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JavaScript Assignment 2

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1. Write a Javascript function to check whether a triangle is equilateral, isosceles or scalene

//Program to check a triangle is equilateral, isosceles or scalene

```
function typeofTriangle(A,B,C) {
    if (A==B && B==C) {
        return (`Given triangle is a Equilateral Triangle with sides ${A}, ${B} and ${C}.`)
    }
    else if (A == B || A == C || B == C) {
        return (`Given triangle is an Isosceles Triangle with sides ${A}, ${B} and ${C}.`);
    }
    else {
        return (`Given triangle is a Scalene Triangle with sides ${A}, ${B} and ${C}.`)
    }
}
```

//function checking

```
let result = typeofTriangle(30,30,30);
console.log(result);
```

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2. Write a function using switch case to find the grade of a student based on marks obtained

//Program to find the grade of a student based on marks obtained

```
function findGrade(marks) {
    switch (true) {
        case (marks >=90 && marks <=100):
            return ("S Grade");
        case (marks >=80 && marks <90):
            return ("A Grade");
```

```
        case (marks >=70 && marks <80):
            return ("B Grade");
        case (marks >=60 && marks <70):
            return ("C Grade");
        case (marks >=50 && marks <60):
            return ("D Grade");
        case (marks >=40 && marks <50):
            return ("E Grade");
        case (marks >=0 && marks <40):
            return ("Student has failed");
        default:
            return ("Invalid Marks");
    }
}
```

//function checking

```
let result = findGrade(90);
console.log(result);
```

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

//Program to find sum of the multiples of 3 and 5 under 1000

```
function sumOfTwoMultiplesUnder1000(x, y) {
    let sum =0;
    for(let i=1;i<=1000;i++) {
        if (i % x ==0 && i % y ==0) {
            sum = sum +i;
        }
    }
    return sum;
}
```

//function checking

```
let result = sumOfTwoMultiplesUnder1000(3,5);
console.log(result);
```

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4. Write a program to find the factorial of all prime numbers between a given range.

```
//Program to find the factorial of all prime numbers in given range

    function factorialOfPrime(lowerRange, upperRange) {
//Logic to print Prime Numbers
        let primeNumbers =[];
        for (j=lowerRange; j <= upperRange; j++) {
            let count = 0;
            for (let i= 1 ; i <= upperRange ; i++) {
                if(j%i == 0) {
                    count++;
                }
            }
            if (count ==2) {
                primeNumbers.push(j)
            }
        }

// Logic to print Factorial

        for(let num of primeNumbers){
            let fact =1;
            for(let x=1; x<=num; x++){
                fact = fact * x;
            }
            console.log (`Factorial of ${num}! is ${fact}.`);
        }
        return (`List of Prime Numbers between ${lowerRange} and ${upperRange} is [$
    {primeNumbers}]`);

    }

//function checking

    let result = factorialOfPrime(1,20);
    console.log(result);
```