Tejas Bhandare   Assignment – 01

Question 1

```typescript
function PrintMaxNumber(Num1 : number, Num2 : number, Num3 :
number) : number
{
    if(Num1 > Num2 && Num1 >Num3)
    {
        return Num1;
    }
    else if(Num2 > Num1 && Num2 >Num3)
    {
        return Num2;
    }
    else
    {
        return Num3;
    }
}

var No1 : number = 23;
var No2 : number = 89;
var No3 : number = 6;
var MaxNum : number = 0;

MaxNum = PrintMaxNumber(No1, No2, No3);

console.log("Maximum number is "+MaxNum)
```

Output :

```
C:\Windows\system32\cmd.e:    ✕    +    ⌄                                    —    ☐    ✕

Microsoft Windows [Version 10.0.22631.2715]
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D:\Courses\Full Stack Angular Web Development with MEAN Stack\Class Assignme
nts\Assignment1>tsc Question1.ts

D:\Courses\Full Stack Angular Web Development with MEAN Stack\Class Assignme
nts\Assignment1>node Question1.js
Maximum number is 89

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nts\Assignment1>
```

Question 2

```typescript
function CalculateArea (Radius : number) : number
{
    var PI : number = 3.14;
    var Area = PI*(Radius*Radius);
    return Area;
}

var CircleRadius : number = 5;
var CircleArea : number = CalculateArea(CircleRadius);

console.log("Area of circle is "+CircleArea);
```

Output :

```
C:\Windows\system32\cmd.e:    ✕    +    ⌄                                    —    ☐    ✕

D:\Courses\Full Stack Angular Web Development with MEAN Stack\Class Assignme
nts\Assignment1>tsc Question2.ts

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nts\Assignment1>node Question2.js
Area of circle is 78.5

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nts\Assignment1>
```
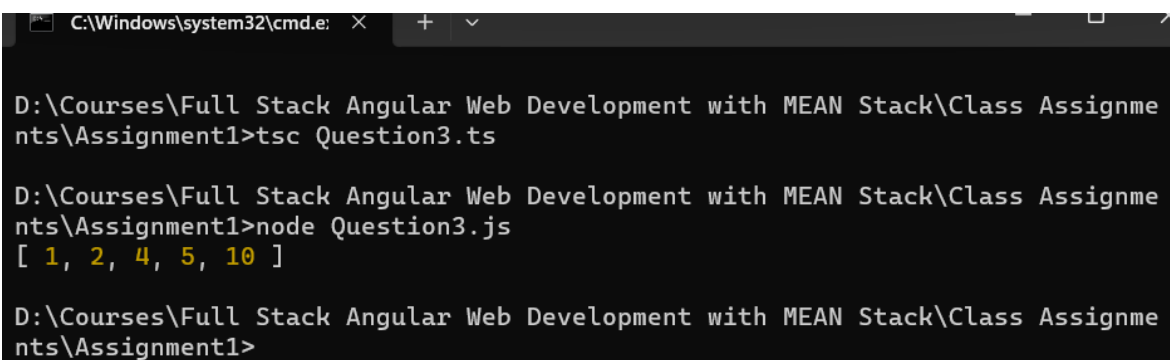
Question 3

```typescript
function DisplayFactors (Num1 : number) : number[]
{
    var CurNum : number = 1;
    var Factors : number [] = [];

    while(CurNum < Num1)
    {
        if(Num1 % CurNum == 0)
        {
            Factors.push(CurNum);
        }
        CurNum++;
    }

    return Factors;
}

var No1 : number = 20;
console.log(DisplayFactors(No1));
```

Output :


```
D:\Courses\Full Stack Angular Web Development with MEAN Stack\Class Assignme
nts\Assignment1>tsc Question3.ts

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nts\Assignment1>node Question3.js
[ 1, 2, 4, 5, 10 ]

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nts\Assignment1>
```

Question 4

```typescript
function CHkPrime(Num1 : number) : boolean
{
    if(Num1 == 2 || Num1 == 3 || Num1 == 5 || Num1 == 7)
    {
        return true;
    }
    else if (Num1 % 2 == 0 || Num1 % 3 == 0 || Num1 % 5 == 0
|| Num1 % 7 == 0)
    {
        return false;
    }
    else
    {
        return true;
    }
}

var No1 : number = 11;
var Result : boolean = CHkPrime(No1);

if(Result == true)
{
    console.log("Number "+No1+" is a Prime Number");
}
else
{
    console.log("Number "+No1+" not a Prime Number");
}
```

Output :

```
D:\Courses\Full Stack Angular Web Development with MEAN Stack\Class Assignme
nts\Assignment1>tsc Question4.ts

D:\Courses\Full Stack Angular Web Development with MEAN Stack\Class Assignme
nts\Assignment1>Question4.js

D:\Courses\Full Stack Angular Web Development with MEAN Stack\Class Assignme
nts\Assignment1>node Question4.js
Number 11 is a Prime Number
```

Question 5

```typescript
function printFibonacci ( num : number) : number[]
{
    var fibonacciSeries : number[] = [];
    var curNum : number = 0;
    var preNum : number = 1;
    var temp : number = 0

    while (curNum <= num) {
        fibonacciSeries.push(curNum);
        temp = curNum + preNum;
        preNum = curNum;
        curNum = temp;
    }
    return fibonacciSeries
}

var No1 : number = 21;
console.log(printFibonacci(No1));
```

Output :

```
D:\Courses\Full Stack Angular Web Development with MEAN Stack\Class Assignme
nts\Assignment1>tsc Question5.ts

D:\Courses\Full Stack Angular Web Development with MEAN Stack\Class Assignme
nts\Assignment1>node Question5.js
[
   0,  1,  1,  2, 3,
   5,  8, 13, 21
]

D:\Courses\Full Stack Angular Web Development with MEAN Stack\Class Assignme
nts\Assignment1>
```