Functional Programming:

**Assignment-2**

**Q. 1. Make a function called composed value takes two functions f1 and f1 and a value and returns f1(f2(value)) .**

**Ans.**

function composedValue(){

    return square(double(5));

}

function square(x){

    return x\*x;

}

function double(x){

    return x\*2;

}

document.write(composedValue())

**Q 2.Make a function called composed that takes two functions f1 and f2 and returns a new function that when called on a value, will return f1(f2(value))**

**Ans.**

function composedValue(){

    function compose(){

        return square(double(5));

    }

    function square(x){

        return x\*x;

    }

    function double(x){

        return x\*2;

    }

    var f1=compose()

    return f1;

    }

document.write(composedValue())

Q3. Make a function called “find” that takes an array and a test function, and returns the first element of the array that passes the test.

Ans.

var a = [1,3,5,4,2];

find(a,test);

function find(a,test)

{

    for(i=0;i<a.length; i++)

    {

        if(test(a[i]) == True)

        {

            document.write(a[i]);

            break;

        }

    }

}

function test(n){

    if( n%2==0)

        return True;

    else

        return False;

}

4. make a function same as map returns value and takes an array and a function as parameter?

Ans.

function map1(arr, square){

    var arr1=[];

    for(var i=0;i<arr.length;i++){

        arr1[i]=square(arr[i])

    }

    return arr1;

}

function square(n){

    return n\*n;

}

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

document.write(map1(arr,square))

Functional programming

Q1. Make a pure recursive function of find.

Ans.

function find()

{

    if(even(a[i])== true)

    {

        document.write(a[i]);

        return;

    }

    else{

        i++;

        find(-);

    }

}

function even(n){

    if(n%2==0){

        return true;

    }

    else{

        return false;

    }

}

var i=0;

var a=[1,3,4,5,7];

find();

Q2.Make a pure recursive version of map. Remember slice and concat methods of arrays.

Ans. var i=0;

function map()

{

    if(i == a.length)

    return;

    else{

           f1[i]=(square(a[i]));

    i++;

    map();

    }

}

function square(n){

    return n\*n;

}

var f1=[]

a=[1,4,3,5,6,7]

map()

document.write(f1)

Q3.Javascript define anonymous function and call them right on the spot.

Ans.

function anonymous(){

    var a=" 'nevertheless'";

    return a

}

console.log(anonymous())