JavaScript Simple Coding Problem

21-1 Module Introduction, Math and Random number

```
const myNumber= -5;
const output= Math.abs(myNumber);
console.log(output);

const number=21.003888;
const output1=Math.ceil(number);
console.log(output1);

console.log(Math.round(34.78));
console.log(Math.random());
```

21-2 Swap variable, swap without temp, destructing

```
var num1=5,num2=8;
console.log(num1,num2);

var temp=num1;
num1=num2;
num2=temp;

console.log(num1,num2);

// destructuring
[num1,num2]=[num2,num1];
console.log(num1,num2);

var a = 5;
var b = 7;
console.log("before swap: a =", a, "b =", b);
// solution 1
var temp = a;
a = b;
b = temp;
console.log("after swap: a =", a, "b =", b);
// solution 2
var x = 5;
var y = 7;
console.log("before swap: x =", x, "y =", y);
[x, y] = [y, x];
```

```
console.log("after swap: x =", x, "y =", y);
//solution 3
var p = 5;
var q = 7;
console.log("before swap: p =", p, "q =", q);
p = p + q;
q = p - q;
p = p - q;
console.log("after swap: p =", p, "q =", q);
```

21-3 Find max of two values, find max of three values

```
var a = 15;
var b = 69;
// solution 1
if (a > b) {
  console.log("a is bigger", a);
} else {
  console.log("b is bigger", b);
}
//solution 2
var max = Math.max(a, b);
console.log("max value is ", max);

//max in an array
var nums = [4, 7, 1, 34, 56, 112, 65, 43];
var largest = nums[0];

for (var i = 0; i < nums.length; i++) {
  var element = nums[i];
  if (element > largest) {
    largest = element;
  }
}
console.log("largest is", largest);
```

21-4 Sum of all numbers in an array

```
var nums = [23, 54, 1, 3, 54, 76, 45];

var sum = 0;
for (var i = 0; i < nums.length; i++) {
  var element = nums[i];
```

```
  sum = sum + element;
}
console.log("the total is: ", sum);

function arrayTotal(number)
{
    var sum = 0;
    for (var i = 0; i < number.length; i++) {
      var element = number[i];
      sum = sum + element;
    }
    return sum;
}

const total = arrayTotal([23, 54, 1, 3, 54, 76, 45]);
console.log(total);
```

21-5 Find the largest element of an array

```
function largetElement(num)
{
    let largest=0;
    for(let i=0;i<num.length;i++)
    {
        if(num[i]>largest)
        {
            largest=num[i];
        }
    }
    return largest;
}

const age=[12,13,14,15,16,17,18,19];
console.log(largetElement(age));
```

21-6 Create a Fibonacci Series using a for loop

```
// const fibo=[0,1];
// for(let i=2;i<=10;i++)
// {
//     // nth=(n-1)th+(n-2)th
//     // ith=(i-1)th+(i-2);
//     fibo[i]=fibo[i-1]+fibo[i-2];
```

```
// }
// console.log(fibo);

// // Function
// function fiboSerice(num)
// {
//     const fibo=[0,1];
//     for(let i=2;i<num;i++)
//     {
//         fibo[i]=fibo[i-1]+fibo[i-2];
//     }
//     return fibo;
// }
// console.log(fiboSerice(10));

function fiboSerice(num) {
  if (typeof num != "number")
  {
    return "Please give a number";
  }
  if(num<2)
  {
      return 'Please enter a positive number greather than 1';
  }
  const fibo = [0, 1];
  for (let i = 2; i < num; i++)
  {
    fibo[i] = fibo[i - 1] + fibo[i - 2];
  }
  return fibo;
}
console.log(fiboSerice("dsrfsd"));
console.log(fiboSerice(-34));
console.log(fiboSerice(10));
```

21-7 Handle unexpected input using simple return