

TypeScript Arrays

// Array Declaration and Initialisation

```
var fruit1 : string = "Mango";
```

```
var fruit2 : string = "Apple";
```

```
var fruit3 : string = "Banana";
```

// #1 way

```
var fruits : string[] = ["Mango", "Apple", "Banana"];
```

```
console.log(fruits);
```

// #2 way

```
Var fruits1 : Array<string> = ["Mango", "Apple", "Banana"];
```

// Access 1D Array elements in TypeScript

```
console.log(fruits[0]); // Mango
```

```
console.log(fruits[1]); // Apple
```

```
console.log(fruits[2]); // Banana
```

```
console.log(fruits[3]);
```

// length of the array elements

```
console.log(fruits.length);
```

// Access 1D Array Elements using Looping

```
console.log("Access Array Elements using for loop");
```

```
for(var i = 0; i < fruits.length; i++){
```

```
    console.log(fruits[i]);    // Mango, Apple , Banana
```

```
}
```

```
console.log("Exited the loop");
```

```
// Access 1D Array elements using for...in loop
```

```
console.log("Access Array Elements using for...in loop");
```

```
for(var j in fruits){  
    console.log(fruits[j]);  
}
```

```
// 2D arrays
```

```
var num2 : number[][] = [[10,20],[30,40],[50,60]];
```

```
console.log(num2);
```

```
// Access 2D Array using for loop
```

```
console.log("Access Array Elements using for loop");
```

```
for(var i = 0; i < num2.length; i++){  
    for( var j = 0; j < num2[i].length; j++){  
        console.log(num2[i][j]); // 10, 20, 30, 40,  
    }  
}
```

```
// Access 2D Array elements using for...in loop
```

```
console.log("Access Array Elements using for...in loop");
```

```
for(var i1 in num2){  
    for(var j1 in num2[i1]){  
        console.log(num2[i1][j1]);  
    }  
}
```

```
// Array methods
```

```
var num1 : number[] = [1,2,3,4,5];
```

```
console.log(num1);
```

// push(): Adds one or more elements to the end of an array and returns the new length of the array.

```
console.log(num1.push(200));  
console.log("After Push :",num1);
```

//pop() : Removes the last element from an array and returns that element.

```
console.log(num1.pop());  
console.log("After Pop :",num1);
```

//concat() : Returns a new array comprised of this array joined with other array(s) and/or value(s).

```
var num2 : number[] = [11,22,33,44];  
console.log("After Concat :",num1.concat(num2));
```

//reverse() : Reverses the order of the elements of an array -- the first becomes the last, and the last becomes the first.

```
console.log("After Reverse :",num2.reverse());
```