

INTERNSHIP REPORT

WEEK 3 DAY 1

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CSS Grid Layout – Rows, Columns & Template Areas

Objective

The objective of today's task was to understand the foundational structure and behavior of **CSS Grid Layout**, focusing on:

- Defining rows using grid-template-rows
- Creating column-based layouts with grid-template-columns
- Structuring complete page layouts using grid-template-areas

This knowledge will help in building **modern, responsive, and semantic webpage designs**.

Introduction:

CSS Grid is a powerful two-dimensional layout system that allows developers to build complex web layouts using rows and columns. It offers much more flexibility compared to traditional layout models such as float or Flexbox (which is one-dimensional).

Today, I explored three core concepts:

- **CSS Grid Rows** – controlling vertical alignment
- **CSS Grid Columns** – managing horizontal structure
- **CSS Grid Template Areas** – assigning named layout zones for organization

These were implemented through individual code examples and one fully responsive layout project titled "**CreativeGrid – Web Design Agency**."

Key Learnings:

CSS Grid Rows

- Used grid-template-rows to define multiple vertical row sizes.
- Learned how row heights can be controlled using fixed (px), relative (fr), or auto units.

```
.grid-rows {  
  display: grid;  
  grid-template-rows: repeat(5, 1fr);  
}
```

CSS Grid Columns

- Used grid-template-columns to divide space into responsive columns.
- Aligned sidebars and main content visually across the page.

```
.grid-columns {  
  display: grid;  
  grid-template-columns: 1fr 2fr 1fr;  
}
```

CSS Grid Template Areas

- Learned how to assign names to grid cells using grid-template-areas.
- Used grid-area to position content within the layout semantically.

```
.grid-page {  
  grid-template-areas:  
    "header header header"  
    "menu main right"  
    "footer footer footer";  
}
```

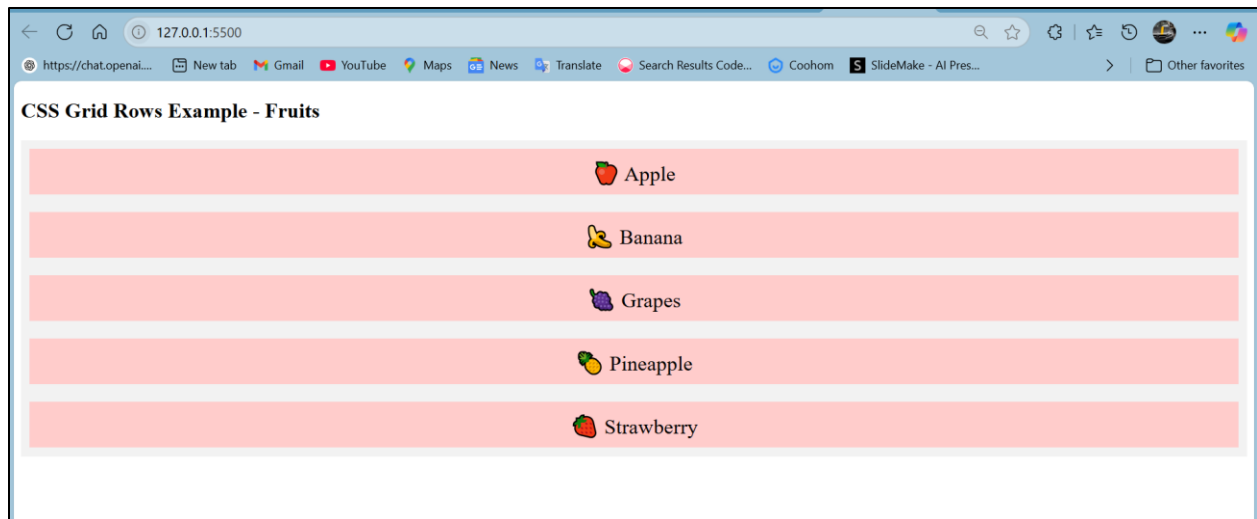
1. CSS GRID ROW:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>CSS Grid Rows</title>
  <style>
    .grid-rows {
      display: grid;
      grid-template-rows: repeat(5, 1fr);
      gap: 20px;
      background-color: #f2f2f2;
      padding: 10px;
    }

    .grid-rows > div {
      background-color: #ffcccb;
      font-size: 24px;
      text-align: center;
      padding: 10px;
    }
  </style>
</head>
<body>

<h2>CSS Grid Rows Example - Fruits</h2>
<div class="grid-rows">
  <div>🍏 Apple</div>
  <div>🍌 Banana</div>
  <div>🍇 Grapes</div>
  <div>🍍 Pineapple</div>
  <div>🍓 Strawberry</div>
</div>

</body>
</html>
```



2. CSS GRID COLUMN:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>CSS Grid Columns</title>
  <style>
    .grid-columns {
      display: grid;
      grid-template-columns: 1fr 2fr 1fr;
      gap: 20px;
      background-color: #e6f7ff;
      padding: 10px;
    }

    .grid-columns > div {
      background-color: #a0e7e5;
      font-size: 24px;
      text-align: center;
      padding: 20px;
    }
  </style>
</head>
<body>

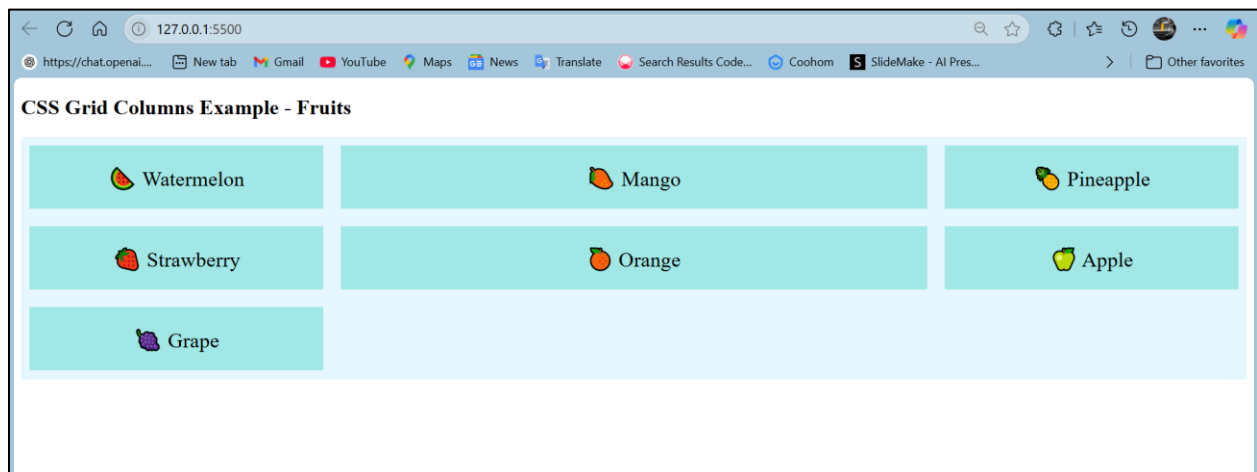
<h2>CSS Grid Columns Example - Fruits</h2>
<div class="grid-columns">
```

```

<div><img alt="Watermelon icon" data-bbox="195 98 215 115"/> Watermelon</div>
<div><img alt="Mango icon" data-bbox="195 118 215 135"/> Mango</div>
<div><img alt="Pineapple icon" data-bbox="195 138 215 155"/> Pineapple</div>
<div><img alt="Strawberry icon" data-bbox="195 158 215 175"/> Strawberry</div>
<div><img alt="Orange icon" data-bbox="195 178 215 195"/> Orange</div>
<div><img alt="Apple icon" data-bbox="195 198 215 215"/> Apple</div>
<div><img alt="Grape icon" data-bbox="195 218 215 235"/> Grape</div>
</div>

</body>
</html>

```



3. CSS GRID TEMPLATE AREAS:

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>CreativeGrid - Web Design Agency</title>
  <style>
    body {
      margin: 0;
      font-family: 'Segoe UI', sans-serif;
    }
  </style>

```

```
.grid-page {  
  display: grid;  
  grid-template-areas:  
    "header header header"  
    "menu main right"  
    "footer footer footer";  
  grid-template-columns: 200px 1fr 250px;  
  grid-template-rows: 70px 1fr 60px;  
  height: 100vh;  
  gap: 10px;  
  padding: 10px;  
  background-color: #f0f2f5;  
}
```

```
.grid-page > div {  
  padding: 15px;  
  font-size: 16px;  
  border-radius: 8px;  
}
```

```
.header {  
  grid-area: header;  
  background-color: #1e88e5;  
  color: white;  
  display: flex;  
  align-items: center;  
  padding-left: 20px;  
  font-size: 24px;  
  font-weight: bold;  
}
```

```
.menu {  
  grid-area: menu;  
  background-color: #f9fbe7;  
}
```

```
.menu ul {  
  list-style: none;  
  padding: 0;  
}
```

```
.menu ul li {  
  padding: 8px 0;  
  border-bottom: 1px solid #ddd;  
}
```

```

    .main {
      grid-area: main;
      background-color: white;
    }

    .main h2 {
      margin-top: 0;
      color: #333;
    }

    .right {
      grid-area: right;
      background-color: #e3f2fd;
    }

    .footer {
      grid-area: footer;
      background-color: #263238;
      color: white;
      display: flex;
      justify-content: center;
      align-items: center;
    }
  </style>
</head>
<body>

<div class="grid-page">
  <div class="header">1. Header: CreativeGrid | Web Design Agency</div>

  <div class="menu">
    <h3><b>2. Sidebar Menu</b></h3>
    <ul>
      <li><img alt="Home icon" data-bbox="222 708 242 723"/> Home</li>
      <li><img alt="Services icon" data-bbox="222 726 242 741"/> Services</li>
      <li><img alt="Portfolio icon" data-bbox="222 744 242 759"/> Portfolio</li>
      <li><img alt="Blog icon" data-bbox="222 762 242 777"/> Blog</li>
      <li><img alt="Contact icon" data-bbox="222 780 242 795"/> Contact</li>
    </ul>
  </div>

  <div class="main">
    <h3><b>3. Main Content</b></h3>
    <h2>Welcome to CreativeGrid</h2>
  </div>
</div>

```

```
<p>We are a modern web design agency creating beautiful, responsive, and user-friendly websites for startups and small businesses.</p>
```

```
<p>✦ Our Services Include:</p>
```

```
<ul>
```

```
<li>Responsive Web Design</li>
```

```
<li>UI/UX Design</li>
```

```
<li>eCommerce Development</li>
```

```
<li>SEO Optimization</li>
```

```
</ul>
```

```
</div>
```

```
<div class="right">
```

```
<h3><b>4. Right Sidebar</b></h3>
```

```
<p>📅 Upcoming Events:</p>
```

```
<h3><b>Latest Blog Posts</b></h3>
```

```
<ul>
```

```
<li>💎 10 Tips for Better UX</li>
```

```
<li>💎 Why Responsive Design Matters</li>
```

```
<li>💎 The Future of Web Development</li>
```

```
</ul>
```

```
</div>
```

```
<div class="footer">
```

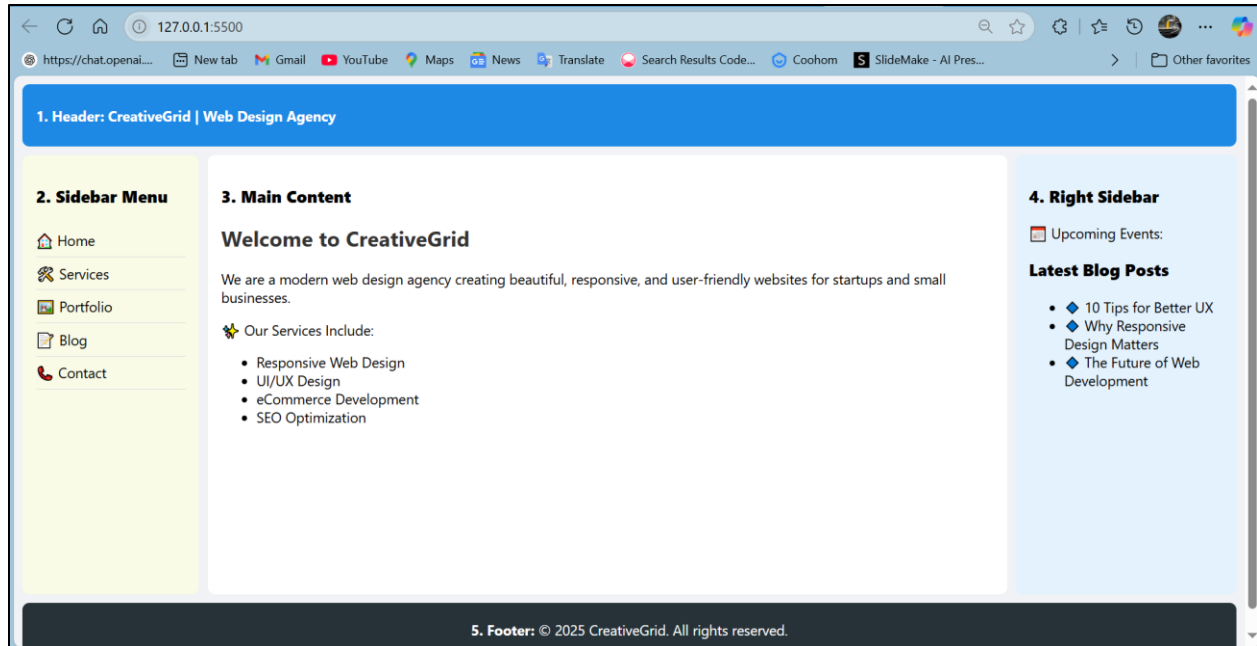
```
<p><b style="color: white;">5. Footer:</b> © 2025 CreativeGrid. All rights reserved.</p>
```

```
</div>
```

```
</div>
```

```
</body>
```

```
</html>
```

Explanation:

1. HEADER:

- This is the **top bar** of your page.
- Usually contains your brand/logo, site title, or main navigation.

.html

```
<div class="header">1. Header: CreativeGrid | Web Design Agency</div>
```

.css

```
.header {  
  grid-area: header;  
}
```

- **grid-area: header;** places this div in the **header** area as defined in grid-template-areas.
- It stretches across all 3 columns (left, center, right).

2.MENU:

- This is the **left sidebar navigation**.
- Contains links to different sections of the site like Home, Services, Blog, etc.

.html

```
<div class="menu">
  <h3><b>2. Sidebar Menu</b></h3>
  <ul> ... </ul>
</div>
```

.css

```
.menu {
  grid-area: menu;
}
```

- **grid-area: menu;** positions it in the **left column**, middle row.
- Uses a vertical list style for navigation.

3.MAIN:

- This is your **primary content area** (center section).
- Displays the main message, services, or homepage content.

.html

```
<div class="main">
  <h3><b>3. Main Content</b></h3>
  <h2>Welcome to CreativeGrid</h2>
  <p>We are a modern web design agency...</p>
</div>
```

.css

```
.main {
  grid-area: main;
}
```

- **grid-area: main;** places this in the center column.
- This is where most reading happens your primary focus area.

4. RIGHT:

- This is the **right sidebar**.
- Usually used for extra info like **blog posts**, **news**, or **events**.

```
.html
<div class="right">
  <h3><b>4. Right Sidebar</b></h3>
  <p><img alt="calendar icon" data-bbox="168 155 190 172"/> Upcoming Events:</p>
  <h3><b>Latest Blog Posts</b></h3>
</div>

.css
.right {
  grid-area: right;
}
```

- **grid-area: right;** places it in the **rightmost column** beside the main content.

4. FOOTER:

- This is the **bottom bar** of your site.
- Often contains **copyright, terms, or contact info.**

```
.html
<div class="footer">
  <p><b style="color: white;">5. Footer:</b> © 2025 CreativeGrid. All rights
  reserved.</p>
</div>

.css
.footer {
  grid-area: footer;
}
```

- **grid-area: footer;** spans across all columns at the bottom.
- Well-aligned and uses contrasting colors for emphasis.

Summary of grid-template-areas:

```
grid-template-areas:
    "header header header"
    "menu main right"
    "footer footer footer";
```

Conclusion:

Today's hands-on experience with **CSS Grid** significantly strengthened my understanding of how to organize and layout modern web pages effectively. By practicing **rows**, **columns**, and **template areas**, I developed a cleaner approach to building fully responsive designs.

These layout techniques are now part of my core frontend skill set and will support more advanced projects in the coming weeks.
