



Exercise 4: JavaScript I Introduction

You can upload the files without the need to zip them. Just remember to name it accordingly.

1. Use the commands `alert()`, `prompt()` and/or `confirm()` to create a program to read the name of a user and show how many letters his name has (count only letters).

Sample Output: Mario Pereira: 12 characters

2. We have the following arrays:

```
color = ["Blue ", "Green", "Red", "Orange", "Violet",  
"Indigo"];  
order = [2, 1, 4, 5, 6, 3]
```

Write a JavaScript program to display the colors in the following way :

```
1st choice is Green.  
2nd choice is Blue.  
3rd choice is Indigo.  
...
```

3. Create a class called `Shape` that has the `type` and `perimeter` read-only properties. Create a `Triangle` class that extends `Shape`. Objects from the `Triangle` class should have three properties, `a`, `b`, and `c` representing the lengths of the sides of a triangle. Create a `Square` class from the `Shape` class, adding a property `side` for the side length. Test your implementation with the following code:

```
const t = new Triangle(1, 2, 3);  
console.log(t.type); // Triangle  
console.log(t.perimeter); // 6  
const q = new Square(2);  
console.log(q.type); // Square  
console.log(q.perimeter); // 8  
q.perimeter = 9; // Error
```



EXTRA

4. Write a JavaScript for loop that will iterate from 0 to 15. Each iteration will check if the current number is odd or even and display a message on the screen. Sample Output :

0 is even

1 is odd

2 is even

5. Write a JavaScript program to display the books' reading status (i.e., book name, author name, and reading status). Then add a new book to the list. Finally, display only books with `readingStatus` false.

```
let library = [  
  { author: 'Bill Gates',  
    title: 'The Road Ahead',  
    readingStatus: true  
  },  
  { author: 'Steve Jobs',  
    title: 'Walter Isaacson',  
    readingStatus: true  
  },  
  { author: 'Suzanne Collins',  
    title: 'Mockingjay: The Final Book of The Hunger  
Games',  
    readingStatus: false  
  }  
];
```

6. Write a JavaScript program to find the most frequent item of an array.

Sample array: `const arr1=[3, 'a', 'a', 'a', 2, 3, 'a', 3, 'a', 2, 4, 9];`

Sample Output: a (5 times)

Good luck!