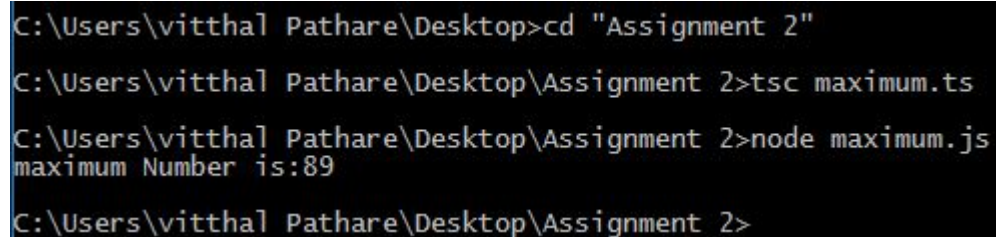


## Problem 1

```
function Maximum():number
{
    var Arr:number[] = [23, 89, 6, 29, 56, 45, 77, 32];
    var max:number = Arr[0];
    for(var i = 0; i < Arr.length; i++)
    {
        if(Arr[i] > max)
        {
            max = Arr[i];
        }
    }

    return max;
}
var maxnum:number;
maxnum = Maximum();
console.log("maximum Number is:" + maxnum);
```

OUTPUT

A screenshot of a Windows command prompt window with a black background and white text. The prompt shows the user navigating to the 'Assignment 2' directory, compiling the TypeScript file 'maximum.ts' using 'tsc', and then running the resulting JavaScript file 'maximum.js' using 'node'. The output of the program is 'maximum Number is:89'.

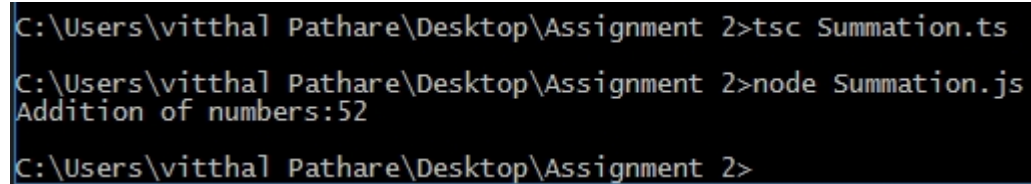
```
C:\Users\vitthal Pathare\Desktop>cd "Assignment 2"
C:\Users\vitthal Pathare\Desktop\Assignment 2>tsc maximum.ts
C:\Users\vitthal Pathare\Desktop\Assignment 2>node maximum.js
maximum Number is:89
C:\Users\vitthal Pathare\Desktop\Assignment 2>
```

## Problem 2

```
function Summation():number
{
    var Arr:number[] = [23, 6, 7, 4, 5, 7];
    var total:number = 0;
    for(var i = 0; i < Arr.length; i++)
    {
        total = total + Arr[i];
    }
    return total;
}

var iret:number;
iret = Summation();
console.log("Addition of numbers:" + iret);
```

OUTPUT



```
C:\Users\vitthal Pathare\Desktop\Assignment 2>tsc Summation.ts
C:\Users\vitthal Pathare\Desktop\Assignment 2>node Summation.js
Addition of numbers:52
C:\Users\vitthal Pathare\Desktop\Assignment 2>
```

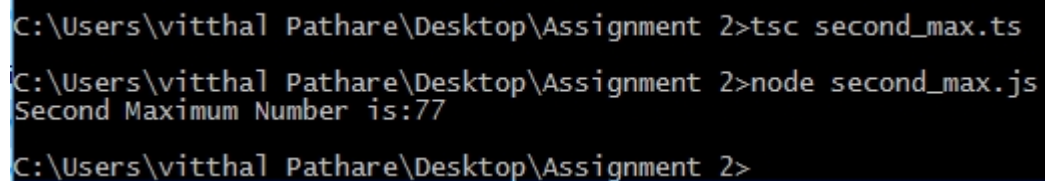
### Problem 3

```
function Maximum():number
{
    var Arr:number[] = [23, 89, 6, 29, 56, 45, 77, 32];
    var max:number = 0;
    var secondmax:number = 0;

    for(var i = 0; i < Arr.length; i++)
    {
        if(Arr[i] > max)
        {
            secondmax = max;
            max = Arr[i];
        }
        else if((Arr[i] > secondmax) && (max != Arr[i]))
        {
            secondmax = Arr[i];
        }
    }
    return secondmax;
}
```

```
var iret:number;
iret = Maximum();
console.log("Second Maximum Number is:" + iret);
```

OUTPUT



```
C:\Users\vitthal Pathare\Desktop\Assignment 2>tsc second_max.ts
C:\Users\vitthal Pathare\Desktop\Assignment 2>node second_max.js
Second Maximum Number is:77
C:\Users\vitthal Pathare\Desktop\Assignment 2>
```

#### Problem 4

```
var ChkArmstrong = (No:number)=>
{
  var digit:number , total:number , cnt:number , i:number = 0;
  var power:number = 1;

  var temp:number = 0;
  temp = No;

  while(temp != 0)
  {
    cnt++;
    temp = temp / 10;
  }

  temp = No;

  while(temp != 0)
  {
    digit = temp % 10;
    for(i = 1 ; i <= cnt ; i++)
    {
      power = power * digit;
    }
    total = total + power;
    power = 1;
    temp = temp / 10;
  }

  if(total == No)
  {
    return true;
  }
  else
  {
    return false;
  }
}

var res:boolean;
res = ChkArmstrong(153);
if(res == true)
{
  console.log("Number is not Armstrong");
}
else
{
  console.log("Number is Armstrong");
}
```

OUTPUT

```
C:\Users\vitthal Pathare\Desktop\Assignment 2>tsc Armstrong.ts
C:\Users\vitthal Pathare\Desktop\Assignment 2>node Armstrong.js
Number is Armstrong
C:\Users\vitthal Pathare\Desktop\Assignment 2>
```

Problem 5

```
var ChkString = ()=>
{
    var str:string = "Pune Kothrud Marvellous Infosystems";
    var search = /Marvellous/i;

    if(search.test(str)){
        return true;
    }
    else{
        return false;
    }
}

var res:boolean;
res = ChkString();
if(res == true)
{
    console.log("String contains Marvellous in it");
}
else
{
    console.log("No such String..");
}
```

OUTPUT

```
C:\Users\vitthal Pathare\Desktop\Assignment 2>tsc String_check.ts
C:\Users\vitthal Pathare\Desktop\Assignment 2>node String_check.js
String contains Marvellous in it
C:\Users\vitthal Pathare\Desktop\Assignment 2>
```