TASK -1

1. What is a Pseudo-Class in CSS?

A pseudo-class is used to define a special state of an element — like when a user hovers over a button, or when a link has been visited.

It targets elements based on their state or user interaction, not by their name or class.

◆ **Syntax:**

selector:pseudo-class {

property: value;

}

◆ **Commonly Used Pseudo-classes:**

Pseudo-class	Description
:hover	Targets an element when the mouse hovers over it
:active	Applies when an element is being activated (e.g., clicked)
:focus	Applies when an element (like input) has focus
:first-child	Targets the first child of a parent
:last-child	Targets the last child of a parent
:nth-child(n)	Targets the nth child of a parent
:checked	Targets checked inputs (checkboxes or radio buttons)
:disabled	Targets disabled form elements
:not(selector)	Targets every element that is not the specified one

- ◆ ***Example:***

button:hover {

background-color: blue;

color: white;

}

- ◆ **Why Use Pseudo-classes?**

  - They help style elements based on user interaction (:hover, :focus)

  - They allow conditional styling without adding classes or IDs

  - They help with responsive and dynamic designs without JavaScript

2. What is a Pseudo-Element in CSS?

- A pseudo-element is used to style specific parts of an element's content — for example, the first letter, first line, or adding content before/after an element.

- It acts as if you're creating a new sub-element inside the selected element.

◆ Syntax:

selector::pseudo-element {

property: value;

}

◆ **Common Pseudo-elements:**

Pseudo-element	Description
::before	Inserts content before an element's actual content
::after	Inserts content after an element's actual content
::first-letter	Targets and styles the first letter of a block of text
::first-line	Targets and styles the first line of a block of text
::selection	Styles the part of text that a user has highlighted/selected

Examples:

- ::before — insert content before an element
- ::after — insert content after an element
- ::first-line — style the first line of text
- ::selection — style the text selected by the user.

3. Difference Between Pseudo-Class and Pseudo-Element?

PSEUDO CLASS :	PSEUDO ELEMENT
Targets an element's state or behavior	Targets a part of an element's content
Uses one colon :	Uses two colons ::
a:hover → styles when hovered	p::first-letter → styles first letter
Interaction and state	Content styling and decoration

4.Syntax of Pseudo-Classes and Pseudo-Elements :

Pseudo-Class Syntax :

selector:pseudo-class {

property: value;

}

Pseudo-Element Syntax :

selector::pseudo-element {

property: value;

}

5.Usage of Pseudo Classes and Pseudo Elements ?

Pseudo class Usages:

- To make webpages **interactive** (e.g., hover effects on buttons/links)
- To **style forms** based on user input or validation
- To **control layout** using element positions (first, last, nth)
- To **simplify selectors** without writing extra HTML

Pseudo Element Usages :

- To **add visual elements** like icons, quotes, or symbols
- To **style parts of text** (e.g., first letter or line)
- To **add design details** without cluttering your HTML
- To **create decorative effects** using only CSS.

6.When We Use It in a Webpage :

❖ **Psuedo Class:**

- You want to **add hover effects** for buttons or links.

- You need to **change styles dynamically** depending on user actions.
- You want to **target specific elements** based on their position (first, last, nth).

❖ **Pseudo Element :**

- You want to **decorate parts of text** (like first letter).
- You want to **add content without HTML tags** (using ::before, ::after).
- You need **special effects** like custom highlight.

7.Pseudo class and element list out the webpages in CSS?

PSEUDO CLASSES WEBPAGES :

Type	Examples
User action	:hover, :focus, :active, :visited
Structural	:first-child, :nth-child(), :empty
Form state	:checked, :disabled, :valid, :invalid
Logical	:not(), :is(), :where(), :has()
Document level	:root, :lang()