Marvellous Infosystems : Angular Assignment 2

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1. **Write a typescript program which contains one function named as Maximum. That function accepts array of numbers and returns the largest number from array.**
   Input: 23 89 6 29 56 45 77 32
   Output: Maximum number is 89

   Answer:

```
function Maximum(num1: number, num2: number, num3: number, num4: number, num5: number, num6: number, num7: number, num8: number): number
{
let max = num1;
if (num2 > max) {
max = num2;
}
if (num3 > max) {
max = num3;
}
return max;
}
const num1 = 23;
const num2 = 89;
const num3 = 6;
const num4 = 29;
const num5 = 56;
const num6 = 45;
const num7 = 77;
const num8 = 32;
```

```
const maxNum = Maximum(num1, num2, num3, num4, num5, num6, num7, num8);
console.log(`Maximum number is ${maxNum}`);
```

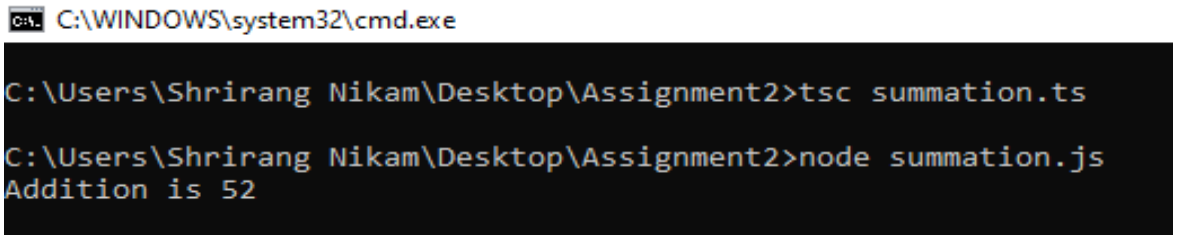
Output Screen:

2. **Write a typescript program which contains one function named as Summation. That function accepts array of numbers and returns the summation of each number from array.**
   Input: 23 6 7 4 5 7
   Output: Addition is 52

Answer:

```
function Summation(numbers: number[]): number {
  let sum = 0;
  for (let i = 0; i < numbers.length; i++) {
    sum += numbers[i];
  }
  return sum;
}

const numbers: number[] = [23, 6, 7, 4, 5, 7];
const result: number = Summation(numbers);
console.log(`Addition is ${result}`);
```

Output Screen:



3. **Write a typescript program which contains ome function named as Maximum. That function accepts array of numbers and returns the second largest number from array.**

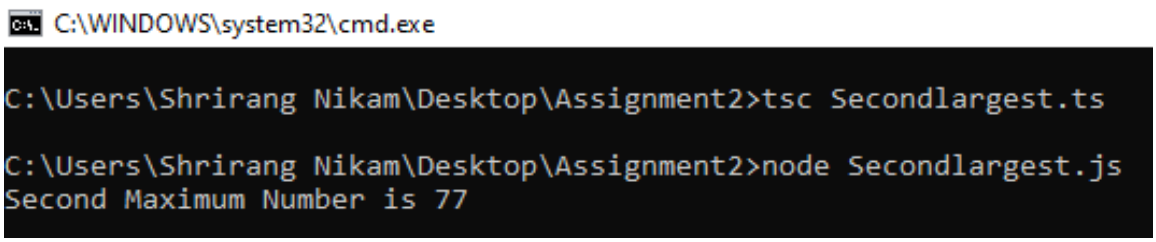
Input: 23 89 6 29 56 45 77 32
Output: Second Maximum Number is 77

Answer:

```
function Maximum(numbers: number[]): number {
 if (numbers.length < 2) {
 throw new Error("Array must have at least two numbers.");
}

 let max = -Infinity;
 for (let i = 0; i < numbers.length; i++) {
 if (numbers[i] > max) {
 max = numbers[i];
 }
 }

 let secondMax = -Infinity;
 for (let i = 0; i < numbers.length; i++) {
 if (numbers[i] > secondMax && numbers[i] < max) {
```

```
  secondMax = numbers[i];
    }
  }

  return secondMax;
}
const numbers = [23, 89, 6, 29, 56, 45, 77, 32];
const secondMax = Maximum(numbers);
console.log(`Second Maximum Number is ${secondMax}`);
```

Output Screen:



4. **Write a typescript program which contains one arrow function named as check Armstrong. That function accepts one numbers and check whether number is Armstrong number or not.**

   Input: 153

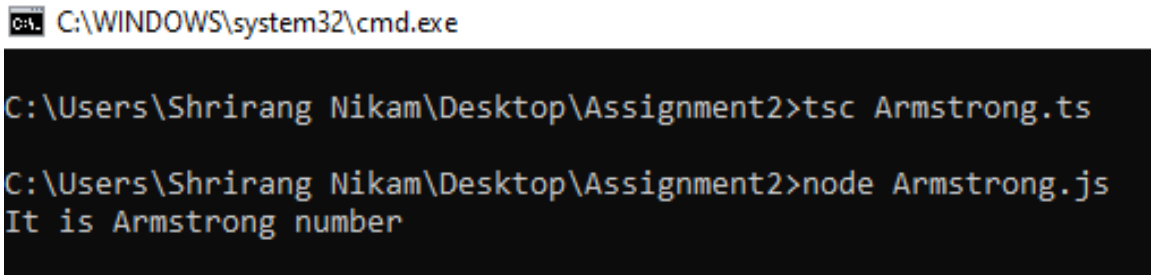
   Output: It is Armstrong number

   Answer:

```
const checkArmstrong = (num: number): string => {
  const numStr = num.toString();
  const len = numStr.length;

  let sum = 0;
  for (let i = 0; i < len; i++) {
    const digit = parseInt(numStr[i]);
    sum += digit ** len;
```

```
 }

 if (sum === num) {
  return "It is Armstrong number";
 } else {
  return "It is not Armstrong number";
 }
};

const num = 153;
console.log(checkArmstrong(num));
```

Output Screen:



5. **Write a typescript program which contains one function named as Check String. That function accept one string and check whether that string contains “Marvellous” word or not.**
   Input: “Pune Kothrud Marvellous Infosystems”
   Output: String Contains Marvellous in it.

   Answer:

```
function checkString(str: string): string {

 if (str.includes("Marvellous")) {
  return "String Contains Marvellous in it.";
 } else {
  return "String does not contain Marvellous.";
 }
}
const str = "Pune Kothrud Marvellous Infosystems";
```

```
console.log(checkString(str));
```