

Media Queries & Breakpoints in Tailwind CSS

✔ What are Media Queries and Breakpoints?

Media Queries are CSS rules that apply styles based on screen size, orientation, resolution, etc.

Breakpoints are specific screen widths where layout/design changes to fit the device better.

Tailwind CSS simplifies responsive design using **built-in breakpoint prefixes** like sm:, md:, lg:, xl:, and 2xl:.

✔ Breakpoints in Tailwind CSS v4

Prefix	Min-Width	Usage
sm	640px	Small (mobile)
md	768px	Medium (tablet)
lg	1024px	Large (laptop)
xl	1280px	Extra large (desktop)
2xl	1536px	Ultra-wide screens

🧩 Code Snippets

◆ Add Style for All Screen Sizes

```
<div class="bg-blue-500 text-white p-4">Responsive for All Devices</div>
```

◆ Add Style for Specific Screen Sizes

```
<div class="bg-green-500 text-white p-4
```

```
  sm:bg-red-500
```

```
  md:bg-yellow-500
```

```
  lg:bg-blue-500
```

```
xl:bg-purple-500">
```

This background changes with screen size

```
</div>
```

◆ Responsive Text Example

```
<h1 class="text-lg sm:text-xl md:text-2xl lg:text-4xl">
```

Responsive Heading

```
</h1>
```

◆ Responsive Flex Layout

```
<div class="flex flex-col md:flex-row gap-4">
```

```
<div class="bg-gray-200 p-4 w-full">Box 1</div>
```

```
<div class="bg-gray-400 p-4 w-full">Box 2</div>
```

```
</div>
```

Interview Questions

? What are breakpoints in Tailwind CSS?

Breakpoints are predefined screen widths that Tailwind uses to apply responsive design styles using prefixes like sm:, md:, etc.

? What is the difference between hidden and invisible?

Class	Effect
hidden	Removes the element from layout (display: none)
invisible	Keeps layout space but hides element (visibility: hidden)

? How do you apply styles conditionally based on screen size?

Use breakpoint prefixes:

```
<p class="text-sm md:text-xl">This is responsive text</p>
```