**QUESTION # 3.**

**What are Media Queries in CSS, and What is the Purpose of Using Them in Web Design?**

**Media queries** in CSS are a feature that allows developers to apply different styles to a webpage based on the characteristics of the device or screen it's being viewed on, such as its width, height, orientation, or resolution. This enables websites to adapt and change their layout depending on the device, ensuring that the website looks good and functions properly whether it is being viewed on a mobile phone, tablet, or desktop.

The primary purpose of using media queries in web design is to create **responsive web design**. Responsive web design is a method of designing and coding websites so that they automatically adjust to the size and features of the device's screen, offering an optimal viewing experience. This is important because users access websites from a wide variety of devices, each with different screen sizes and capabilities.

Using media queries, designers can tailor the website’s layout, font size, image sizes, and other elements based on factors such as:

* **Screen Size**: This ensures that the layout adapts to different screen widths, like large desktops or smaller mobile devices.
* **Orientation**: Media queries can adjust the design depending on whether the device is held vertically (portrait) or horizontally (landscape).
* **Resolution**: With higher resolution screens (like Retina displays), media queries can adjust elements to look crisp and clear.

The result is a website that looks great and is functional on any device, enhancing the **user experience** by providing an interface that is easy to navigate, read, and interact with. Media queries help avoid issues like content being cut off or requiring horizontal scrolling on smaller screens.

In summary, media queries are an essential tool for web designers, allowing them to create websites that adapt to the user's device, providing a seamless and engaging experience across all platforms.