Task

1. Difference between div and span?

div	**span**
Block-level container	Inline-level container
It is used for creating sections in a layout and grouping block-level content.	Used for Styling or grouping inline content.
Wrapping elements like paragraphs, images, or other blocks.	Wrapping parts of text or inline elements.

2. What is CSS3? Features, Advantages, Uses and Needs.

   CSS3 (Cascading Style Sheets Level 3) is the latest version for styling web pages. It introduces advanced features and functionalities to improve web design, interactivity, and responsiveness. CSS3 enables developers to create visually appealing and modern websites with minimal effort.

   Features:

   ★ Selectors: Advanced selectors like attribute selectors, pseudo-classes (:hover), and pseudo-elements (::before, ::after) provide greater control over element targeting.

   ★ Box Model Enhancements: CSS3's box-sizing feature allows developers to control the size and positioning of elements.

   ★ Media Queries: Enables responsive design by applying styles based on the device's screen size.

★ Flexbox Layout: Simplifies the alignment, spacing, and distribution of items within a container.

★ Grid Layout: Provides a powerful way to create complex and responsive layouts using rows and columns.

★ Animations and Transitions: Enables smooth changes between states, like hover effects.

★ Custom Fonts: Allows importing and using external fonts via @font-face.

★ Shadow Effects: Added box-shadow and text-shadow.

★ Introduced units like vh, vw, and %, and features like min-width and max-width for better responsiveness.

Advantages:

★ Enhanced Design:
Enables modern and visually engaging designs with minimal effort.

★ Responsive Layouts:
Facilitates designs that adapt to different screen sizes, enhancing user experience on all devices.

★ Reusable Styles:
Styles can be defined once and reused across multiple elements or pages.

★ Browser Compatibility:
Supported by most modern web browsers.

★ Cost-Effective Development:
Reduces development time and maintenance effort.

★ Visual Effects:
Allows adding animations, gradients, and transitions without relying on external tools.

★ Performance Optimization:

Reduces the need for heavy images and JavaScript for animations and effects, improving website loading speed.

★ CSS3 offers more flexibility than CSS.

Uses:

★ Webpage Layout:
Organizes and structures web content with styles.

★ Theming:
Applies consistent styling across an entire website or application.

★ Animation and Effects:
Creates interactive elements like buttons with hover effects or animations.

★ Responsive Design:
Ensures websites look great on desktops, tablets, and smartphones.

★ Enhances text appearance using custom fonts, sizes, and effects.

Need CSS3:

★ Modern Web Development:
Essential for creating websites that meet contemporary design standards.

★ Improved User Experience:
Provides tools for creating visually appealing and user-friendly interfaces.

★ Efficiency:
Reduces the reliance on images and external scripts for basic visual effects.

★ Cross-Platform Compatibility:
Helps build websites that perform well across multiple devices and browsers.

★ Scalability**:**
Enables developers to handle projects of varying complexity and scale with ease.

3. Descendant Selector (space) :

Descendant selector in CSS targets elements that are nested within a specified parent element, regardless of their depth in the hierarchy. It applies styles to all matching elements that are children, grandchildren.

```
Eg:  div span {
        color: red;
        }
```

4. Child Selector (>) :

Child selector in CSS targets elements that are direct children of a specified parent. unlike the descendant selector, it does not apply styles to grandchildren or deeper descendants only immediate children are affected.

```
Eg: .container > p {
        color: blue;
        }
```

5. Adjacent Sibling Selector (+) :

Adjacent sibling selector in CSS targets an element that is immediately preceded by a specified sibling. This selector is used when two elements share the same parent.

```
Eg: h1 + p {
        color: blue;}
```