JavaScript Sample Practice Questions

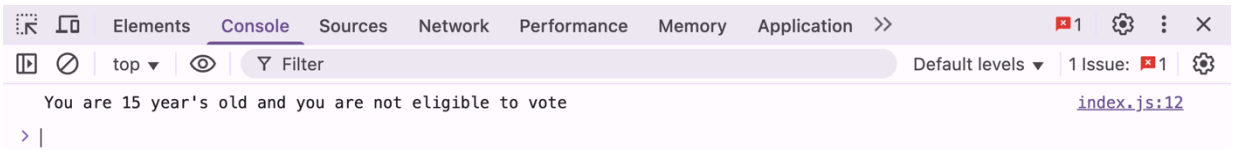
1. Variables, Operators, and Conditionals

Write a program that takes a `birthYear`, calculates the user's current age, and then prints a message stating if they are old enough to vote (age 18 or older) or if they are a senior citizen (age 65 or older).

Code:

```
// Q1)
const calcAge = function (birthYear) {
  const curAge = 2025 - birthYear;

  if (curAge >= 18 && curAge < 65) {
    console.log(`You are ${curAge} year's old and you are  eligible to vote`);
  } else if (curAge >= 65) {
    console.log(`You ar ${curAge} year's old and you are  senior citizen`);
  } else {
    console.log(
      `You are ${curAge} year's old and you are not eligible to vote `
    );
  }
};

calcAge(2010);
```

Output:



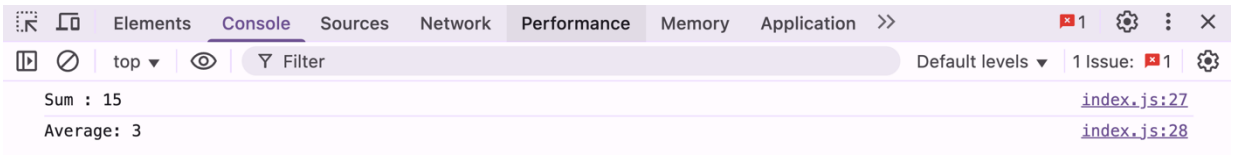
2. Loops and Arrays

Create an array of numbers. Calculate the sum and average of all the numbers in the array.

Code:

```
// Q2)
const array = [1, 2, 3, 4, 5];

const sum = array.reduce((acc, cur) => {
  return acc + cur;
}, 0);

console.log(`Sum : ${sum}`);
console.log(`Average: ${sum / array.length}`);
```

Output:



3. Strings and String Operations

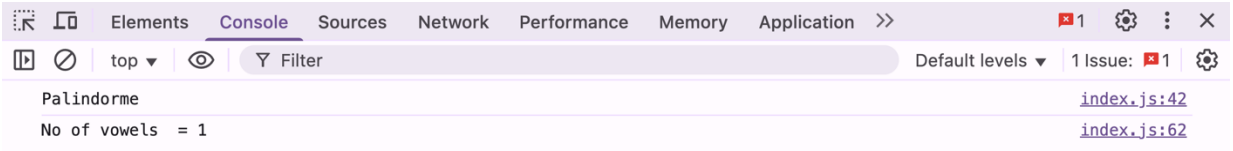
Reverse a String

Check for Palindrome

Count Vowels

Code:

```
// Q3)

// Reverse a string
const string = "wow";
let reverse = "";

for (let i = string.length - 1; i >= 0; i--) {
  reverse += string[i];
}

// Check for palindrome
if (string == reverse) {
  console.log("Palindorme");
} else {
  console.log("Not a palindrome");
}

// No of vowels in string
let count = 0;

for (let i = 0; i < string.length; i++) {
  if (
    string[i] == "a" ||
    string[i] == "i" ||
    string[i] == "e" ||
    string[i] == "o" ||
    string == "u"
  ) {
    count++;
  }
}

console.log(`No of vowels  = ${count}`);
```



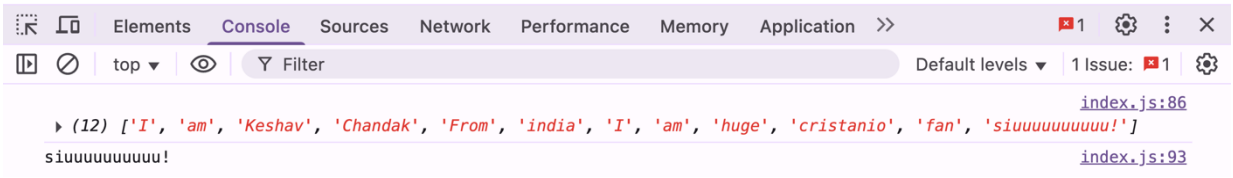
4. Functions and Methods

Write a function that finds and returns the longest word in a sentence.

Code:

```
//Q4)
const calcLongestWord = function (sentance) {
  let input = sentance.trim();
  const words = [];
  let count = 0;
  for (let i = 0; i < input.length; i++) {
    if (input[i] == " " || input[i] == "\n") {
      if (count == 0) continue;

      words.push(input.slice(i - count, i));
      count = 0;
    } else if (i == input.length - 1) {
      words.push(input.slice(i - count, i + 1));
    } else {
      count++;
    }
  }

  const ans = words.reduce((acc, cur) => {
    return acc.length > cur.length ? acc : cur;
  }, words[0]);

  console.log(words);
  return ans;
};

const ans = calcLongestWord(
  "I am Keshav Chandak From india \n I am huge cristanio fan siuuuuuuuuuu!"
);
console.log(ans);
```

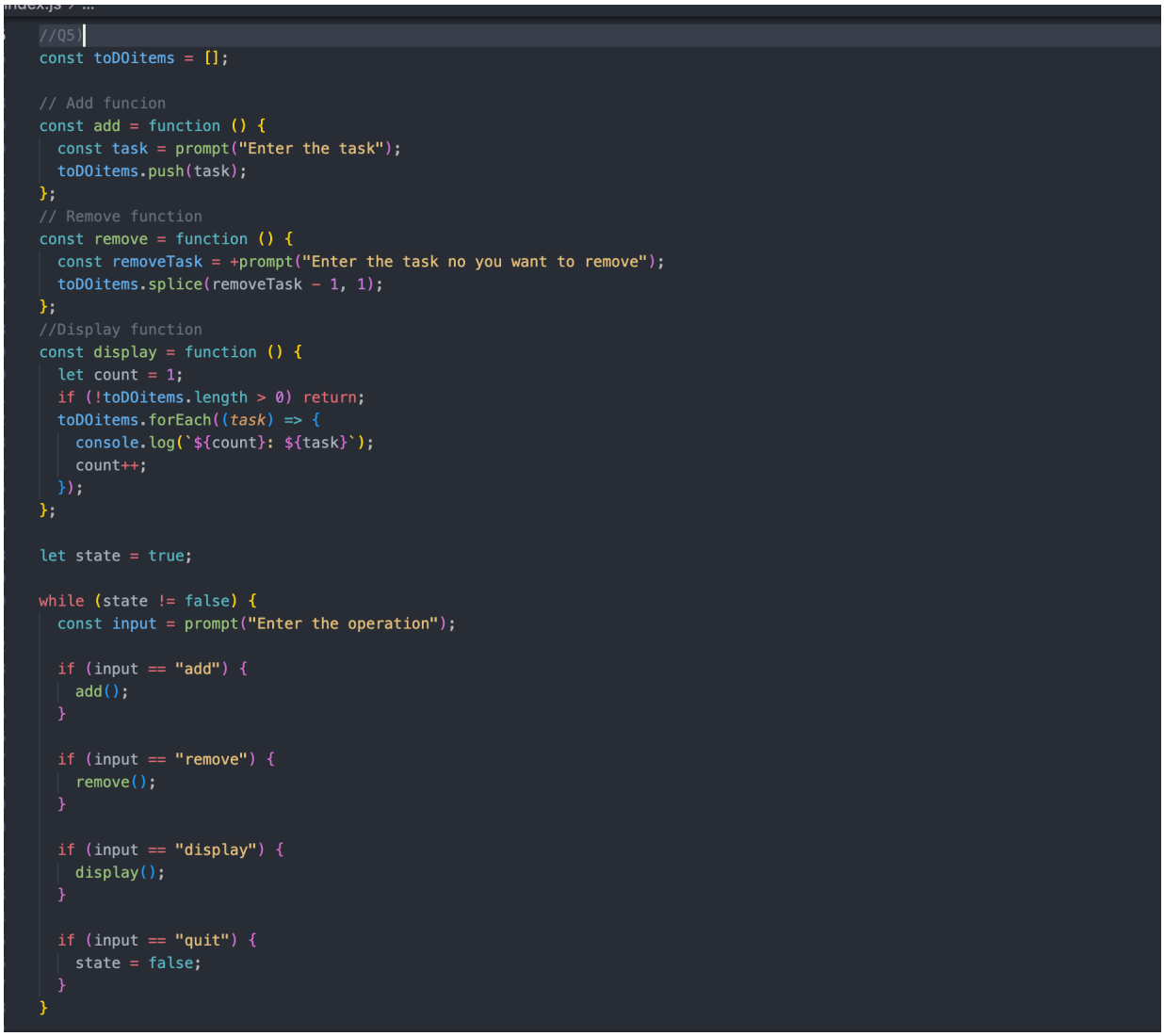
Output:



5. Putting It All Together

Create a simple to-do list manager with the following features:

- Store to-do items in an array.
- Implement functions to `add`, `remove`, and `display` items.
- Use a loop to continuously prompt the user for an action (`add`, `remove`, `display`, or `quit`).
- Print the list of items with their index when the user selects `display`.
- Exit the program when the user selects `quit`.



```
//Q5)
const toDOitems = [];

// Add funcion
const add = function () {
  const task = prompt("Enter the task");
  toDOitems.push(task);
};
// Remove function
const remove = function () {
  const removeTask = +prompt("Enter the task no you want to remove");
  toDOitems.splice(removeTask - 1, 1);
};
//Display function
const display = function () {
  let count = 1;
  if (!toDOitems.length > 0) return;
  toDOitems.forEach((task) => {
    console.log(`${count}: ${task}`);
    count++;
  });
};

let state = true;

while (state != false) {
  const input = prompt("Enter the operation");

  if (input == "add") {
    add();
  }

  if (input == "remove") {
    remove();
  }

  if (input == "display") {
    display();
  }

  if (input == "quit") {
    state = false;
  }
}
```