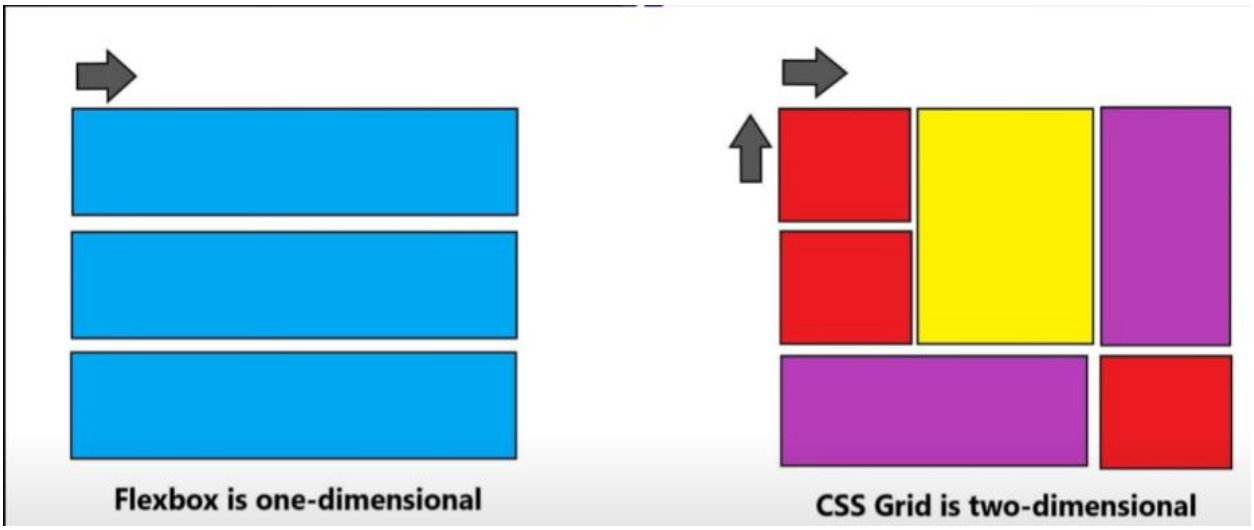
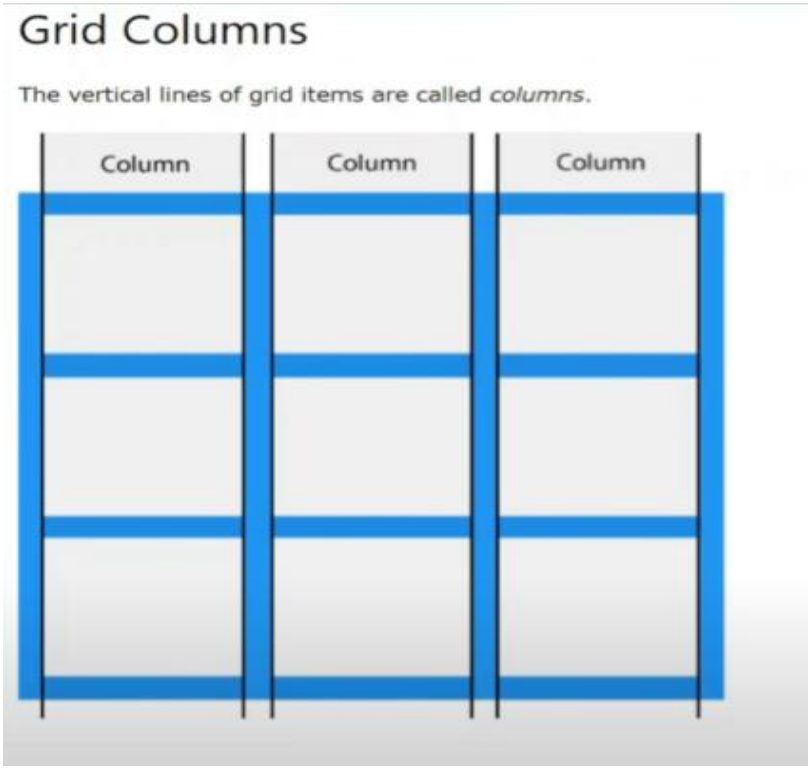
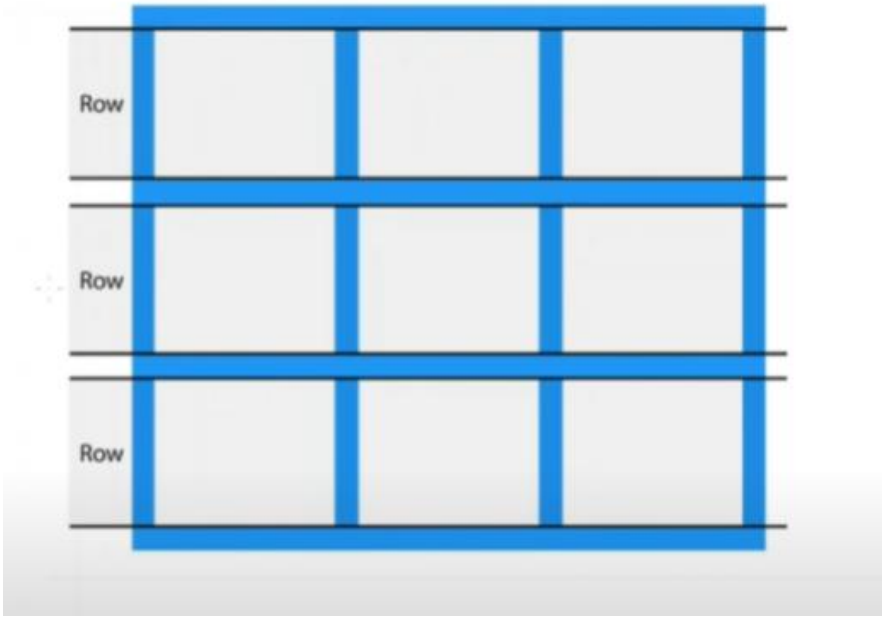
GRID SYSTEM


Flexbox is one-dimensional
CSS Grid is two-dimensional


Grid Columns
The vertical lines of grid items are called columns.
Column
Column
Column

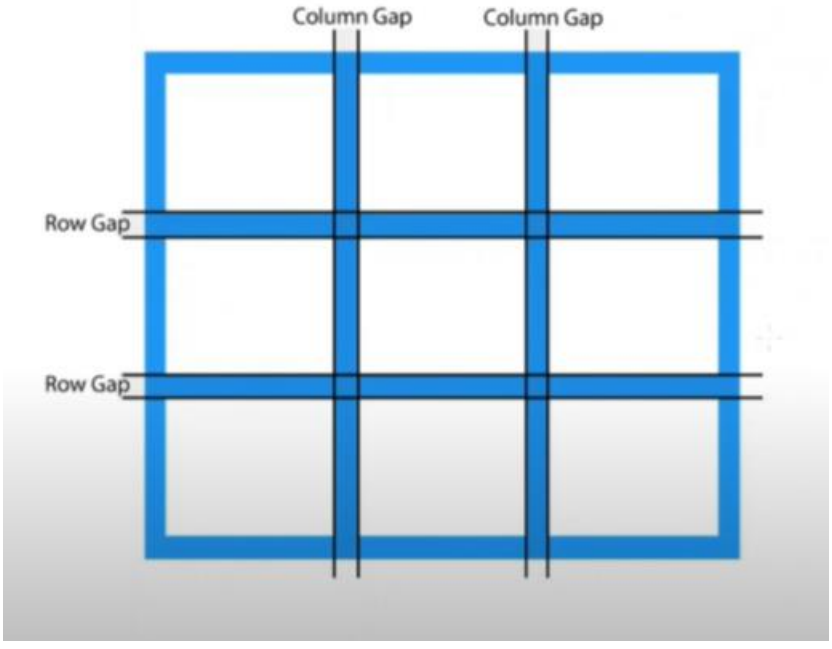
Grid Rows

The horizontal lines of grid items are called *rows*.



Grid Gaps

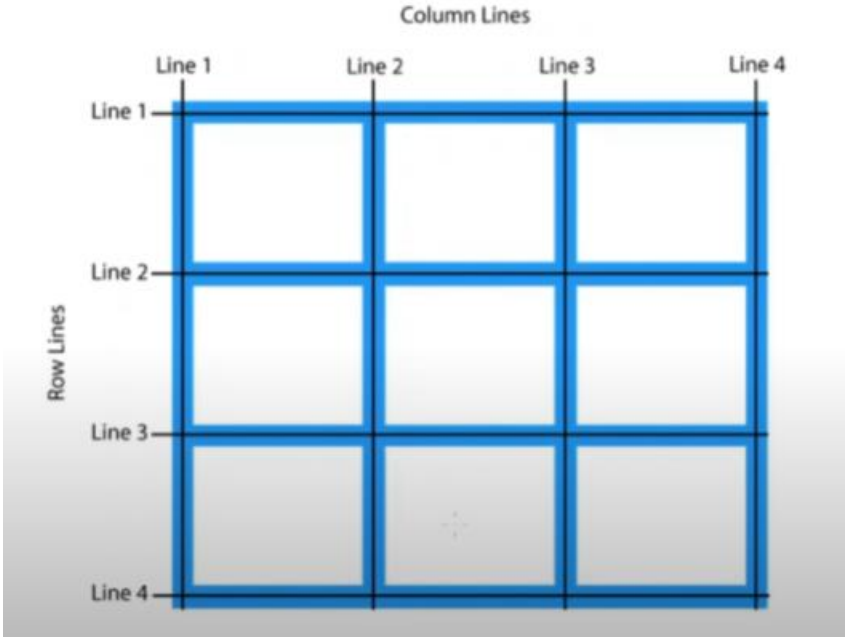
The spaces between each column/row are called *gaps*.



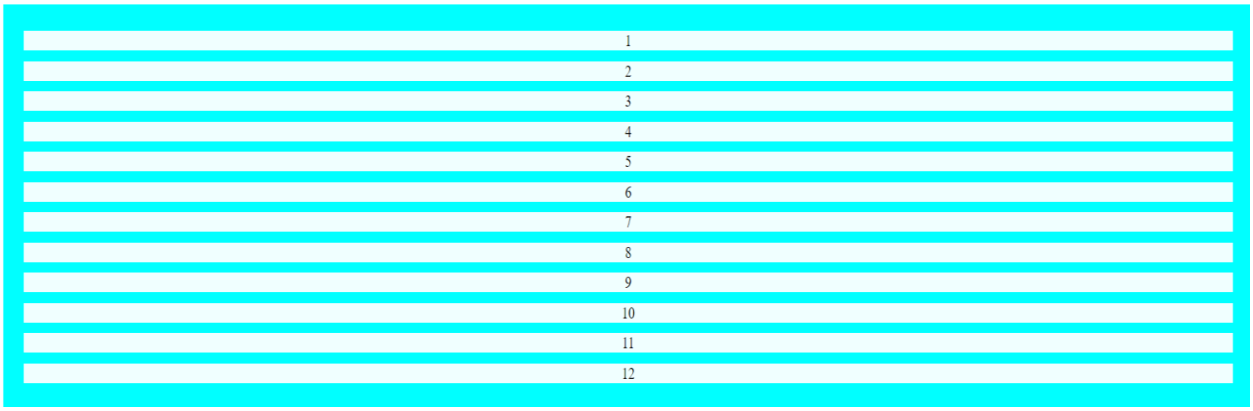
Grid Lines

The lines between columns are called *column lines*.

The lines between rows are called *row lines*.



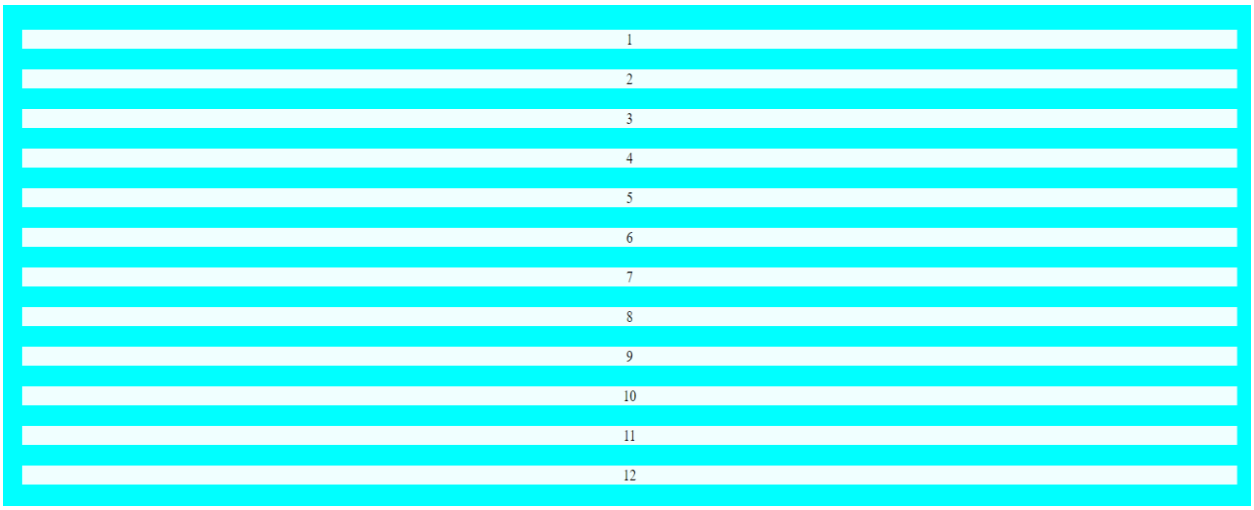
```
    <style>
      .container {
        background-color: aqua;
        padding: 15px;
      }
      .smalldiv {
        background-color: azure;
        margin: 10px;
        text-align: center;
      }
    </style>
  </head>
  <body>
    <div class="container">
      <div class="smalldiv">1</div>
      <div class="smalldiv">2</div>
      <div class="smalldiv">3</div>
      <div class="smalldiv">4</div>
      <div class="smalldiv">5</div>
      <div class="smalldiv">6</div>
      <div class="smalldiv">7</div>
      <div class="smalldiv">8</div>
      <div class="smalldiv">9</div>
      <div class="smalldiv">10</div>
      <div class="smalldiv">11</div>
      <div class="smalldiv">12</div>
    </div>
  </body>
</html>
```



1.display

display : grid

```
    <style>
      .container {
        background-color: aqua;
        padding: 15px;
        display: grid;
      }
      .smalldiv {
        background-color: azure;
        margin: 10px;
        text-align: center;
      }
    </style>
  </head>
  <body>
    <div class="container">
      <div class="smalldiv">1</div>
      <div class="smalldiv">2</div>
      <div class="smalldiv">3</div>
      <div class="smalldiv">4</div>
      <div class="smalldiv">5</div>
      <div class="smalldiv">6</div>
      <div class="smalldiv">7</div>
      <div class="smalldiv">8</div>
      <div class="smalldiv">9</div>
      <div class="smalldiv">10</div>
      <div class="smalldiv">11</div>
      <div class="smalldiv">12</div>
    </div>
  </body>
</html>
```



grid-template-columns

grid-template-columns:200px;

here the 200px is width

```
    <style>
      .container {
        background-color: aqua;
        padding: 15px;
        display: grid;
        grid-template-columns: 200px;
      }
      .smalldiv {
        background-color: azure;
        margin: 10px;
        text-align: center;
      }
    </style>
  </head>
  <body>
    <div class="container">
      <div class="smalldiv">1</div>
      <div class="smalldiv">2</div>
      <div class="smalldiv">3</div>
      <div class="smalldiv">4</div>
      <div class="smalldiv">5</div>
      <div class="smalldiv">6</div>
      <div class="smalldiv">7</div>
      <div class="smalldiv">8</div>
      <div class="smalldiv">9</div>
      <div class="smalldiv">10</div>
      <div class="smalldiv">11</div>
      <div class="smalldiv">12</div>
    </div>
```

grid-template-columns:200px 400px;

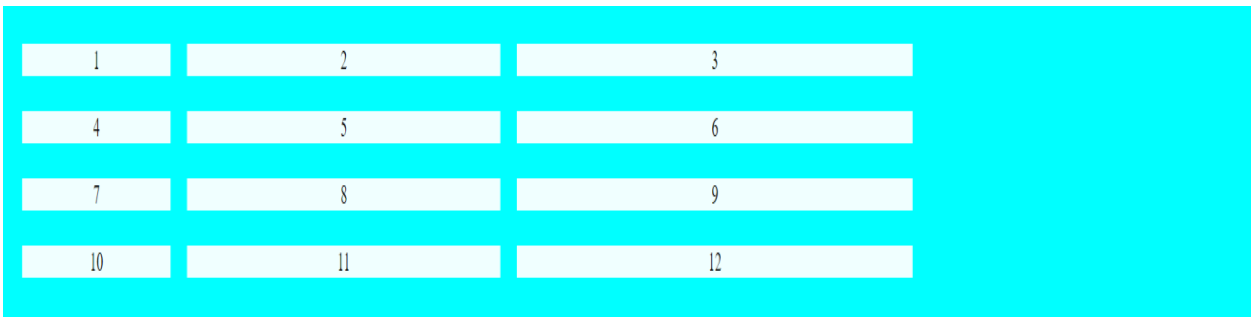
here 200px,400px we enter 2 values so it divided in two columns

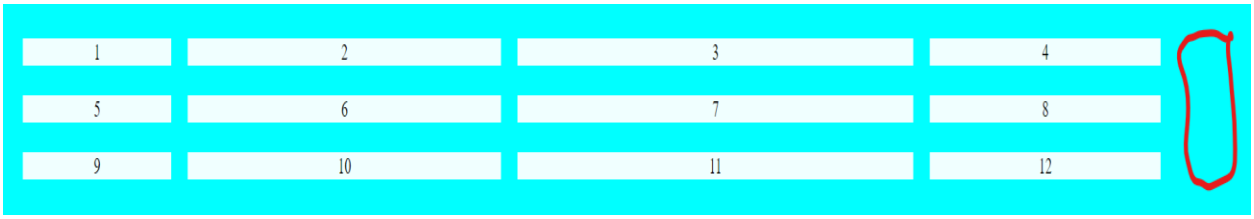
```
  <style>
    .container {
      background-color: aqua;
      padding: 15px;
      display: grid;
      grid-template-columns: 200px 400px;
    }
    .smalldiv {
      background-color: azure;
      margin: 10px;
      text-align: center;
    }
  </style>
</head>
<body>
  <div class="container">
    <div class="smalldiv">1</div>
    <div class="smalldiv">2</div>
    <div class="smalldiv">3</div>
    <div class="smalldiv">4</div>
    <div class="smalldiv">5</div>
    <div class="smalldiv">6</div>
    <div class="smalldiv">7</div>
    <div class="smalldiv">8</div>
    <div class="smalldiv">9</div>
    <div class="smalldiv">10</div>
    <div class="smalldiv">11</div>
    <div class="smalldiv">12</div>
  </div>
```

grid-template-columns:100px 200px 500px;

here we entered 100px 200px 500px so it will divided into 3 columns sets

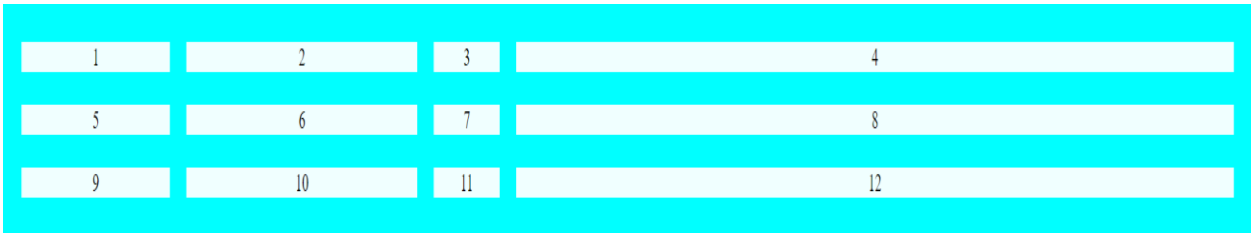
```
    <style>
      .container {
        background-color: aqua;
        padding: 15px;
        display: grid;
        grid-template-columns: 200px 400px 500px;
      }
      .smalldiv {
        background-color: azure;
        margin: 10px;
        text-align: center;
      }
    </style>
  </head>
  <body>
    <div class="container">
      <div class="smalldiv">1</div>
      <div class="smalldiv">2</div>
      <div class="smalldiv">3</div>
      <div class="smalldiv">4</div>
      <div class="smalldiv">5</div>
      <div class="smalldiv">6</div>
      <div class="smalldiv">7</div>
      <div class="smalldiv">8</div>
      <div class="smalldiv">9</div>
      <div class="smalldiv">10</div>
      <div class="smalldiv">11</div>
      <div class="smalldiv">12</div>
    </div>
  </body>
</html>
```





To cover this space eventually -→we have to write auto

```
  <style>
    .container {
      background-color: aqua;
      padding: 15px;
      display: grid;
      grid-template-columns: 200px 300px 100px auto;
    }
    .smalldiv {
      background-color: azure;
      margin: 10px;
      text-align: center;
    }
  </style>
</head>
<body>
  <div class="container">
    <div class="smalldiv">1</div>
    <div class="smalldiv">2</div>
    <div class="smalldiv">3</div>
    <div class="smalldiv">4</div>
    <div class="smalldiv">5</div>
    <div class="smalldiv">6</div>
    <div class="smalldiv">7</div>
    <div class="smalldiv">8</div>
    <div class="smalldiv">9</div>
    <div class="smalldiv">10</div>
    <div class="smalldiv">11</div>
    <div class="smalldiv">12</div>
  </div>
</body>
</html>
```



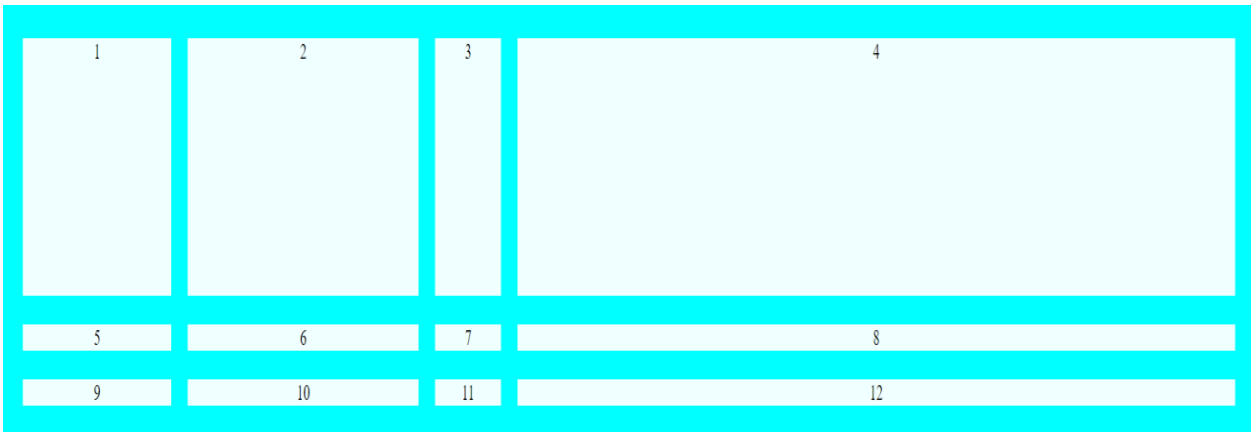
Here the space is covered eventually.

grid-template-rows

grid-template-rows: 200px;

** This means it will increase the height of row-1 componenets

```
  <style>
    .container {
      background-color: aqua;
      padding: 15px;
      display: grid;
      grid-template-columns: 200px 300px 100px auto;
      grid-template-rows: 200px;
    }
    .smalldiv {
      background-color: azure;
      margin: 10px;
      text-align: center;
    }
  </style>
</head>
<body>
  <div class="container">
    <div class="smalldiv">1</div>
    <div class="smalldiv">2</div>
    <div class="smalldiv">3</div>
    <div class="smalldiv">4</div>
    <div class="smalldiv">5</div>
    <div class="smalldiv">6</div>
    <div class="smalldiv">7</div>
    <div class="smalldiv">8</div>
    <div class="smalldiv">9</div>
    <div class="smalldiv">10</div>
    <div class="smalldiv">11</div>
    <div class="smalldiv">12</div>
  </div>
</body>
```

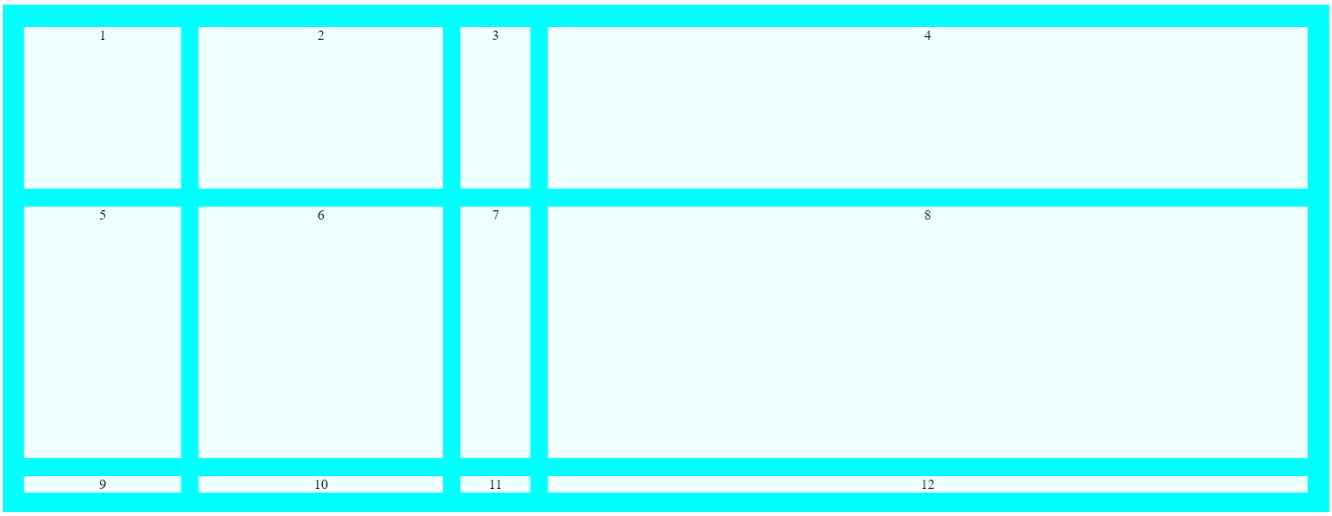


grid-template-rows : 200px 300px;

**row-1 components gets height of 200px

**row-2 components gets height of 300px

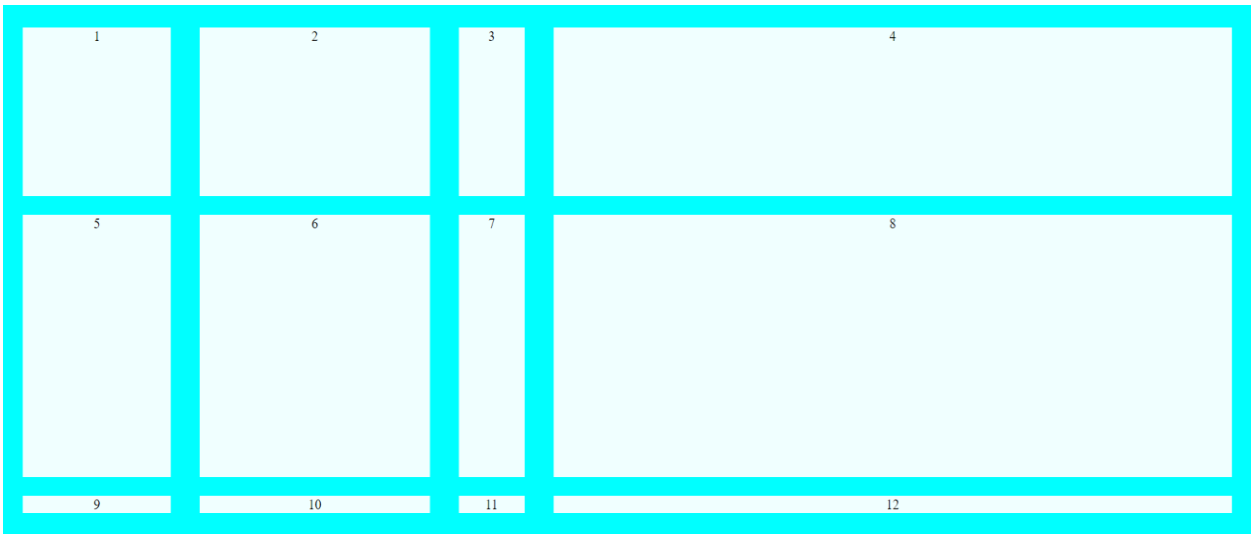
```
  <style>
    .container {
      background-color: aqua;
      padding: 15px;
      display: grid;
      grid-template-columns: 200px 300px 100px auto;
      grid-template-rows: 200px 300px;
    }
    .smalldiv {
      background-color: azure;
      margin: 10px;
      text-align: center;
    }
  </style>
</head>
<body>
  <div class="container">
    <div class="smalldiv">1</div>
    <div class="smalldiv">2</div>
    <div class="smalldiv">3</div>
    <div class="smalldiv">4</div>
    <div class="smalldiv">5</div>
    <div class="smalldiv">6</div>
    <div class="smalldiv">7</div>
    <div class="smalldiv">8</div>
    <div class="smalldiv">9</div>
    <div class="smalldiv">10</div>
    <div class="smalldiv">11</div>
    <div class="smalldiv">12</div>
  </div>
</body>
```



grid-column-gap

gap between columns

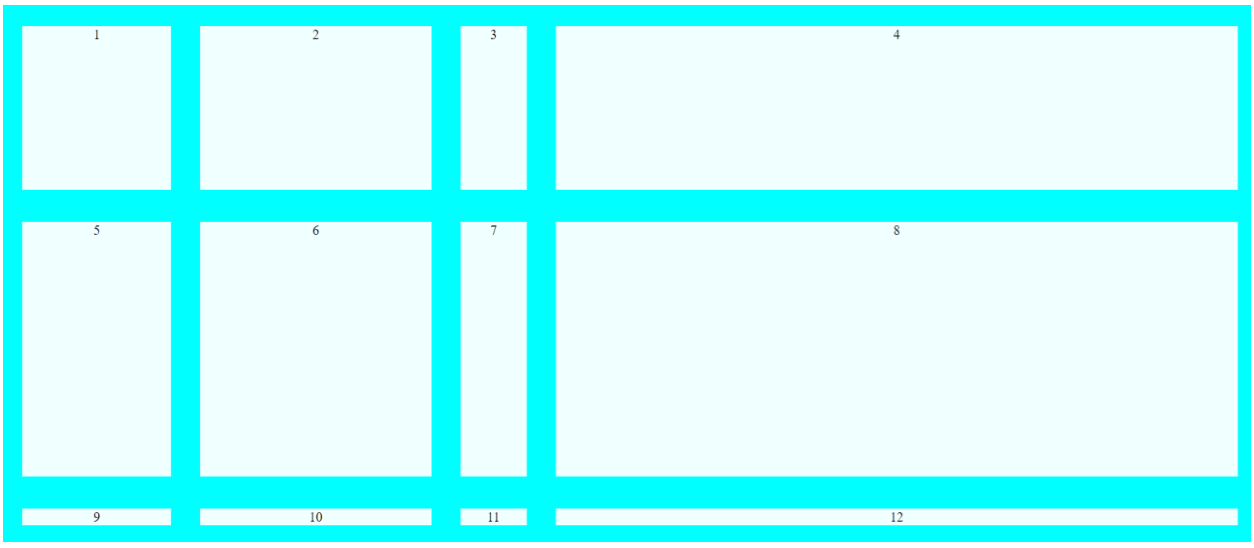
```
    <style>
      .container {
        background-color: aqua;
        padding: 15px;
        display: grid;
        grid-template-columns: 200px 300px 100px auto;
        grid-template-rows: 200px 300px;
        grid-column-gap: 15px;
      }
      .smalldiv {
        background-color: azure;
        margin: 10px;
        text-align: center;
      }
    </style>
  </head>
  <body>
    <div class="container">
      <div class="smalldiv">1</div>
      <div class="smalldiv">2</div>
      <div class="smalldiv">3</div>
      <div class="smalldiv">4</div>
      <div class="smalldiv">5</div>
      <div class="smalldiv">6</div>
      <div class="smalldiv">7</div>
      <div class="smalldiv">8</div>
      <div class="smalldiv">9</div>
      <div class="smalldiv">10</div>
      <div class="smalldiv">11</div>
      <div class="smalldiv">12</div>
    </div>
  </body>
</html>
```



grid-row-gap

gap between rows

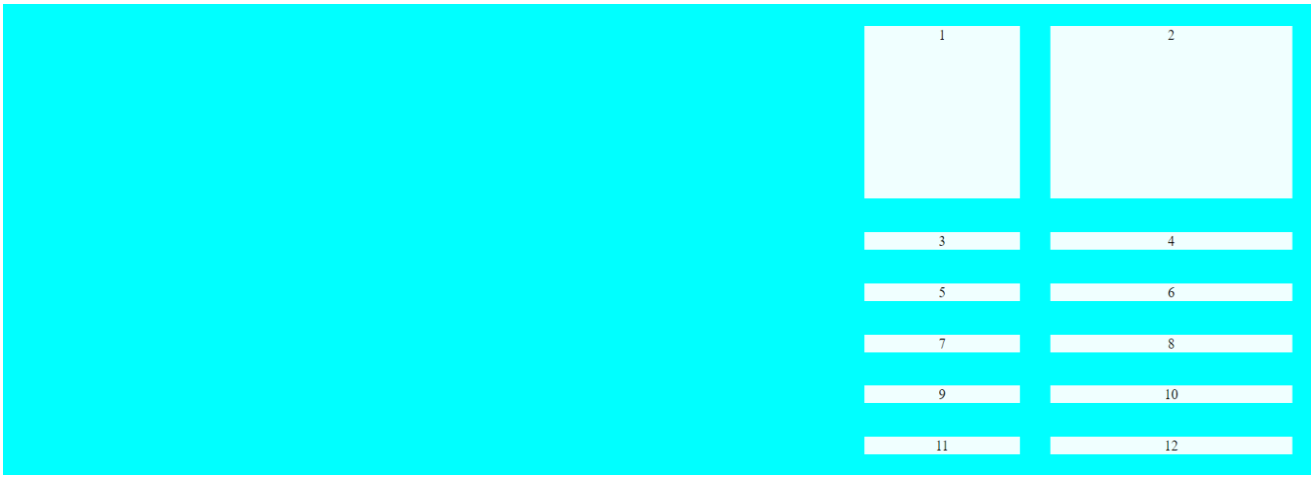
```
    <style>
      .container {
        background-color: aqua;
        padding: 15px;
        display: grid;
        grid-template-columns: 200px 300px 100px auto;
        grid-template-rows: 200px 300px;
        grid-column-gap: 15px;
        grid-row-gap: 15px;
      }
      .smalldiv {
        background-color: azure;
        margin: 10px;
        text-align: center;
      }
    </style>
  </head>
  <body>
    <div class="container">
      <div class="smalldiv">1</div>
      <div class="smalldiv">2</div>
      <div class="smalldiv">3</div>
      <div class="smalldiv">4</div>
      <div class="smalldiv">5</div>
      <div class="smalldiv">6</div>
      <div class="smalldiv">7</div>
      <div class="smalldiv">8</div>
      <div class="smalldiv">9</div>
      <div class="smalldiv">10</div>
      <div class="smalldiv">11</div>
      <div class="smalldiv">12</div>
    </div>
  </body>
</html>
```



justify-content

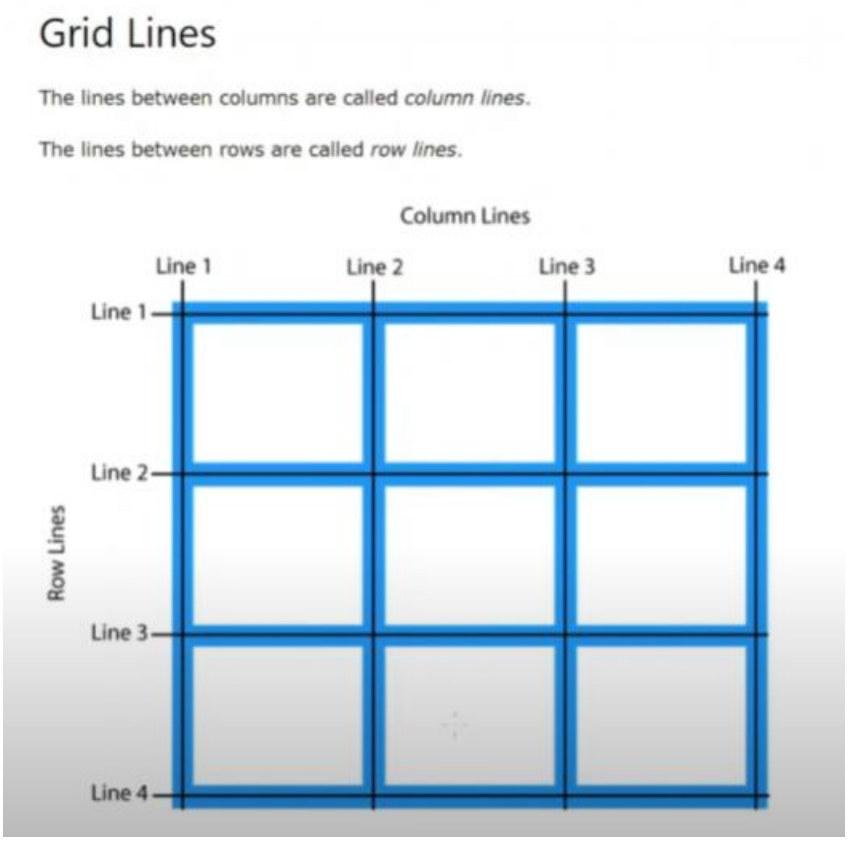
For justify-content: (start, center, end)

```
    .container {
      background-color: aqua;
      padding: 15px;
      display: grid;
      grid-template-columns: 200px 300px;
      grid-template-rows: 200px;
      grid-column-gap: 15px;
      grid-row-gap: 15px;
      justify-content: end;
    }
    .smalldiv {
      background-color: azure;
      margin: 10px;
      text-align: center;
    }
  </style>
</head>
<body>
  <div class="container">
    <div class="smalldiv">1</div>
    <div class="smalldiv">2</div>
    <div class="smalldiv">3</div>
    <div class="smalldiv">4</div>
    <div class="smalldiv">5</div>
    <div class="smalldiv">6</div>
    <div class="smalldiv">7</div>
    <div class="smalldiv">8</div>
    <div class="smalldiv">9</div>
    <div class="smalldiv">10</div>
    <div class="smalldiv">11</div>
    <div class="smalldiv">12</div>
  </div>
</body>
</html>
```



To Fix the size certain div box

It based on the grid lines



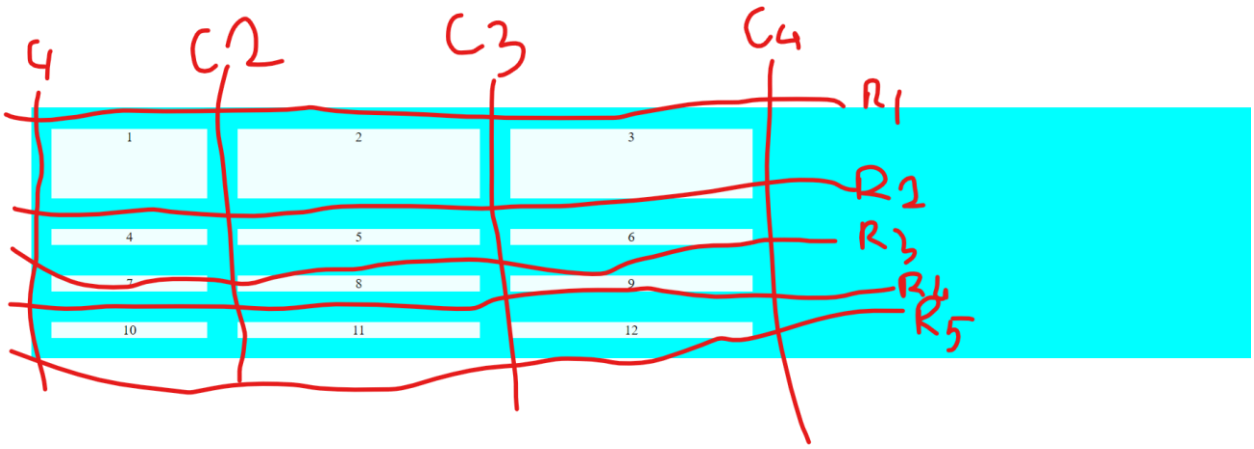
grid-colum-start:value

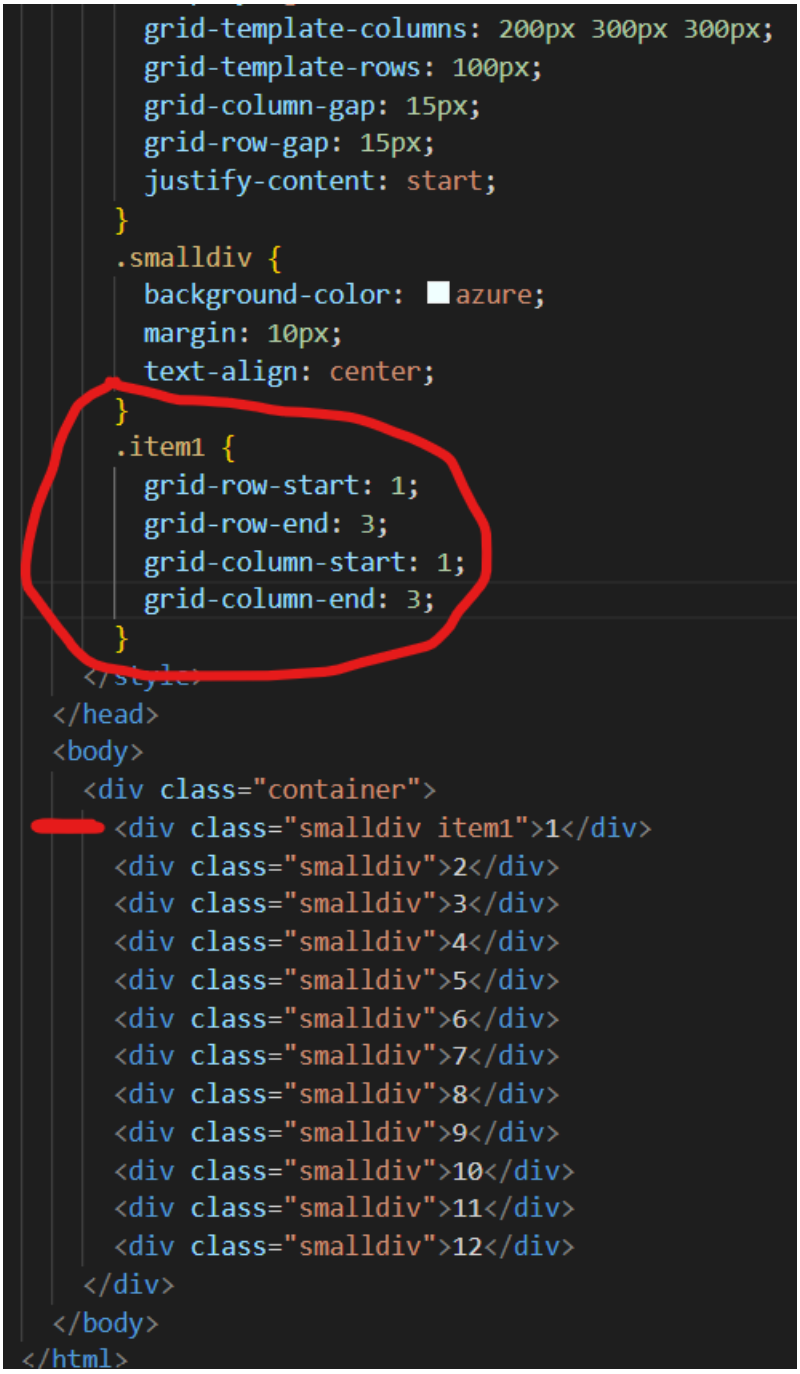
grid-colum-end:value

---

grid-row-start:value

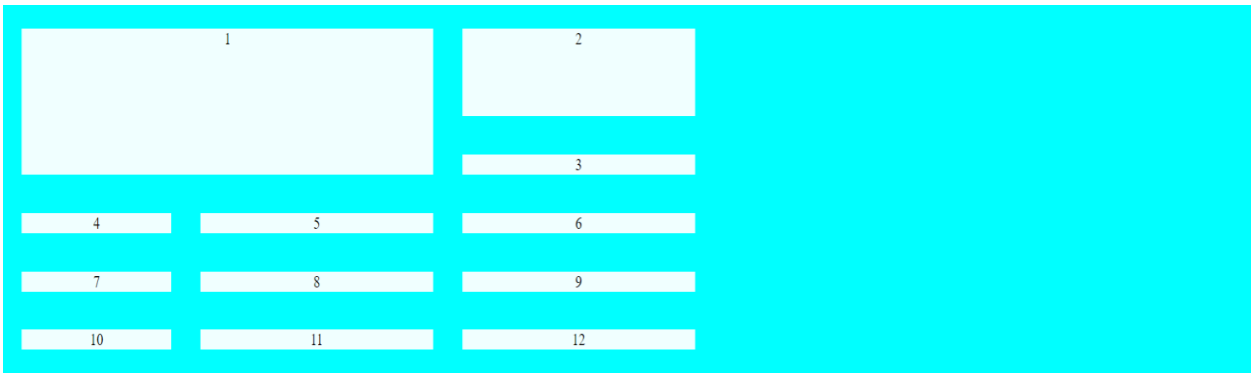
grid-row-end:value


C1
C2
C3
C4
R1
R2
R3
R4
R5
1
2
3
4
5
6
7
8
9
10
11
12


grid-template-columns: 200px 300px 300px;
grid-template-rows: 100px;
grid-column-gap: 15px;
grid-row-gap: 15px;
justify-content: start;
}
.smalldiv {
background-color: azure;
margin: 10px;
text-align: center;
}
.item1 {
grid-row-start: 1;
grid-row-end: 3;
grid-column-start: 1;
grid-column-end: 3;
}
</head>
<body>

1
2
3
4
5
6
7
8
9
10
11
12

</body>
</html>


1
2
3
4
5
6
7
8
9
10
11
12