11. JavaScript Timing Events (setTimeout & setInterval)

Q1. Explain the setTimeout() and setInterval() functions in JavaScript. How are they used for timing events?

JavaScript provides two important timing functions: setTimeout() and setInterval(), which allow us to run code after a specific amount of time.

1. **setTimeout()**
   This function runs the code only one time after a delay. It is used when we want to perform a task after some time, like showing a message after 3 seconds.

2. **setInterval()**
   This function runs the code repeatedly (again and again) after regular time intervals. It is mostly used for clocks, timers, countdowns, etc.

These functions make webpages dynamic and help create effect such as animations, notifications, and real-time clocks.

Q2. Provide an example of how to use setTimeout() to delay an action by 2 seconds.

Example:

setTimeout(function() {

  console.log("This message appears after 2 seconds");

}, 2000);

2000 means 2000 milliseconds = 2 seconds.