

Sharpen Your JavaScript Skills with These Coding Exercises!



10 Code Exercises

JavaScript LEARN TO CODE

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Are you looking to enhance your JavaScript skills or just love a good coding challenge? Check out these 10 JavaScript coding exercises that cover a range of fundamental concepts:

1. Reverse a String: Transform a string in reverse order.
2. Check for Palindrome: Determine if a string is a palindrome.
3. Find the Maximum Number: Find the maximum number in an array.
4. FizzBuzz: Play the classic FizzBuzz game with code.
5. Calculate Factorial: Compute the factorial of a number.
6. Check for Prime Number: Identify prime numbers with code.
7. Find Fibonacci Sequence: Generate the Fibonacci sequence.
8. Find Longest Word: Discover the longest word in a string.
9. Count Characters: Count occurrences of characters in a string.
10. Title Case a Sentence: Convert a sentence to title case.

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These exercises are designed to boost your problem-solving skills and deepen your understanding of JavaScript. Try them out and level up your coding game! 💪

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Exercise 1: Reverse a String

Write a function `reverseString` that takes a string as input and returns the reverse of that string.

```
function reverseString(str) {  
  return str.split('').reverse().join('');  
}
```

// Example usage:

```
console.log(reverseString('Hello')); // Output: "olleH"
```

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Exercise 2: Check for Palindrome

Write a function `isPalindrome` that checks if a given string is a palindrome (reads the same forwards and backwards).

```
function isPalindrome(str) {  
  const reversedStr = str.split('').reverse().join('');  
  return str === reversedStr;  
}
```

```
// Example usage:
```

```
console.log(isPalindrome('racecar')); // Output: true
```

Exercise 3: Find the Maximum Number

Write a function `findMax` that takes an array of numbers as input and returns the maximum number in the array.

```
function findMax(numbers) {  
  return Math.max(...numbers);  
}
```

```
// Example usage:
```

```
console.log(findMax([3, 7, 1, 9, 4])); // Output: 9
```

Exercise 4: FizzBuzz

Write a function `fizzBuzz` that prints numbers from 1 to `n`, but for multiples of 3, print "Fizz" instead, and for multiples of 5, print "Buzz" instead. For numbers that are multiples of both 3 and 5, print "FizzBuzz."

```
function fizzBuzz(n) {  
  for (let i = 1; i <= n; i++) {  
    if (i % 3 === 0 && i % 5 === 0) {  
      console.log('FizzBuzz');  
    } else if (i % 3 === 0) {  
      console.log('Fizz');  
    } else if (i % 5 === 0) {  
      console.log('Buzz');  
    } else {  
      console.log(i);  
    }  
  }  
}
```

```
// Example usage:
```

```
fizzBuzz(15);
```

Exercise 5: Calculate Factorial

Write a function factorial that calculates the factorial of a given number.

```
function factorial(n) {  
  if (n === 0 || n === 1) {  
    return 1;  
  } else {  
    return n * factorial(n - 1);  
  }  
}
```

```
// Example usage:
```

```
console.log(factorial(5)); // Output: 120
```

Exercise 6: Check for Prime Number

Write a function isPrime that checks if a given number is prime (only divisible by 1 and itself).

```
function isPrime(num) {  
  if (num <= 1) {
```

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```
    return false;
}
for (let i = 2; i <= Math.sqrt(num); i++) {
    if (num % i === 0) {
        return false;
    }
}
return true;
}
```

// Example usage:

```
console.log(isPrime(11)); // Output: true
```

Exercise 7: Find Fibonacci Sequence

Write a function `generateFibonacci` that generates the Fibonacci sequence up to a specified number of terms.

```
function generateFibonacci(n) {
    const fibArray = [0, 1];
    while (fibArray.length < n) {
        const nextValue = fibArray[fibArray.length - 1] +
fibArray[fibArray.length - 2];
```

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```
    fibArray.push(nextValue);
  }
  return fibArray;
}

// Example usage:
console.log(generateFibonacci(10)); // Output: [0, 1,
1, 2, 3, 5, 8, 13, 21, 34]
```

Exercise 8: Find Longest Word

Write a function `findLongestWord` that takes a string of words and returns the longest word in the string.

```
function findLongestWord(str) {
  const words = str.split(' ');
  let longestWord = '';
  for (const word of words) {
    if (word.length > longestWord.length) {
      longestWord = word;
    }
  }
  return longestWord;
}
```

```
}
```

```
// Example usage:
```

```
console.log(findLongestWord('This is a sample  
sentence')); // Output: "sentence"
```

Exercise 9: Count Characters

Write a function `countCharacters` that counts the occurrences of each character in a string and returns the results as an object.

```
function countCharacters(str) {  
  const charCount = {};  
  for (const char of str) {  
    if (charCount[char]) {  
      charCount[char]++;  
    } else {  
      charCount[char] = 1;  
    }  
  }  
  return charCount;  
}
```



```
// Example usage:  
console.log(countCharacters('hello')); // Output: {h:  
1, e: 1, l: 2, o: 1}
```

Exercise 10: Title Case a Sentence

Write a function `titleCase` that converts a sentence to title case (the first letter of each word capitalized).

```
function titleCase(sentence) {  
  const words = sentence.split(' ');  
  const titleCasedWords = words.map(word =>  
word.charAt(0).toUpperCase() +  
word.slice(1).toLowerCase());  
  return titleCasedWords.join(' ');  
}
```

```
// Example usage:  
console.log(titleCase('this is a sample sentence')); //  
Output: "This Is A Sample Sentence"
```

These exercises cover a range of JavaScript concepts and are designed to help you practice your coding skills and problem-solving abilities.