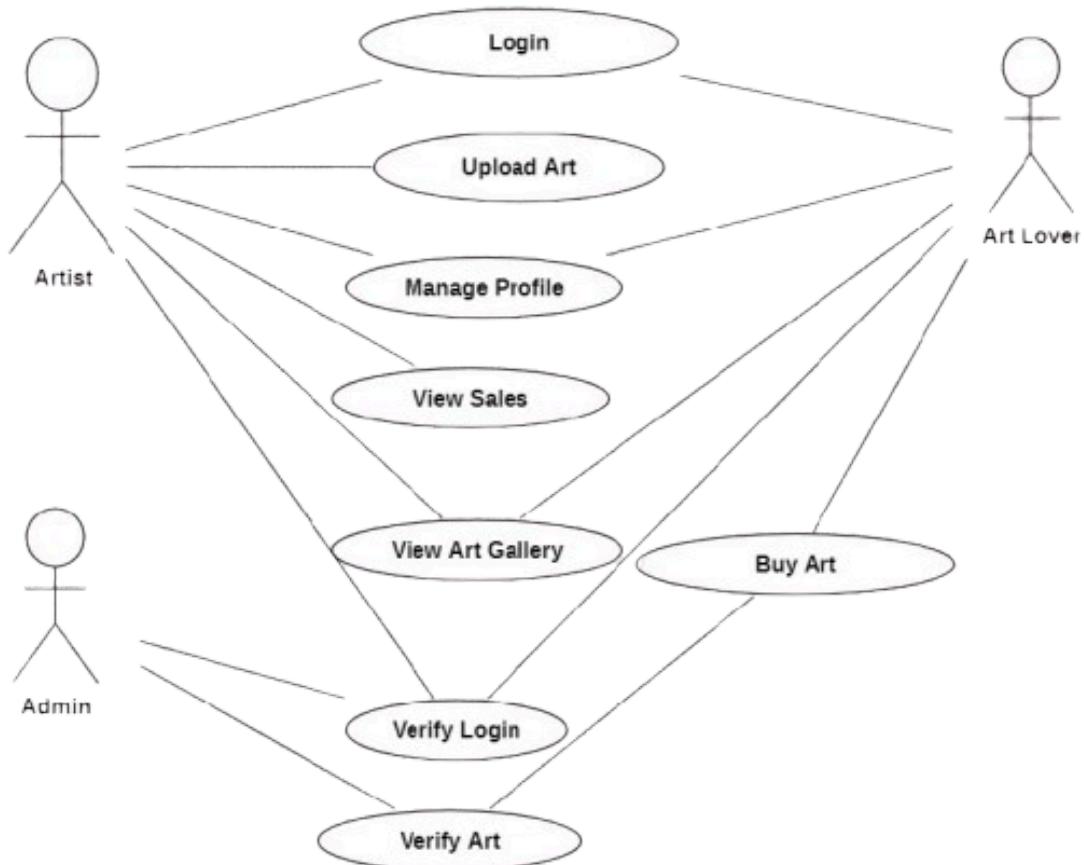
- **Integrates with third-party payment gateways:** Facilitates secure financial transactions between buyers and artists by working with systems like Stripe or PayPal.
- **Manages purchase transactions:** Ensures that payments are processed and recorded efficiently.

4. Recommendation Module

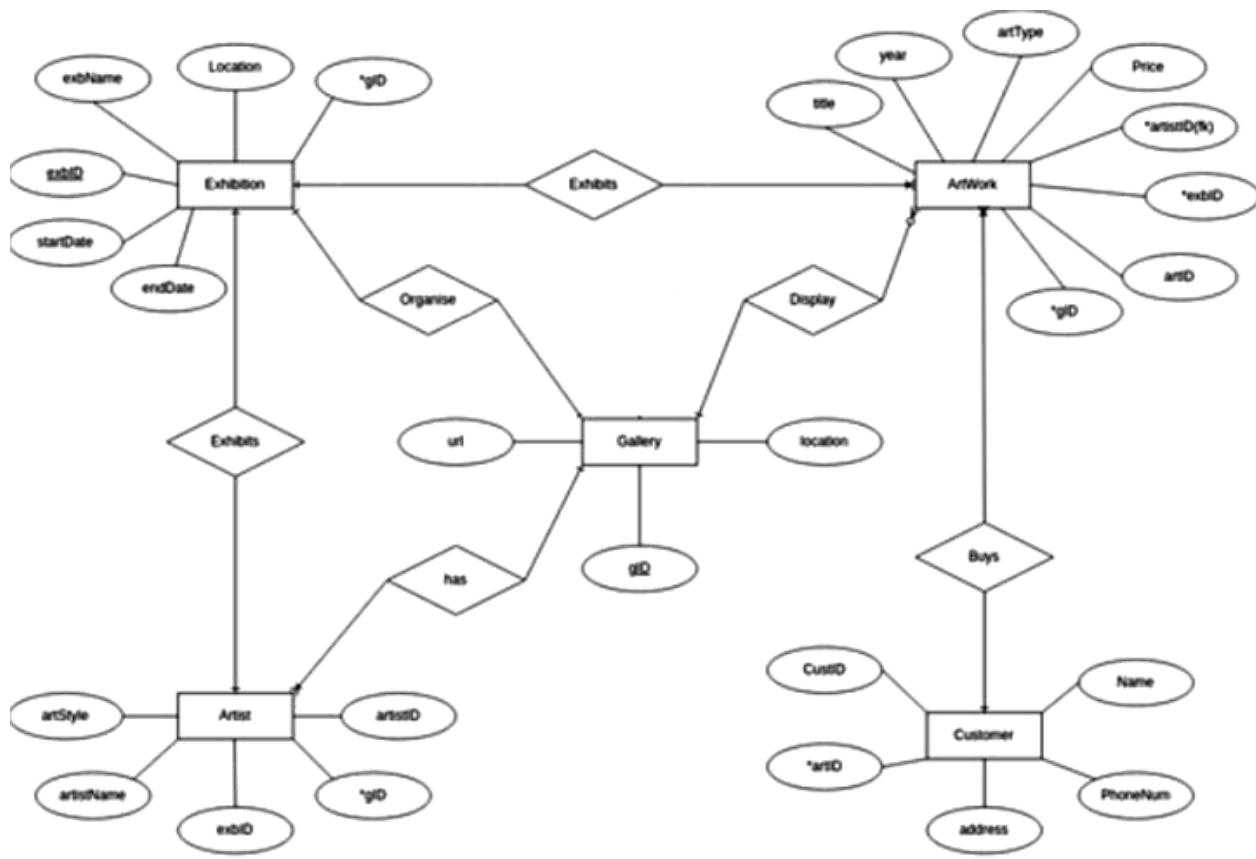
- **Suggests artworks to visitors:** Uses algorithms to suggest artwork to users based on their browsing history, preferences, or similar interests.
- This feature enhances user engagement by helping visitors discover new artwork that aligns with their tastes.

5. SYSTEM DESIGN

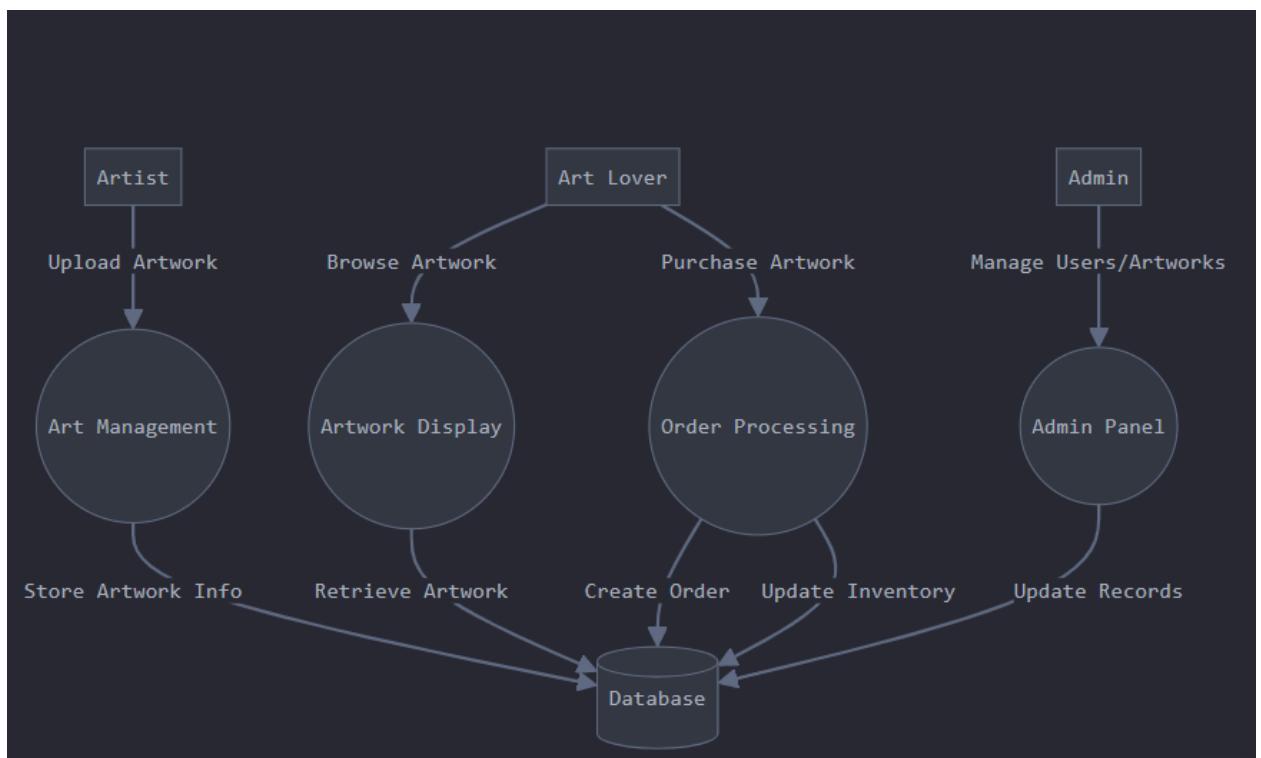
5.1 USE CASE DIAGRAM



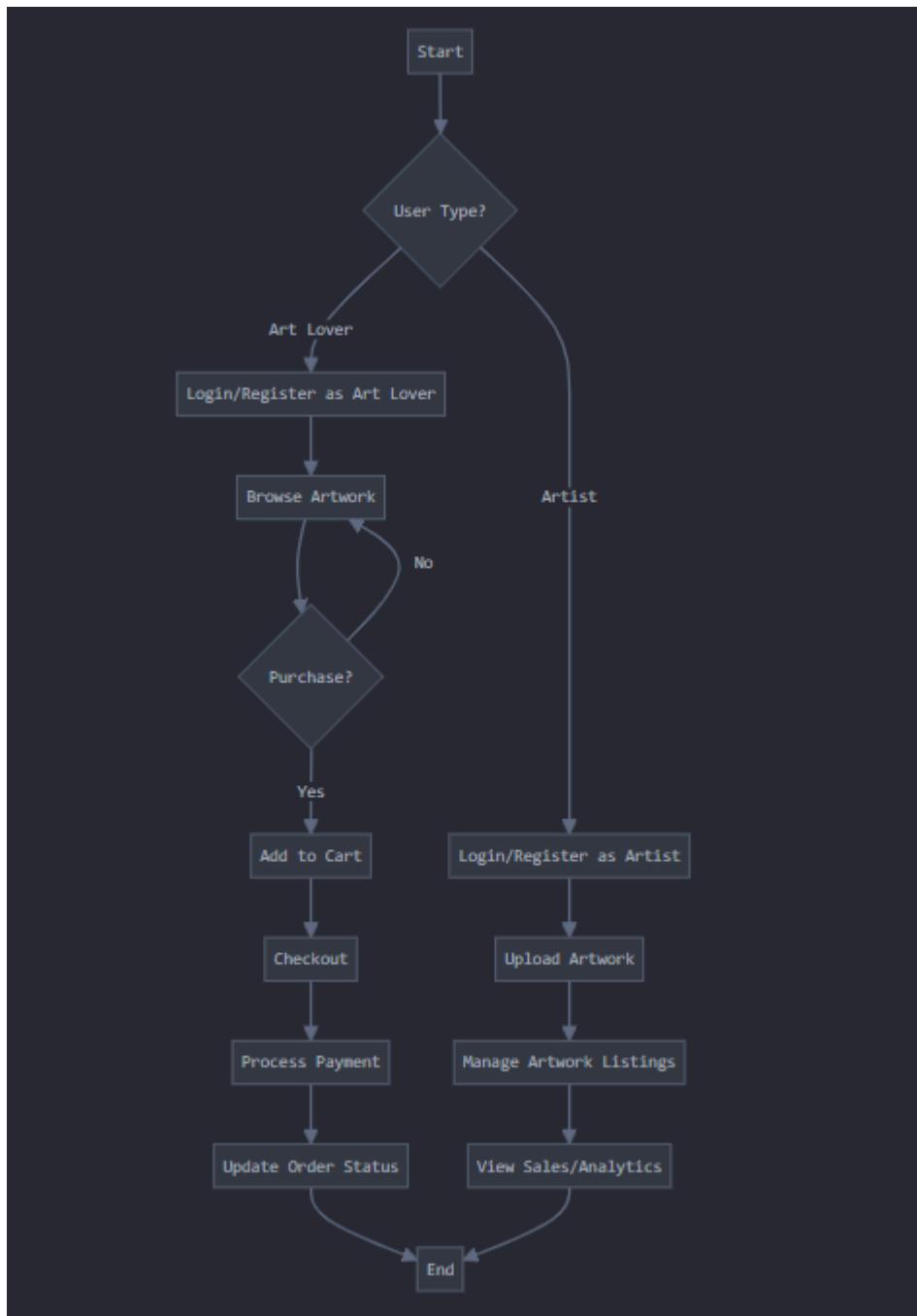
5.2 ER DIAGRAM



5.3 DATA FLOW DIAGRAM



5.4 ACTIVITY DIAGRAM



CHAPTER 6

SAMPLE CODING

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link rel="preconnect" href="https://fonts.googleapis.com">
    <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
    <link href="https://fonts.googleapis.com/css2?family=Montserrat:wght@400;700&family=Playfair+Display:wght@400;700&display=swap" rel="stylesheet">
    <link href="https://fonts.googleapis.com/css2?family=Alice&display=swap" rel="stylesheet">

    <link rel="stylesheet" href="home.css">
    <script src="home.js"></script>
</head>
<body>
<header>
    <nav>
        
        <div class="nav-links">
            <a href="#hero">Home</a>
            <a href="#about-section">About</a>
            <a href="#gallery">Gallery</a>
            <a href="#testimonials">Testimonials</a>
            <a href="#footer">Contact</a>
        </div>
```

```
</nav>

</header>

<section class="hero" id="hero">
  <div class="hero-content">
    <div class="text-section">
      <h1 class="art">WELCOME TO ART ENCLAVE</h1>
      <p>Where Creativity Knows No Boundaries.Unleash your imagination and step into a world where art meets innovation.Discover breathtaking masterpieces, connect with creators,<br> and fuel your passion for art like never before.</p>
      <div class="cta-buttons">
        <button class="artist-join" onclick="window.location.href='login.html'"><span>JOIN AS ARTIST</span><img class="but" src=artist.png></button>
        <button class="artist-join" onclick="window.location.href='loginartlover.html'"><span>JOIN AS ART LOVER</span><img class="but" src=artlover.png></button>
      </div>
    </div>
    <div class="illustration-section">
      
    </div>
  </div>
</section>

<!--About session-->
<section class="about-section" id="about-section">
  <div class="about-text">
    <h1>ABOUT</h1>
```

<p>Art Enclave is a vibrant platform where artists and art enthusiasts unite, bridging the gap between creativity and community. Our dynamic space fosters collaboration, inspiration, and growth, providing a unique environment where artistic visions thrive.</p>

</div>

```
<div class="container">
  <div class="section">
    <div class="glowing-image-container">
      
    </div>
    <div class="content">
      <h2>For Artists:</h2>
      <h3>Unleash Your Talent</h3>
      <p>Step into a world where your art shines! Showcase your masterpieces, reach a global audience, and connect with other passionate artists. Stay updated on exhibitions and events to elevate your career. Your journey starts now!</p>
      <a href="#" class="cta-button">Join Now</a>
    </div>
  </div>
```

```
<div class="section">
  <div class="glowing-image-container">
    
  </div>
  <div class="content">
    <h2>For Art Lovers:</h2>
    <h3>Discover, Connect, Collect</h3>
    <p>Immerse yourself in breathtaking art from around the world. Find your next inspiration or addition to your collection. Stay in the loop with upcoming exhibitions and events. Your next favorite piece is just a click away!</p>
    <a href="#" class="cta-button">Join Now</a>
  </div>
```

```
</div>
</div>
</div>
</section>

<!-- Gallery Preview -->
<!-- Gallery Preview -->
<style>
  * {
    margin: 0;
    padding: 0;
    box-sizing: border-box;
  }

.gallery {
  font-family: 'Poppins', sans-serif;
  background: #fbdde2; /* Light pink background */
  color: #fff;
  min-height: 100vh;
  display: flex;
  flex-direction: column;
  justify-content: center;
  align-items: center;
  overflow-x: hidden;
}

.gallery-title {
  text-align: center;
  font-size: 3rem;
  margin-bottom: 3rem;
  color: #fff;
```

```
text-transform: uppercase;
letter-spacing: 3px;
animation: neonText 1.5s infinite alternate;
}

.carousel-container {
width: 100%;
max-width: 1400px;
height: 500px;
position: relative;
display: flex;
justify-content: center;
align-items: center;
padding: 0 60px;
}

.carousel {
display: flex;
justify-content: center;
align-items: center;
gap: 2rem;
transition: transform 0.5s ease;
position: absolute;
left: 50%;
transform: translateX(-50%);
}

/* Border animation on hover */
.carousel-item:hover {
border-color: #f2808a; /* Cyan border color */
box-shadow: 0 0 20px rgba(210, 65, 130, 0.879); /* Slight glow */
}
```

```
    transition: border-color 0.3s ease-in-out;  
}  
  
/* Ensure visibility of text on hover */  
.item-details {  
    position: absolute;  
    bottom: 0;  
    left: 0;  
    width: 100%;  
    padding: 1rem;  
    background: rgba(0, 0, 0, 0.9); /* Dark background for visibility */  
    backdrop-filter: none; /* No blur */  
    border-radius: 0 0 15px 15px;  
    opacity: 0;  
    transition: opacity 0.3s ease, transform 0.3s ease;  
    color: #fff;  
}  
}
```

```
.nav-button:hover {  
    background: #fff;  
    box-shadow: 0 0 20px rgba(239, 43, 190, 0.721);  
}
```

```
#prevBtn {  
    left: 20px;  
}
```

```
#nextBtn {  
    right: 20px;  
}
```

```

@keyframes neonText {
    from {
        text-shadow: 0 0 10px #fff,
                    0 0 20px #fff,
                    0 0 30px #f330af,
                    0 0 40px #f330af,
                    0 0 50px #f330af;
    }
    to {
        text-shadow: 0 0 5px #fff,
                    0 0 10px #fff,
                    0 0 15px #f2808a,
                    0 0 20px #f2808a,
                    0 0 25px #f2808a;
    }
}
</style>

<section class="gallery" id="gallery">
    <h1 class="gallery-title">Art Enclave Gallery</h1>

    <div class="carousel-container">
        <div class="carousel">
            <!-- Cloned last item for seamless loop -->
            <div class="carousel-item">
                
                <div class="item-details">
                    <h3 class="item-title">Virtual Visions</h3>
                    <p class="item-description">AI-generated artwork curated by David Chen</p>
                </div>
            </div>
        </div>
    </div>
</section>

```

```
</div>
<!-- Original carousel items -->
<div class="carousel-item">
  
  <div class="item-details">
    <h3 class="item-title">Abstract Neon Dreams</h3>
    <p class="item-description">A vibrant exploration of color and light by Sarah
      Chen</p>
    </div>
  </div>
<div class="carousel-item">
  
  <div class="item-details">
    <h3 class="item-title">Digital Dystopia</h3>
    <p class="item-description">Cyberpunk-inspired digital art by Marcus
      Rodriguez</p>
    </div>
  <div class="carousel-item">
    
    <div class="item-details">
      <h3 class="item-title">Neon Noir</h3>
      <p class="item-description">Contemporary photography with a cyberpunk twist by
        Alex Kim</p>
      </div>
    </div>
    <!-- Cloned first item for seamless loop -->
    <div class="carousel-item">
      
      <div class="item-details">
        <h3 class="item-title">Abstract Neon Dreams</h3>
```

```
<p class="item-description">A vibrant exploration of color and light by Sarah  
Chen</p>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
<button class="nav-button" id="prevBtn">←</button>
```

```
<button class="nav-button" id="nextBtn">→</button>
```

```
</div>
```

```
<script>
```

```
function handleLoop() {  
    if (currentIndex === 0) {  
        // Jump to the second-to-last item  
        currentIndex = items.length - 2;  
        updateCarousel(false); // Skip transition  
    } else if (currentIndex === items.length - 1) {  
        // Jump to the second item for smooth looping  
        currentIndex = 1;  
        updateCarousel(false); // Skip transition  
    }  
}
```

```
function next() {
```

```
    currentIndex++;  
    updateCarousel();  
    handleLoop();
```

```
}
```

```
function prev() {
```

```
    currentIndex--;  
    updateCarousel();
```

```
        handleLoop();
    }

nextBtn.addEventListener('click', next);
prevBtn.addEventListener('click', prev);

// Automatic sliding
function startAutoPlay() {
    autoPlay = setInterval(next, 3000); // Change image every 3 seconds
}

function stopAutoPlay() {
    clearInterval(autoPlay);
}

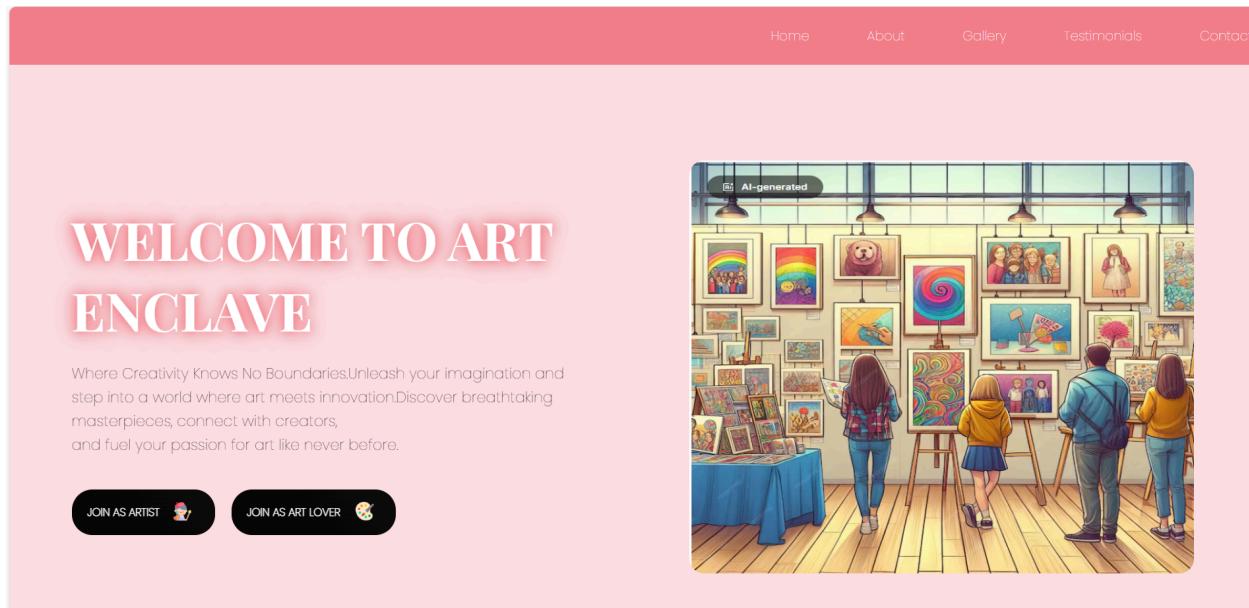
carousel.addEventListener('mouseenter', stopAutoPlay);
carousel.addEventListener('mouseleave', startAutoPlay);

// Initial call to set the position
updateCarousel();
startAutoPlay();
});

</script>
</section>
```

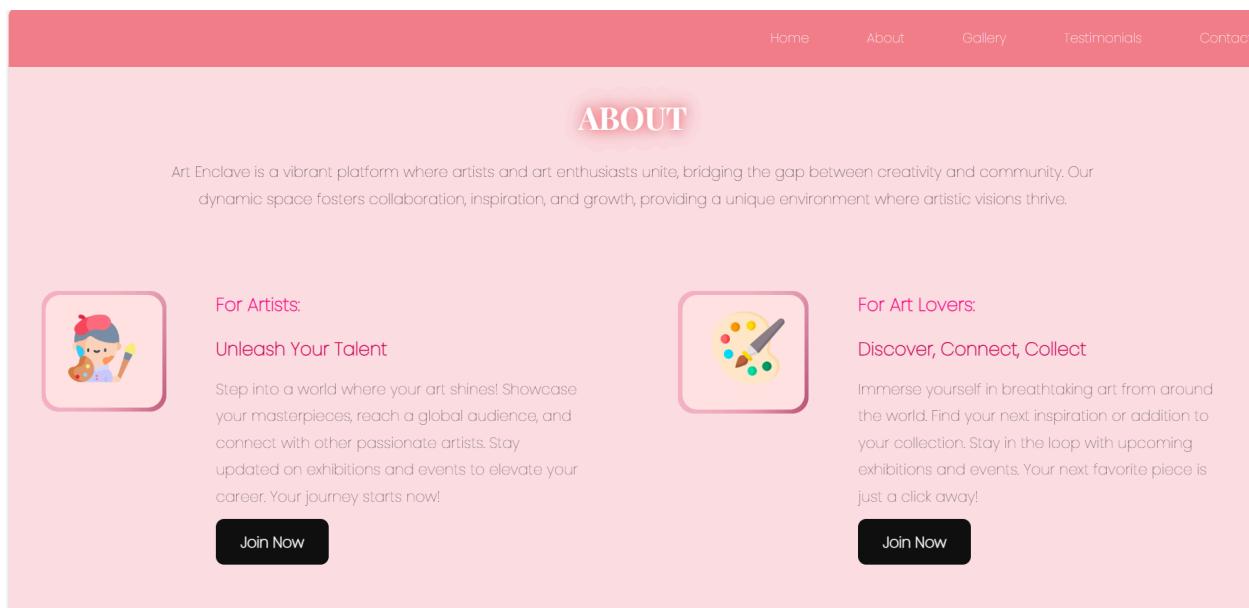
CHAPTER -7

SCREENSHOTS



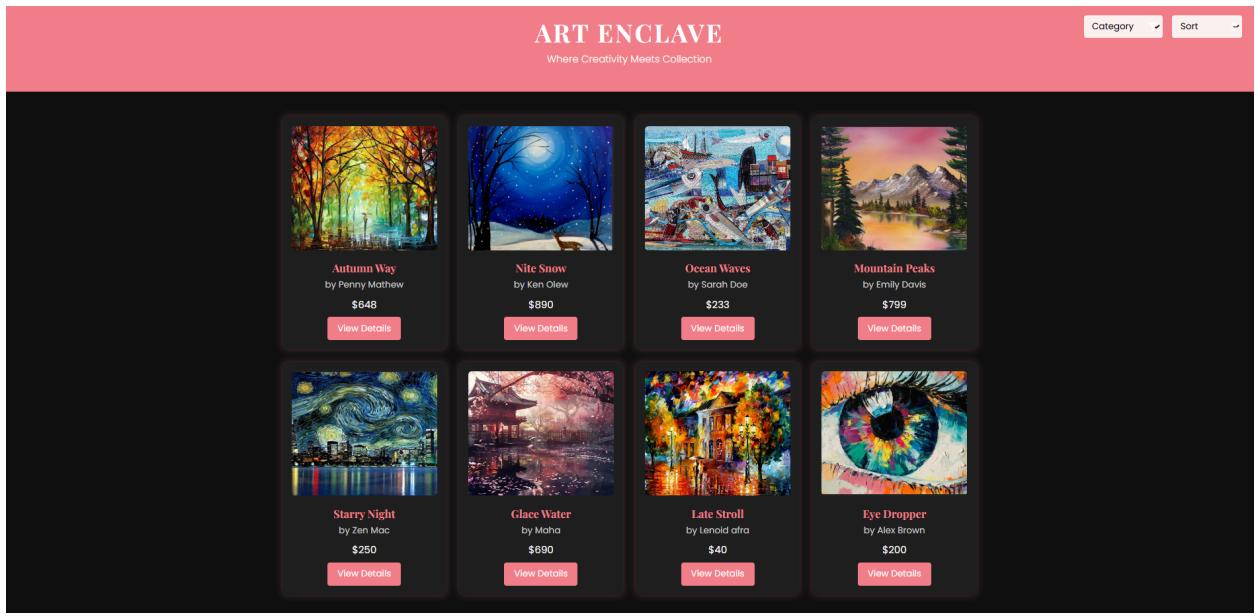
The screenshot shows the homepage of the Art Enclave website. At the top, there is a red navigation bar with links for Home, About, Gallery, Testimonials, and Contact. Below the navigation bar, the main content area has a pink background. On the left side, there is a large, stylized text "WELCOME TO ART ENCLAVE" in white and pink. Below this text is a short paragraph of descriptive text. At the bottom of the main content area, there are two dark blue buttons with white text: "JOIN AS ARTIST" and "JOIN AS ART LOVER". To the right of the main content area, there is a vertical sidebar with a light blue background. On the sidebar, there is a large, colorful illustration of a gallery space filled with various artworks hanging on the walls and people looking at them. A small "AI-generated" watermark is visible in the top left corner of the illustration.

7.1 Home Page



The screenshot shows the "About" section of the Art Enclave website. At the top, there is a red navigation bar with links for Home, About, Gallery, Testimonials, and Contact. Below the navigation bar, the main content area has a pink background. In the center, there is a large, bold text "ABOUT". Below this text is a paragraph of descriptive text. To the left of the text, there is a circular icon containing a cartoon painter character. To the right of the text, there is another circular icon containing a palette and paintbrush. At the bottom of the main content area, there are two dark blue buttons with white text: "Join Now".

7.2 About Section



7.3 Art Gallery Page

The screenshot shows the Artist Gallery Page for Alice Zen. At the top, it displays a welcome message "WELCOME, ALICE ZEN". Below this are three large, colorful artwork thumbnails: "Cherry Blossom Path", "Abstract Lines", and "Colorful Bird". Each thumbnail has a small red arrow pointing to its right. Below the thumbnails is a section titled "Your Sales Details" containing a table of artwork sales data.

Artwork	Sold Copies	Price per Copy	Total Sales
Cherry Blossom Path	20	\$50	\$1000
Abstract Lines	15	\$75	\$1125
Colorful Bird	10	\$100	\$1000
Rustic View	40	\$40	\$40000

7.4 Artist Gallery Page



Autumn Way

Artist: Penny Mathew

Created: January 2003

Style: Abstract Pop Art

Medium: Acrylic on Canvas / Watercolor

Dimensions: Size 4, 30cm long

"Autumn Way" captures the trees form an archway of brilliant reds, oranges, yellows, and greens, their leaves resembling dabs of paint on a canvas. The path below, wet from recent rain, reflects the kaleidoscope of colors from above. In the center, a lone figure walks with an umbrella, dwarfed by the towering trees and immersed in the dazzling explosion of color. The scene feels alive, as if each brushstroke vibrates with the energy of the changing seasons, blending realism with an abstract, Impressionistic quality.

Price: \$648 / €650

Availability: In Stock

Rating: ★★★★☆ (4.5/5)

[Buy Now](#)

Related Artworks



7.5 Art Description page

CHAPTER -8

CONCLUSION

Art Enclave represents a comprehensive digital platform where artists can seamlessly upload, showcase, and manage their artwork. Through an intuitive interface and innovative features, Art Enclave bridges the gap between artists and audiences, allowing for a smooth and engaging experience in the world of digital art galleries. The system provides a structured approach to art management, from user registration to artwork categorization and gallery displays, ensuring a professional presentation of creative works.

This project underscores the importance of technology in promoting artistic talent, offering artists the opportunity to share their work with a broader audience. By integrating modern technologies like responsive web design, secure databases, and robust backend functionality, Art Enclave sets the stage for an enhanced user experience, encouraging both artists and art lovers to engage with the platform.

In summary, Art Enclave is not just a gallery, but a dynamic and inclusive ecosystem for the global art community, providing artists with tools to thrive and audiences with a visually enriching experience.

REFERENCES

Mozilla Developer Network (MDN). (2023). *HTML5 Documentation*.

- Used for structuring and organizing the web pages, ensuring semantic and accessible markup throughout the platform.

Link: [HTML5 Reference](#)

CSS Tricks. (2023). *CSS for Modern Web Development*.

- Referenced for implementing responsive design, grid layouts, and styling the user interface with modern CSS techniques.

Link: [CSS Guide](#)

JavaScript.info. (2023). *JavaScript Fundamentals and Modern Web Development Techniques*.

- Applied for building interactivity on the platform, managing DOM manipulation, and handling form submissions.

Link: [JavaScript Reference](#)

Node.js. (2023). *Node.js: JavaScript Runtime for Server-side Programming*.

- Used for setting up the server, managing API requests, and handling middleware for routing and database interaction.

Link: Node.js Documentation

Express.js. (2023). *Express Framework for Web Applications*.

- Applied for developing the backend infrastructure, setting up RESTful APIs, and managing routing efficiently.

Link: [Express Documentation](#)

MongoDB Documentation. (2023). *MongoDB: NoSQL Database for Scalable Web Applications*. Link: [MongoDB Reference](#)

