1. **Pseudo-Class**

- **Definition:** A pseudo-class is used to define a **special state** of an element.
- **Example:** When a user hovers the mouse over a button or clicks a link.

SYNTAX:

```
selector:pseudo-class {
  property: value;
}
```

Pseudo-Element

A pseudo-element is used to **style a specific part** of an element.
(Like the first letter, first line, or content before/after.)

SYNTAX :

```
selector::pseudo-element {
  property: value;
}
```

Feature	**Pseudo-Class**	**Pseudo-Element**
Purpose	Represents a *state* of an element	Represents a *part* of an element
Syntax	Single colon :	Double colon ::
Example	a:hover	p::first-letter
Affects	Whole element	Part of element

2. **position: static (default)**

- This is the **default** value.
- Elements are placed in the **normal flow**
  (where they naturally appear).

  You cannot use top,left,right,bottom

2. position: relative

- The element is positioned **relative to its normal position**.
- It still **takes up space** in the page layout.

  You can use left,bottom,right,top.

3. position: absolute

- The element is positioned **relative to the nearest positioned ancestor** (not the page).
- If no ancestor is positioned, it's placed **relative to the page itself (body)**.
- It is **removed** from the normal document flow.

4. position: fixed

- The element is **fixed to the viewport** (browser window).
- It **does not move** when you scroll.
- It's also **removed** from normal document flow.

5. position: sticky

- It acts **like relative** until you scroll past a point, then it becomes **fixed**.
- You must define a top, bottom, etc.

What is z-index in CSS?

🔹 **Definition:**

z-index controls the **stack order** (layer order) of elements on a webpage.

Think of it like **layers of paper** on a desk:

- The higher the z-index, the **closer to you** (on top).
- The lower the z-index, the **further back** (behind others).

When We Use It

- We use `z-index` when **elements overlap**, and we want to control **which one appears on top**.