



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>

</div>

<div class="col">

<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>

</div>

<div class="col">

<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>

</div>

<div class="col">

<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>

  </a>

</div>
```

```
</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/Tanpia%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">Tanpia 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%;

    }

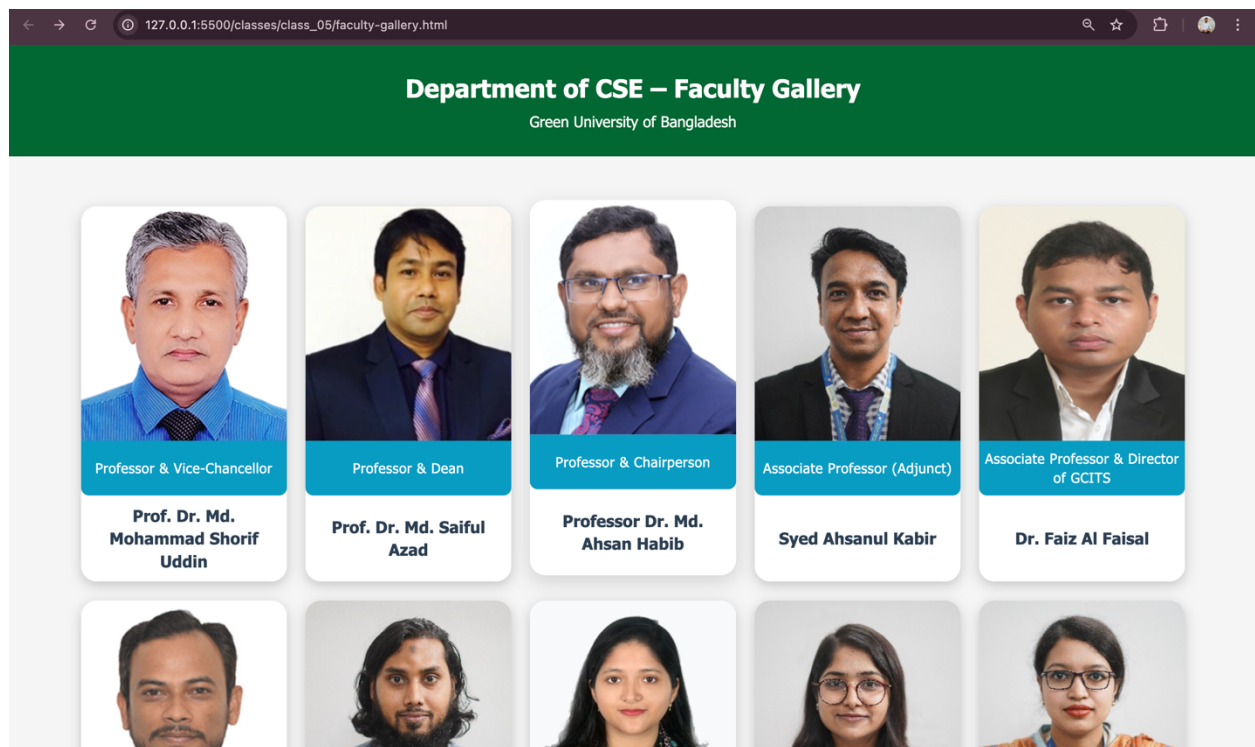
}
```

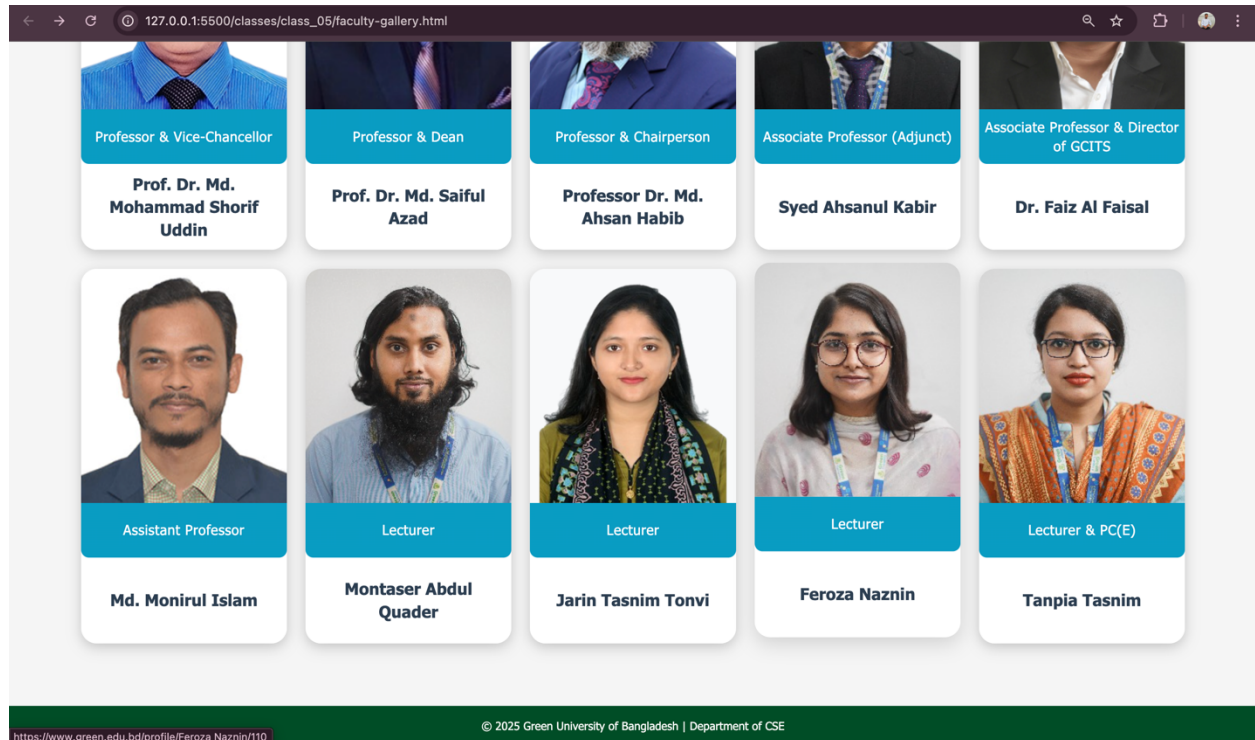
```
.faculty-images {  
    height: 260px;  
}  
  
}  
  
@media (max-width: 768px) {  
    .col {  
        width: 50%;  
    }  
    .gallery {  
        padding: 20px;  
    }  
    .faculty-images {  
        height: 250px;  
    }  
}  
  
@media (max-width: 480px) {  
    .col {  
        width: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