

Assignment 4

Problem Statement: Given a score of the batsman and the balls he played, calculate his strike rate.

Strike rate formula : $(\text{Runs} / \text{Balls played}) * 100$

Input:

14, 21

Output:

66.67

Use only below concepts

- Functions
- Operators

Assignment 4

Problem Statement: Given a target score of a match in 50 overs game, calculate the required run rate to win the match when second innings of the match is yet to start.

Required run rate formula: *Total runs required to win / Overs Left*

Input:

300

Output:

6

Use only below concepts

- Functions
- Operators

Assignment 4

Problem Statement: Given an array of items, print the number of integers, strings, and objects present in it

Example:

Input:

[1, 2, "Ram", {name: 'Sita'}]

Output:

2,1,1

Use only below concepts

- Loop
- Array
- Conditional statements - switch

Assignment 4

Problem Statement: Given an array of person objects **{fullName, age}**, print the person list who are eligible for voting according to the Election Commission of India.

Example:

Input:

```
[{fullName: 'Sita', age: 16}, {fullName: 'Ram', age: 19}, {fullName: 'Lakshman', age: 15}]
```

Output:

```
[{fullName: 'Ram', age: 19}]
```

Use only below concepts

- Objects
- Arrays - filter

Assignment 4

Problem Statement: Given an array of integers and a number N, multiply each integer with N and print the resultant array

Example:

Input:

[1,2,3,4] 2

Output:

[2,4,6,8]

Use only below concepts

- Arrays - map

Assignment 4

Problem Statement: Given an array of strings, find the frequency of each string and print a frequency object.

Example:

Input:

`["a", "a", "b", "d", "e"]`

Output:

```
{  
  a:2,  
  b:1,  
  d:1,  
  E:1  
}
```

Use only below concepts

- Loops
- Arrays
- Objects

Assignment 4

Problem Statement: Given an object in javascript, create a new object where keys become values & vice versa.

Example:

Input:

```
{
  1: "One",
  2: "Two"
}
```

Output:

```
{
  "One": 1,
  "Two": 2
}
```

Use only below concepts

- Loops - for..in
- Objects

Assignment 4

Problem Statement: Given a string, write a function which prints the longest word in the given string.

Example:

Input:

“You progress the nation follows”

Output:

progress

Use only below concepts

- String

Assignment 4

Problem Statement: Given a string, If the user enters a letter which is in the given string then you should print the left and right side characters of that letter. If the given letter is the last letter then the user should print only left side letter. If the given letter is the first letter then user should print only right side letter. If the letter is not present in the given string then print **Given letter does not exist in the string**

Example:

Input:

IBHUBS, U

Output:

HB

Use only below concepts

- Conditional statements
- String methods

Assignment 4

Problem Statement: Given an array of objects which have student details

- 1) Remove the duplicate student details which have the same *id*
- 2) After removing the duplication, show the no. of students grade wise

A grade will be calculated using the below conditions:

Greater than equal to 8 is Distinction

Greater than equal to 7 and less than 8 -> A Grade

Greater than equal to 6 and less than 7 -> B Grade

Greater than equal to 4 and less than 6 -> C Grade

Less than 4 -> Fail

Example:

Input: [

```
{
  "name" : "John",
  "id": 1,
  "gpa" : 7.8
},
{
  "name" : "Rick",
  "id": 2,
  "gpa" : 3.9
},
{
  "name" : "Lisa",
  "id": 3,
```

Assignment 4

```
        "gpa" : 8.9
      },
      {
        "name" : "John",
        "id": 1,
        "gpa" : 8.9
      }
    ]
```

Output:

Distinction: 2

A Grade: 1

B Grade: 0

C Grade: 0

Fail: 1

Use only below concepts

- Objects
- Operators
- Conditional statements

Assignment 4

Problem Statement: There is a Person A with *firstName*, *lastName*, *carsWishList*, and *carsOwned*, you should be able to add a new car to his cars wishlist and owned cars list using functions in Javascript.

Each car will have different properties: Color, Speed, Model, Fuel type.

All the cars will be in Showroom. Whenever a car is added to a person owned list then the car should be removed from the Showroom and you should be able to add new cars to the Showroom.

Use only below concepts

- Objects
- Arrays
- Methods
- Functions