

Access Modifiers

Types

- **private**
- **protected**
- **public**

Private

A private property can be only accessible within the class. It will show an error if it is used outside of the class.

```
class Point {  
    private x:number;  
    y:number;  
    z:number;  
    constructor(x?:number, y?:number, z?:number) {  
        this.x = x;  
        this.y = y;  
        this.z = z;  
    }  
  
    draw = ():any => {  
        console.log('X:'+this.x+' Y:'+this.y+' Z:'+  
    }  
  
    drawRectangle:() => {  
        draw()  
    }  
}
```

```
14   drawRectangle:() => {  
1  Property 'x' is private and only accessible within class  
1  'Point'. ts(2341)  
1  
1  (property) Point.x: number  
1  
1  View Problem (Alt+F8)  No quick fixes available  
20   shape.x = 4;  
21   shape.draw()  
22
```

you can also make a method also private

```
10  
11   ⚡ private draw = ():any => {  
12       console.log('X: '+this.x+ ' Y: '+this.y+ ' Z: '+  
13   }  
14   drawRectangle:() => {  
15       draw()  
16   }  
17 }  
18  
19 let shape = new Point(1,2,3);  
20 shape.draw()
```

calling the private method

```
14   drawRectangle = ():any => {  
15       console.log('Drawing Rectangle');  
16       this.draw()  
17   }  
18 }  
19  
20 let shape = new Point  
21 shape.drawRectangle()  
22
```

save complie and run to see the output

```
E:\Teach\Typescript>node main.js
Drawing Rectangle
X:1 Y:2 Z:3

E:\Teach\Typescript>
```

Shortcut for creating the constructors

For this you should have to provide the access modifier in the parameter

```
constructor(private x?:number, public y?:number) {
  private draw = ():any => {
    console.log('X:'+this.x+' Y:'+this.y+' Z:');
  }
  drawRectangle = ():any => {
    console.log('Drawing Rectangle');
    this.draw()
  }
}
```

```
1
2
3  x?:number, public y?:number, public z?:number) {
4
5
6  y => {
7    '+this.x+' Y:'+this.y+' Z:'+this.z)
8
```