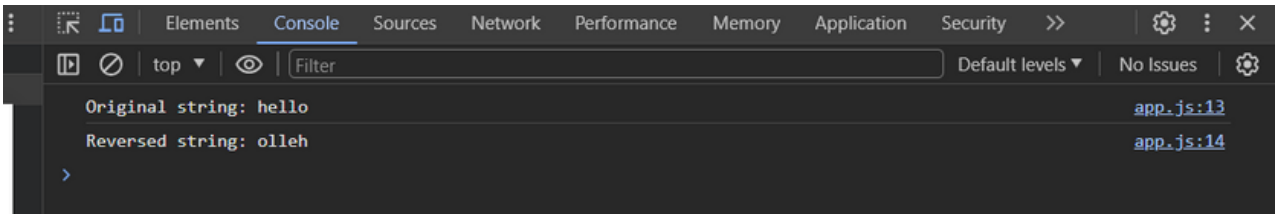
Assignment 05. JavaScript Quiz

Hafiz Ahmed Ali Ansari

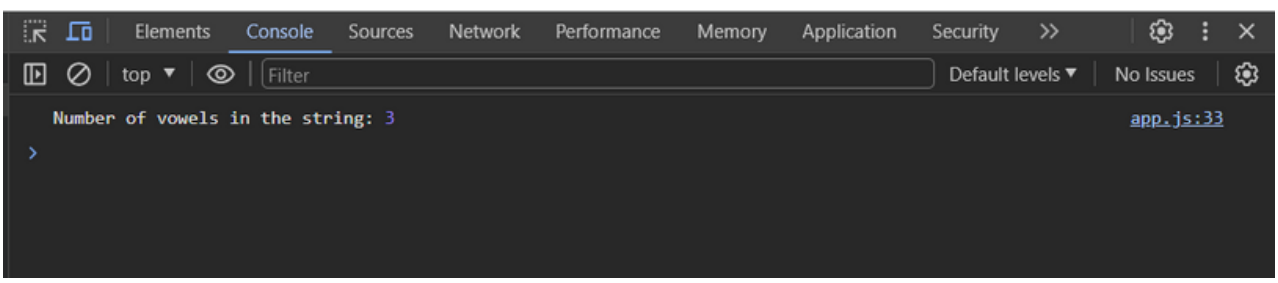
JavaScript Quiz Total 15 Questions

```
// Question No: 01 :~
function reverseString(str) {
 let reversedString = "";
 for (let i = str.length - 1; i >= 0; i--) {
  reversedString += str[i];
 }
 return reversedString;
}
const originalString = "hello";
const reversedString = reverseString(originalString);
console.log("Original string:", originalString);
console.log("Reversed string:", reversedString);
```



Question No: 02 :~

```
function countVowels(str) {
 const vowels = "aeiouAEIOU";
 let count = 0;
 for (let char of str) {
  if (vowels.includes(char)) {
   count++;
  }
 }
 return count;
}
const str = "Hello World";
const vowelCount = countVowels(str);
console.log("Number of vowels in the string:", vowelCount);
```



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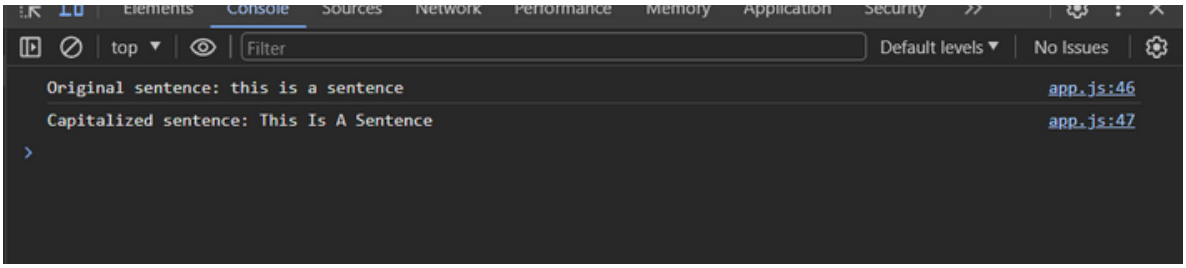
Question No: 03 :~

```
function capitalizeFirstLetter(sentence) {
 return sentence
  .split(" ")
  .map((word) => word.charAt(0).toUpperCase() + word.slice(1))
  .join(" ");
}

const sentence = "this is a sentence";
const capitalizedSentence = capitalizeFirstLetter(sentence);
console.log("Original sentence:", sentence);
console.log("Capitalized sentence:", capitalizedSentence);
```

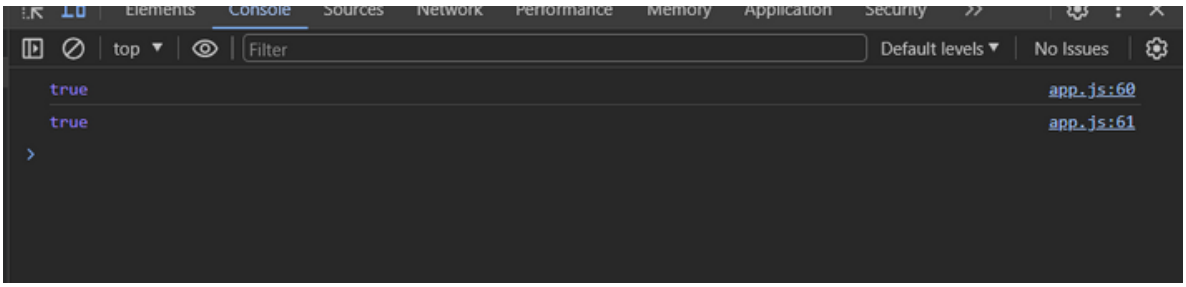


Question No: 04 :~

```
function isPalindrome(str) {
 const alphanumericStr = str.toLowerCase().replace(/[^a-z0-9]/g, "");

 return alphanumericStr === alphanumericStr.split("").reverse().join("");
}

// Example usage:
const str1 = "A man, a plan, a canal, Panama";
const str2 = "racecar";
console.log(isPalindrome(str1));
console.log(isPalindrome(str2));
```



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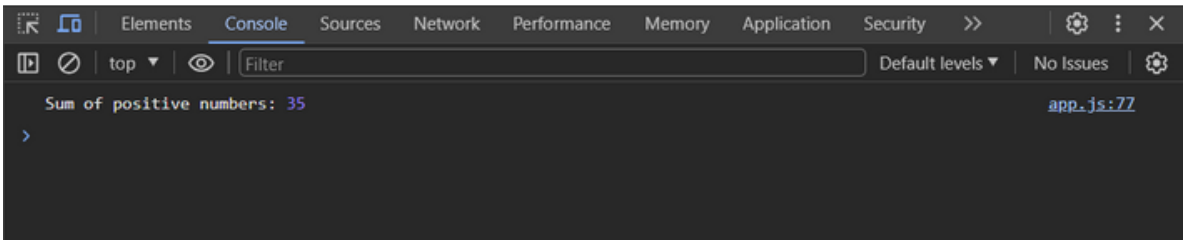
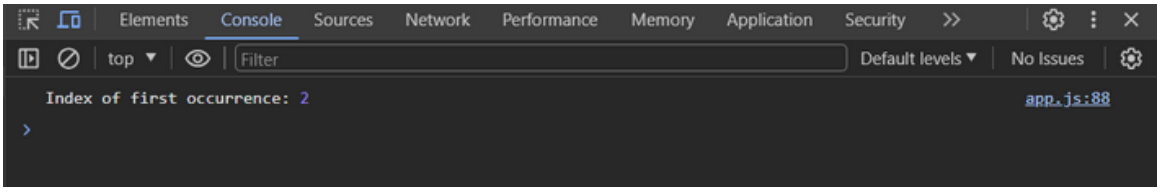
Question No: 05 :~

```
function sumOfPositiveNumbers(arr) {
 let sum = 0;
 for (let num of arr) {
  if (num > 0) {
   sum += num;
  }
 }
 return sum;
}

const numbers = [3, -5, 7, -2, 10, -8, 15];
const positiveSum = sumOfPositiveNumbers(numbers);
console.log("Sum of positive numbers:", positiveSum);
```



Question No: 06 :~

```
function indexOfFirstOccurrence(arr, target) {
 return arr.indexOf(target);
}

const array = [1, 2, 3, 4, 5, 3];
const targetElement = 3;
const firstOccurrenceIndex = indexOfFirstOccurrence(array, targetElement);
console.log("Index of first occurrence:", firstOccurrenceIndex);
```



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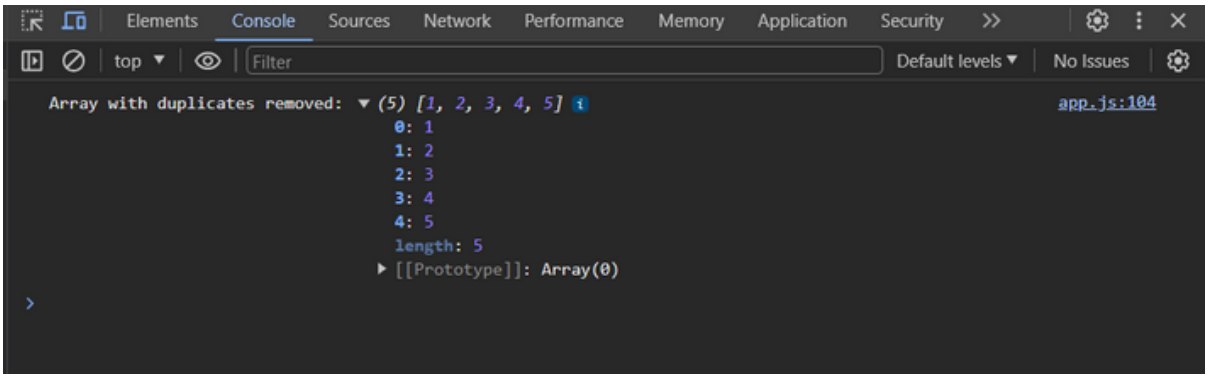
Question No: 07 :~

```
function removeDuplicates(arr) {
 const uniqueArray = [];
 for (let i = 0; i < arr.length; i++) {
  if (uniqueArray.indexOf(arr[i]) === -1) {
   uniqueArray.push(arr[i]);
  }
 }
 return uniqueArray;
}

const array = [1, 2, 3, 4, 2, 3, 5];
const uniqueArray = removeDuplicates(array);
console.log("Array with duplicates removed:", uniqueArray);
```



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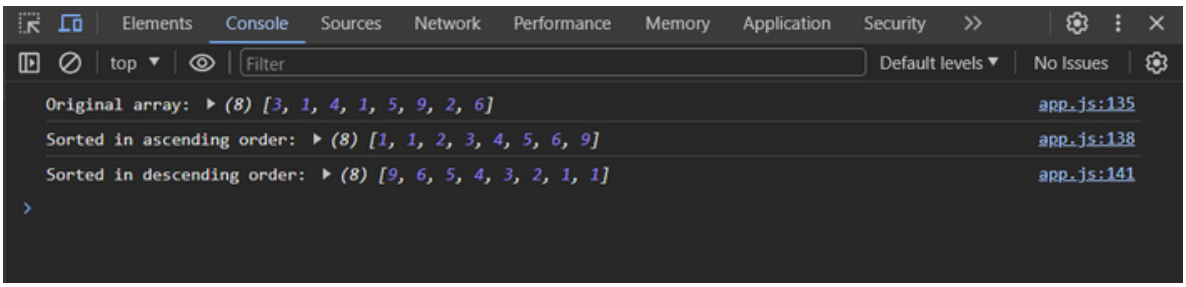
JavaScript Quiz Total 15 Questions

Question No: 08 :~

```
function sortAscending(arr) {
 for (let i = 0; i < arr.length - 1; i++) {
  for (let j = 0; j < arr.length - 1 - i; j++) {
   if (arr[j] > arr[j + 1]) {
    let temp = arr[j];
    arr[j] = arr[j + 1];
    arr[j + 1] = temp;
   }
  }
 }
 return arr;
}
function sortDescending(arr) {
 for (let i = 0; i < arr.length - 1; i++) {
  for (let j = 0; j < arr.length - 1 - i; j++) {
   if (arr[j] < arr[j + 1]) {
    let temp = arr[j];
    arr[j] = arr[j + 1];
    arr[j + 1] = temp;
   }
  }
 }
 return arr;
}
const array = [3, 1, 4, 1, 5, 9, 2, 6];
console.log("Original array:", array);

const sortedAscending = sortAscending(array.slice());
console.log("Sorted in ascending order:", sortedAscending);

const sortedDescending = sortDescending(array.slice());
console.log("Sorted in descending order:", sortedDescending);
```



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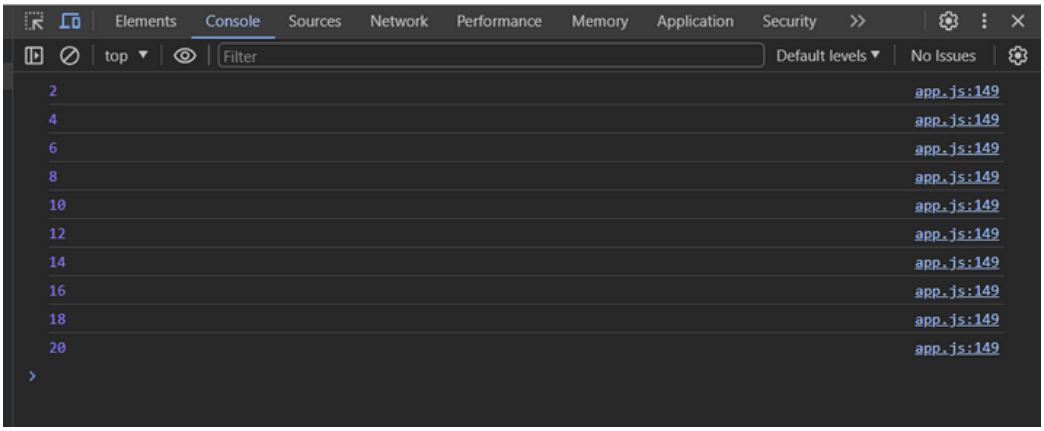
JavaScript Quiz Total 15 Questions

Question No: 09 :~

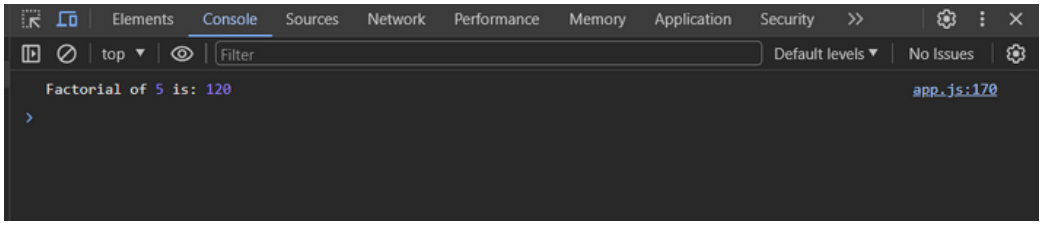
```
let number = 1;

while (number <= 20) {
 if (number % 2 === 0) {
  console.log(number);
 }
 number++;
}
```



Question No: 10 :~

```
function factorial(n) {
 let result = 1;
 let i = 1;
 do {
  result *= i;
  i++;
 } while (i <= n);
 return result;
}
const number = 5;
const result = factorial(number);
console.log("Factorial of", number, "is:", result);
```



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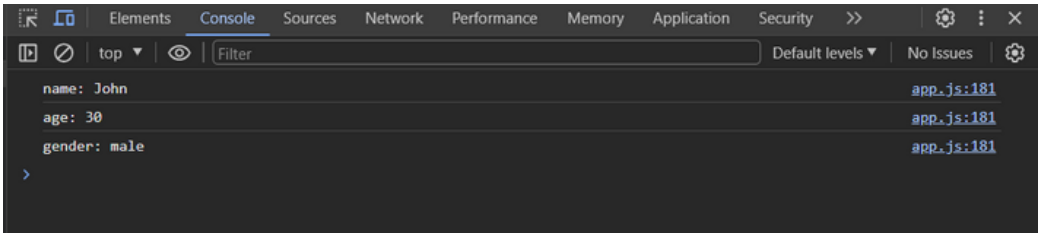
JavaScript Quiz Total 15 Questions

Question No: 11 :~

```
const person = {
 name: "John",
 age: 30,
 gender: "male",
};

for (let key in person) {
 console.log(key + ": " + person[key]);
}
```

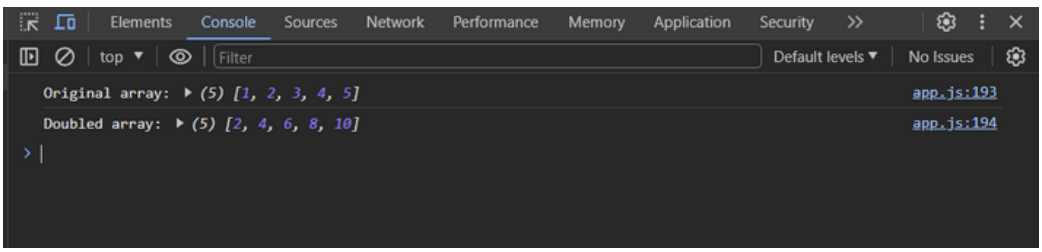


Question No: 12 :~

```
const array = [1, 2, 3, 4, 5];
const doubledArray = [];

for (let element of array) {
 doubledArray.push(element * 2);
}

console.log("Original array:", array);
console.log("Doubled array:", doubledArray);
```



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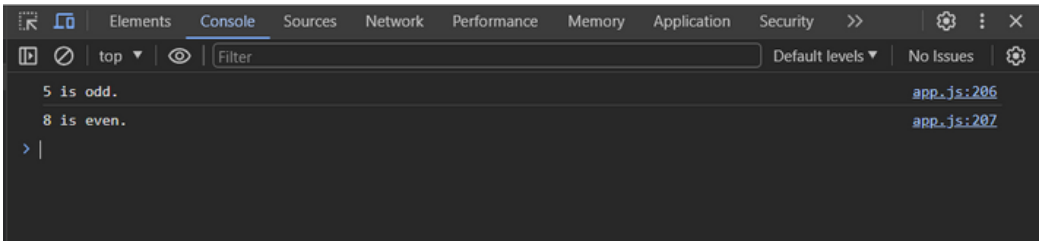
JavaScript Quiz Total 15 Questions

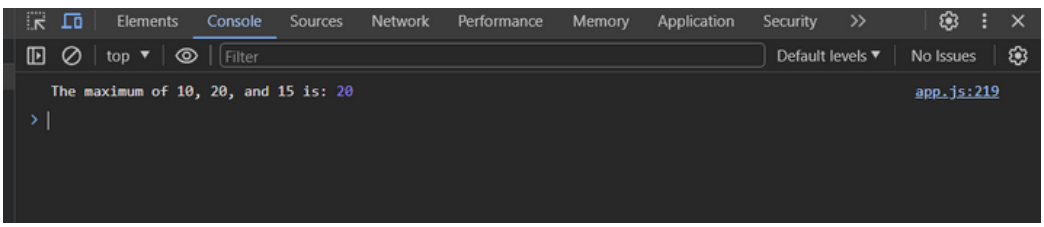
Question No: 13 :~

```
function checkEvenOrOdd(number) {
 if (number % 2 === 0) {
  return number + " is even.";
 } else {
  return number + " is odd.";
 }
}

console.log(checkEvenOrOdd(5));
console.log(checkEvenOrOdd(8));
```



Question No: 14 :~

```
function findMax(a, b, c) {
 return a > b ? (a > c ? a : c) : b > c ? b : c;
}

const num1 = 10;
const num2 = 20;
const num3 = 15;
const max = findMax(num1, num2, num3);
console.log("The maximum of", num1 + ",", num2 + ", and", num3 + " is:", max);
```



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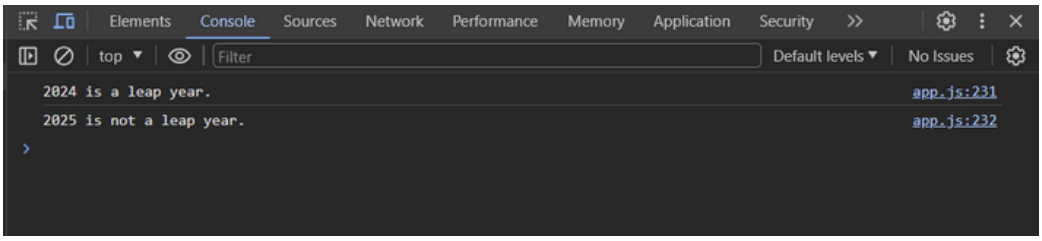
JavaScript Quiz Total 15 Questions

Question No: 15 :~

```
function isLeapYear(year) {
 if ((year % 4 === 0 && year % 100 !== 0) || year % 400 === 0) {
  return year + " is a leap year.";
 } else {
  return year + " is not a leap year.";
 }
}

console.log(isLeapYear(2024));
console.log(isLeapYear(2025));
```



Completed 15 JavaScript Questions With Outputs

By,

Hafiz Ahmed Ali Ansari