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| **Unique ID** | **:** | E0222054 |
| **Year** | **:** | II |
| **Term** | **:** | T1 |
| **Department** | **:** | B. Tech CSE (CyS & IoT) |
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| **Academic Year** | **:** | 2023-2024 |

Q1)

a)Write a javascript to convert to and from celcius, farenheit.

AIM:

ALGORITHM:

CODE:

*//Write a javascript to convert to and from celcius, farenheit prompt the user for input and output the result to the console.*

*// [ Formula : c/5 = (f-32)/9 [ where c = temperature in celcius and f = temperature in farenheit ]*

const prompt = require('prompt-sync')();

var c = prompt("Enter the temperature in celcius");

var f = prompt("Enter the temperature in farenheit");

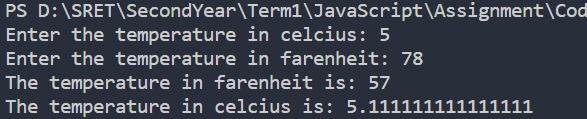
var celcius = (f-32)/9;

var farenheit = (c\*5)+32;

console.log("The temperature in farenheit is "+farenheit);

console.log("The temperature in celcius is "+celcius);

OUTPUT:



b)Write a javascript to determine whether a given year is a leap year in the Georgian calender

AIM:

ALGORITHM:

CODE:

*//Write a javascript to determine whether a given year is a leap year in the Georgian calender*

const prompt = require('prompt-sync')();

var year = prompt("Enter the year: ");

if(year%4==0&&year%100!=0||year%400==0){

    console.log("It is a leap year");

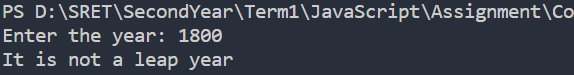
}

else{

    console.log("It is not a leap year");

}

OUTPUT:



c)Write a javascript to display square and cube of a number from 1 to 10 in web browser.

AIM:

ALGORITHM:

CODE:

index.html

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Square and cube</title>

</head>

<body>

    <table border = 1 align="centre">

        <th>Number</th>

        <th>Square</th>

        <th>Cube</th>

        <script type="text/javascript" src="index.js"></script>

    </table>

</body>

</html>

index.js

for(let i=1;i<=10;i++){

    document.write(

        "<tr><td>"+

        i+

        "</td><td>"+

        i\*i+

        "</td><td>"+

        i\*i\*i+

        "</td></tr>"

    );

}

Q2)

1. Write a javascript to display whether a number is prime or not in alert box.

AIM:

ALGORITHM:

CODE:

<!DOCTYPE html>

<html>

<head>

    <title>Q2a</title>

</head>

<body>

    <script type="text/javascript">

        var num = prompt("Enter a number");

        var flag = 0;

        for(var i=2; i<num; i++){

            if(num%i == 0){

                flag = 1;

                break;

            }

        }

        if(flag == 0){

            alert(num + " is a prime number");

        }

        else{

            alert(num + " is not a prime number");

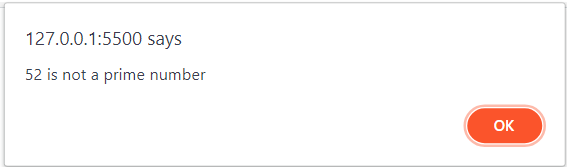
        }

    </script>

</body>

</html>

OUTPUT:



1. Write a javascript for performing calculator operations(+,-,\*,/,%) using switch case.

AIM:

ALGORITHM:

CODE:

const prompt = require('prompt-sync')();

var num1 = prompt("Enter the first number: ");

var num2 = prompt("Enter the second number: ");

var operator = prompt("Enter the operator: ");

switch(operator){

    case '+':

        console.log("The sum is: "+(num1+num2));

        break;

    case '-':

        console.log("The difference is: "+(num1-num2));

        break;

    case '\*':

        console.log("The product is: "+(num1\*num2));

        break;

    case '/':

        console.log("The quotient is: "+(num1/num2));

        break;

    case '%':

        console.log("The remainder is: "+(num1%num2));

        break;

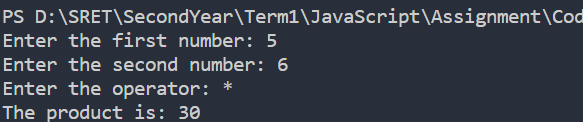
    default:

        console.log("Invalid operator");

        break;

}

OUTPUT:



Q3)

a)Write a javascript to find sum of elements in array using function (prompt the inputs from user)

AIM:

ALGORITHM:

CODE:

const prompt = require('prompt-sync')();

var arr = [];

var n = parseInt(prompt("Enter the number of elements: "));

for(var i=0;i<n;i++){

    arr[i] = parseInt(prompt("Enter the element: "));

}

var sum = 0;

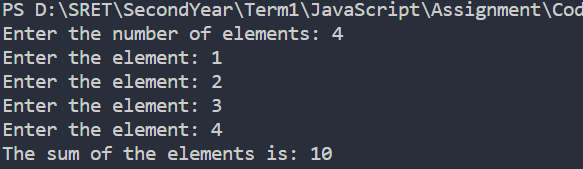
for(var i=0;i<n;i++){

    sum = sum + arr[i];

}

console.log("The sum of the elements is: "+sum);

OUTPUT:



b)Write a recursive function in javascript to print fibonacci series (prompt input from the user)

AIM:

ALGORITHM:

CODE:

const prompt = require('prompt-sync')();

var n = parseInt(prompt("Enter the number of terms: "));

var a = 0;

var b = 1;

var c;

console.log(a);

function fibo(n){

    if(n>0){

        c = a+b;

        a = b;

        b = c;

        console.log(a);

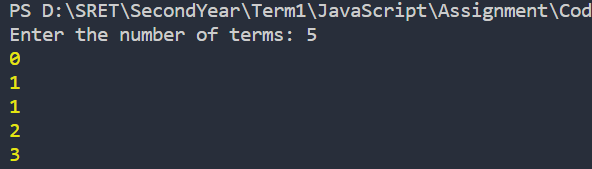
        fibo(n-1);

    }

}

fibo(n-1);

OUTPUT:



Q4)

Create an object called 'person' with the following properties

• 'name' (string)

•'age' (number)

• 'gender' (String)

• 'isStudent' (Boolean)

• Create a method called 'greet' for the 'person' object that logs a greeting message to the console, including the person's name and age

Access the 'name' property of the 'person' object and store it in a variable called 'personName'

ii) Add a new property 'city' to the 'person' object and set its value to a city of your choice. Also, modify the 'age' property to increase it by 5

iii) Loop through the 'person' object and log each property and its value to the console

iv) Create another object called 'address' as a nested object within 'person'

with the following properties

'street' (string)

'postalCode' (string)

Access the 'postalCode' property inside the 'address' object and store it in a variable called 'postC

AIM:

ALGORITHM:

CODE:

var person = {

        name: "Sai",

        age: 20,

        gender: ‘Male’,

        isStudent: true,

        greet: function(){

            console.log("Hello "+this.name+" your age is "+this.age);}

    };

    var personName = person.name;

    person.city = "Hyderabad";

    person.age = person.age + 5;

    for(var key in person){

        console.log(key+" : "+person[key]);

    }

    var address = {

        street: "xyz",

        postalCode: "123"

    };

    var postC = address.postalCode;

    console.log(postC);

    person.address = address;

    console.log(person.address.postalCode);

    person.greet();

    console.log(personName);

    console.log(person.age);

OUTPUT:

