
ASSIGNMENT-1

1. What is setInterval() and setTimeout () methods in JavaScript?

The setInterval() and setTimeout() methods in JavaScript are both used to execute a function after a specified amount of time has passed. However, they work in different ways:

- **setTimeout()**

Executes the specified function once after the specified amount of time has passed.

- **setInterval()**

Executes the specified function repeatedly, starting after the specified amount of time has passed, and then continues repeating at that interval.

Example:

The following code would use setTimeout() to alert the user "Hello World!" after 2 seconds have passed:

```
➤ setTimeout(function() {  
    alert("Hello World!");  
}, 2000);
```

The following code would use setInterval() to repeatedly alert the user "Hello World!" every 1 second:

```
➤ setInterval(function() {  
    alert("Hello World!");  
}, 1000);
```

Both `setTimeout()` and `setInterval()` can be used to create animations or to execute code later. They are both powerful tools that can be used to make your JavaScript code more interactive.

Here are some additional things to keep in mind about `setInterval()` and `setTimeout()`:

- The `setInterval()` method returns an integer value that can be used to stop the interval with the `clearInterval()` method.
- The `setTimeout()` method returns an integer value that can be used to cancel the timeout with the `clearTimeout()` method.
- Both `setInterval()` and `setTimeout()` are executed in the browser's event loop.
- If you use `setInterval()` to execute a function that takes a long time to run, it may cause your browser to become unresponsive.
- If you use `setTimeout()` to execute a function that takes a long time to run, the function will not be executed until after the specified amount of time has passed, even if other events occur in the meantime.