

Here are **100 unique JavaScript Code Challenges** as a Final home Work With Master JavaScript Workshop.

1. Print "Hello, World!"

- Write a JavaScript code to print "Hello, World!" to the console.

2. Add Two Numbers

- Write a JavaScript function that takes two numbers as input and returns their sum.

3. Calculate Square Root

- Write a JavaScript code to find the square root of a given number.

4. Calculate the Area of a Triangle

- Create a function that calculates the area of a triangle given its base and height.

5. Swap Two Variables

- Write a JavaScript program to swap the values of two variables without using a temporary variable.

6. Solve a Quadratic Equation

- Create a JavaScript function that solves a quadratic equation of the form $ax^2 + bx + c = 0$.

7. Convert Kilometers to Miles

- Write a JavaScript function to convert kilometers to miles.

8. Convert Celsius to Fahrenheit

- Create a function that converts temperature from Celsius to Fahrenheit.

9. Generate a Random Number

- Write a function that generates a random number between 1 and 100.

10. Check If a Number is Positive, Negative, or Zero

- Create a function that checks whether a number is positive, negative, or zero.

11. Check If a Number is Odd or Even

- Write a function that checks if a number is odd or even.

12. Find the Largest Among Three Numbers

- Write a JavaScript function that finds the largest number among three numbers.

13. Check If a Number is Prime

- Write a function that checks whether a number is prime.

14. Print All Prime Numbers in an Interval

- Write a function that prints all prime numbers between two given numbers.

15. Find the Factorial of a Number

- Create a function that calculates the factorial of a number.

16. Display the Multiplication Table

- Write a JavaScript code that displays the multiplication table for a given number.

17. Print Fibonacci Sequence

- Write a function to print the first n numbers in the Fibonacci sequence.

18. Check Armstrong Number

- Write a function that checks if a number is an Armstrong number.

19. Find Armstrong Number in an Interval

- Write a program to find all Armstrong numbers in a given range.

20. Create a Simple Calculator

- Write a simple calculator program that can perform addition, subtraction, multiplication, and division.

21. Find the Sum of Natural Numbers

- Write a JavaScript code to calculate the sum of the first n natural numbers.

22. Check If Two Numbers Have Same Last Digit

- Write a program that checks if two numbers share the same last digit.

23. Find HCF (Greatest Common Divisor)

- Write a function that finds the HCF or GCD of two numbers.

24. Find LCM (Least Common Multiple)

- Create a JavaScript function that finds the LCM of two numbers.

25. Find the Factors of a Number

- Write a function that finds all the factors of a number.

26. Find Sum of Natural Numbers Using Recursion

- Write a recursive function to calculate the sum of natural numbers up to n .

27. Guess a Random Number

- Create a number guessing game where the user guesses a randomly generated number between 1 and 100.

28. Shuffle Deck of Cards

- Write a JavaScript function to shuffle a deck of cards randomly.

29. Display Fibonacci Sequence Using Recursion

- Create a recursive function that generates the Fibonacci sequence.

30. Find Factorial of a Number Using Recursion

- Write a recursive function to calculate the factorial of a number.

31. Convert Decimal to Binary

- Write a JavaScript code to convert a decimal number to binary.

32. Find ASCII Value of Character

- Write a function that returns the ASCII value of a given character.

33. Check Whether a String is Palindrome

- Write a function that checks if a string is a palindrome.

34. Sort Words in Alphabetical Order

- Create a JavaScript function that sorts the words in a given string in alphabetical order.

35. Replace Characters in a String

- Write a JavaScript function that replaces all occurrences of a character in a string.

36. Reverse a String

- Write a program that reverses a string without using the built-in reverse method.

37. Create Objects in Different Ways

- Write code to create an object in different ways using object literals, constructors, and `Object.create()`.

38. Count the Occurrences of a Character in a String

- Write a JavaScript code to count the number of occurrences of a character in a string.

39. Convert First Letter of a String to Uppercase

- Write a function that converts the first letter of a string into uppercase.

40. Count the Number of Vowels in a String

- Create a function to count the number of vowels in a given string.

41. Remove a Property from an Object

- Write a JavaScript code to remove a specific property from an object.

42. Check Whether a String Starts and Ends with Certain Characters

- Write a function that checks if a string starts and ends with the specified characters.

43. Check If a Key Exists in an Object

- Create a function that checks if a key exists in an object.

44. Clone a JavaScript Object

- Write a function that clones an object using various methods.

45. Loop Through an Object

- Write a JavaScript code to loop through the properties of an object and print them.

46. Merge Properties of Two Objects

- Write a function that merges properties of two objects into one object.

47. Count the Number of Keys/Properties in an Object

- Create a function that counts the number of keys in an object.

48. Add Key/Value Pair to an Object

- Write a function to add a key-value pair to an object.

49. Replace All Occurrences of a String

- Write a JavaScript code to replace all occurrences of a string in another string.

50. Create Multiline Strings

- Write a program that creates a multiline string using template literals.

51. Format Numbers as Currency Strings

- Write a function that formats a number into a currency string.

52. Generate a Random String

- Write a function that generates a random alphanumeric string of a given length.

53. Check If a String Starts with Another String

- Write a function to check if a string starts with a specific substring.

54. Trim a String

- Write a program that removes any whitespace from both ends of a string.

55. Convert Objects to Strings

- Write a function to convert an object into a JSON string.

56. Check Whether a String Contains a Substring

- Write a function that checks if a string contains a specific substring.

57. Compare Two Strings

- Write a JavaScript code to compare two strings and check if they are equal.

58. Encode a String to Base64

- Write a function to encode a string into Base64.

59. Replace All Instances of a Character in a String

- Write a program that replaces all instances of a character in a string.

**60. Replace All Line Breaks with `
`**

- Create a function that replaces all line breaks in a string with `
` tags.

61. Display Date and Time

- Write a program that displays the current date and time in the console.

62. Check Leap Year

- Write a function that checks whether a given year is a leap year or not.

63. Format the Date

- Write a program that formats a given date in the format "MM/DD/YYYY".

64. Display Current Date

- Write a JavaScript code to display the current date in the console.

65. Compare the Value of Two Dates

- Create a function that compares two dates and returns whether they are equal, or if one is before the other.

66. Create a Countdown Timer

- Write a JavaScript program to create a countdown timer that displays the remaining time.

67. Remove Specific Item from an Array

- Write a function that removes a specific item from an array.

68. Check if an Array Contains a Specified Value

- Write a JavaScript code that checks if a specified value exists in an array.

69. Insert Item in an Array

- Write a program that inserts an item at a specific position in an array.

70. Append an Object to an Array

- Write a function that appends an object to the end of an array.

71. Check If an Object is an Array

- Create a function to check if a given object is an array.

72. Empty an Array

- Write a function that empties an array.

73. Add Element to Start of an Array

- Write a JavaScript code that adds an element to the start of an array.

74. Remove Duplicates from an Array

- Write a function that removes duplicate elements from an array.

75. Merge Two Arrays and Remove Duplicate Items

- Write a JavaScript code that merges two arrays and removes duplicate items.

76. Sort Array of Objects by Property Values

- Write a program that sorts an array of objects by a specific property value.

77. Create Two Dimensional Array

- Write a JavaScript code that creates a two-dimensional array (a matrix).

78. Extract Given Property Values from Objects as Array

- Write a function that extracts a given property value from all objects in an array and returns them in a new array.

79. Compare Elements of Two Arrays

- Write a function that compares two arrays and returns whether they are equal or not.

80. Get Random Item from an Array

- Write a program to get a random item from an array.

81. Perform Intersection Between Two Arrays

- Write a JavaScript code to perform the intersection between two arrays and return the common elements.

82. Split Array into Smaller Chunks

- Write a function that splits an array into smaller chunks of a specified size.

83. Include a JS File in Another JS File

- Write code to include one JavaScript file in another using `import` or `require`.

84. Get File Extension

- Write a function that returns the file extension of a given file name.

85. Check if a Variable is Undefined or Null

- Write a program that checks if a variable is either `undefined` or `null`.

86. Set a Default Parameter Value for a Function

- Write a function that has a default parameter value if no argument is provided.

87. Illustrate Different Set Operations

- Write a JavaScript code to illustrate different set operations like union, intersection, and difference using `Set`.

88. Generate a Random Number Between Two Numbers

- Write a function that generates a random number between two specified numbers.

89. Get the Current URL

- Write a JavaScript code to get and display the current URL.

90. Validate an Email Address

- Write a function that validates if a given email address is valid or not.

91. Check if a Variable is a Function

- Write a JavaScript code that checks if a variable is of function type.

92. Work With Constants

- Write a JavaScript code that uses constants to store values that should not change.

93. Pass Parameter to a `setTimeout()` Function

- Write a function that passes parameters to a function inside `setTimeout()`.

94. Generate a Range of Numbers and Characters

- Write a JavaScript code that generates a range of numbers and characters within a specified range.

95. Perform Function Overloading

- Write a function that handles different numbers of arguments and returns the result accordingly (overloading).

96. Implement a Stack

- Write a JavaScript program to implement a stack with push, pop, and peek operations.

97. Implement a Queue

- Write a JavaScript program to implement a queue with enqueue, dequeue, and peek operations.

98. Check if a Number is Float or Integer

- Write a program that checks if a number is an integer or a float.

99. Pass a Function as a Parameter

- Write a function that accepts another function as a parameter and calls it within the function.

100. Get the Dimensions of an Image

- Write a JavaScript code that gets the dimensions (width and height) of an image element on a webpage.

These **100 challenges** will cover a wide variety of essential JavaScript concepts.