**ASSIGNMENT 1**

1)

<!DOCTYPE html>

<html lang="en">

    <head>

        <meta charset="utf-8"/>

        <title>javaScript Basics</title>

    </head>

    <body>

        <script src="indextest.js">

            </script>

    </body>

</html>

var num=window.prompt("enter the number:");

var n=parseInt(num);

var sum=0;

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

    sum=sum+i;

}

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

2)

var num=window.prompt("enter the number:");

var n=parseInt(num);

var sum=0;

for(var i=0;i<=n;i++){

    if(i%3===0 || i%5===0){

    sum=sum+i;

    }

}

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

3)

var num=window.prompt("enter the number:");

var n=parseInt(num);

function getNum(a){

    if(a%2===0){

        document.write("Is even");

    }else{

   document.write("Is odd");

    }

}

var myRes=getNum(n);

4)

function flipCoin(){return Math.random()<.5;}

function getNumberOfCoins(){

var r=prompt("How many flips?");

if(isNaN(r)){

alert("Please type a number!");

return getNumberOfCoins();

}

if(!r)r=0;

return Math.floor(Number(r));

}

function coinFlip()

{

var f=getNumberOfCoins();

var heads=0;

var tails=0;

for(var i=0;i<f;i++)

{

flipCoin()?heads++:tails++;

}

{

alert("heads: "+heads+"\ntails: "+tails);

}

}

5)

var num=window.prompt("enter the year:");

var counter=20;

var result=true;

function leapyear(year,counter,result){

    while(counter>=0){

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

            result =true;

            console.log(year);

            year++;

            counter--;

        }

        else{

            year++;

        }

    }

}

8)

var myArray1=['a','b','c'];

var myArray2=[1,2,3];

console.log(myArray1.concat(myArray2));

9)

var array1 = ["a", "b", "c"],

    array2 = [1, 3],

    result = [],

    i, l = Math.min(array1.length, array2.length);

for (i = 0; i < l; i++) {

    result.push(array1[i], array2[i]);

}

result.push(...array1.slice(l), ...array2.slice(l));

console.log(result);

10)

const number = parseInt(prompt('Enter the number of terms: '));

let n1 = 0, n2 = 1, nextTerm;

console.log('Fibonacci Series:');

for (let i = 1; i <= number; i++) {

    console.log(n1);

    nextTerm = n1 + n2;

    n1 = n2;

    n2 = nextTerm;

}

11)

const a = [1, 2, 3];

console.log(a); // [1, 2, 3]

a.reverse();

console.log(a);

15)

let bubbleSort = (inputArr) => {

    let len = inputArr.length;

    for (let i = 0; i < len; i++) {

        for (let j = 0; j < len; j++) {

            if (inputArr[j] > inputArr[j + 1]) {

                let tmp = inputArr[j];

                inputArr[j] = inputArr[j + 1];

                inputArr[j + 1] = tmp;

            }

        }

    }

    return inputArr;

};

**ASSIGNMENT-2**

**FUNCTIONAL PROGRAMMING**

**<!DOCTYPE html>**

**<html lang="en">**

**<head>**

**<meta charset="utf-8"/>**

**<title>Java Script</title>**

**</head>**

**<body>**

**<script src="test1.js">**

**</script>**

**</body>**

**</html>**

1)

var n=window.prompt("enter the value");

var value=parseInt(n);

function square(x)

{

return (x\*x);

}

function double(x)

{

return (x\*2);

}

console.log(square(double(value)));

3)

function isEven(num)

{

if(num%2===0)

{

document.write(num +"<br />");

}

}

var arr = [1, 2, 3, 4, 5, 6];

arr.forEach(isEven);

4)

let square=(Element)=>Element\*\*2

let arr=[1,2,3,4,5]

let sq=arr.map(square);

console.log(sq);

const root=sq.map(Math.sqrt);

console.log("the squareroots are " +root);

Output:

[1, 4, 9, 16, 25]

the squareroots are 1,2,3,4,5

ASSIGNMENT-3

1)

class Rectangle{

constructor(width,height){

this.width=width;

this.height=height;

}

}

let r=new Rectangle(3,2);

let area=r.width\*r.height;

console.log(area);

Output:

6

2)

class Rectangle{

constructor(width,height){

this.width=width;

this.height=height;

}

getArea(){

return this.width\*this.height;

}

}

let r=new Rectangle(4,5);

console.log(r.getArea());

Output:

20

3)

class Rectangle{

constructor(width,height){

[this.width

,this.height]=[width,height];

}

area()

{

return this.width\*this.height;

}

}

let r=new Rectangle(4,5);

r.height=50;

console.log(r.area());

Output:

200