



# Row and Column in Grid



# Lecture CheckList

1. Introduction to Grid Layout.
2. Grid Layout properties.



# Introduction to Grid Layout.

The Grid Layout is a two-dimensional layout system for creating rows and columns. It allows for creating flexible and responsive layouts that can adapt to different screen sizes and devices.

# Grid Layout properties.

We shall look at the grid properties in two ways

- Properties are to be applied on grid containers [ Parent ].
- Properties are to be applied to grid items [ Children ].



# grid-template-columns

The `grid-template-columns` property defines the number of columns in your grid layout, and it can define the width of each column.

The value is a space-separated-list, where each value defines the width of the respective column.

If you want your grid layout to contain 5 columns, specify the width of the 5 columns, or "auto" if all columns should have the same width.

# Special Units & Functions

## repeat()

The repeat() function is used to reduce repetitive declarations.

## fr units

The "fr" unit in CSS is a way to divide up the available space in a grid or layout. It is used to specify how much of the space should be given to a certain element or group of elements. It represents a fraction of the available space.



# Sizing Functions

## minmax()

The minmax() function in CSS is used to set a range of values for a property. It sets a minimum and maximum value for a property.

# grid-template-rows

The `grid-template-rows` property defines the height of each row. It is used to define the number of rows and their size in a grid container.



# grid-template-areas

The grid-template-areas property specifies areas within the grid layout.

- `<grid-area-name>` – the name of a grid area specified with `grid-area`.
- `dot(.)` – Represents the empty space in the template.

# grid-template

The grid-template property in CSS is a shorthand property for setting the grid-template-rows, grid-template-columns, and grid-template-areas properties all at once. It allows you to define the structure of a grid layout in a simple way.

The order of values in the grid-template property is as follows:

- grid-template-rows
- grid-template-columns
- grid-template-areas

The order should be : grid-template-rows / grid-template-columns / grid-template-areas.



# column-gap row-gap grid-column-gap grid-row-gap

Specifies the gap. grid-column-gap is the old notation for column-gap,  
grid-row-gap is the old notation for row-gap.

## gap, grid-gap

A shorthand for row-gap and column-gap.

# justify-items

The justify-items property in CSS is used to align the grid items along the horizontal (x) axis within their grid cell. It applies to all grid items within the grid container.

- **start** – aligns items to be pushed to the start edge of their cell
- **end** – aligns items to be pushed to 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)



# align-items

The align-items property in CSS is used to align the grid items along the vertical (y) axis within their grid cell. It applies to all grid items within the grid container.

- **start:** Aligns the grid items to the top of the grid cell.
- **end:** Aligns the grid items to the bottom of the grid cell.
- **center:** Aligns the grid items to the center of the grid cell.
- **stretch:** Stretches the grid items to fill the entire height of the grid cell.

# grid-column-start grid-column-end grid-row-start grid-row-end

grid-column-start and grid-column-end properties are used to specify the starting and ending of an grid-item along the horizontal (x) axis.

grid-row-start and grid-row-end properties in CSS are used to specify the starting and ending of an grid-item along the vertical (y) axis.



# justify-self

The justify-self property is used to align a specific grid item along the horizontal (x) axis within its grid cell.

- **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)

# align-self

The align-self property is used to align a specific grid item along the vertical (y) axis within its grid cell.

- **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)





▶ **THANK YOU** ◀