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Semester: 5th semester

LAB REPORT 6

WEB TECHNOLOGIES

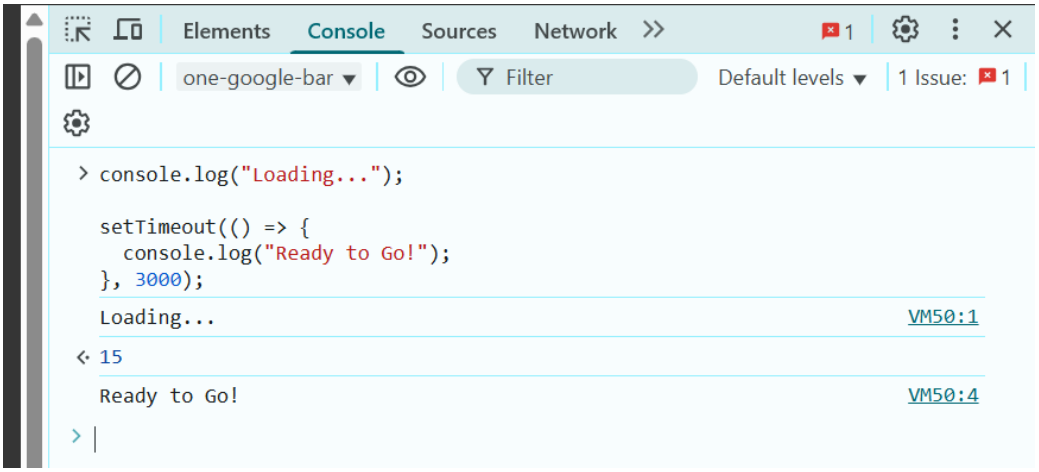
Asynchronous JavaScript

Institute of Space and Technology

Submitted to: Miss Maryam

Lab Tasks

1. Print “Loading...” immediately, and then after 3 seconds print “Ready to Go!”.
   → Use setTimeout().



2. Change the background color of the webpage every 2 seconds using a random color, but only for 10 seconds total.
   (Hint: Combine setTimeout() and setInterval().)

```
function getRandomColor() {
  return "#" + Math.floor(Math.random() * 16777215).toString(16);
}

let intervalId = setInterval(() => {
  document.body.style.backgroundColor = getRandomColor();
}, 2000);

setTimeout(() => {
  clearInterval(intervalId);
  console.log("Color changing stopped after 10 seconds");
}, 10000);
```

```
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Color changing stopped after 10 seconds  VM54:11
```

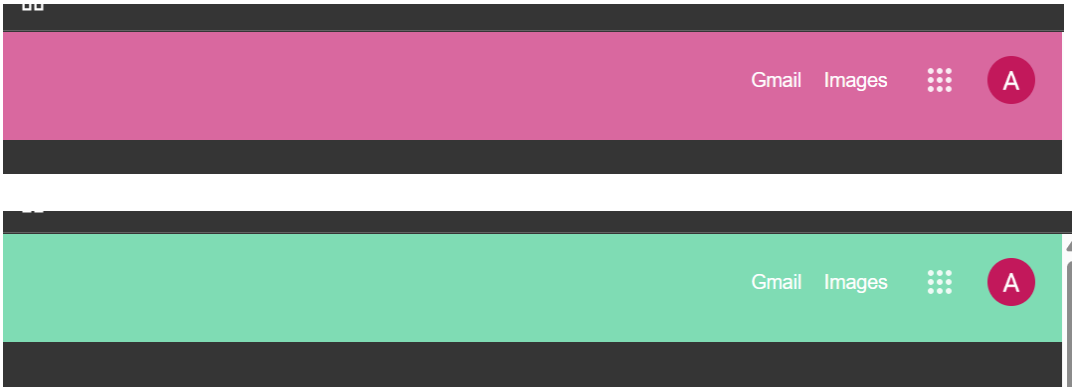

3. Simulate a loading message that resolves after 3 seconds and prints 'Data Loaded Successfully!'.

```
> function loadData() {
    return new Promise((resolve) => {
      console.log("Loading data...");
      setTimeout(() => {
        resolve("Data Loaded Successfully!");
      }, 3000);
    });
  }

  loadData().then((msg) => console.log(msg));
  Loading data...                                    VM62:3
< ▸ Promise {<pending>}
  Data Loaded Successfully!                          VM62:10
```

4. Rewrite the Promise-based code using async/await.

```
> function loadData() {
    return new Promise((resolve) => {
      setTimeout(() => {
        resolve("Data Loaded Successfully!");
      }, 3000);
    });
  }

  async function showData() {
    console.log("Loading data...");
    let result = await loadData();
    console.log(result);
  }

  showData();
  Loading data...                                    VM66:10
< ▸ Promise {<pending>}
  Data Loaded Successfully!                          VM66:12
```