

# Tailwind CSS Notes — with Examples

## Intro:

Tailwind CSS ek aisa CSS framework hai jisme ready-made utility classes milti hain. Matlab tumko khud se CSS likhne ki zarurat kam padti hai – tum bas class lagao aur design ban jaata hai.

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## 1) Tailwind Kya Hai?

Tailwind ek utility-first CSS framework hai.

Utility-first matlab:

- Har kaam ke liye ek chhoti class hoti hai.
- Jaise text color badalna, padding add karna, border lagana.
- Tum classes ko mix karke jaldi-jaldi design bana sakte ho.

Example:

```
<h1 class="text-3xl font-bold text-blue-600">Hello Tailwind!</h1>
```

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## 2) Setup Kaise Karen?

### (A) CDN se (fastest for beginners)

HTML ke <head> me ye link chipka do:

```
<script src="https://cdn.tailwindcss.com"></script>
```

Fir Tailwind classes ka use shuru.

### (B) Proper Project Install (recommended for production)

1. Project folder banao
2. Terminal me:

```
npm init -y
```

```
npm install -D tailwindcss
```

```
npx tailwindcss init
```

3. CSS file banao (input.css):

```
@tailwind base;
```

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@tailwind components;

@tailwind utilities;

## 4. Build command:

```
npx tailwindcss -i ./input.css -o ./output.css --watch
```

## 5. HTML me output.css ko include karo.

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### 3) Colors

Tailwind me har color ka shade hota hai jaise 50,100,200,...900.

Example:

```
<p class="text-red-500">Red text</p>
```

```
<p class="bg-green-300 p-4">Green Background</p>
```

Popular Colors:

- text-blue-600
  - bg-gray-100
  - text-yellow-400
  - bg-purple-500
- 

### 4) Spacing (Padding & Margin)

Spacing classes:

- p-4 → padding
- py-2 → padding top+bottom
- px-3 → padding left+right
- m-4 → margin
- mt-2 → margin-top

Example:

```
<div class="p-4 m-4 bg-gray-200">Box with padding & margin</div>
```

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## 5) Font Size & Weight

```
<p class="text-sm">Small</p>  
<p class="text-xl">Extra Large</p>  
<p class="text-4xl font-bold">Big Bold</p>
```

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## 6) Flexbox (super important)

Flex enable karna:

flex

Direction

- flex-row
- flex-col

Alignment

- items-center
- justify-between
- justify-center

Example (Navbar Style):

```
<div class="flex justify-between items-center p-4 bg-blue-600 text-white">  
  <h1>Logo</h1>  
  <button class="bg-white text-blue-600 px-3 py-1 rounded">Login</button>  
</div>
```

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## 7) Grid System

```
<div class="grid grid-cols-3 gap-4">  
  <div class="bg-gray-200 p-4">1</div>  
  <div class="bg-gray-200 p-4">2</div>
```

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```
<div class="bg-gray-200 p-4">3</div>  
</div>
```

---

## 8) Borders & Radius

```
<div class="border border-gray-400 p-4 rounded-lg">
```

Rounded Card

```
</div>
```

- **rounded (small)**
  - **rounded-lg (medium)**
  - **rounded-full (circle)**
- 

## 9) Shadow (Box shadow)

```
<div class="shadow-lg p-4">Shadow Box</div>
```

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## 10) Hover Effects

```
<button class="bg-blue-600 hover:bg-blue-700 text-white px-4 py-2 rounded">  
    Hover me  
</button>
```

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## 11) Responsive Classes (Mobile → Desktop)

Tailwind mobile-first hota hai.

Breakpoints:

- **sm: = chhote screens**
- **md: = medium**
- **lg: = large**
- **xl: = extra large**

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Example:

```
<p class="text-sm md:text-xl lg:text-3xl">Responsive text</p>
```

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## 12) Display Utilities

- **block**
- **inline-block**
- **hidden**
- **flex**
- **grid**

Example:

```
<div class="hidden md:block">Sirf bada screen me dikhega</div>
```

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## 13) Buttons (Ready design)

```
<button class="bg-blue-600 text-white px-4 py-2 rounded hover:bg-blue-700">  
    Click Me  
</button>
```

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## 14) Centering Karna (most common)

Flex se:

```
<div class="flex items-center justify-center h-screen">  
    <h1 class="text-3xl">Centered!</h1>  
</div>
```

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## 15) Form Styling

```
<input type="text" class="border p-2 w-full rounded focus:ring-2 focus:ring-blue-500" />
```

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## 16) Card Component (Common UI)

```
<div class="max-w-sm bg-white shadow-lg rounded-lg p-4">  
    
  <h2 class="text-xl font-bold mt-2">Title</h2>  
  <p class="text-gray-600">Description here...</p>  
  <button class="bg-blue-600 text-white px-4 py-2 mt-3 rounded">Read More</button>  
</div>
```

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## 17) Navbar Example (Modern LMS Style)

```
<nav class="flex justify-between items-center p-4 bg-white shadow">  
  <h1 class="text-2xl font-bold">MyLMS</h1>  
  <div class="space-x-6 hidden md:flex">  
    <a href="#" class="text-gray-700 hover:text-blue-600">Home</a>  
    <a href="#" class="text-gray-700 hover:text-blue-600">Courses</a>  
    <a href="#" class="text-gray-700 hover:text-blue-600">Contact</a>  
  </div>  
  <button class="bg-blue-600 text-white px-4 py-2 rounded">Login</button>  
</nav>
```

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## 18) Dark Mode Enable

Tailwind built-in support data hai.

Setup:

```
<html class="dark">
```

Use:

```
<div class="bg-white dark:bg-gray-800 text-black dark:text-white p-4">
```

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## Dark Mode Example

```
</div>
```

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## 19) Animations & Transitions

```
<button class="bg-green-600 text-white px-4 py-2 rounded transition duration-300 hover:scale-105">
```

Smooth Button

```
</button>
```

---

## 20) Custom Theme (Tailwind Config)

tailwind.config.js me:

```
module.exports = {
```

```
  theme: {
```

```
    extend: {
```

```
      colors: {
```

```
        brand: '#1a73e8',
```

```
      }
```

```
    }
```

```
}
```

```
}
```

Use:

```
<div class="text-brand">Custom Brand Color</div>
```

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## 21) Tailwind ke Fayde

- Fast development
- Responsive ready

# Tailwind CSS Notes — with Examples

- Utility classes bahut flexible
  - Custom themes easy
  - Modern UI jaldi ban jata hai
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## 22) Practice Ideas

1. Tailwind se ek modern navbar banao.
  2. Login page UI create karo.
  3. Cards grid layout banao 3-column.
  4. Tailwind se responsive LMS dashboard design karo.
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