Typescript

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Fat Arrow =>

- Permite crear funciones anónimas
- Evita escribir “function”.
- Captura el valor de “this” al ejecutarse.

Fat Arrow =>

- TS

```
let inc:Function = function(x:number){return x+1;};
let r = inc(6);
console.log(r);
```

- JS

```
let inc = (x) => {return x+1;};
let r = inc(6);
console.log(r);
```

- TS

```
let inc:Function = (x:number) => {return x+1;};
let r = inc(6);
console.log(r);
```

Fat Arrow =>

```
class MyClass{
    counter:number=0;
    constructor(c:number){
        this.counter = c;
    }

    incFactory():Function{
        return function(){return this.counter+1;};
    }
}

let m:MyClass = new MyClass(5);
let f:Function = m.incFactory();

console.log(f());
```

Fat Arrow =>

```
class MyClass{
    counter:number=0;
    constructor(c:number){
        this.counter = c;
    }

    incFactory():Function{
        return function(){return this.counter+1;};
    }
}

let m:MyClass = new MyClass(5);
let f:Function = m.incFactory();

console.log(f());
```

Cannot read property 'counter' of undefined

Fat Arrow =>

```
class MyClass{
    counter:number=0;
    constructor(c:number){
        this.counter = c;
    }

    incFactory():Function{
        return ()=>{return this.counter+1;};
    }
}

let m:MyClass = new MyClass(5);
let f:Function = m.incFactory();

console.log(f());  // 6
```

Interfaces

- Definen tipos de datos.
- Permite que un objeto sea de más de un tipo.
- Obligan a las clases a tener ciertos atributos y/o métodos.

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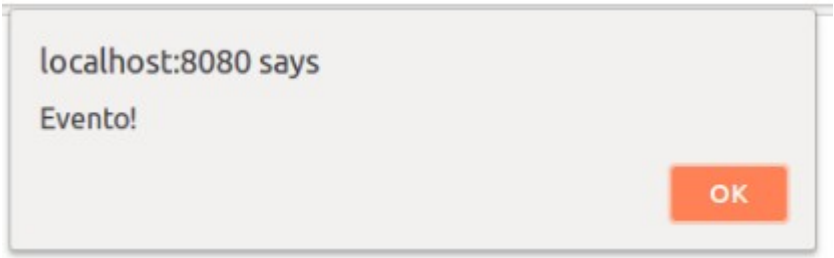
Ejemplo 1

HTML:

```
<input type="submit" id="boton"/>
```

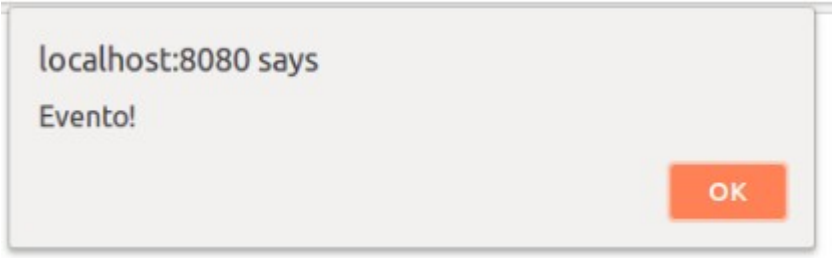
TS:

```
let b:HTMLElement = document.getElementById("boton");

b.addEventListener("click",()=>{alert("Evento!");});
```



Ejemplo 2

```
function configClick(id:string,callback:any):void {

    let b:HTMLElement = document.getElementById(id);

    b.addEventListener("click",()=>{callback();});
}

function evento():void {
    alert("Evento!");
}

configClick("boton",evento);
```



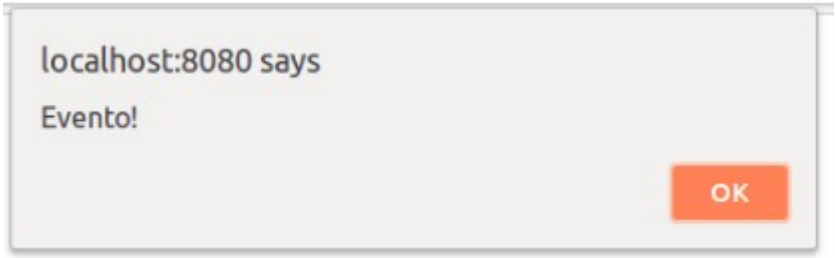
Ejemplo 3

```
function configClick(id:string,callback:any):void {
    let b:HTMLElement = document.getElementById(id);
    b.addEventListener("click",()=>{callback();});
}

class MyClass{
    msg:string="Evento!";

    evento():void{
        alert(this.msg);
    }
}

let o:MyClass = new MyClass();

configClick("boton",o.evento);
```

Cannot read property ‘msg’ of undefined

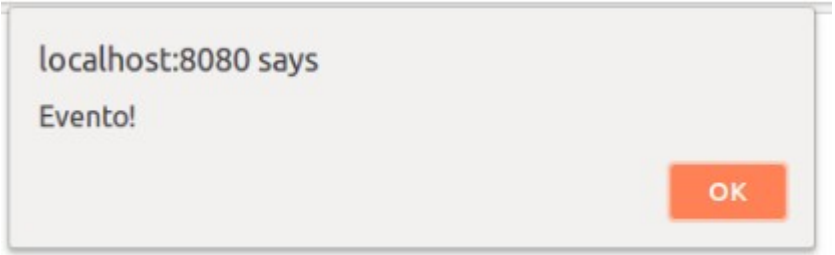
Ejemplo 3

```
function configClick(id:string,callback:any):void {
    let b:HTMLElement = document.getElementById(id);
    b.addEventListener("click",()=>{callback();});
}

class MyClass{
    msg:string="Evento!";

    evento():void{
        alert(this.msg);
    }
}

let o:MyClass = new MyClass();

configClick("boton",()=>(o.evento())); // solucion
```



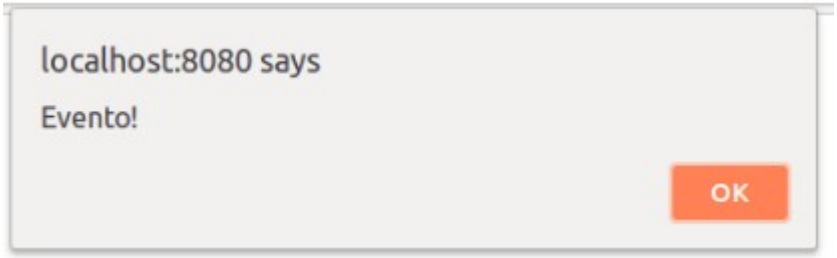
Ejemplo 4

```
interface BtnListener{
    handleClick():void;
}

function configClick(id:string,listener:BtnListener):void {
    let b:HTMLElement = document.getElementById(id);
    b.addEventListener("click",()=>{listener.handleClick();});
}

class MyClass implements BtnListener{
    msg:string="Evento!";

    handleClick():void{
        alert(this.msg);
    }
}


let o:MyClass = new MyClass();

configClick("boton",o);
```



Ejemplo 5

```
function
configClick(id:string,listener:EventListenerObject):void {
    let b:HTMLElement = document.getElementById(id);
    b.addEventListener("click",listener);
}

class MyClass implements EventListenerObject{
    msg:string="click!";

    handleEvent(evt:Event):void{
        alert(this.msg);
    }
}

let o:MyClass = new MyClass();
configClick("boton",o);
```



Bibliografía

- https://code.visualstudio.com/docs/typescript/typescript-tutorial
- https://www.typescriptlang.org/docs/handbook/basic-types.html