



Green University of Bangladesh



Department of Computer Science and Engineering(CSE)

Faculty of Sciences and Engineering Semester:

(Fall, Year:2025), B.Sc. in CSE (Day)

Lab Report NO # 03

Course Title: Database Lab

Course Code: CSE 302 Section: 232_D1

Lab Experiment Name: Create a Photo Gallery using HTML and CSS

Student Details:

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Lab Date : 25 .10. 2025

Submission Date : 03.11. 2025

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[For Teachers use only: Don't Write Anything inside this box]

Lab Report Status

Marks:

Signature:.....

Comments:.....

Date:.....

1. TITLE OF THE LAB EXPERIMENT

Design and develop a **Photo Gallery** web page displaying faculty profiles of the Green University of Bangladesh using **HTML and CSS layout techniques**.

2. OBJECTIVES / AIM

- To create a web-based photo gallery using HTML and CSS.
- To practice using the **CSS Grid layout** for organizing images.
- To make a responsive design that adjusts based on screen size.
- To display faculty information with images, names, and designations.

3. INTRODUCTION

This experiment demonstrates how to use **HTML and CSS** to design a responsive **photo gallery**.

The web page shows faculty members from the Department of CSE at Green University of Bangladesh.

A total of **10 faculty images** are displayed, arranged **five per row** using the **CSS Grid layout**. Each faculty profile includes an image, name, and designation, all linked to the university's official faculty webpage.

4. PROCEDURE / ANALYSIS / DESIGN

Step-by-Step Process:

1. Created a new HTML file named faculty-gallery.html.
2. Added structural elements like `<header>`, `<div class="gallery">`, and `<footer>`.
3. Used `<div class="faculty">` for each faculty member to include an image, name, and designation.
4. Linked an external CSS file (`styles.css`) for styling and layout control.
5. Applied **CSS Grid** to display five faculty images per row.
6. Added responsive design rules using **media queries** to ensure compatibility on smaller devices.

Page Layout Structure:

HTML Structure:

```
<header> (title and university name)
<div class="gallery">
  <div class="faculty"> (Image + Name + Designation) <footer> (copyright)
```

Design Flow (CSS):

- display: grid; used for gallery layout
- grid-template-columns: repeat(5, 1fr); for 5-column structure
- @media queries used for responsiveness

5. IMPLEMENTATION

HTML Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>GUB CSE Faculty Gallery</title>
<link rel="stylesheet" href="styles.css">
</head>
<body>
<header>
<h1>Department of CSE – Faculty Gallery</h1>
<h2>Green University of Bangladesh</h2>
</header>

<div class="gallery">
<div class="col">
<a href="https://www.green.edu.bd/profile/Prof.%20Dr.%20Md.%20Mohammad%20Shorif%20Uddin/378">
<div class="card h-90 faculty-profile">
<div class="faculty-images">
```

```
  
</div>  
  
<div class="faculty-designation">  
  <p class="card-text card-faculty-desi">Professor & Vice-Chancellor</p>  
</div>  
  
<div class="faculty-title">  
  <h5 class="card-title card-faculty-name">Prof. Dr. Md. Mohammad Shorif  
Uddin</h5>  
  </div>  
  </div>  
  </a>  
</div>  
  
<div class="col">  
  <a  
  href="https://www.green.edu.bd/profile/Prof.%20Dr.%20Md.%20Saiful%20Azad/160">  
    <div class="card h-90 faculty-profile">  
      <div class="faculty-images">  
          
      </div>  
      <div class="faculty-designation">  
        <p class="card-text card-faculty-desi">Professor & Dean</p>
```

```
</div>

<div class="faculty-title">
    <h5 class="card-title card-faculty-name">Prof. Dr. Md. Saiful Azad</h5>
</div>
</div>
</a>
</div>

<div class="col">
    <a href="https://www.green.edu.bd/profile/Professor%20Dr.%20Md.%20Ahsan%20Habib/325">
        <div class="card h-90 faculty-profile">
            <div class="faculty-images">
                
            </div>
            <div class="faculty-designation">
                <p class="card-text card-faculty-desi">Professor & Chairperson</p>
            </div>
            <div class="faculty-title">
                <h5 class="card-title card-faculty-name">Professor Dr. Md. Ahsan Habib</h5>
            </div>
        </div>
    </a>
```

```
</div>

<div class="col">
<a href="https://www.green.edu.bd/profile/Syed%20Ahsanul%20Kabir/11">
<div class="card h-90 faculty-profile">
<div class="faculty-images">

</div>
<div class="faculty-designation">
<p class="card-text card-faculty-desi">Associate Professor (Adjunct)</p>
</div>
<div class="faculty-title">
<h5 class="card-title card-faculty-name">Syed Ahsanul Kabir</h5>
</div>
</div>
</a>
</div>

<div class="col">
<a href="https://www.green.edu.bd/profile/Dr.%20Faiz%20Al%20Faisal/180">
<div class="card h-90 faculty-profile">
<div class="faculty-images">
```

```
  
</div>  
<div class="faculty-designation">  
    <p class="card-text card-faculty-desi">Associate Professor & Director of  
    GCITS</p>  
</div>  
<div class="faculty-title">  
    <h5 class="card-title card-faculty-name">Dr. Faiz Al Faisal</h5>  
</div>  
</div>  
</a>  
</div>
```

```
<div class="col">  
<a href="https://www.green.edu.bd/profile/Md.%20Monirul%20Islam/421">  
    <div class="card h-90 faculty-profile">  
        <div class="faculty-images">  
              
        </div>  
        <div class="faculty-designation">  
            <p class="card-text card-faculty-desi">Assistant Professor</p>  
        </div>
```

```
<div class="faculty-title">  
    <h5 class="card-title card-faculty-name">Md. Monirul Islam</h5>  
    </div>  
    </div>  
    </a>  
    </div>  
  
<div class="col">  
    <a href="https://www.green.edu.bd/profile/Montaser%20Abdul%20Quader/14">  
        <div class="card h-90 faculty-profile">  
            <div class="faculty-images">  
                  
            </div>  
            <div class="faculty-designation">  
                <p class="card-text card-faculty-desi">Lecturer</p>  
            </div>  
            <div class="faculty-title">  
                <h5 class="card-title card-faculty-name">Montaser Abdul Quader</h5>  
            </div>  
            </div>  
        </a>  
    </div>
```

```
<div class="col">

<a href="https://www.green.edu.bd/profile/Jarin%20Tasnim%20Tonvi/253">

<div class="card h-90 faculty-profile">

<div class="faculty-images">

</div>

<div class="faculty-designation">

    <p class="card-text card-faculty-desi">Lecturer</p>

</div>

<div class="faculty-title">

    <h5 class="card-title card-faculty-name">Jarin Tasnim Tonvi</h5>

</div>

</div>

</a>

</div>

<div class="col">

<a href="https://www.green.edu.bd/profile/Feroza%20Naznin/110">

<div class="card h-90 faculty-profile">

<div class="faculty-images">

    
```

```
</div>

<div class="faculty-designation">
    <p class="card-text card-faculty-desi">Lecturer</p>
</div>

<div class="faculty-title">
    <h5 class="card-title card-faculty-name">Feroza Naznin</h5>
</div>
</div>
</a>
</div>
```

```
<div class="col">
    <a href="https://www.green.edu.bd/profile/Tanmia%20Tasnim/20">
        <div class="card h-90 faculty-profile">
            <div class="faculty-images">
                
            </div>
            <div class="faculty-designation">
                <p class="card-text card-faculty-desi">Lecturer & PC(E)</p>
            </div>
            <div class="faculty-title">
```

```
<h5 class="card-title card-faculty-name">Tanmia Tasnim</h5>
</div>
</div>
</a>
</div>

</div>

<footer>
<p>© 2025 Green University of Bangladesh | Department of CSE</p>
</footer>
</body>
</html>
```

CSS code

```
*, ::after, ::before {
    box-sizing: border-box;
}

* {
    margin: 0;
    padding: 0;
    outline: 0;
```

```
}
```



```
body {
```

```
    margin: 0;
```

```
    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
```

```
    font-size: 1rem;
```

```
    font-weight: 400;
```

```
    line-height: 1.5;
```

```
    color: #212529;
```

```
    background-color: #f5f5f5;
```

```
    -webkit-text-size-adjust: 100%;
```

```
    -webkit-tap-highlight-color: transparent;
```

```
}
```



```
header {
```

```
    text-align: center;
```

```
    background-color: #006633;
```

```
    color: white;
```

```
    padding: 30px 10px;
```

```
}
```



```
header h1 {
```

```
    margin: 0;
```

```
font-size: 2rem;  
}  
  
header h2 {  
margin-top: 5px;  
font-weight: 400;  
font-size: 1.2rem;  
}  
.gallery {  
--bs-gutter-x: 1.5rem;  
--bs-gutter-y: 1.5rem;  
display: flex;  
flex-wrap: wrap;  
margin-top: calc(var(--bs-gutter-y) * -1);  
margin-right: calc(var(--bs-gutter-x) / -2);  
margin-left: calc(var(--bs-gutter-x) / -2);  
padding: 40px 30px;  
max-width: 1500px;  
margin: 0 auto;  
justify-content: flex-start;  
}  
  
.col {
```

```
flex: 0 0 auto;  
width: 20%;  
padding-right: calc(var(--bs-gutter-x) / 2);  
padding-left: calc(var(--bs-gutter-x) / 2);  
margin-top: var(--bs-gutter-y);  
display: flex;  
}  
.col a {  
text-decoration: none;  
color: inherit;  
width: 100%;  
display: flex;  
flex-direction: column;  
}  
.card {  
position: relative;  
display: flex;  
flex-direction: column;  
min-width: 0;  
word-wrap: break-word;  
background-color: #fff;  
background-clip: border-box;  
border-radius: 20px;
```

```
overflow: hidden;  
transition: all 0.3s ease;  
width: 100%;  
flex: 1;  
}  
.h-90 {  
height: 100%;  
display: flex;  
flex-direction: column;  
}  
.faculty-profile {  
border-radius: 20px;  
padding: 0;  
box-shadow: 0px 4px 12px 0px rgba(0, 0, 0, 0.1), 0px 6px 20px 0px rgba(0, 0, 0, 0.1);  
text-align: center;  
position: relative;  
background: #fff;  
display: flex;  
flex-direction: column;  
height: 100%;  
}  
.card:hover {  
transform: translateY(-8px);
```

```
    box-shadow: 0 8px 25px rgba(0,0,0,0.15);  
}  
  
.faculty-images {  
    overflow: hidden;  
    width: 100%;  
    position: relative;  
    height: 300px;  
    background-color: #f8f9fa;  
    border-radius: 20px 20px 0 0;  
    flex-shrink: 0;  
}  
  
.faculty-img {  
    width: 100%;  
    height: 100%;  
    object-fit: cover;  
    object-position: center top;  
    display: block;  
    transition: transform 0.3s ease;  
}  
  
.card:hover .faculty-img {  
    transform: scale(1.03);  
}  
  
.faculty-designation {
```

```
background: linear-gradient(135deg, #089cc2 0%, #089cc2 100%);  
color: white;  
padding: 5px 5px;  
position: relative;  
margin: 0;  
display: flex;  
align-items: center;  
justify-content: center;  
border-radius: 0 0 10px 10px;  
min-height: 70px;  
flex-shrink: 0;  
}
```

```
.card-faculty-desi {  
font-size: 1.1rem;  
color: white;  
font-weight: 500;  
margin: 0;  
letter-spacing: 0.5px;  
line-height: 1.4;  
}
```

```
.faculty-title {  
padding: 5px 20px 5px;
```

```
background-color: #fff;  
display: flex;  
align-items: center;  
justify-content: center;  
border-radius: 0 0 20px 20px;  
min-height: 110px;  
flex-shrink: 0;  
}  
  
.card-faculty-name {  
color: #2c3e50;  
font-size: 1.3rem;  
font-weight: 700;  
line-height: 1.4;  
margin: 0;  
text-align: center;  
}  
  
/* Remove old faculty styles */  
  
.faculty,  
.faculty:hover,  
.faculty a,  
.faculty img,  
.faculty h3,  
.faculty p {
```

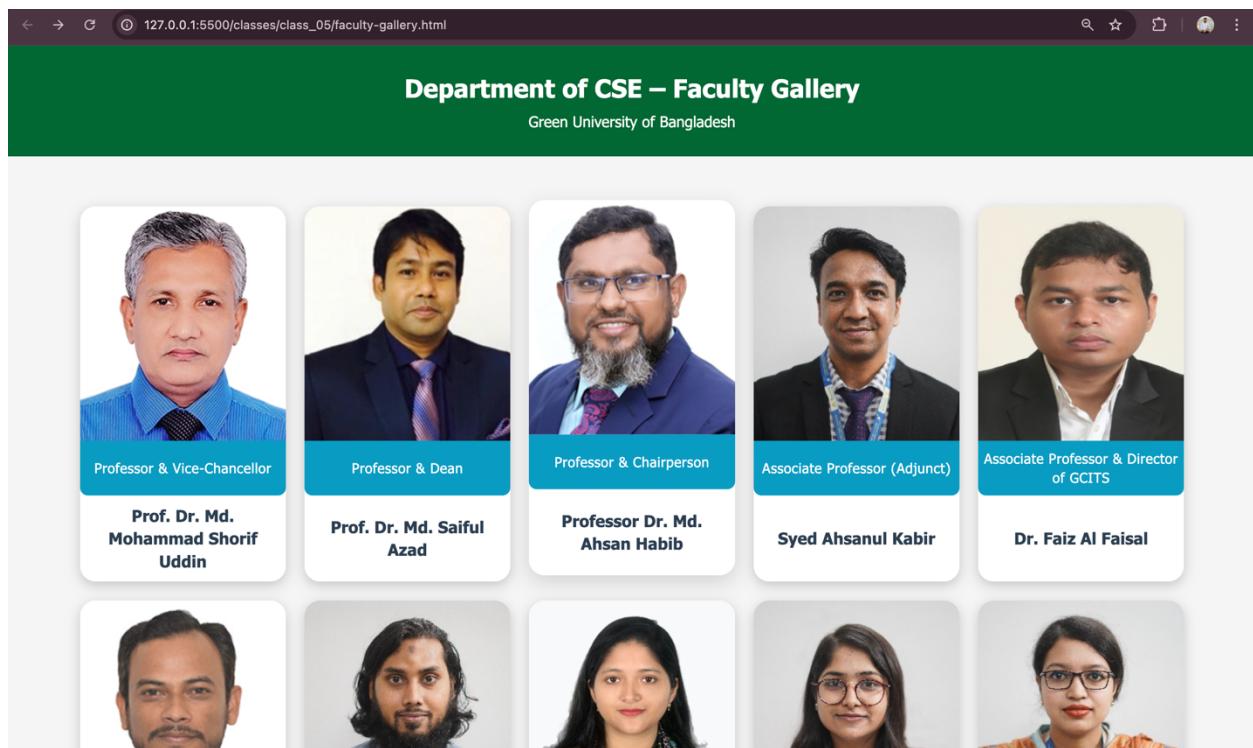
```
all: unset;  
}  
  
footer {  
    text-align: center;  
    background-color: #004d26;  
    color: white;  
    padding: 15px;  
    margin-top: 40px;  
    font-size: 0.9rem;  
}  
  
/* Responsive design for smaller screens */  
  
@media (max-width: 1400px) {  
    .col {  
        width: 25%;  
    }  
}  
  
@media (max-width: 1024px) {  
    .col {  
        width: 33.333%;  
    }  
}
```

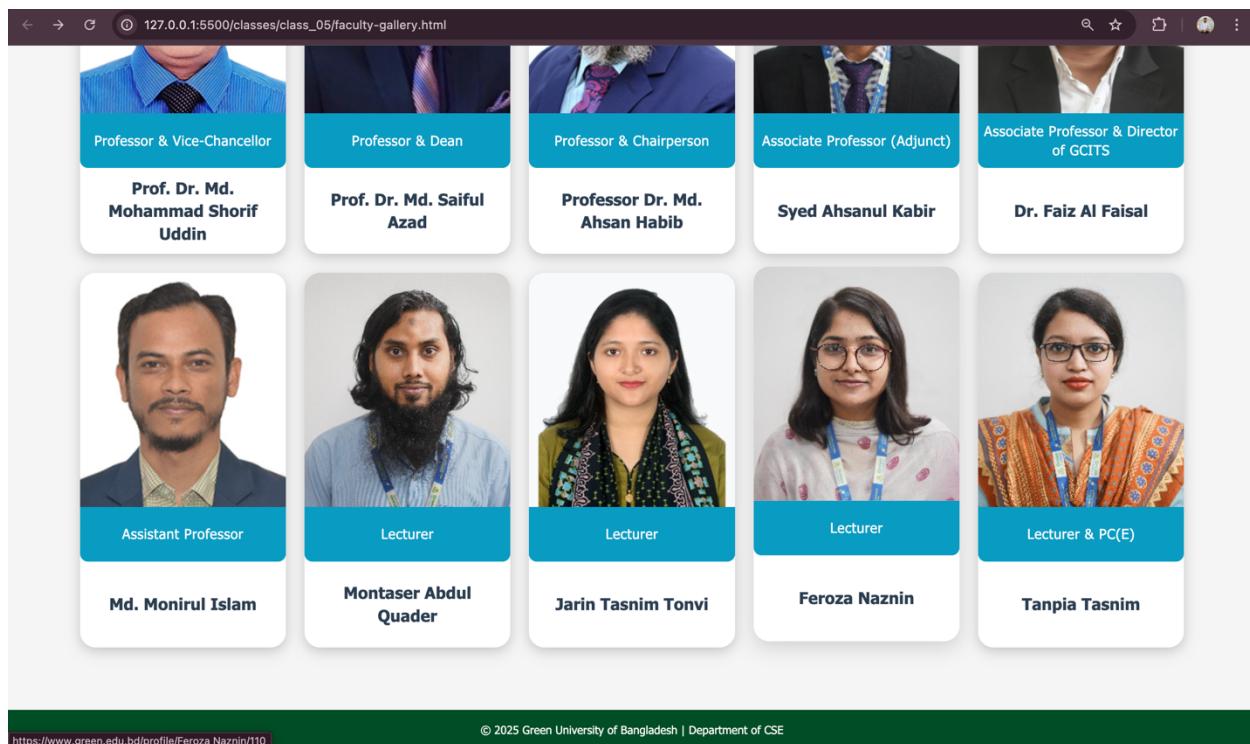
```
.faculty-images {  
    height: 260px;  
}  
}  
  
@media (max-width: 768px) {  
  
.col {  
    width: 50%;  
}  
  
.gallery {  
    padding: 20px;  
}  
  
.faculty-images {  
    height: 250px;  
}  
}  
}  
  
@media (max-width: 480px) {  
  
.col {  
    width: 100%;  
}  
  
.faculty-images {  
    height: 300px;  
}  
}
```

6. TEST RESULT / OUTPUT

Expected Output:

1. The webpage displays **10 faculty members** in a **grid layout**.
2. On desktop: **5 images per row**.
3. On tablet: **3 images per row**.
4. On mobile: **2 images per row**.
5. Each image shows a name and designation below it.
6. Hovering on a faculty card slightly enlarges it (scale effect).
7. All links open in a new tab.
8. The layout is responsive and visually clean.





7. ANALYSIS AND DISCUSSION

- ❖ **What went well:** The grid layout worked smoothly, and responsiveness was achieved through media queries.
- ❖ **Challenges faced:** Maintaining equal image size and spacing across devices.
- ❖ **Learning outcome:**
 - Learned to use CSS Grid effectively.
 - Understood how to apply responsive web design principles.
 - Gained experience linking real data and designing clean layouts.
- ❖ **Achievement:** The gallery design met all task requirements.

8. SUMMARY

In this experiment, a **Photo Gallery webpage** was successfully developed using HTML and CSS to showcase the **CSE faculty of Green University of Bangladesh**. The project demonstrated layout structuring using **CSS Grid**, responsive design techniques, and hover animations for an engaging user interface.