

## Assignment1\_ONE.ts

### Program

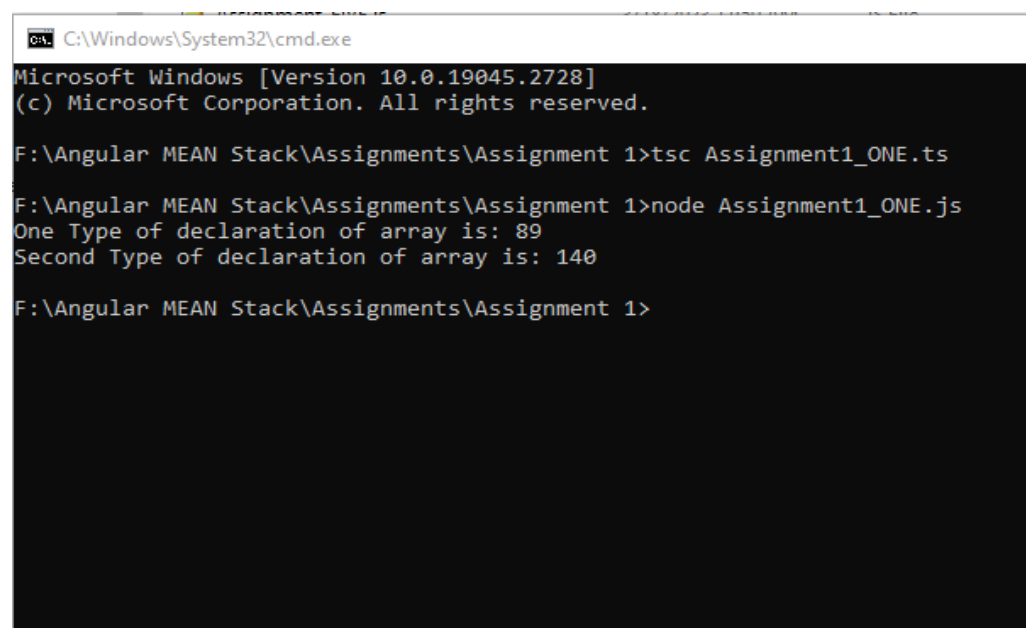
```
function Maximum(num:number[]):number
{
    var max:number = num[0];
    var iCount:number = 0;
    for(iCount = 1;iCount < num.length;iCount++)
    {
        if(max < num[iCount])
            max = num[iCount];
    }
    return max;
}

var IstNumbers:number[] = [23,89,6];

var largestNumber:number = Maximum(IstNumbers);

console.log("One Type of declaration of array is: "+largestNumber);
var IstNumbersType2:number[] = new Array(10,20,30,140,50,60,90,);
var largestNumber:number = Maximum(IstNumbersType2);
console.log("Second Type of declaration of array is: "+largestNumber);
```

### Output:



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.2728]
(c) Microsoft Corporation. All rights reserved.

F:\Angular MEAN Stack\Assignments\Assignment 1>tsc Assignment1_ONE.ts

F:\Angular MEAN Stack\Assignments\Assignment 1>node Assignment1_ONE.js
One Type of declaration of array is: 89
Second Type of declaration of array is: 140

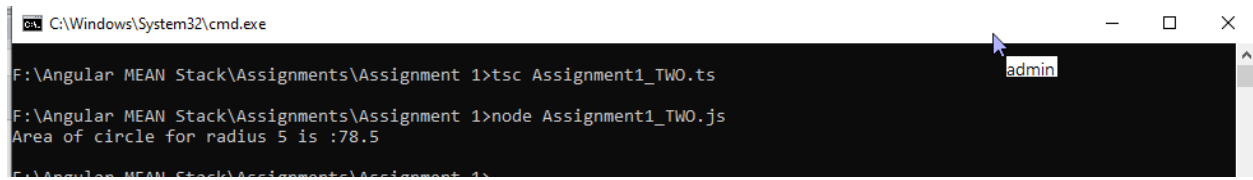
F:\Angular MEAN Stack\Assignments\Assignment 1>
```

## Assignment1\_TWO.ts

### Program

```
function Area(radius:number):number
{
    var area:number = 0;
    const pi:number = 3.14;
    area = pi*radius*radius;
    return area;
}
var radius = 5;
var area:number = Area(radius);
console.log("Area of circle for radius "+radius+" is :"+area);
```

### Output:



The screenshot shows a Windows command prompt window titled "C:\Windows\System32\cmd.exe". The user has entered the following commands and received the following output:

```
F:\Angular MEAN Stack\Assignments\Assignment 1>tsc Assignment1_TWO.ts
F:\Angular MEAN Stack\Assignments\Assignment 1>node Assignment1_TWO.js
Area of circle for radius 5 is :78.5
F:\Angular MEAN Stack\Assignments\Assignment 1>
```

A mouse cursor is visible over the window, and a small "admin" label is present near the cursor.

## Assignment1\_THREE

### Program:

```
function DisplayFactors(InputNumber:number):number[]
{
    var iCount = 1;
    var lstFactors:number[] = new Array();

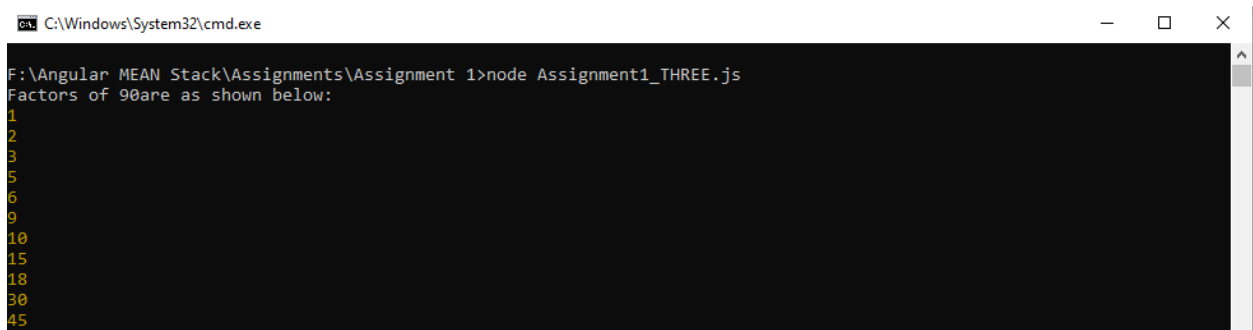
    for(iCount = 1;iCount < InputNumber;iCount++)
    {
        if(InputNumber % iCount == 0)
            lstFactors.push(iCount);
    }

    return lstFactors;
}
var InputNumber:number = 90;
var lstFactors:number[] = DisplayFactors(InputNumber);
var iCount:number = 0;

console.log("Factors of " +InputNumber+"are as shown below:");

for(iCount = 0;iCount<lstFactors?.length;iCount++)
{
    console.log(lstFactors[iCount]);
}
```

### Output:



```
C:\Windows\System32\cmd.exe
F:\Angular MEAN Stack\Assignments\Assignment 1>node Assignment1_THREE.js
Factors of 90are as shown below:
1
2
3
5
6
9
10
15
18
30
45
```

## Assignment1\_FOUR.ts

### Problem:

```
function Fibonacci(p_iNumber:number):void
{
    var iNumber1:number = 0;
    var iNumber2:number = 1;

    var Sum:number = 0;

    while(Sum < p_iNumber)
    {
        console.log(iNumber2);
        Sum = iNumber1+iNumber2;
        iNumber1 = iNumber2;
        iNumber2 = Sum;
    }
}
```

Fibonacci(12);

### Output:

```
F:\Angular MEAN Stack\Assignments\Assignment 1>node Assignment_FIVE.js
1
1
2
3
5
8
F:\Angular MEAN Stack\Assignments\Assignment 1>
```

## Assignment1\_FIVE.ts

### Program:

```
function IsItPrimeNumber(p_iNumber:number):boolean
{
    var f_boolStatus:boolean = false;
    var iCount:number = 1;

    if(p_iNumber == 2)
    {
        f_boolStatus = true;
        return f_boolStatus;
    }
    else if(IsEvenNumber(p_iNumber))
    {
        f_boolStatus = false;
        return f_boolStatus;
    }

    var iDivisibleCount:number = 0;

    for(iCount=1;iCount<=p_iNumber;iCount++)
    {
        if(p_iNumber % iCount == 0)
            iDivisibleCount++;
    }
    if(iDivisibleCount == 2)
    {
        f_boolStatus = true;
        return f_boolStatus;
    }
    else if(iDivisibleCount > 2)
    {
        f_boolStatus = false;
        return f_boolStatus;
    }

    return f_boolStatus;
}

function IsEvenNumber(p_iNumber:number):boolean
{

```

```
        if(p_iNumber % 2 == 0)
            return true;
        else
            return false;
    }

    var InputNumber:number = 12;

    if(InputNumber == 1)
        console.log("1 is a non-prime number");
    else
    {
        if(IsItPrimeNumber(InputNumber))
            console.log(InputNumber+ " is Prime Number");
        else
            console.log(InputNumber + " is not Prime Number");
    }
}
```

**Output:**

```
F:\Angular MEAN Stack\Assignments\Assignment 1>node Assignment_FOUR.js
12 is not Prime Number

F:\Angular MEAN Stack\Assignments\Assignment 1>
```