



# CSS Grid Layout Module

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## Grid Layout

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

## Browser Support

The grid properties are supported in all modern browsers.

57.0	16.0	52.0	10	44

## Grid Elements



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## Example

```
<div class="grid-container">
  <div class="grid-item">1</div>
  <div class="grid-item">2</div>
  <div class="grid-item">3</div>
  <div class="grid-item">4</div>
  <div class="grid-item">5</div>
  <div class="grid-item">6</div>
  <div class="grid-item">7</div>
  <div class="grid-item">8</div>
  <div class="grid-item">9</div>
</div>
```

1	2	3
4	5	6
7	8	9

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## Display Property

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

### Example



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## Example

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

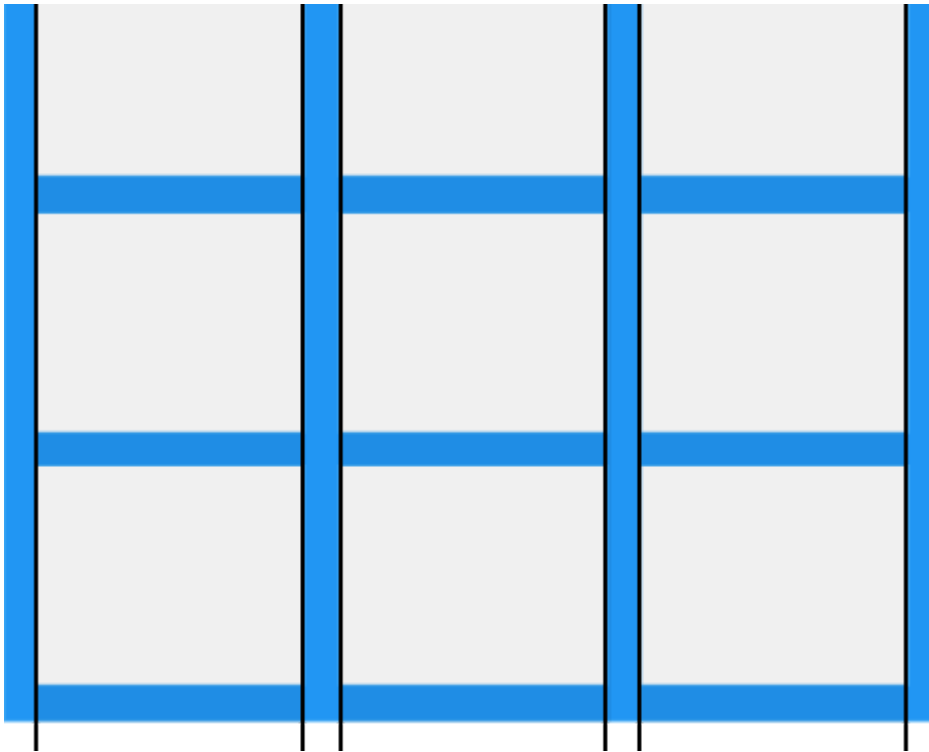
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All direct children of the grid container automatically become *grid items*.

---

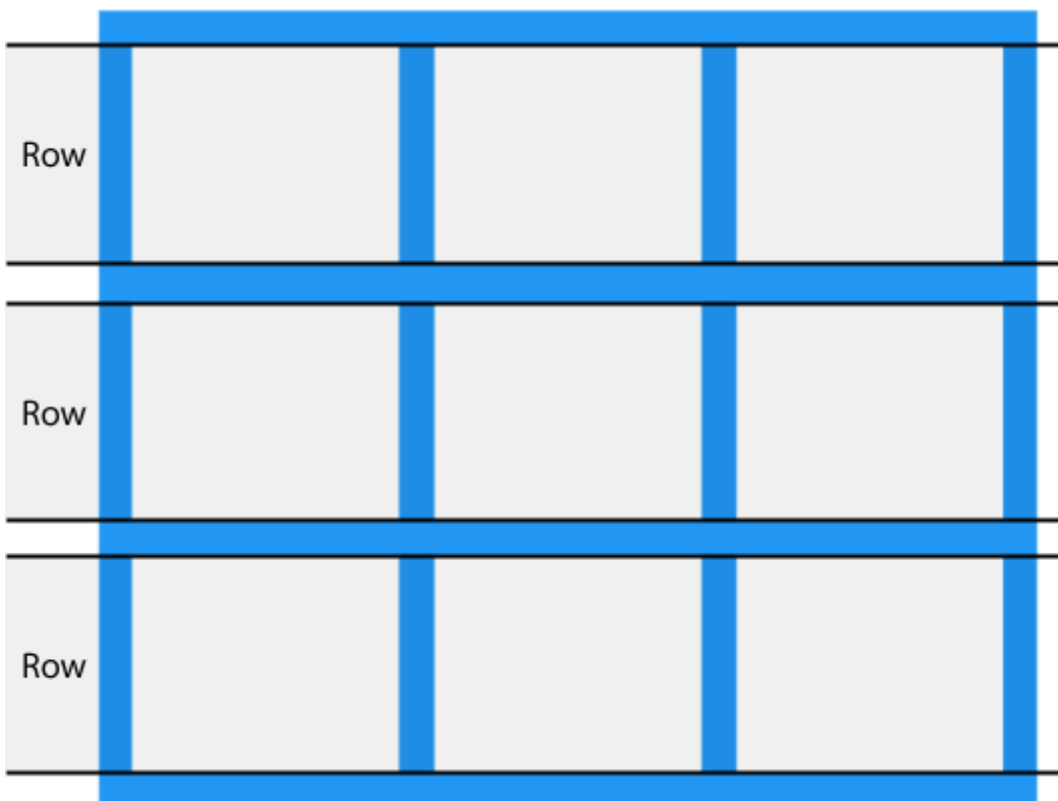
## Grid Columns

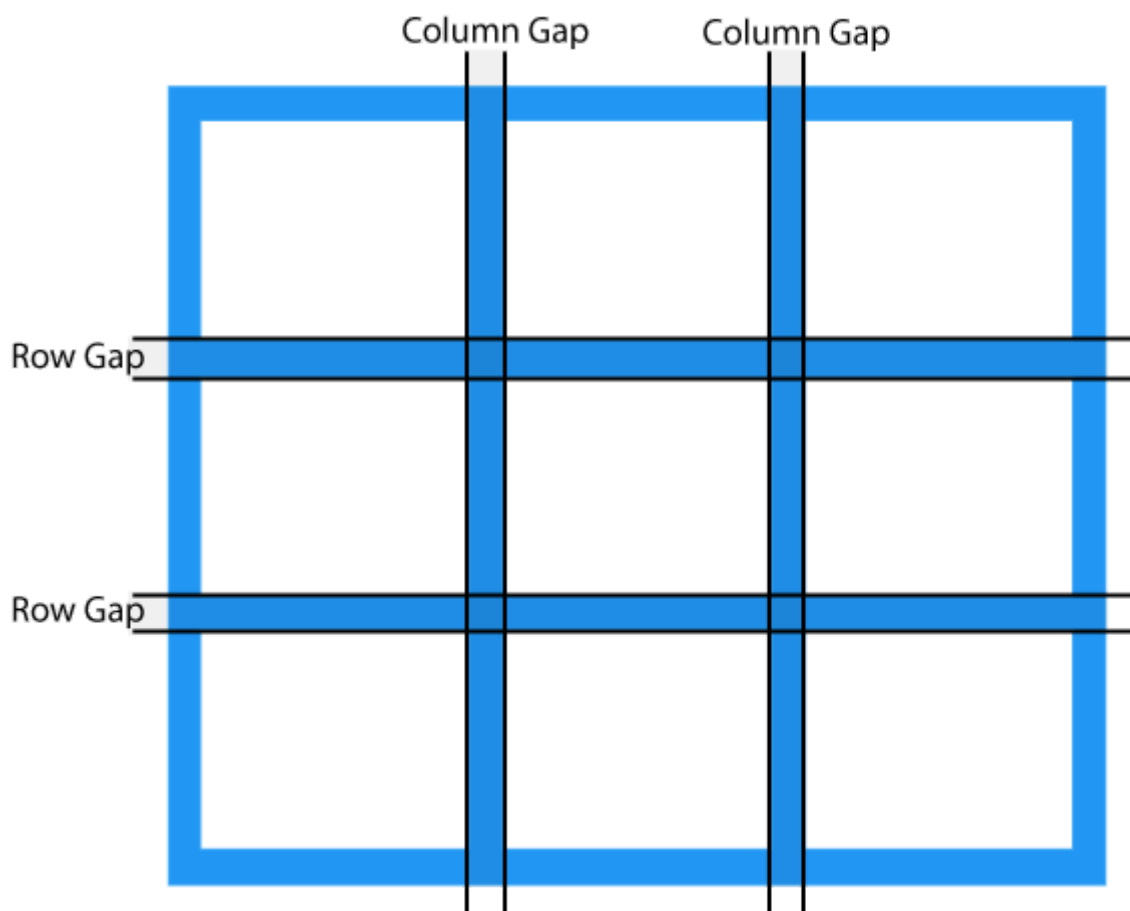
The vertical lines of grid items are called *columns*.



## Grid Rows

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





You can adjust the gap size by using one of the following properties:

- `column-gap`
- `row-gap`
- `gap`

## Example

The `column-gap` property sets the gap between the columns:

```
.grid-container {  
  display: grid;  
  column-gap: 50px;  
}
```

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```
.grid-container {  
  display: grid;  
  row-gap: 50px;  
}
```

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## Example

The **gap** property is a shorthand property for the **row-gap** and the **column-gap** properties:

```
.grid-container {  
  display: grid;  
  gap: 50px 100px;  
}
```

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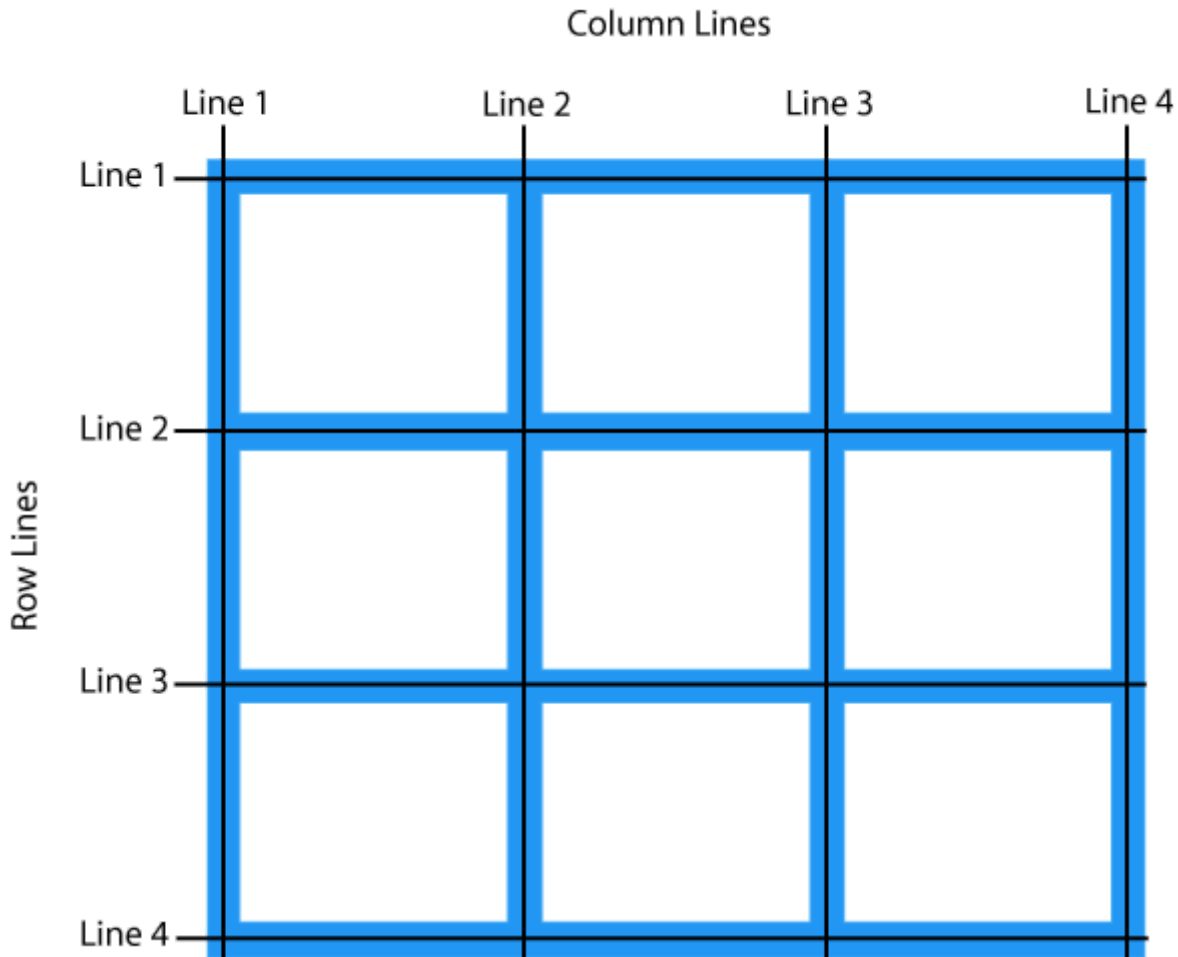
## Example

The **gap** property can also be used to set both the row gap and the column gap in one value:

```
.grid-container {  
  display: grid;  
  gap: 50px;  
}
```

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The lines between rows are called *row lines*.



Refer to line numbers when placing a grid item in a grid container:

## Example

Place a grid item at column line 1, and let it end on column line 3:

```
.item1 {  
  grid-column-start: 1;  
  grid-column-end: 3;  
}
```

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```
.item1 {  
  grid-row-start: 1;  
  grid-row-end: 3;  
}
```

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## All CSS Grid Properties

Property	Description
<u>column-gap</u>	Specifies the gap between the columns
<u>gap</u>	A shorthand property for the <i>row-gap</i> and the <i>column-gap</i> properties
<u>grid</u>	A shorthand property for the <i>grid-template-rows</i> , <i>grid-template-columns</i> , <i>grid-template-areas</i> , <i>grid-auto-rows</i> , <i>grid-auto-columns</i> , and the <i>grid-auto-flow</i> properties
<u>grid-area</u>	Either specifies a name for the grid item, or this property is a shorthand property for the <i>grid-row-start</i> , <i>grid-column-start</i> , <i>grid-row-end</i> , and <i>grid-column-end</i> properties
<u>grid-auto-columns</u>	Specifies a default column size
<u>grid-auto-flow</u>	Specifies how auto-placed items are inserted in the grid
<u>grid-auto-rows</u>	Specifies a default row size
<u>grid-column</u>	A shorthand property for the <i>grid-column-start</i> and the <i>grid-column-end</i> properties
<u>grid-column-end</u>	Specifies where to end the grid item
<u>grid-column-gap</u>	Specifies the size of the gap between columns
<u>grid-column-start</u>	Specifies where to start the grid item



	<i>row-end</i> properties
<u>grid-row-end</u>	Specifies where to end the grid item
<u>grid-row-gap</u>	Specifies the size of the gap between rows
<u>grid-row-start</u>	Specifies where to start the grid item
<u>grid-template</u>	A shorthand property for the <i>grid-template-rows</i> , <i>grid-template-columns</i> and <i>grid-areas</i> properties
<u>grid-template-areas</u>	Specifies how to display columns and rows, using named grid items
<u>grid-template-columns</u>	Specifies the size of the columns, and how many columns in a grid layout
<u>grid-template-rows</u>	Specifies the size of the rows in a grid layout
<u>row-gap</u>	Specifies the gap between the grid rows

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