CSS and Bootstrap

Interview Questions and Answers

Q1. What is the full form of CSS, and why do we use it?

CSS stands for Cascading Style Sheets. It is used to apply styles and set a layout for our HTML webpage. For example, changing the font, color, size, position, background-color, text-alignment of the HTML content.

Q2. What is the difference between inline, internal, and external CSS?

Inline CSS: In inline CSS we apply styles by adding a style attribute to an HTML tag itself. We apply a set of styles to the individual HTML tags.

Example: `<h1 style="color: orange;"> CSS</h1>`

Internal CSS: In internal CSS we apply styles by adding <style> tag either inside head or body section of the HTML document.

Example:

```
<html>
   <head>
        <style>
        .className{
             color:orange;
        }
        </style>
   </head>
   <body>
```

```
    </body>
</html>
```

External CSS: In external CSS, we write style rules by creating a file with .css (extension) and the file is linked to HTML document using <link /> tag as shown below.

Example:

```
<html>
    <head>
        <link rel="stylesheet" href="first.css" />
    </head>
    <body>
    </body>
</html>
```


Q3. What is a CSS selector?

CSS selectors are rules that can identify the HTML elements to apply particular CSS properties. It can be considered a link between the HTML document and the style sheet. It is the selector of HTML elements.

There are five types of CSS selectors.

1) Element Selector
2) Id Selector
3) Class Selector
4) Universal Selector
5) Group Selector

Q4. What is the use of CSS opacity?

The CSS opacity is a property used to specify the transparency of an HTML element. In simpler words, it specifies the clarity of an image. In technical terms it is defined as, the quality of letting the light pass through an object.

For example: `opacity: 0.4;`

Q5. Name the properties used for controlling the image repetition of the background?

The background-repeat property is used to repeat the background image horizontally and vertically. We can either repeat a background image horizontally or repeat a background image vertically.

```
background: blue URL('breakfast.jpg');
background-repeat: no-repeat;
background-attachment: fixed;
background-position: center;
```

Q6. What is the property used for controlling the image scroll in the background?

The background-attachment property is used to specify whether the image should be fixed or it can be scrolled with respective to the scrolling of the webpage. If you set a fixed background-attachment, the image does not move while scrolling in the browser.

Let us take an example with the fixed background image.

```
background: white url('bbb.gif');
```

```
background-repeat: no-repeat;
background-attachment: fixed;
```

Q7. What do you understand by the CSS box model, and what are its elements?

The CSS box model defines the design and layout of HTML elements. As per this model, every content (like text, images, etc.) is considered to be in a box with specific properties. Some of the essential properties are mentioned below.

1) Margin: It is a space outside the border and can be set separately for top, bottom, right, and left.

2) Border: It is represented by lines around the content and can have several styles and colors.

3) Padding: It is a space between the border and the content. It can be referred to as the inner space of the border. It can be set separately for the top, bottom, right, and left.

Q8. What is the float property of CSS?

The CSS float property moves the image to either right or left, along with the text wrapped around it. It does not change the property of the elements used before it.

Q9. What is the purpose of the Z-index, and how is it used?

The z-index is used to specify the stack order of positioned elements that may overlap one another. Its default value is zero and can have a positive or negative number. A higher z-index represents that the element will be stacked above a lower z-Index. It can take the below mentioned values.

1. Auto: Sets the stack order equal to its parents.

2. Number: Sets the stack order.

Q10. Explain the difference between visibility: hidden; and display: none;?

`visibility: hidden;` is used to hide the element, but it affects the document's layout because it occupies space. `display: none;` is also used to hide the element, but it will not affect the layout of the document because, unlike hidden, it doesn't occupy space.

Q11. What are the different media types supported by CSS?

Including screen, there are four types of media properties:

1) all – for all media type devices.
2) print – for printers.
3) speech – for screen readers that read the page out loud.
4) screen – for computer screens, tablets, smartphones, etc.

Q12. What are the units used in CSS?

CSS has two types of lengths, relative length and absolute length. For different lengths different units are used. Few of the units are listed below.

- em - Relative to the font size of the element (2em means two times the size of the current font).
- ex - Relative to the X-height of the current font (rarely used).
- ch - Relative to the width of zero.
- rem - Relative to the font size of the element.
- vw - Relative to 1% of the width of viewport.
- vh - Relative to 1% of the height of viewport.
- vmin - Relative to 1% of the viewports with smaller dimension.
- vmax - Relative to 1% of the viewports with larger dimensions.

- % - Relative to the parent element.
- CM – This is used to represent unit in centimeters.
- MM – This is used to represent unit in millimeters.
- IN - This is used to represent unit in inches (1 inch = 96px).
- PX - This is used to represent unit in pixels (1 px).
- PT - This is used to represent unit in points (1 pt = 1/72 of 1 inch).
- PC - This is used to represent unit in picas (1 pc = 12 pt).

Q13. Does margin-top and margin-bottom have an effect on inline elements?

No, margin-top and margin-bottom will not have an effect on inline elements as it does not occupy the full width of the webpage. Only margin-left and margin-right properties can be applied to the inline CSS.

Q14. What is the use of box-shadow in CSS?

The box-shadow CSS property is used to add shadow effect around the frame of any element. You can set multiple effects, but each effect will be separated by a comma. It is used to describe the horizontal shadow, vertical shadow, spread and color respectively in the order as shown in the code example below.

For example: `box-shadow: 10px 5px 5px red;`

Q15. In CSS how will you style an image or element to have rounded corners?

border-radius property can be used to add rounded corners to an image. The value of 50% will make the image circular.

For example: `border-radius: 50%;`

Q16. How does a browser determine what elements match a CSS selector?

Selectors are matched from the right (key selector) to the left by the browser. They separate out the elements within the DOM, based on the key selector and traverse up its parent elements to determine matches. The match of the chain with shorter length will be determined faster than the chain with longer length. For example, with the p div selector, the browser will find all the elements and traverse up its parent all the way up to the root to search out the <p> element. For a particular , as soon as it finds a <p>, it knows that the matches and then it will stop matching further.

Q17. How does CSS work under the hood?

Whenever a browser displays a document, it combines the document's content with its style information, which processes the document in two stages. In the first stage, the browser converts HTML and CSS into the DOM (Document Object Model), which represents the document in the computer's memory. In the second stage, it combines the document's content with its style, and the browser displays the contents of the DOM.

Q18. How case-sensitive is CSS?

CSS is not case-sensitive, but the URLs of images and font families are case-sensitive.

Q19. What is SVG?

SVG stands for Scalable Vector Graphics. It is used to define vector-based graphics for the web because it defines the graphics in XML format. In these files, every element and every attribute can be animated. It integrates with W3C standards such as the DOM and XSL.

For example:

```
<svg width="100" height="100"> <circle cx="50" cy="50" r="40" stroke="green" stroke-width="4" fill="yellow" /> </svg>.
```

Q20. What is Responsive Web Design (RWD)?

Responsive Web Design (RWD) is about designing and developing webpages that can reply to the user's activities and situation, such as the size of the screen, the platform, and the orientation. It can be achieved with the combination of flexible layouts, grids, images, and intellectual use of CSS media queries.

Q21. Define Bootstrap and explain the features of Bootstrap?

Bootstrap is a framework used for front-end development like creating HTML, CSS, and JS web applications. It fastens the process of creating responsive layouts and is easier to use. It mainly focuses on mobile applications by creating UI and design templates like dropdown, forms, buttons, alert tabs, etc.

Some of its essential features are:

1) Bootstrap is free and open-source for use.

2) Bootstrap has compatibility with all browsers.

3) It has Responsive designs.

4) It is fast and easy to use.

Q22. What are the different button styles in Bootstrap?

Bootstrap provides seven types of styles that can be with bootstrap button class. They are:

1) btn-default

2) btn-primary

3) btn-success

4) btn-info

5) btn-warning

6) btn-danger

7) btn-link

Q23. What is the grid system and grid classes in Bootstrap?

The grid system uses a series of containers, rows, and columns that divide the page into 12 columns, which can be used to layout and align the webpage's content. It also provides different classes to build a responsive page based on the grid system. Grid classes are used to specify the size of a screen to display different UI.

There are five grid classes in Bootstrap such as:

1) sm (It is used for phone screens greater than or equal to 576px wide).

2) md (It is used for tablet screens, which are greater than or equal to 786px wide).

3) lg (It is for small laptop screens of size equal to or greater than 992px wide).

4) xl (It is for laptop and desktop screens, which are equal to or greater than 1200px wide).

5) xxl (it is for Desktops and TV screen sizes, which are greater than or equal to 1400px wide).

Q24. How do you make images responsive?

In Bootstrap, you can make images responsive by adding the `.img-fluid` class to the `<img>` tag. This class sets CSS properties like `max-width: 100%;` and `height: auto;` to the image to scale nicely with the parent element. You can alternately use media queries to make images responsive.

Q25. What is the difference between the grid system and flexbox in CSS?

The grid system and flexbox work in the same way, but the flexbox layout is designed for one-dimensional layout, which means it can either be one row with multiple columns, or one column with multiple rows. In contrast, the grid system is designed for two-dimensional layout, which means it can have multiple rows with multiple columns at the same time.