

# Day 13

## Understanding CSS Grid Layout

CSS Grid Layout is a powerful layout system in CSS that allows for complex and responsive grid-based designs. It enables you to create two-dimensional layouts on a webpage, making it easier to design sophisticated and flexible layouts with precise control over rows and columns.

### Introduction to CSS Grid

#### 1. Grid Container:

- **Purpose:** Defines the element as a grid container, which then governs how its child elements (grid items) are arranged.
- **Properties:**
  - **display: grid;** Turns an element into a grid container.
  - **grid-template-columns** and **grid-template-rows:** Define the size and number of columns and rows in the grid.
  - **gap:** Sets the spacing between rows and columns.
  - **justify-items** and **align-items:** Control alignment of items within their grid area.
  - **grid-template-areas:** Allows for naming areas of the grid for more complex layouts.

#### 2. Grid Items:

- **Purpose:** Define the individual items within the grid container, controlling their placement and size.
- **Properties:**
  - **grid-column** and **grid-row:** Specify how many columns or rows an item should span and its starting position.
  - **grid-area:** Allows items to be placed in specific grid areas defined by the grid container.
  - **justify-self** and **align-self:** Control the alignment of a grid item within its own grid cell.