

Experiment 4

Event Loop in Node JS

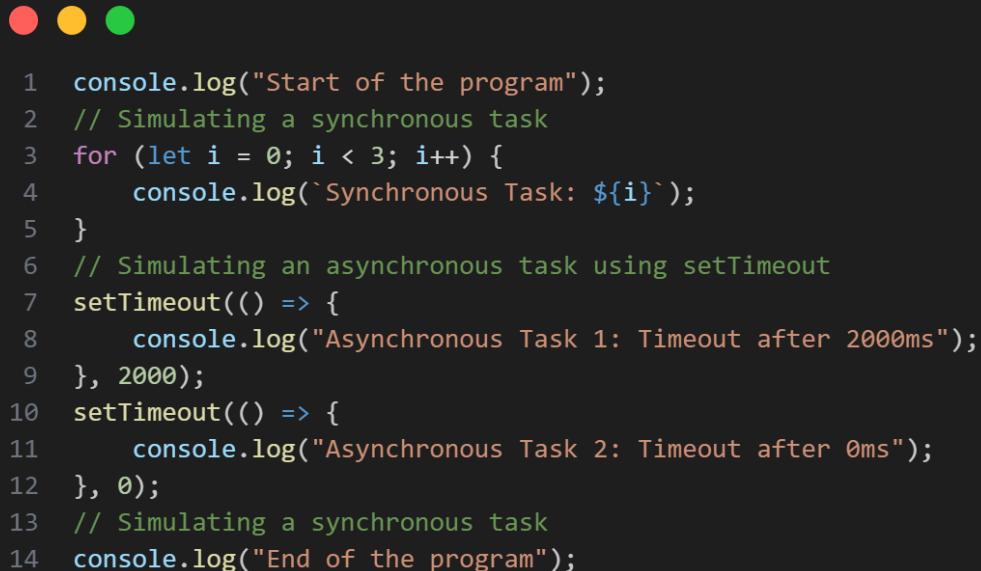
Experiment 4: Event loop in Node JS

Lab Objective: Set up an Event loop in Node JS

Step 1: Create a Simple Node.js File

```
PS C:\Users\91959\Desktop\Collage\3rd_year\Gulsan_Sir\Backend\my-node-app> touch eventLoop.js
Touching eventLoop.js
```

Step 2: Write Code to Demonstrate Event Loop Behavior

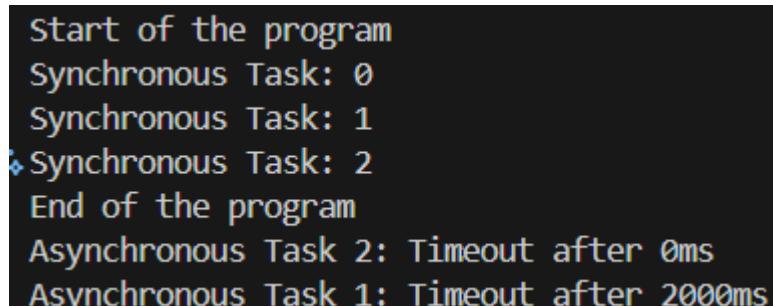


```
1  console.log("Start of the program");
2  // Simulating a synchronous task
3  for (let i = 0; i < 3; i++) {
4      console.log(`Synchronous Task: ${i}`);
5  }
6  // Simulating an asynchronous task using setTimeout
7  setTimeout(() => {
8      console.log("Asynchronous Task 1: Timeout after 2000ms");
9  }, 2000);
10 setTimeout(() => {
11     console.log("Asynchronous Task 2: Timeout after 0ms");
12 }, 0);
13 // Simulating a synchronous task
14 console.log("End of the program");
```

Step 3: Run the Node.js Program

```
PS C:\Users\91959\Desktop\Collage\3rd_year\Gulsan_Sir\Backend\my-node-app> node eventLoop.js
```

Step 4: Observe Output



```
Start of the program
Synchronous Task: 0
Synchronous Task: 1
Synchronous Task: 2
End of the program
Asynchronous Task 2: Timeout after 0ms
Asynchronous Task 1: Timeout after 2000ms
```

