



CHRIST
(DEEMED TO BE UNIVERSITY)
B A N G A L O R E • I N D I A

**DEPARTMENT OF
COMPUTER SCIENCE AND ENGINEERING**

Photo Gallery

UI/UX Design Fundamental

B. Tech Degree – **3 BTCS Section C**

School of Engineering and Technology,

CHRIST (Deemed to be University),

Kumbalagodu, Bengaluru-560 074

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CHRIST

(DEEMED TO BE UNIVERSITY)

B A N G A L O R E • I N D I A

Certificate

This is to certify that Kashish A(2460389), Prisha S(2460424), Ramya R(2460427) has successfully completed the Project work for UI/UX Design Fundamental in partial fulfillment for the award of Bachelor of Technology during the academic year 2024-2025.

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1. Abstract

A photo gallery is one of the most popular ways of presenting visual content on the web. In the digital era, users expect an interactive and aesthetically pleasing platform where they can view, explore, and engage with images seamlessly. This project focuses on developing a **modern, responsive photo gallery website** with a clean user interface, smooth navigation, and interactive features. The gallery uses a **grid layout** to present images, and a **modal view (lightbox effect)** allows users to see a larger version of any image by clicking on it.

Additionally, a **welcome page** introduces users to the site with an engaging design and a call-to-action button that navigates them to the gallery. The project combines **HTML, CSS, Bootstrap, JavaScript, and jQuery** to deliver both structure and interactivity, ensuring compatibility across desktops, tablets, and smartphones.

2. Objective

The primary objectives of this project are:

- To design a **user-friendly photo gallery** with an appealing design and easy navigation.
- To utilize **modern web technologies** for responsiveness and interactive features.
- To implement **modal functionality** for image enlargement without redirecting users to another page.
- To enhance the **user experience** through visual effects, hover animations, and smooth layouts.
- To create a **reusable, scalable template** that can be adapted for portfolios, business websites, and e-commerce stores.

3. Scope of Project

The scope of this project goes beyond just displaying images.

- **Personal Use:** Individuals can use the gallery to showcase travel, art, or personal photography collections.
- **Professional Use:** Photographers, designers, and businesses can present their work in a visually appealing portfolio.
- **Commercial Use:** The same gallery concept can be extended to online shops to showcase products with images and details.
- **Educational Use:** Students and professionals can study this project to learn **front-end development techniques**.

The project currently demonstrates **static images**, but in future it can be extended to handle **dynamic content**, such as fetching images from a server, database, or API.

4. Tools and Technologies Used

1. **HTML5** – To structure the content and layout of web pages.
2. **CSS3** – For styling, gradient backgrounds, hover effects, and responsive adjustments.
3. **Bootstrap 4.5** – To provide a responsive grid system and pre-styled UI components.
4. **JavaScript (ES6)** – To handle modal image viewing and interactive functionality.
5. **jQuery** – To simplify DOM manipulation and event handling for modal image display.
6. **VS Code** – As the development IDE for editing and running the project.
7. **Font Awesome (Optional)** – Can be used for adding icons to enhance UI.
8. **Web Browser (Chrome/Edge/Firefox)** – To run and test the project.

5. HTML Structure Overview

- **Welcome Page (welcome.html)**
 - Uses a background image with a gradient overlay.
 - Contains a title, description, and a call-to-action button (Enter Gallery).
 - Uses Bootstrap for alignment and responsive design.
- **Gallery Page (gallery.html)**
 - Uses Bootstrap's container, row, and col classes to organize images in a **grid layout**.
 - Each img element has attributes for **modal triggering (data-toggle, data-target)**.
 - A modal structure (modal, modal-dialog, modal-content) is defined to show images when clicked.
 - A **back button** allows users to return to the welcome page.

6. CSS Styling Strategy

- **Backgrounds:** The welcome page uses a **linear gradient over a background image** for depth. The gallery page uses a **gradient theme** for aesthetics.
- **Containers:** A semi-transparent box with rounded corners and shadows provides contrast against the background.
- **Gallery Images:**
 - Styled with object-fit: cover; to prevent stretching.
 - Hover effects (transform: scale(1.02)) make images feel interactive.
 - Soft shadows highlight each image.
- **Modal Images:** Enlarged with rounded corners for consistency.
- **Buttons:**
 - Back and Enter buttons are styled with gold (#ffd700) and orange (#ffa500) hover transitions to grab attention.
 - Rounded shapes and shadows enhance visibility.

7. Key Features

1. **Welcome Page:**
 - Eye-catching entry screen with title, description, and call-to-action button.
 - Encourages users to explore the gallery.
2. **Responsive Gallery Layout:**
 - Bootstrap grid ensures images align neatly across all devices (4 per row on desktops, 2 per row on tablets, 1 per row on mobile).
3. **Hover Effects:**
 - Images zoom slightly on hover, making the UI dynamic and engaging.
4. **Modal View (Lightbox):**
 - Clicking an image opens it in a larger format without leaving the page.
 - Allows users to focus on image details.
5. **Back Button:**
 - Provides easy navigation back to the welcome page.

8. Challenges Faced & Solutions

- **Challenge 1:** Images stretched or lost aspect ratio.
Solution: Used CSS property object-fit: cover; to maintain proportions.
- **Challenge 2:** Modal not updating with the clicked image.
Solution: Implemented a jQuery function to dynamically replace modal image src with the clicked image source.
- **Challenge 3:** Alignment of welcome page content on different devices.
Solution: Used Flexbox (display: flex; align-items: center; justify-content: center;) for vertical and horizontal centering.
- **Challenge 4:** Design looked flat.
Solution: Added gradient backgrounds, shadows, and hover effects to enhance visual appeal.

9. Outcome

The final outcome is a **fully functional, user-friendly, and responsive photo gallery website**. It provides a smooth navigation experience:

- Users land on the **welcome page**.
- They proceed to the **gallery page** where images are displayed in a responsive grid.
- They can click an image to view it in an **enlarged modal view**.
- Navigation between pages is intuitive with clear buttons.

This project demonstrates how front-end technologies can be combined to create **professional-quality web experiences**.

10. Future Enhancement

1. **Search Bar:** Allow users to search for images by keywords.
2. **Filters & Categories:** Group images under tags (Nature, Wildlife, Travel, etc.).
3. **Image Carousel in Modal:** Add navigation buttons (next/previous) within modal.
4. **Dynamic Image Loading:** Fetch images from a database or API instead of static sources.
5. **User Interactions:** Enable likes, comments, and sharing options.
6. **Admin Dashboard:** Add a backend system to upload/manage images.

11. Sample Code

gallery.html

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1">

  <title>Photo Gallery</title>

  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">

  <style>

    body {

      background: linear-gradient(135deg, #c471f5 0%, #fa71cd 100%);

      min-height: 100vh;

    }

    .gallery-container {

      background: rgba(255,255,255,0.93);

      border-radius: 16px;

      padding: 36px 15px;

      margin-top: 40px;

      box-shadow: 0 6px 32px rgba(58,123,213,0.15);

    }

    .gallery-img {

      width: 100%;
```

```
height: 220px;

object-fit: cover;

cursor: pointer;

border-radius: 12px;

margin-bottom: 18px;

box-shadow: 0 2px 12px rgba(0,0,0,0.13);

transition: 0.18s;

}

.gallery-img:hover {

transform: scale(1.02);

box-shadow: 0 6px 28px rgba(41,41,41,0.18);

}

#modalImage {

width: 100%;

border-radius: 12px;

}

.back-btn {

position: absolute;

left: 20px;

top: 28px;

background: #ffd700;

color: #133357;

border-radius: 20px;

padding: 8px 18px;
```

```
font-weight: bold;

border: none;

text-decoration: none;

font-size: 1.1rem;

transition: background 0.16s;

z-index: 10;

}

.back-btn:hover {

background: #ffa500;

color: #fff;

text-decoration: none;

}

</style>

</head>

<body>

<a href="welcome.html" class="back-btn">← Back</a>

<div class="container gallery-container">

<h1 class="text-center text-primary mb-4">Photo Gallery</h1>

<div class="row">

<div class="col-6 col-md-4 col-lg-3">



</div>

<div class="col-6 col-md-4 col-lg-3">

</div>

<div class="col-6 col-md-4 col-lg-3">

</div>

<div class="col-6 col-md-4 col-lg-3">

</div>
```

<!-- Added 4 more images below -->

<div class="col-6 col-md-4 col-lg-3">

</div>

<div class="col-6 col-md-4 col-lg-3">

</div>

<div class="col-6 col-md-4 col-lg-3">

</div>

```
<div class="col-6 col-md-4 col-lg-3">

</div>

</div>

</div>

<div class="modal fade" id="imageModal" tabindex="-1" role="dialog">

  <div class="modal-dialog modal-lg">

    <div class="modal-content">

      <div class="modal-body p-0">

        <img id="modalImage" src="" alt="Large View">

      </div>

    </div>

  </div>

</div>

<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>

<script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>

<script>

  $('gallery-img').on('click', function() {

    $('#modalImage').attr('src', $(this).attr('src'));

  });

</script>
```

```
</script>
```

```
</body>
```

```
</html>
```

Welcome.html

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
<meta charset="UTF-8">
```

```
<meta name="viewport" content="width=device-width, initial-scale=1">
```

```
<title>Welcome - Photo Gallery</title>
```

```
<link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
```

```
<style>
```

```
body {
```

```
    height: 100vh;
```

```
    margin: 0;
```

```
    background: linear-gradient(rgba(0,0,0,0.4), rgba(0,0,0,0.8)),
url('https://images.unsplash.com/photo-1465101046530-
73398c7f28ca?auto=format&fit=crop&w=1200&q=80') center/cover no-repeat;
```

```
    display: flex;
```

```
    align-items: center;
```

```
    justify-content: center;
```

```
}
```

```
.welcome-container {
```

```
    background: rgba(255,255,255,0.12);
```

```
    backdrop-filter: blur(8px);
```

```
padding: 40px 30px;

border-radius: 18px;

text-align: center;

box-shadow: 0 4px 40px rgba(0,0,0,0.4);
}

.welcome-title {

color: #fff;

font-weight: 800;

font-size: 3rem;

letter-spacing: 3px;

margin-bottom: 24px;

text-shadow: 0 4px 12px rgba(0,0,0,0.3);
}

.welcome-btn {

font-size: 1.3rem;

padding: 12px 38px;

border-radius: 24px;

background: #ffd700;

color: #133357;

border: none;

font-weight: 700;

box-shadow: 0 2px 14px rgba(0,0,0,0.16);

transition: 0.17s;
}
```



```

.welcome-btn:hover {

  background: #ffa500;

  color: #fff;

  transform: translateY(-2px) scale(1.04);

}

</style>

</head>

<body>

  <div class="welcome-container">

    <div class="welcome-title">Welcome to the Gallery</div>

    <p class="lead text-light">Discover beautiful images with a modern, interactive
    experience.<br>Click the button to continue!</p>

    <a href="gallery.html" class="btn welcome-btn mt-4">Enter Gallery</a>

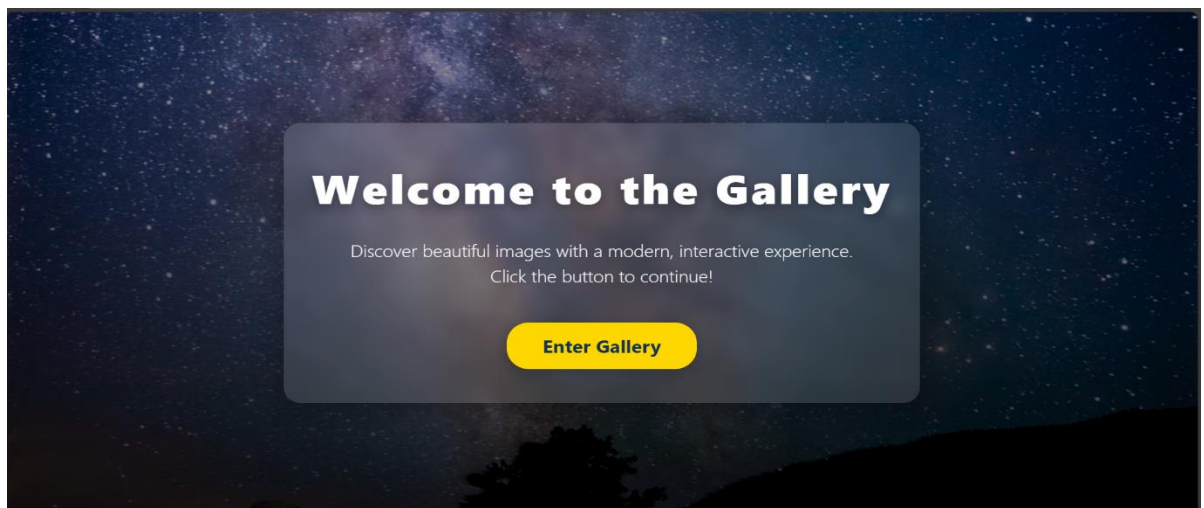
  </div>

</body>

</html>

```

12. Final Output



← Back

Photo Gallery



← Back



13. Conclusion

This project successfully implements a **responsive and interactive photo gallery**. It demonstrates how combining **HTML for structure, CSS for styling, Bootstrap for responsiveness, and JavaScript/jQuery for interactivity** can create an engaging website.

The project can be adapted for **portfolios, online shops, blogs, or corporate websites**. It also serves as an excellent learning exercise for students interested in **front-end web development**.

14. References

- Bootstrap Documentation
- jQuery Documentation
- MDN Web Docs
- W3Schools
- [Unsplash](#) – Stock images
- Wallpapers.com – Backgrounds