

TS loops.ts 1 ●

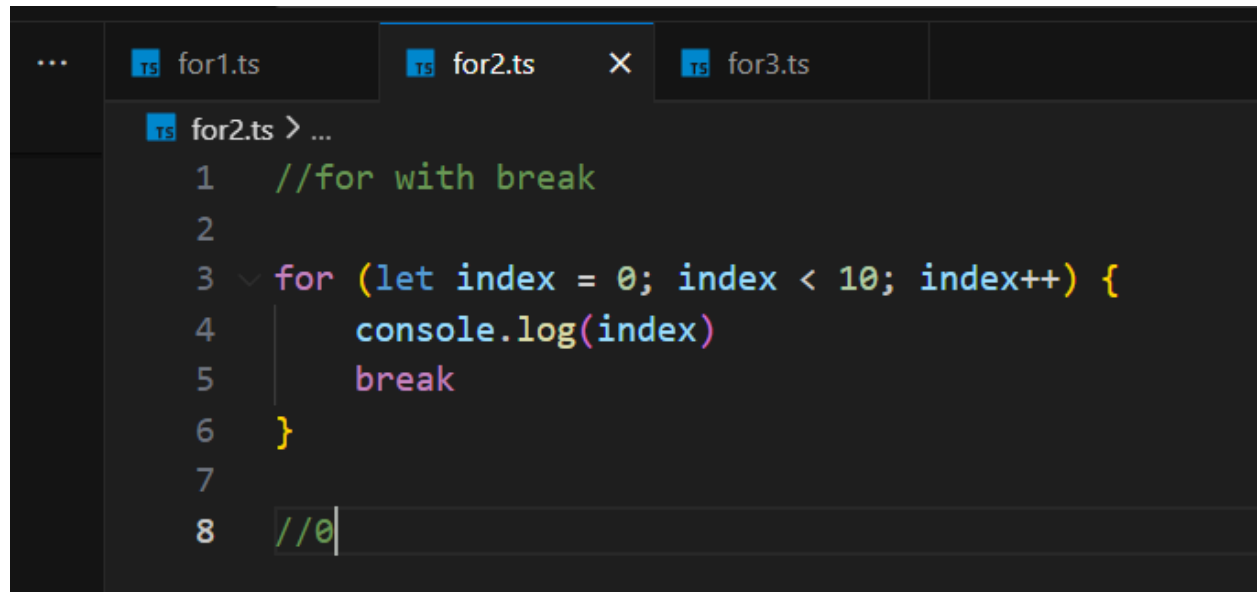
TS loops.ts

```
1 //for loop:  
2 //for loop  
3 //for..of loop  
4 //for..in loop  
5
```

```
4 //for..in loop  
5  
6 //while  
7 //do-while  
8
```

```
...  TS for1.ts  X  TS for2.ts  TS for3.ts
TS for1.ts > ...
1  //normal for loop
2
3  for (let index = 0; index < 10; index++) {
4      console.log(index)
5  }
6
7  // 0
8  // 1
9  // 2
10 // 3
11 // 4
12 // 5
13 // 6
14 // 7
15 // 8
16 // 9
```

For with break



```
1 //for with break
2
3 for (let index = 0; index < 10; index++) {
4     console.log(index)
5     break
6 }
7
8 //0
```

Even numbers

```
...  TS for1.ts  TS for2.ts  TS for3.ts  X
TS for3.ts > ...
1  //even numbers between 0 to 10.
2
3  for (let index = 0; index <= 10; index=index+2) {
4      console.log(index)
5  }
6
7  // 0
8  // 2
9  // 4
10 // 6
11 // 8
12 // 10
```

For of loop

Can be used with any iterable.

```
...  TS for4.ts  X  TS for5.ts
TS for4.ts > ...
1  //for of loop can be used with any iterable.
2
3  let n1=[1,-323,324324.3243,-234324,true,'t','tiger']
4
5  for (const element of n1){
6      console.log(element)
7  }
8
9  // 1
10 // -323
11 // 324324.3243
12 // -234324
13 // true
14 // t
15 // tiger
```

With condition

```
...  for4.ts  for5.ts  X
for5.ts > ...
1  // for of with condition
2
3
4  let n2=[1,-323,324324.3243,-234324,true, 't', 'tiger']
5
6  for (const element of n2) {
7      console.log(element)
8      if(element===true){
9          console.log('hi')
10         break
11         console.log('bye') //Unreachable code detected.ts(7027)
12     }
13     console.log('jack')
14 }
15 console.log('dawson')
```

```
15 console.log('dawson')
16
17 // 1
18 // jack
19 // -323
20 // jack
21 // 324324.3243
22 // jack
23 // -234324
24 // jack
25 // true
26 // hi
27 // dawson
```

Prints indexes

```
...  TS for6.ts  TS for7.ts  TS for8.ts
TS for6.ts > ...
1  //for in loop.
2  //prints indexes.
3
4  let n3=[1,-323,324324.3243,-234324,true,'t','tiger']
5
6  for (const key in n3) {
7      console.log(key)
8  }
9
10 //.....0
11 // 1
12 // 2
13 // 3
14 // 4
15 // 5
16 // 6
```

Print value

```
...  TS for6.ts  TS for7.ts  TS for8.ts
TS for7.ts > ...
1  //for in loop.
2  //prints values.
3
4  let n4=[1,-323,324324.3243,-234324,true,'t','tiger']
5
6  for (const key in n4) {
7      console.log(n4[key])
8  }
9
10 // 1
11 //-323
12 // 324324.3243
13 //-234324
14 // true
15 // t
16 // tiger
```

Index plus value

```
...  TS for6.ts  TS for7.ts  TS for8.ts  X
TS for8.ts > ...
1  //for in loop.
2  //prints values and indexes.
3
4  let n5=[1,-323,324324.3243,-234324,true, 't', 'tiger']
5
6  for (const key in n5) {
7      console.log(key + " = " + n5[key])
8  }
9  💡
10 // 0 = 1
11 // 1 = -323
12 // 2 = 324324.3243
13 // 3 = -234324
14 // 4 = true
15 // 5 = t
16 // 6 = tiger
```

For of with strings

...

TS for9.ts

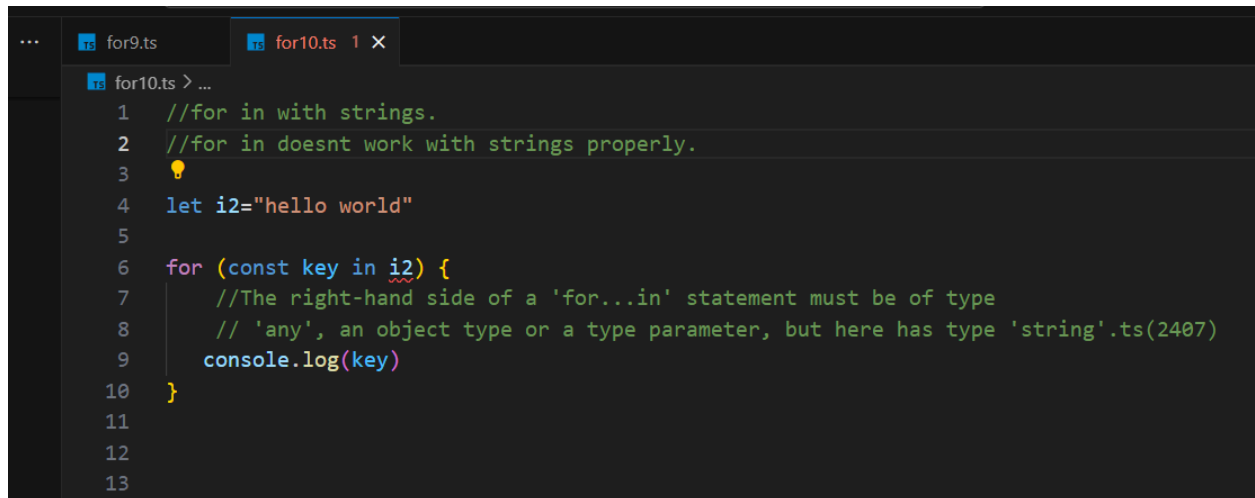
×

TS for10.ts 1

TS for9.ts > ...

```
1  //for of with strings
2
3  let i1="hello world"
4
5  for (const element of i1) {
6      console.log(element)
7  }
8
9
10 // h
11 // e
12 // l
13 // l
14 // o
15
16 // w
17 // o
18 // r
19 // l
20 // d
```

1



The screenshot shows a code editor with two tabs: 'for9.ts' and 'for10.ts'. The 'for10.ts' tab is active and contains the following code:

```
1 //for in with strings.
2 //for in doesnt work with strings properly.
3
4 let i2="hello world"
5
6 for (const key in i2) {
7     //The right-hand side of a 'for...in' statement must be of type
8     // 'any', an object type or a type parameter, but here has type 'string'.ts(2407)
9     console.log(key)
10 }
11
12
13
```

A TypeScript error is shown on line 6, indicating that the right-hand side of the 'for...in' statement must be of type 'any', an object type, or a type parameter, but it has the type 'string'.

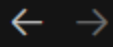
Infinite while loop



```
Help  <  >
while1.ts  while2.ts
while1.ts > ...
1  //infinite while loop.
2
3  let p=1
4
5  while(p<=10){
6      console.log(p)
7  }
8  💡
9  // 1
10 // 1
11 // 1
12 // 1
13 // 1
14 // 1
15 // 1
```

Stopping while loop

elp




...

while1.ts

while2.ts

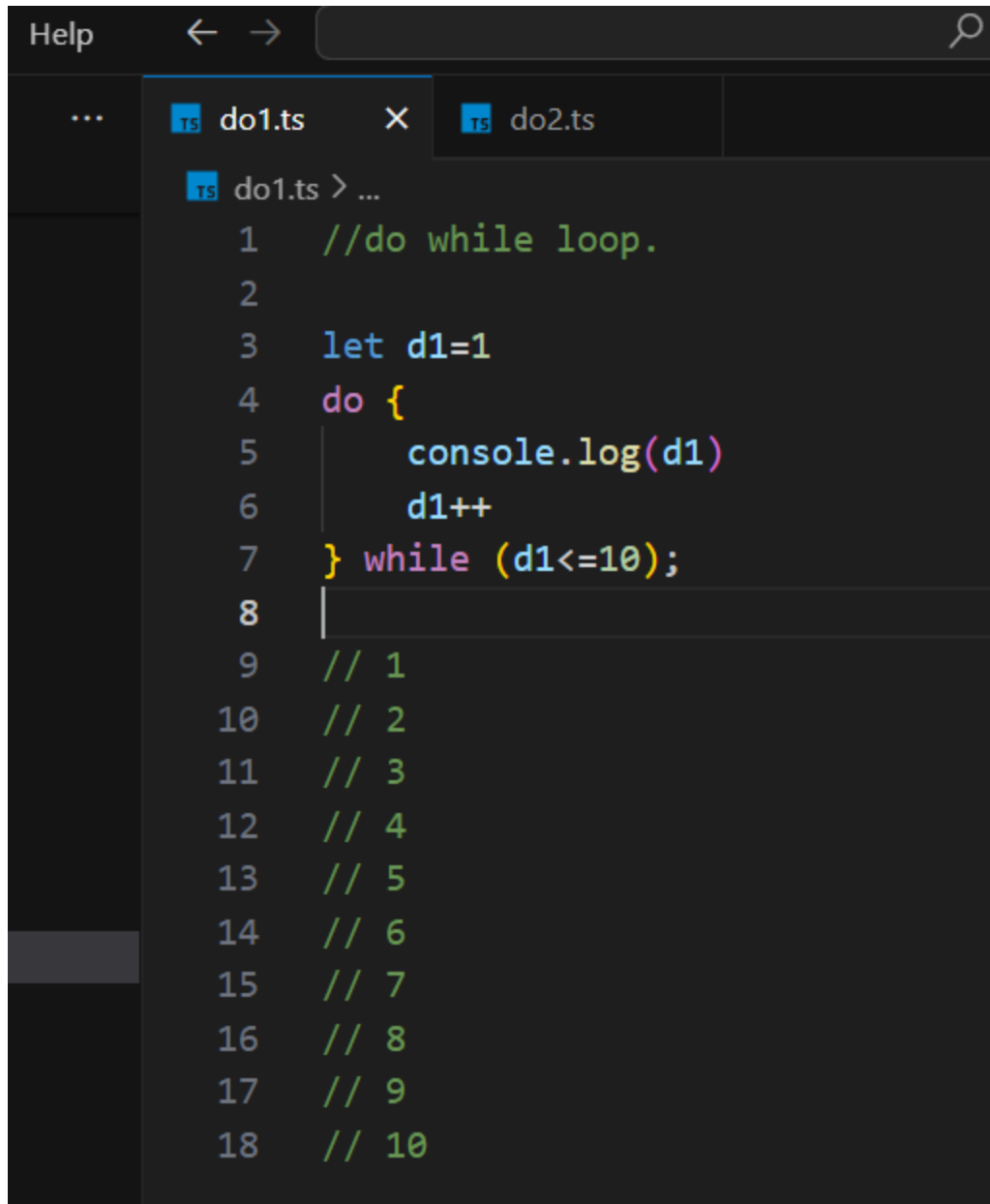


while2.ts > ...

```
1  //stopping while loop.
2
3  let p2=1;
4
5  while(p2<=10){
6      console.log('hi')
7      p2++
8  }
9  
10 // hi
11 // hi
12 // hi
13 // hi
14 // hi
15 // hi
16 // hi
17 // hi
18 // hi
19 // hi
```

```
TS loops.ts > ...
50 }
51
52 //use cases for while: when number of iterations are not fixed:
53 //1. infinite scrolling: zomato, swiggy, linkedin page
54 //2. wait for page loading: 2, 5, 10, 15 secs
55 //3. wait for the element on the page: 2, 3, 5, 10
56 //4. calendar handling:
57 //5. webtable pagination: prev...1 2 3 4 5 6....next
58
59 //5. webtable pagination: prev...1 2 3 4 5 6....next
58
59 //use cases for for loop:
60 //when number of iterations are fixed:
61 //drop down: month: Jan to dec: 1 to 12
62
```

Do while



```
Help  ← →  🔍  
...  TS do1.ts  X  TS do2.ts  
TS do1.ts > ...  
1  //do while loop.  
2  
3  let d1=1  
4  do {  
5      console.log(d1)  
6      d1++  
7  } while (d1<=10);  
8  
9  // 1  
10 // 2  
11 // 3  
12 // 4  
13 // 5  
14 // 6  
15 // 7  
16 // 8  
17 // 9  
18 // 10
```

Change while condition-

Help < > 🔍 tsnaveen

... TS do1.ts TS do2.ts ✕

TS do2.ts > ...
1 //do while loop.
2 //runs atleast once even if condition false.
3
4 let d2=1
5 do {
6 console.log(d2)
7 d2++
8 } while (d2>=10);
9
10 // 1