

Push method in array

```
elp  ← →  tsnaveen

...  TS arrays9.ts  X
    TS arrays9.ts > ...
    1  //push method in array
    2  let a1:Array<string>=['tom','john']
    3  console.log(a1) //[ 'tom', 'john' ]
    4  let i1= a1.push('karan')
    5  console.log(i1) //3
    6  console.log(a1) //[ 'tom', 'john', 'karan' ]
```

Cannot add more than decided value

```
TS arraysconcept.ts  TS tupleconcept.ts 1  X

TS tupleconcept.ts > [?] person
1
2  //Tuple: fixed size, order matters
3  //tuple vs array
4  //array: dynaminc : runtime more values can be added
5  💡
6  let person: [string, number] = ["Naveen", 100, 200];
7
8
```

```
...  TS tuple1.ts 1  X
    TS tuple1.ts > ...
    1  //tuple has fixed size.
    2  //cant add more elements.
    3  //order also matters depends on data type.
    4  //array order doesnt matter.
    5
    6  let p1: [string, number]=['naveen', 332434, -23443.23423 ]
    7  //compile time error.
    8  // Type '[string, number, number]' is not assignable to type '[string, number]'.
    9  //   Source has 3 element(s) but target allows only 2.ts(2322)
```

Order also matters

```
4 //array: dynamic : runtime more values can be add
5
6 let person: [string, number] = ["Naveen", "Ravi"];
7
```

Else error

```
tuple2.ts 2 X
tuple2.ts > ...
1 //order also matters in tuple.
2 //the way data types are present in same order we need to write.
3
4 let p1:[string, number]=[-324324.324324, 'karan']
5 //compile error
6 // Type 'number' is not assignable to type 'string'.ts(2322)
7
8
```

To give more values

Specify data type and value

If you specify data type not value then error

```
6 let person: [string, number] = ["Naveen", 100];
7 let user: [string, number, boolean] = ["Naveen", 100, true];
8
```

```
tuple3.ts
tuple3.ts > ...
1 //to give more values, you first need to give more data types
2
3 let t1:[string,number, boolean]=['karan', -3434.324324, false]
4 console.log(t1) //[ 'karan', -3434.324324, false ]
```

```
tuple4.ts 1 X
tuple4.ts > [e] t1
1 //specify data type but not value.
2
3 let t1:[string,number, boolean]=['karan', -3434.324324]
4 //compile error
5 // Type '[string, number]' is not assignable to type '[string, number, boolean]'.
6 // Source has 2 element(s) but target requires 3.ts(2322)
```

Print value

```
... tuple5.ts X
tuple5.ts > ...
1 //print values from tuple
2
3 var t1 = ['karan', -3434.324324, false];
4 console.log(t1); //[ 'karan', -3434.324324, false ]
5 console.log(t1[0]) //karan
```

Tuple with arrays to store multiple pairs

In js it stores as list of list as tuple not present in js.

```
... tuple6.ts X
tuple6.ts > ...
3 let t1:[string, number][]=[['karan', -324.2344], ['tom', 423.3243]]
4
5 console.log(t1) //[ [ 'karan', -324.2344 ], [ 'tom', 423.3243 ] ]
6
7 console.log(t1[0]) //[ 'karan', -324.2344 ]
8
9 console.log(t1[1][0]) //tom
```

Push method also works

```
Help  ← →  tsnaveen  08
...  tuple7.ts 2 x  tuple8.ts 2  tuple9.ts
tuple7.ts > ...
1  //push method also works with tuple.
2  //it doesn't work with tuple with arrays.
3  ⚠
4  let t1:[string, number][]=[['karan', -324.2344], ['tom', 423.3243]]
5
6  t1.push('ravi', -343.23432)
7  //compile error.
8  // Argument of type 'string' is not assignable to parameter of type '[string, number]'.ts(2345)
```

```
al Help  ← →  tsnaveen
...  tuple7.ts 2  tuple8.ts 2 x  tuple9.ts
tuple8.ts > ...
1  //not allowed to save like this also.
2  ⚠
3  let t1:[string, number]=['karan', -324.2344, 'jack', -233.32432]
4  //compile error.
5  // Type '[string, number, string, number]' is not assignable to type '[string, number]'.
6  // Source has 4 element(s) but target allows only 2.ts(2322)
```

```
File Edit Selection View Go Run Terminal Help  ← →  tsnaveen
EXPLORER  tuple9.ts x
  TSNAVEEN
    first.js
    first.ts
    fourteen.js
    fourteen.ts
    fourth.ts
    ninth.ts
    second.js
    second.ts
tuple9.ts > ...
1  //only in plain tuple we can add using push.
2  //push gives new length of array after addition.
3  ⚠
4  let t1:[string, number]=['karan', -324.2344]
5  let i1 = t1.push('jack', -233.32432)
6  console.log(t1) //[ 'karan', -324.2344, 'jack', -233.32432 ]
7  console.log(i1) //4
```

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```
File Edit Selection View Go Run Terminal Help  ← →  tsnaveen
EXPLORER  tuple9.ts x
  TSNAVEEN
    first.js
    first.ts
    fourteen.js
    fourteen.ts
    fourth.ts
    ninth.ts
    second.js
    second.ts
    seventh.ts
    sixth.js
    sixth.ts
tuple9.ts > ...
1  //only in plain tuple we can add using push.
2  //push gives new length of array after addition.
3  ⚠
4  let t1:[string, number]=['karan', -324.2344]
5  let i1 = t1.push('jack', -233.32432)
6  console.log(t1) //[ 'karan', -324.2344, 'jack', -233.32432 ]
7  console.log(i1) //4
```