1) What is difference between css and css3

CSS	CSS3
CSS refers to the initial versions of the Cascading Style Sheets	CSS3 is the latest iteration with new features and improvements.

2) What are the selector in css

Selectors in CSS are patterns used to select and style elements within an HTML

Element Selector: Selects HTML elements by their name. For example, p selects all <p> elements.

Class Selector: Selects elements with a specific class attribute. Denoted by a period followed by the class name. For example, **.button** selects all elements with class="button".

ID Selector: Selects a single element with a specific ID attribute. Denoted by a hash symbol followed by the ID name. For example, **#header** selects the element with **id="header"**.

Descendant Selector: Selects an element that is a descendant of another specified element (ancestor), separated by a space. For example, **div p** selects all **<p>** elements that are descendants of a ** **.

Child Selector: Selects an element that is a direct child of another specified element, indicated by the **>** symbol. For example, **ul > li** selects all **<li>** elements that are direct children of **<ul>**.

Adjacent Sibling Selector: Selects an element that is immediately preceded by a specified element, indicated by the **+** symbol. For example, **h2 + p** selects the **<p>** element that directly follows an **<h2>**.

Attribute Selector: Selects elements based on their attributes. For example, **[type="text"]** selects all elements with **type="text"** attribute.

Pseudo-classes and Pseudo-elements: These select elements in special states or positions. For example, **:hover** selects an element when the mouse hovers over it, and **::before** selects the content before an element.

3) What is media query in css

- Media queries in CSS are rules that allow you to apply different styles to a document based on characteristics of the device or the browser displaying the page. They enable you to create responsive designs by targeting specific conditions such as screen width, height, device orientation, resolution, and more.

```
/* Style for screens with a maximum width of 600 pixels */

@media screen and (max-width: 600px) {

  body {

    font-size: 14px;

  }

}
```

4) What is different position in css

- In CSS, the **position** property determines the type of positioning used for an element.

a) static

This is the default value. Elements are positioned according to the normal flow of the document. The top, right, bottom, left, and z-index properties have no effect on statically positioned elements.

b) relative

Positioned relative to its normal position. The element can be shifted using top, right, bottom, or left properties without affecting the position of other elements.

c) absolute

Positioned relative to the nearest positioned ancestor (an ancestor with a position value other than static) or to the containing block. It's taken out of the normal flow of the document, and other elements act as if it doesn't exist

d) fixed

Positioned relative to the viewport (browser window). It doesn't move when the page is scrolled.

e) sticky

Acts like a relatively positioned element until it reaches a specified scroll position, then it becomes fixed. It switches between relative and fixed positioning based on the user's scroll position.

5) What is bom in css

- In web development, BOM stands for Browser Object Model. The Browser Object Model (BOM) is a set of objects provided by the web browser's environment that allow JavaScript to interact with the browser.

The BOM includes various objects like:

Window Object: Represents the browser window and contains properties and methods for manipulating it.

Document Object: Represents the HTML document loaded in the window and provides methods and properties for accessing and manipulating its contents.

Navigator Object: Contains information about the browser.

Location Object: Contains information about the URL of the document.

6) What is difference between PX,unit,em,rem in css

- In CSS, px, em, rem, and other units are used to define sizes and distances for various elements.

Pixels (px): Pixel is a fixed-size unit that represents a single dot on a screen.

Ems (em): An em is a relative unit that is based on the computed font-size of the parent element.

Root em (rem): Similar to em, but instead of being relative to the font-size of the parent element, rem is relative to the font-size of the root element (html).

In CSS, units are used to define the size, length, or positioning of elements. There are various types of units:

Absolute Units: These units are fixed and do not change based on the context. Examples include **px (pixels), in (inches), cm (centimeters), mm (millimeters), etc.**

Relative Units: These units are relative to something else, such as the font size or the parent element's size. Examples include **em, rem, %, vw (viewport width), vh (viewport height), etc.**

7) What is flex box in css

- Flexbox, short for Flexible Box Layout, is a powerful layout model in CSS that provides a more efficient way to design and align elements within a container.

Pseudo-selectors, also known as pseudo-classes or pseudo-elements, are keywords that specify a special state of the selected elements.

Pseudo-classes

These select elements based on their state or relation to the document tree. Commonly used pseudo-classes include:

:hover: Applies styles when an element is being hovered over.

:active: Applies styles when an element is being activated or clicked.

:focus: Applies styles when an element has focus (such as when clicked or tabbed into).

:first-child, :last-child: Selects the first or last child element of its parent.

:nth-child(n): Selects elements based on a formula (n can be a number, keyword, or expression).

Pseudo-elements

These create virtual elements that do not exist in the HTML markup. They allow styling of specific parts of an element's content or structure. Common pseudo-elements include:

::before: Inserts content before the selected element.

::after: Inserts content after the selected element.

::first-line: Styles the first line of text within an element.

::first-letter: Styles the first letter of text within an element.

8) How to make website responsive

Media Queries: Use media queries to apply different styles based on the device's screen width. This allows you to create breakpoints where the layout adjusts.

Flexible Layouts with Flexbox or Grid: Utilize CSS Flexbox or Grid layout to create flexible and responsive designs. These layouts allow for easy reordering of content and automatic resizing of elements based on screen size.

Relative Units: Use relative units like percentages, em, rem, or viewport-relative units (vw, vh) for font sizes, margins, paddings, and element dimensions to create a more flexible design that adjusts based on the screen size.

Image and Media Handling: Use max-width: 100% on images and videos to ensure they resize fluidly within their containers without overflowing.

Testing and Debugging: Test your website on various devices and screen sizes to ensure that the layout and design adapt as intended. Use browser developer tools to inspect and debug the responsiveness.

9) What are breakpoint for viewport responsive device

- Breakpoints in responsive web design refer to specific widths at which the layout of a website changes to accommodate different screen sizes or device types.

Extra Small (XS): Less than 576px Often used for smartphones in portrait mode.

Small (SM): 576px and up Commonly for smartphones in landscape mode and small tablets.

Medium (MD): 768px and up Typical for tablets and smaller desktop screens.

Large (LG): 992px and up Used for larger desktop screens.

Extra Large (XL): 1200px and up For very large screens and high-resolution monitors.

10) Why we use box-sizing in css

- The box-sizing property in CSS controls how the width and height of an element are calculated, specifically in relation to the element's padding and border.

Content-Box (Default): In the default content-box value, the width and height of an element are calculated excluding padding and border. This means that when you set the width or height of an element, any padding or border you add will increase the overall size of the element.

Border-Box: With box-sizing: border-box, the width and height of the element include padding and border. This means that the specified width or height includes the padding and border, and any increase in padding or border reduces the space available for content.