



JavaScript Course

Tasks

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Conditional Statements & loops

1. Write a JavaScript program that accept two integers and display the larger.
2. Write a JavaScript conditional statement to find the sign of product of three numbers.
Display an alert box with the specified sign.
3. Write a JavaScript conditional statement to sort three numbers. Display an alert box to show the result.
4. Write a JavaScript conditional statement to find the largest of five numbers. Display an alert box to show the result.
5. Write a JavaScript for loop that will iterate from 0 to 15. For each iteration, it will check if the current number is odd or even, and display a message to the screen.



Conditional Statements & loop

6. Write a JavaScript program which compute, the average marks of the following students Then, this average is used to determine the corresponding grade.

| Student Name | Marks | Range | Grade |
|--------------|-------|-------|-------|
| David | 80 | <60 | F |
| Vinoth | 77 | <70 | D |
| Divya | 88 | <80 | C |
| Ishitha | 95 | <90 | B |
| Thomas | 68 | <100 | A |



Conditional Statements & loop

7. Write a JavaScript program which iterates the integers from 1 to 100. But for multiples of three print "Fizz" instead of the number and for the multiples of five print "Buzz". For numbers which are multiples of both three and five print "FizzBuzz".
8. According to Wikipedia a happy number is defined by the following process :
"Starting with any positive integer, replace the number by the sum of the squares of its digits, and repeat the process until the number equals 1 (where it will stay), or it loops endlessly in a cycle which does not include 1. Those numbers for which this process ends in 1 are happy numbers, while those that do not end in 1 are unhappy numbers (or sad numbers)". Write a JavaScript program to find and print the first 5 happy numbers.



Conditional Statements & loop

9. Write a JavaScript program to find the armstrong numbers of 3 digits.

Note : An Armstrong number of three digits is an integer such that the sum of the cubes of its digits is equal to the number itself. For example, 371 is an Armstrong number since $3^3 + 7^3 + 1^3 = 371$.

10. Write a JavaScript program to construct the following pattern, using a nested for loop.

```
*  
  
* *  
  
* * *  
  
* * * *  
  
* * * * *
```

11. Write a JavaScript program to sum the multiples of 3 and 5 under 1000.



Validating

1. Write a JavaScript function to validate whether a given value type is boolean or not.
2. Write a JavaScript function to validate whether a given value type is error or not.
3. Write a JavaScript function to validate whether a given value type is NaN or not.
4. Write a JavaScript function to validate whether a given value type is null or not.
5. Write a JavaScript function to validate whether a given value is number or not.
6. Write a JavaScript function to validate whether a given value is object or not.
7. Write a JavaScript function to validate whether a given value type is pure json object or not.
8. Write a JavaScript function to validate whether a given value is RegExp or not.



Validating

1. Write a JavaScript function to validate whether a given value type is char or not.
2. Write a JavaScript function to check whether given value types are same or not.



Functions

1. Write a JavaScript function that reverse a number.

Example `x = 32243;`

Expected Output : 34223

2. Write a JavaScript function that checks whether a passed string is palindrome or not? A palindrome is word, phrase, or sequence that reads the same backward as forward, e.g., madam or nurses run.

3. Write a JavaScript function that returns a passed string with letters in alphabetical order. Go to the editor

Example string : 'webmaster'

Expected Output : 'abeemrstw'

Assume punctuation and numbers symbols are not included in the passed string.



Functions

1. Write a JavaScript function that accepts a string as a parameter and converts the first letter of each word of the string in upper case. Example string : 'the quick brown fox'. Expected Output : 'The Quick Brown Fox '
2. Write a JavaScript function that accepts a string as a parameter and find the longest word within the string. Example string : 'Web Development Tutorial'. Expected Output : 'Development'
3. Write a JavaScript function that accepts a string as a parameter and counts the number of vowels within the string. Note : As the letter 'y' can be regarded as both a vowel and a consonant, we do not count 'y' as vowel here. Example string : 'The quick brown fox'. Expected Output : 5
4. Write a JavaScript function that accepts a number as a parameter and check the number is prime or not. Note : A prime number (or a prime) is a natural number greater than 1 that has no positive divisors other than 1 and itself.



Functions

1. Write a JavaScript function which accepts an argument and returns the type. Go to the editor

Note : There are six possible values that typeof returns: object, boolean, function, number, string, and undefined.

2. Write a JavaScript function which returns the n rows by n columns identity matrix.

```
1
0
0
0
-----
0
1
0
0
-----
0
0
1
0
-----
0
0
0
1
-----
```



Strings

- Write a JavaScript function to extract a specified number of characters from a string.

Test Data : `console.log(truncate_string("Robin Singh",4));` => "Robi"

- Write a JavaScript function to convert a string in abbreviated form.

Test Data : `console.log(abbrev_name("Robin Singh"));` => "Robin S."

- Write a JavaScript function to hide email addresses to protect from unauthorized user.

Test Data : `console.log(protect_email("robin_singh@example.com"));` => "robin...@example.com"

- Write a JavaScript function to parameterize a string.

Test Data : `console.log(string_parameterize("Robin Singh from USA."))` => "robin-singh-from-usa"

- Write a JavaScript function that takes a string which has lower and upper case letters as a parameter and converts upper case letters to lower case, and lower case letters to upper case. Test Data :

`console.log.swapcase('AaBbc'));` => "aAbBC"



Strings

- Write a JavaScript function to convert a string into camel case. Test Data :
`console.log(camelize("JavaScript Exercises")); => "JavaScriptExercises"`
`console.log(camelize("JavaScript exercises")); => "JavaScriptExercises"`
`console.log(camelize("JavaScriptExercises")); => "JavaScriptExercises"`
- Write a JavaScript function to uncamelize a string. Test Data :
`console.log(uncamelize('helloWorld')); => "hello world"`
`console.log(uncamelize('helloWorld','-')); => "hello-world"`
`console.log(uncamelize('helloWorld','_')); => "hello_world"`
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