Department of
Computer Science and Engineering

# Title:Implementation of Page Layout in CSS

Web Programming Lab
CSE 302

Green University of Bangladesh

# 1 Objective(s)

- To gather knowledge of different CSS layout such as grid and flexbox.
- To implement an responsive layout using CSS grid layout.

# 2 Problem analysis

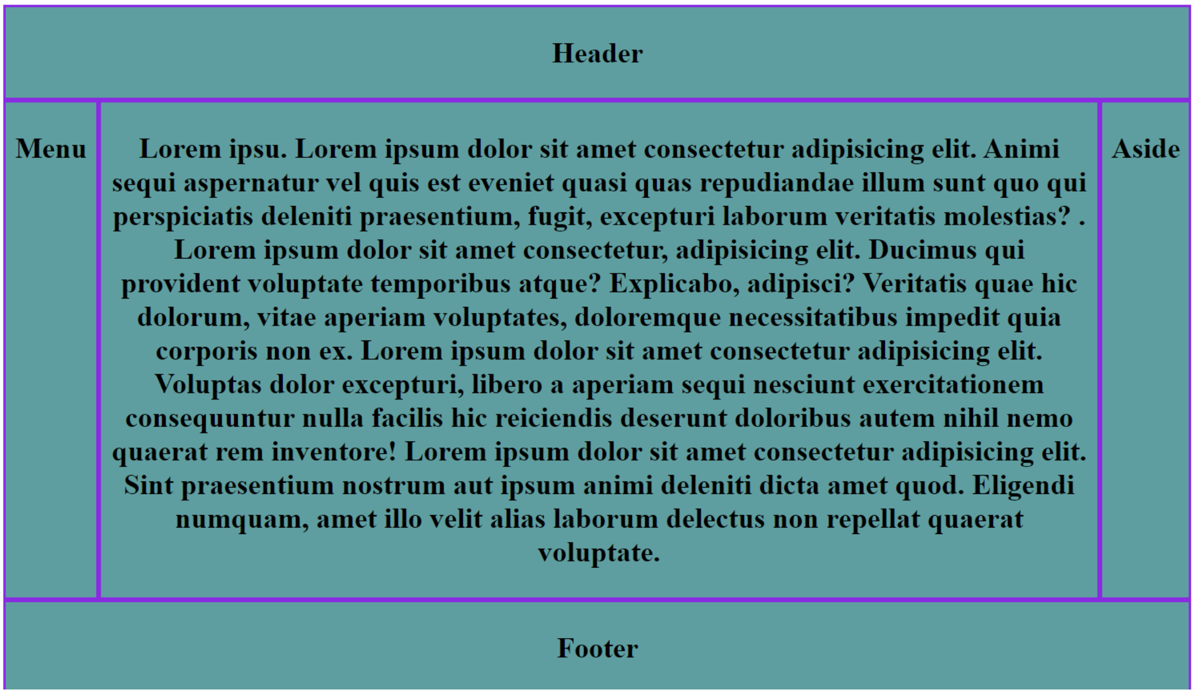
The CSS Grid Layout Module offers a grid-based layout system, with rows and columns, making it easier to design web pages without having to use floats and positioning. CSS Grid Layout (aka “Grid” or “CSS Grid”), is a two-dimensional grid-based layout system that, compared to any web layout system of the past, completely changes the way we design user interfaces. CSS has always been used to layout our web pages, but it’s never done a very good job of it. First, we used tables, then floats, positioning and inline-block, but all of these methods were essentially hacks and left out a lot of important functionality (vertical centering, for instance). Flexbox is also a very great layout tool, but its one-directional flow has different use cases — and they actually work together quite well! Grid is the very first CSS module created specifically to solve the layout problems we’ve all been hacking our way around for as long as we’ve been making websites.

# 3 Implementation in HTML and CSS

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=<device-width>, initial-scale=1.0">
    <title>Document</title>

    <style>
        .item1{grid-area: header;}
        .item2{grid-area: menu;}
        .item3{grid-area: main;}
        .item4{grid-area: aside;}
        .item5{grid-area: footer;}


        .grid-container{
            display: grid;
            background-color: cadetblue;
           /* grid-template-columns: auto auto auto auto auto auto;*/

           grid-template-areas:’header header header header header header’
                                ’menu main main main main aside’

                                ’footer footer footer footer footer footer’ ;
        }

        .grid-container > div{
            border: 3px solid blueviolet;
            padding:10px;
            text-align: center;

        }

      /*  .item1{
            grid-column: 1/7;

        }
        .item2{
            grid-column: 1/2;
            grid-row:2/4;

        }
        .item3{
            grid-column: 2/6;
        }

        .item4{
            grid-column: 6/7;
            grid-row: 2/4;
        }

        .item5{
            grid-column: 2/6;

        }*/


    </style>
</head>
<body>
    <div class="grid-container">

        <div class="item1">
            <h1>Header</h1>
        </div>

        <div class="item2">
            <h1>Menu</h1>
        </div>

        <div class="item3">
            <h1>Lorem ipsu. Lorem ipsum dolor sit amet consectetur adipisicing
                elit. Animi sequi aspernatur vel quis est eveniet quasi quas
                repudiandae illum sunt quo qui perspiciatis deleniti praesentium,
                 fugit, excepturi laborum veritatis molestias? . Lorem ipsum
                dolor sit amet consectetur, adipisicing elit. Ducimus qui
                provident voluptate temporibus atque? Explicabo, adipisci?
                Veritatis quae hic dolorum, vitae aperiam voluptates, doloremque
                necessitatibus impedit quia corporis non ex. Lorem ipsum dolor
                sit amet consectetur adipisicing elit. Voluptas dolor excepturi,
                libero a aperiam sequi nesciunt exercitationem consequuntur nulla
                 facilis hic reiciendis deserunt doloribus autem nihil nemo
                quaerat rem inventore! Lorem ipsum dolor sit amet consectetur
                adipisicing elit. Sint praesentium nostrum aut ipsum animi
                deleniti dicta amet quod. Eligendi numquam, amet illo velit alias
                 laborum delectus non repellat quaerat voluptate. </h1>
        </div>

        <div class="item4">
            <h1>Aside</h1>
        </div>

        <div class="item5">
            <h1>Footer</h1>
        </div>

    </div>
</body>
</html>
```

## 4 Input/Output

Output of the program is given below.



Header

Menu

Lorem ipsu. Lorem ipsum dolor sit amet consectetur adipisicing elit. Animi sequi aspernatur vel quis est eveniet quasi quas repudiandae illum sunt quo qui perspiciatis deleniti praesentium, fugit, excepturi laborum veritatis molestias? . Lorem ipsum dolor sit amet consectetur, adipisicing elit. Ducimus qui provident voluptate temporibus atque? Explicabo, adipisci? Veritatis quae hic dolorum, vitae aperiam voluptates, doloremque necessitatibus impedit quia corporis non ex. Lorem ipsum dolor sit amet consectetur adipisicing elit. Voluptas dolor excepturi, libero a aperiam sequi nesciunt exercitationem consequuntur nulla facilis hic reiciendis deserunt doloribus autem nihil nemo quaerat rem inventore! Lorem ipsum dolor sit amet consectetur adipisicing elit. Sint praesentium nostrum aut ipsum animi deleniti dicta amet quod. Eligendi numquam, amet illo velit alias laborum delectus non repellat quaerat voluptate.

Aside

Footer

Figure 1: CSS Grid layout

## 5 Discussion & Conclusion

Based on the objective(s) to understand about different CSS layout, the additional lab exercise made me more confident about learning different layout techniques.

## 6 Lab Task (Please implement yourself and show the output to the instructor)

1. Implement the CSS layout.

### 6.1 Problem analysis

Design a responsive page layout using CSS grid or flex.By suing CSS grid area property you should design the layout. The responsiveness of the can be added by using media screen property.

### 6.2 Sample output

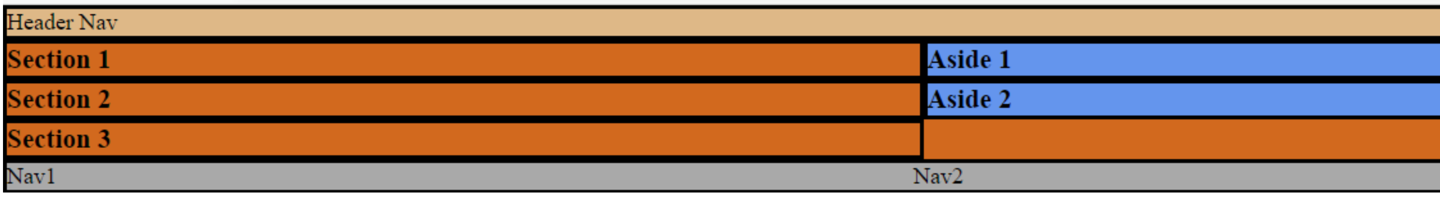


Figure 2: Sample page layout

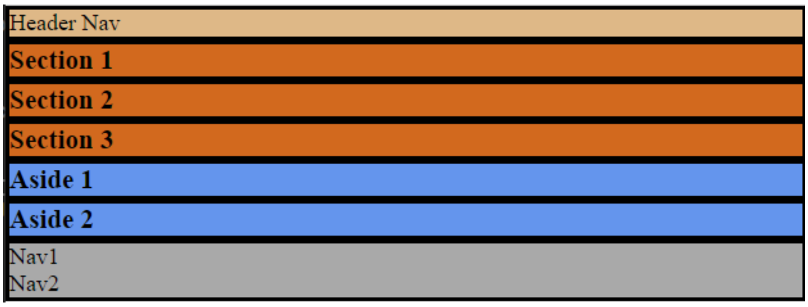


Figure 3: Sample responsive page layout

## 7 Lab Exercise (Submit as a report)

- Implement the page layout using CSS.
- Implement the responsive property of CSS in the page layout.

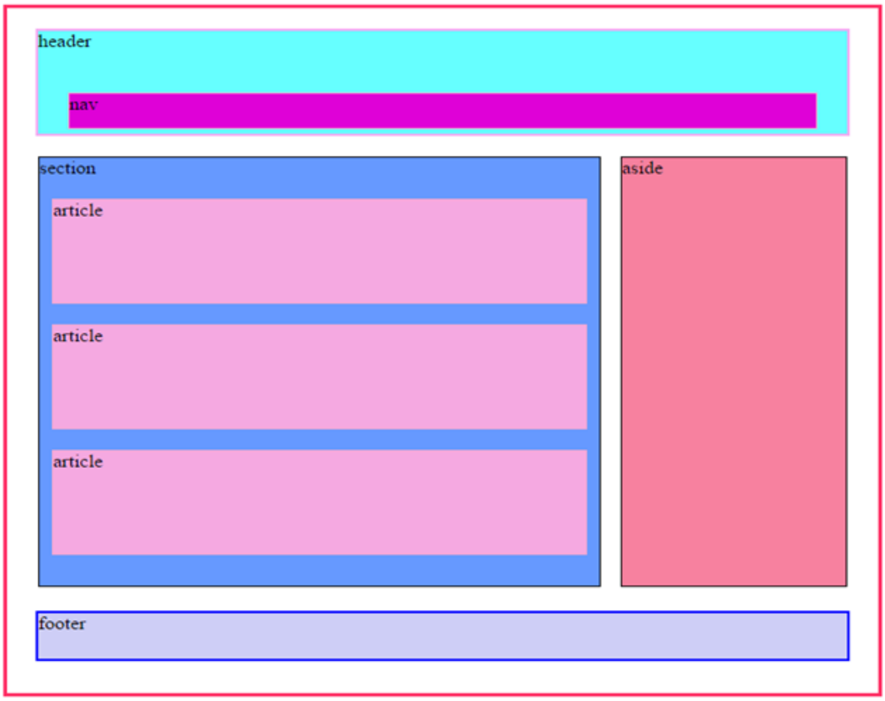


Figure 4: CSS page layout

## 8 Policy

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