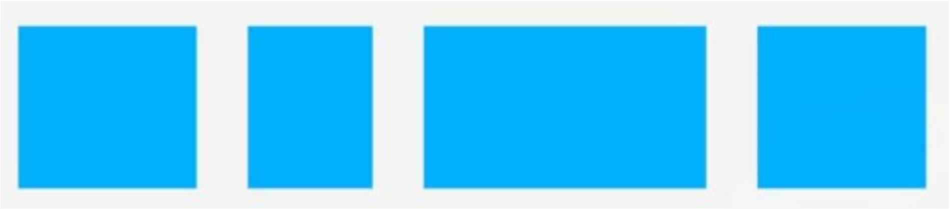
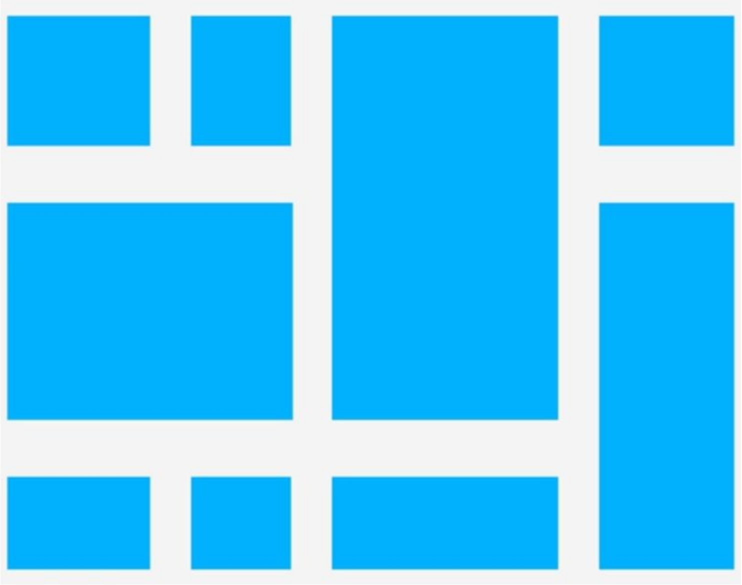
Day - 9

Grid

Introduction to Grid





Resources

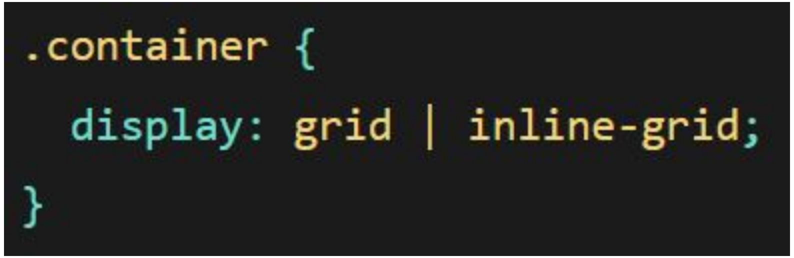
1. https://cssgridgarden.com/
2. https://css-tricks.com/snippets/css/complete-guide-grid/
3. https://developer.mozilla.org/en-US/docs/Web/CSS/grid

Basic Concepts

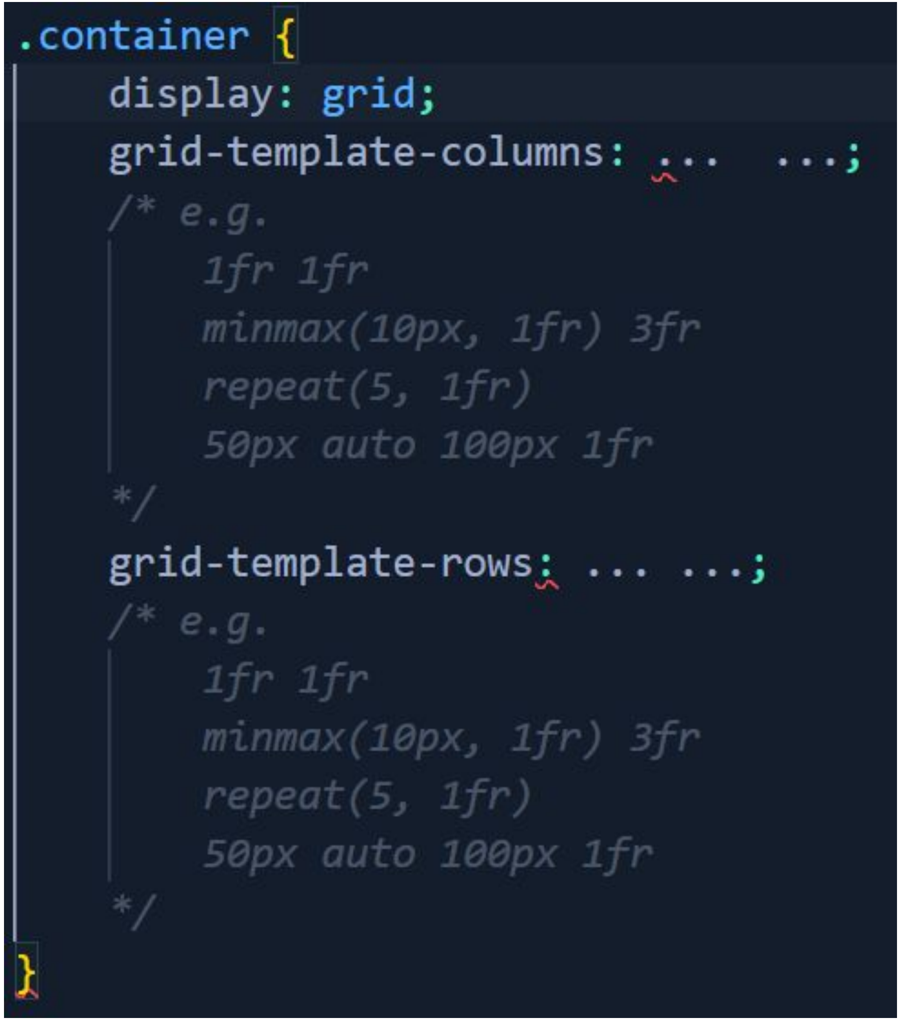
1. Grid container and grid items
2. Rows and columns
3. Grid lines and gutters

Creating a grid container

1. display : grid | inline-grid
2. grid-template-columns
3. grid-template-rows
4. grid-template



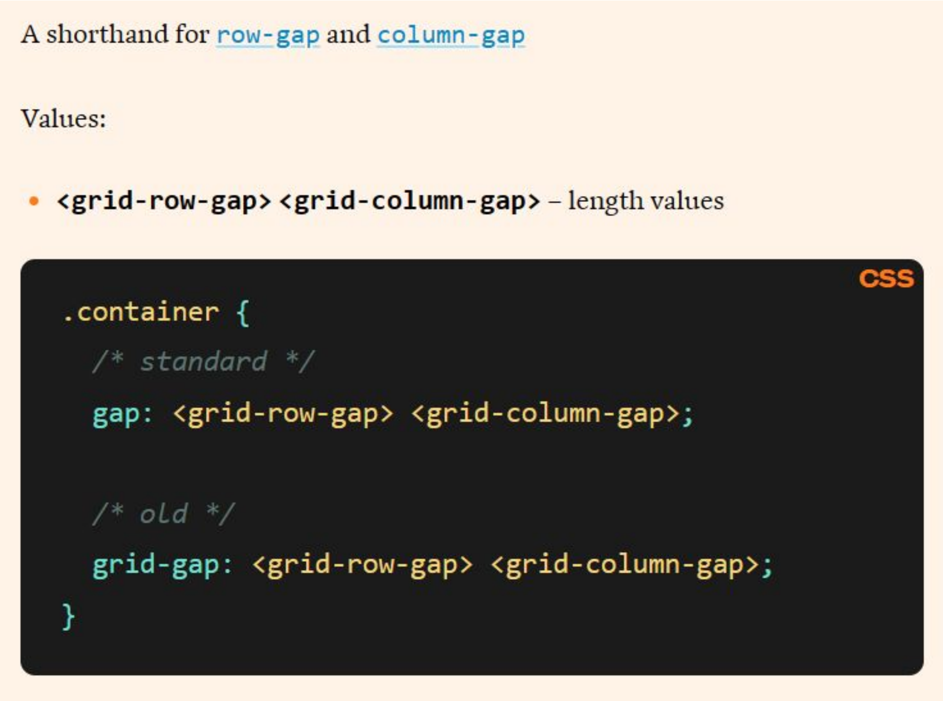
```css
.container {
  display: grid | inline-grid;
}
```



```css
.container {
    display: grid;
    grid-template-columns: ...  ...;
    /* e.g.
        1fr 1fr
        minmax(10px, 1fr) 3fr
        repeat(5, 1fr)
        50px auto 100px 1fr
    */
    grid-template-rows: ... ...;
    /* e.g.
        1fr 1fr
        minmax(10px, 1fr) 3fr
        repeat(5, 1fr)
        50px auto 100px 1fr
    */
}
```

Grid Lines and Gutters

1. Specifying grid lines
2. Adjusting gutter with grid-gap



A shorthand for `row-gap` and `column-gap`

Values:

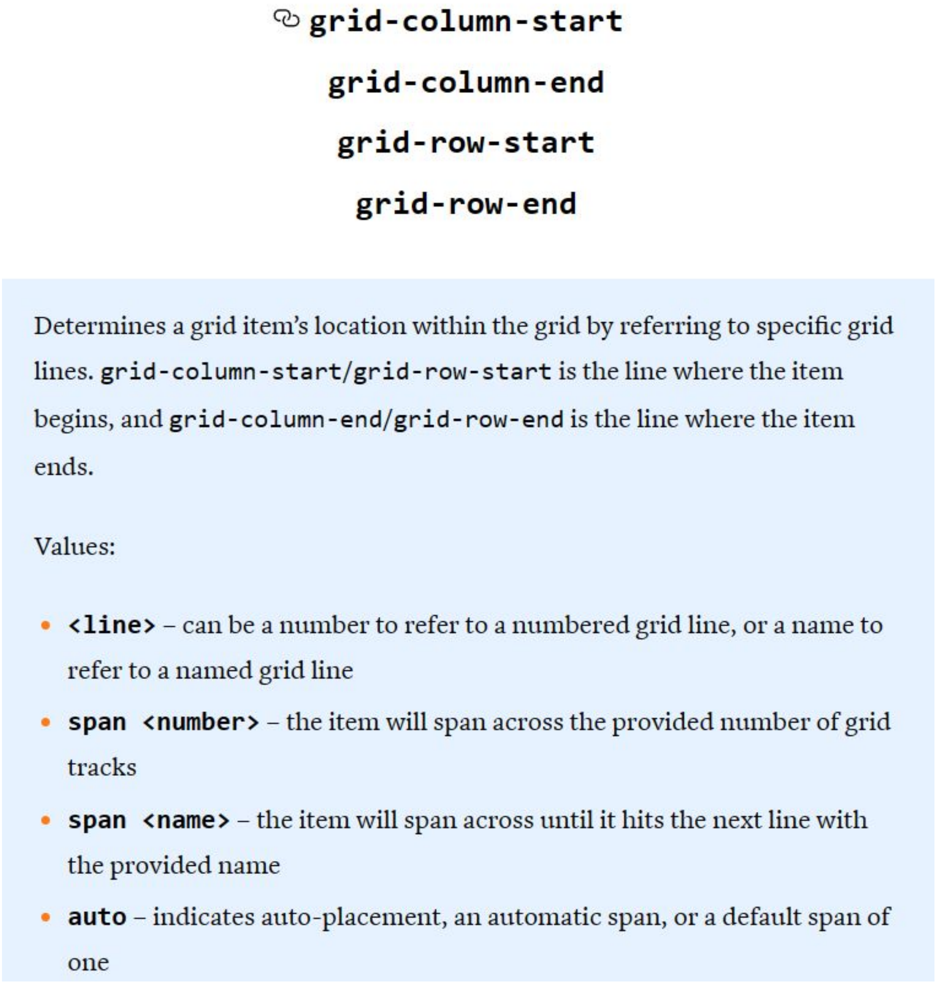
- **`<grid-row-gap> <grid-column-gap>`** – length values

```css
.container {
  /* standard */
  gap: <grid-row-gap> <grid-column-gap>;

  /* old */
  grid-gap: <grid-row-gap> <grid-column-gap>;
}
```

Placing Items on the Grid

1. grid-column-start / grid-column-end
2. grid-column
3. grid-row-start / grid-row-end
4. grid-row



grid-column-start

grid-column-end

grid-row-start

grid-row-end

Determines a grid item's location within the grid by referring to specific grid lines. `grid-column-start`/`grid-row-start` is the line where the item begins, and `grid-column-end`/`grid-row-end` is the line where the item ends.

Values:

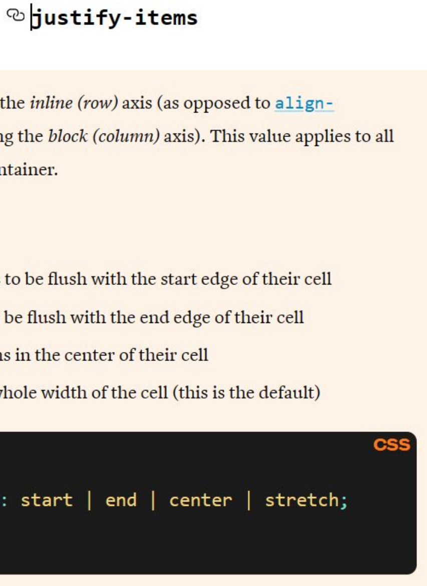
- **`<line>`** – can be a number to refer to a numbered grid line, or a name to refer to a named grid line
- **`span <number>`** – the item will span across the provided number of grid tracks
- **`span <name>`** – the item will span across until it hits the next line with the provided name
- **`auto`** – indicates auto-placement, an automatic span, or a default span of one

Responsive Design

1. auto
2. minmax

Adjusting Items inside Grid

1. justify-items
2. align-items



justify-items

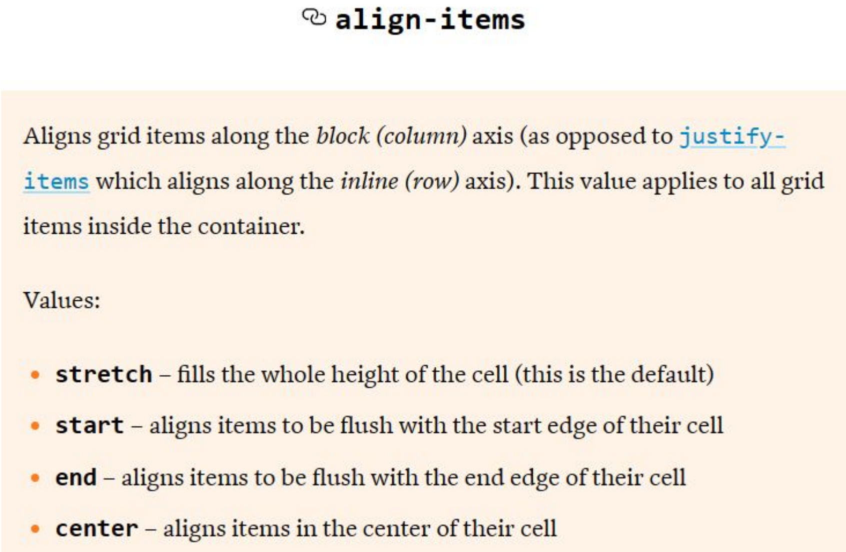
Aligns grid items along the *inline (row)* axis (as opposed to align-items which aligns along the *block (column)* axis). This value applies to all grid items inside the container.

Values:

- **start** – aligns items to be flush with the start edge of their cell
- **end** – aligns items to be flush with the end edge of their cell
- **center** – aligns items in the center of their cell
- **stretch** – fills the whole width of the cell (this is the default)

CSS

```css
.container {
  justify-items: start | end | center | stretch;
}
```

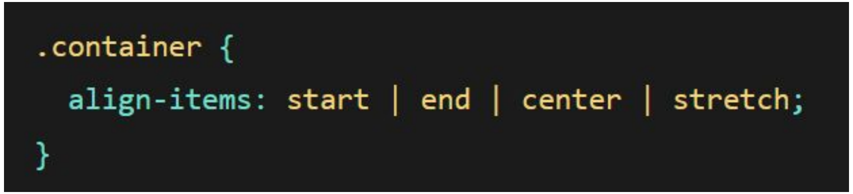


align-items

Aligns grid items along the *block (column)* axis (as opposed to justify-items which aligns along the *inline (row)* axis). This value applies to all grid items inside the container.

Values:

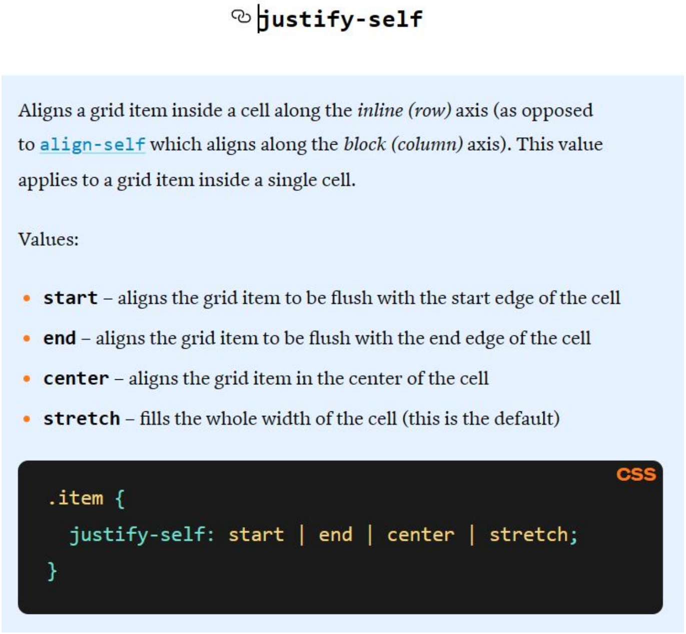
- **stretch** – fills the whole height of the cell (this is the default)
- **start** – aligns items to be flush with the start edge of their cell
- **end** – aligns items to be flush with the end edge of their cell
- **center** – aligns items in the center of their cell



```css
.container {
  align-items: start | end | center | stretch;
}
```

Adjusting individual items on grid

1. justify-self
2. align-self



justify-self

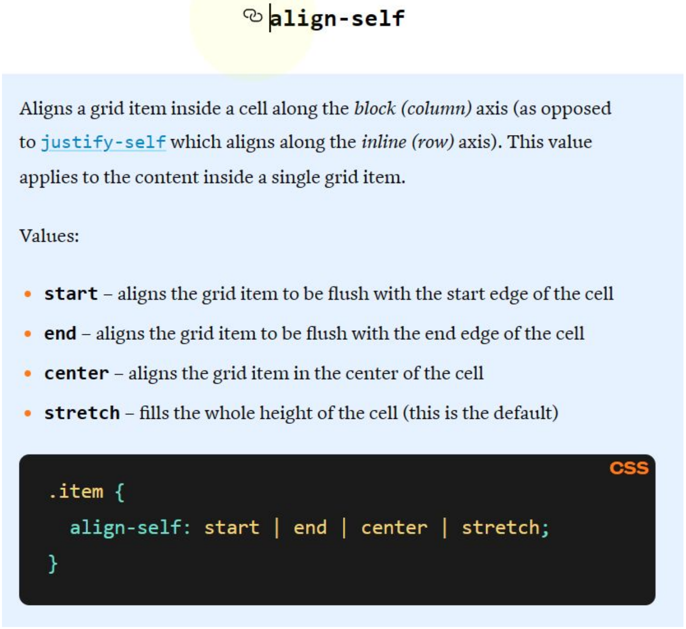
Aligns a grid item inside a cell along the *inline (row)* axis (as opposed to `align-self` which aligns along the *block (column)* axis). This value applies to a grid item inside a single cell.

Values:

- **`start`** – aligns the grid item to be flush with the start edge of the cell
- **`end`** – aligns the grid item to be flush with the end edge of the cell
- **`center`** – aligns the grid item in the center of the cell
- **`stretch`** – fills the whole width of the cell (this is the default)

CSS

```css
.item {
  justify-self: start | end | center | stretch;
}
```



align-self

Aligns a grid item inside a cell along the *block (column)* axis (as opposed to `justify-self` which aligns along the *inline (row)* axis). This value applies to the content inside a single grid item.

Values:

- **`start`** – aligns the grid item to be flush with the start edge of the cell
- **`end`** – aligns the grid item to be flush with the end edge of the cell
- **`center`** – aligns the grid item in the center of the cell
- **`stretch`** – fills the whole height of the cell (this is the default)

CSS

```css
.item {
  align-self: start | end | center | stretch;
}
```