

Responsive Web Design with Media Queries

Question 1: What are media queries in CSS, and why are they important for responsive design?

Answer:

Media queries in CSS are rules that allow you to apply styles based on certain conditions, such as screen size, device type, or orientation. They are written using the @media rule and help create responsive web designs that adapt to different devices like mobile phones, tablets, laptops, or large screens.

Example:

```
/* Default styles */
body {
    font-size: 18px;
}

/* Styles for devices with max width of 768px (tablets & smaller) */
@media (max-width: 768px) {
    body {
        font-size: 16px;
    }
}

/* Styles for mobile phones */
@media (max-width: 480px) {
    body {
        font-size: 14px;
    }
}
```

Why Media Queries Are Important:-

1. Responsive Design - They let websites look good and function well across different devices.
 2. Better User Experience - Text, images, and layouts adjust to screen size, making content readable and easy to interact with.
 3. Accessibility - Ensures users with different devices (desktop, tablet, mobile) can access content without zooming or scrolling horizontally.
 4. Performance - Load lighter layouts for smaller screens and hide unnecessary elements.
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Question 2: Write a basic media query that adjusts the font size of a webpage for screens smaller than 600px

Answer:

A media query in CSS is used to apply styles only when certain conditions about the device or screen are true like width, height, orientation, etc..

1. In this case, we want to adjust the font size of the webpage when the screen width is smaller than 600px.
2. This helps improve readability on smaller screens like mobile phones.
3. Screen - targets display screens (not print or speech).

Example:

```
/* Default font size for larger screens */  
  
body {  
    font-size: 16px;  
}  
  
/* Media query for small screens (<= 600px) */  
  
@media screen and (max-width: 600px) {  
    body {
```

```
font-size: 14px; /* smaller font for better fit */
```

```
}
```

```
}
```
