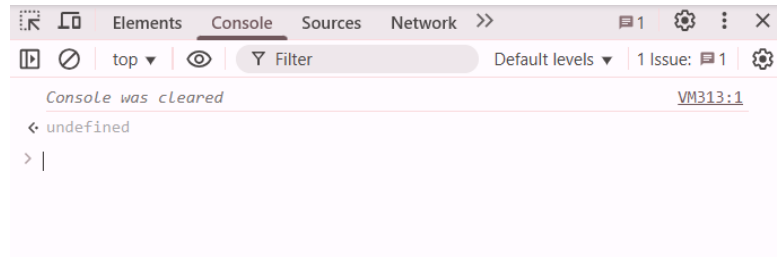# Lab 2: JavaScript Fundamentals
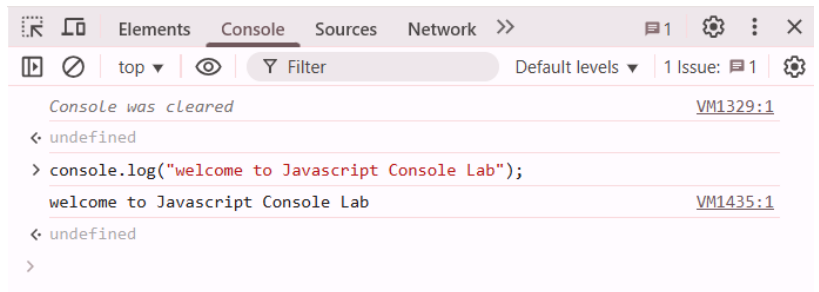
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Task 1: Launching the Console

1. Open Chrome and press Ctrl+T (Windows) or Cmd+T (Mac) for a new tab.

2. Right-click → Inspect.

3. Go to the Console tab.

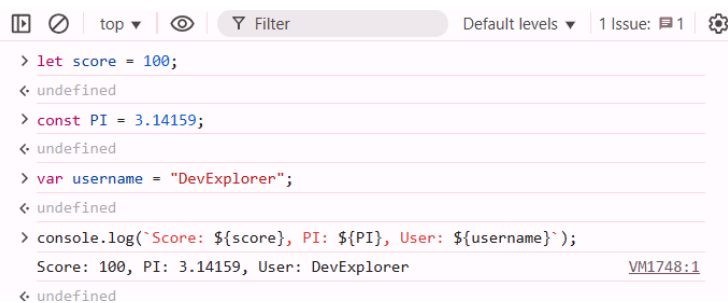4. Type the following command to clear the console:

   console.clear();

Task 2: Basic JavaScript

1. Welcome message console.log(" Welcome to JavaScript Console Lab!")

2. Dynamic Variables

3. Arrow Functions Find circle Area: Functions Find circle Area

```
const circleArea = (radius) => Math.PI * radius ** 2;
undefined
console.log("Area of circle (r=5):", circleArea(5));
Area of circle (r=5): 78.53981633974483
undefined
```

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Lab 2: JavaScript Fundamentals

Task 3: Logic & Control Flow

1. Conditional Checks

```
        Elements    Console    Sources    Network  >>          1   ⚙   ⋮   ✕
 ▣  ⊘    top ▾   👁    ▼ Filter              Default levels ▾   1 Issue: ▣1   ⚙
> let userAge = prompt("How old are you?");
⟨ undefined
> if (userAge >= 18) console.log(" Access granted!");
  else console.log("✖ Sorry, adults only.");
  ✖ Sorry, adults only.                                        VM1804:2
⟨ undefined
```

2. Switch-Case

```
> let dayNum = parseInt(prompt("Enter a number (1-7):"));
⟨ undefined
> switch (dayNum) {
  case 1: console.log("Sunday "); break;
  case 2: console.log("Monday "); break;
  default: console.log("Invalid input!");
  }
  Invalid input!
⟨ undefined
> |
```

3. Loops

```
> for (let i = 2; i <= 10; i += 2) {
  console.log(`Even number: ${i}`);
  }
  Even number: 2                                               VM1832:2
  Even number: 4                                               VM1832:2
  Even number: 6                                               VM1832:2
  Even number: 8                                               VM1832:2
  Even number: 10                                              VM1832:2
⟨ undefined
```

Task 4: Collections

1. Arrays

```
> let fruits = ["Apple", "Banana", "Orange"];
⟨ undefined
> fruits.push("Grapes");
⟨ 4
> console.log("Second fruit:", fruits[1]);
  Second fruit: Banana
⟨ undefined
```

2. Maps

```
        Elements    Console    Sources    Network  >>          1   ⚙   ⋮   ✕
 ▣  ⊘    top ▾   👁    ▼ Filter              Default levels ▾   1 Issue: ▣1   ⚙
>
  let userSettings = new Map();
⟨ undefined
> userSettings.set("theme", "dark");
⟨ ▸ Map(1) {'theme' => 'dark'}
> console.log("Current theme:", userSettings.get("theme"));
  Current theme: dark                                          VM1872:1
⟨ undefined
```