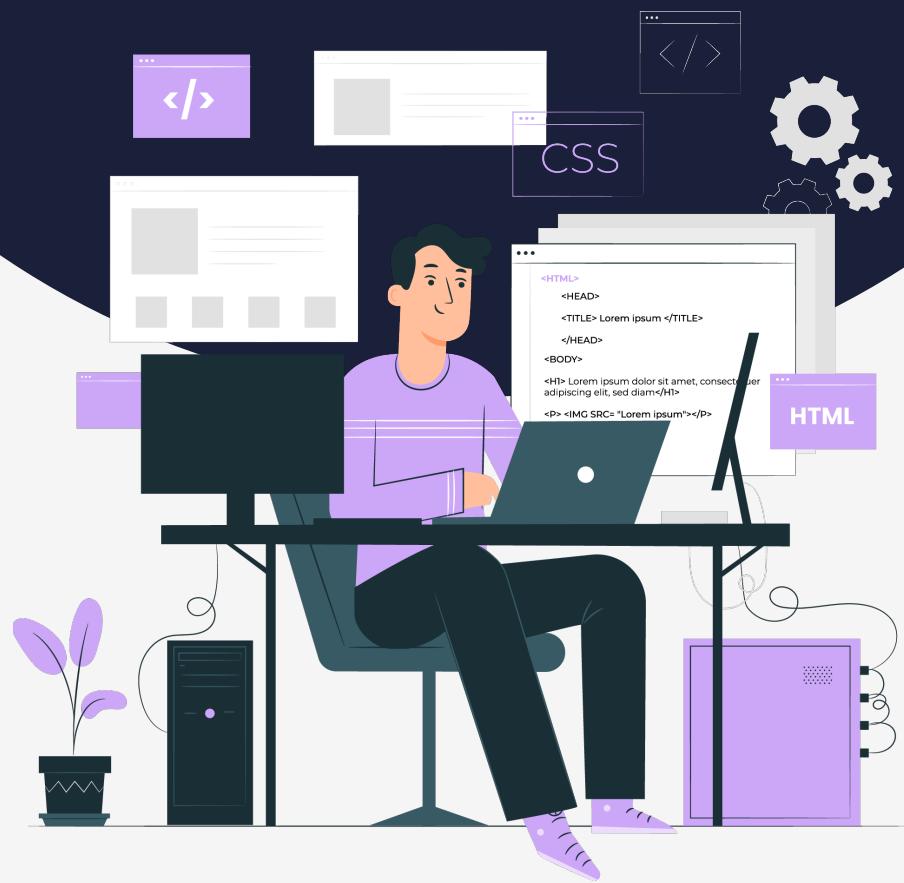


# Lesson:

# Responsive design



# Topics to be covered

1. Introduction
2. Responsive design
3. Square Bracket Notation in Tailwind CSS

## Introduction

Responsive design is an essential aspect of web development that ensures your website or web application looks and functions well across different devices and screen sizes. Tailwind CSS provides a comprehensive set of utilities and classes to create responsive designs efficiently.

## Responsive design

Tailwind CSS simplifies the process of building complex responsive interfaces by allowing you to apply utility classes conditionally at different breakpoints. This means you can effortlessly design responsive layouts directly in your HTML, without the need to write separate CSS code or navigate away from your markup.

There are five breakpoints by default, considering the common device resolutions

Breakpoint	Minimum width	CSS
sm	640px	@media (min-width: 640px) { ... }
md	768px	@media (min-width: 768px) { ... }
lg	1024px	@media (min-width: 1024px) { ... }
xl	1280px	@media (min-width: 1280px) { ... }
2xl	1536px	@media (min-width: 1536px) { ... }

To apply a utility class at a specific breakpoint selectively, you can simply prefix the utility with the name of the breakpoint, followed by a colon (:). This ensures that the utility takes effect only when the specified breakpoint is reached.

{breakpoint}:{classes}

Since tailwind is following mobile-first approach, whatever classes we write without any breakpoint, then it will apply for all the screen size starting from mobile devices.

To make a responsive design, we have four main breakpoints as you can see in the above table.

If we want to apply a width of 15 rem for a screen size from 0 px to above, then you can just add the width class which is .w-60

And if you want to apply a width of 18 rem when the screen size is between 640 px to 767px, then you can add the small screen breakpoint and then the class name which will look like this sm:w-72.

If you want to give a width of 20 rem when the screen size is between 768 px to 1023 px, then you can add the medium screen breakpoint and then the class name which will look like this md:w-80.

And for the screen size above that you need to add a width of 24 rem,

Then you can write a large screen breakpoint which will be as this lg:w-96

Let's see it with a help of an example

**Example:**

```
<!DOCTYPE html>
<html>
<head>
  <script src="https://cdn.tailwindcss.com"></script>
</head>
<body>
  <div class='m-2 w-60 sm:w-72 md:w-80 lg:w-96 h-96 bg-blue-900'></div>
</body>
</html>
```

**Result:**



Screen size from 0 px to 639 px



Screen size above 640 px to 767 px



Screen size above 768 px to 1023 px



Screen size 1024 px and above



## Square Bracket Notation in Tailwind CSS

This Tailwind CSS feature allows the developer to include custom CSS values instead of using the default predefined Utility classes. When building the application, this feature gives the developer the freedom to abandon the limitations of the theme and adopt a modern strategy as needed. This helps developers to write the custom css within tailwind itself. Moreover, It allows you to use the classes dynamically.

Let's see how you can use the Square bracket notation in Tailwind CSS:

### Syntax:

Property-[Custom Value]

### Example:

```
<div class="bg-[red] w-[400px] h-[400px]">hello</div>
```

**Result:**

In the above line of codes, you can see that we have applied height and width of 500 px and background color red.

This is the beauty of tailwind css, we can also write more than the predefined utility classes that too without writing custom css

You can use the square bracket to write the custom css within tailwind