CSS Grid

The CSS Grid Layout Module offers a grid-based layout system, with rows and colums, making it easier to design webpages without having to use floats and positioning.

Grid Elements

A grid layout consists of a parent element, with one or more child elements.
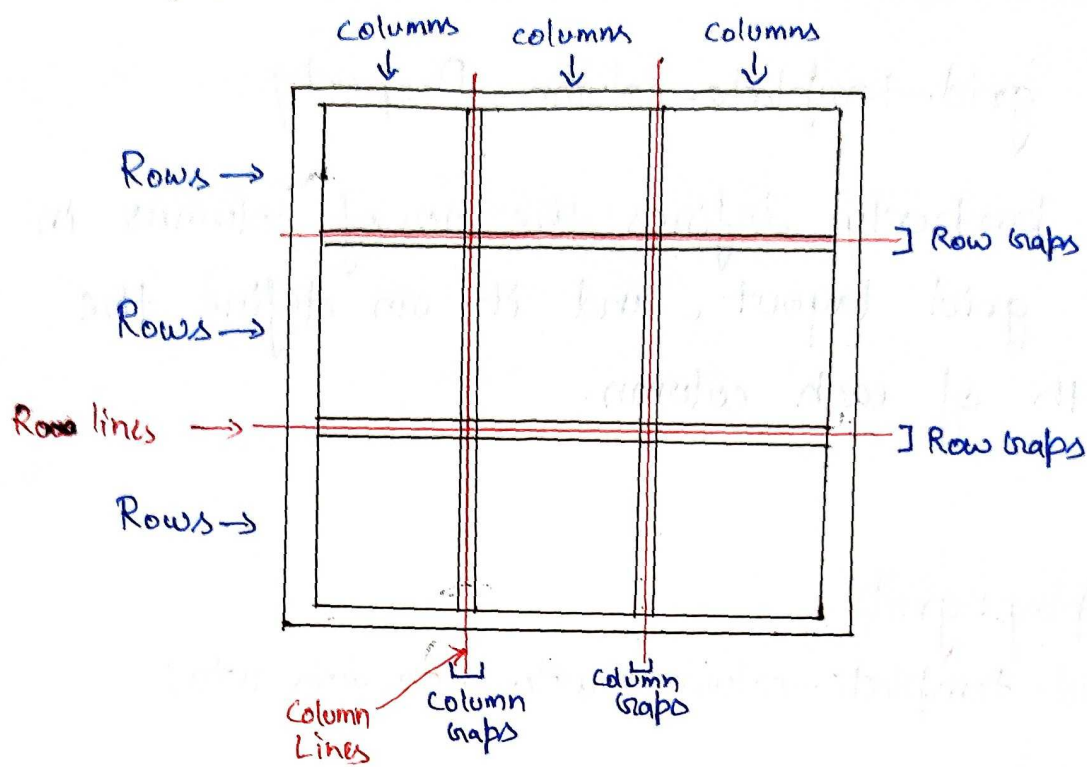
1	2	3
4	5	6
7	8	9

Display Property

An HTML element becomes a grid container when its display property is set to grid or inline-grid.

Ex

```
.grid-container {
    display: grid / inline-grid;
}
```

Columns columns columns

Rows →

Rows →

Row lines →

Rows →

] Row Gaps

] Row Gaps

Column Lines

Column Gaps

Column Gaps

Examples

Column Gaps

column-gaps: 50px;

Row Gaps

row-gaps: 50px;

Shorthand property for gaps

gap: 50 px 100px;

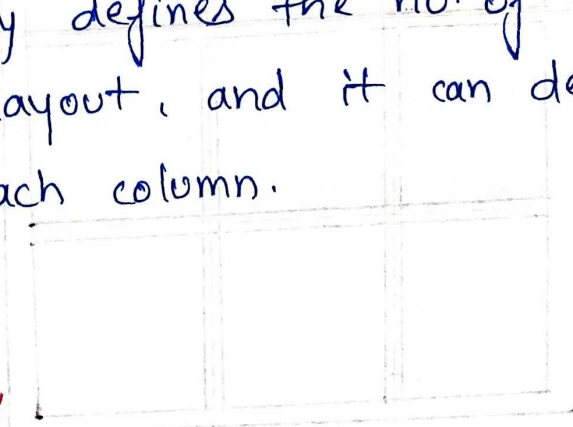   row   column
    gap   gap

Grid Container

Grid container is a parent container that consists of grid items (child container) in row and column format.

* **The grid-template-column Property**

This property defines the no. of columns in your grid layout, and it can define the width of each column.

Ex

```
display : grid;
grid-template-column : auto auto auto auto;
```

* **The grid-template-row Property**

This property defines the height of each row.

Ex
```
display : grid;
grid-template-rows : 80px 200px;
```

* **The justify-content Property**

  * space-evenly   * space-around   * space-between

  * center   * start   * end

* **The align-content Property**

  * space-evenly   * space-around   * space-between

  * center   * start   * end
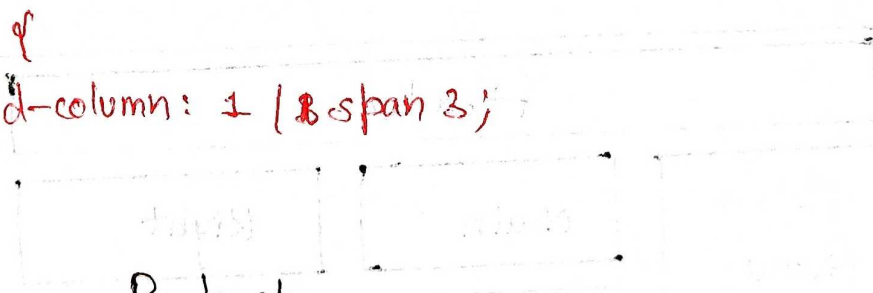
Grid Item

* **grid-column Property**

  The grid-column property defines on which column(s) to place an item. It is a shorthand property.

  Ex ⇒ Make "item1" start on column 1 and end before column 5.

  ```
  .item1 {
      grid-column: 1/5;
  }
  ```

  ⇒ Make grid "item1" start on column 1 and span 3 columns:

  ```
  .item1 {
      grid-column: 1 / span 3;
  }
  ```

* **grid-row Property**

  This property defines on which row to place an item. It is a shorthand property.

  Ex Make "item1" start on row-line 1 and end on row-line 4;

  ```
  .item1{
      grid-row: 1 / 4;
  }
  ```
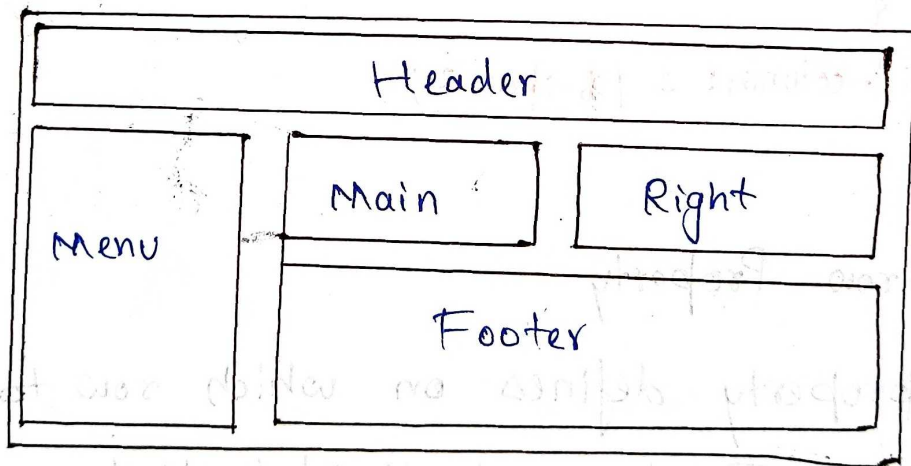
* grid - area Property

This property can be used as a shorthand property for the grid-row-start, grid-column-start, grid-row-end and the grid-column-end property.

Ex. Make "item8" start on row-line 1 and column-line 2, and end on row-line 5 and column-line 6:

```
.item8 {
    grid-area: 1 | 2 | 5 | 6;
}
```

* Naming Grid Items

Named grid items can be referred to by the grid-template-areas property of the grid container.

Ex- .grid-template-areas: 'myArea myArea myArea MyArea myArea';

Each row is defined by apostrophes (' ').