

**¿CÓMO
FUNCIONA
JAVASCRIPT?**



**SINGLE
THREAD**

01



**SINGLE
THREAD**

01



**SINGLE
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**SINGLE
THREAD**

01



01



CALL STACK

Pila de llamadas

03



EVENT LOOP

Bucle de eventos

02



WEB APIS

Apis del navegador ó C++

04

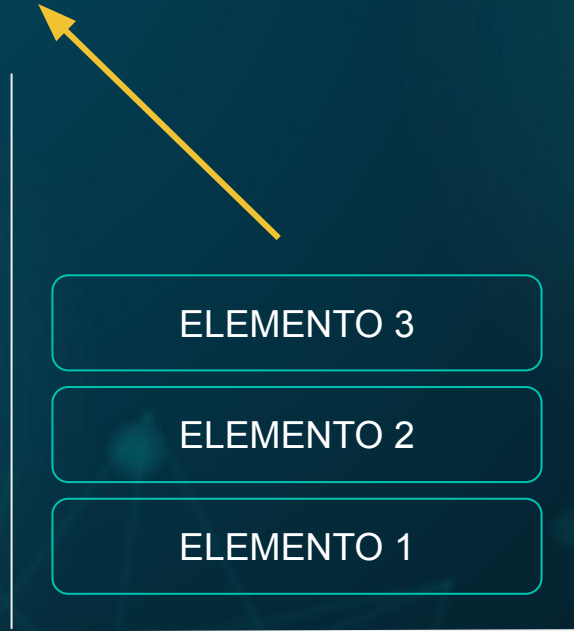


TASK & MICROTASK

Cola de tareas y micro tareas

CALL STACK

CALL STACK



LAST IN FIRST OUT

```
console.log('INICIO'); ←
```

```
function saludar(nombre) {  
  console.log(`HOLA ${nombre}`);  
}
```

```
function entrarAFiesta() {  
  abrirPuerta();  
  saludar('Juan');  
  saludar('Maria');  
  saludar('Antonio');  
  saludar('Laura');  
}
```

```
function abrirPuerta() {  
  console.log('ABRIR PUERTA');  
}
```

```
entrarAFiesta();
```

```
console.log('FIN');  
|
```

log('INICIO')

```
console.log('INICIO');

function saludar(nombre) {
  console.log(`HOLA ${nombre}`);
}

function entrarAFiesta() {
  abrirPuerta(); ←
  saludar('Juan');
  saludar('Maria');
  saludar('Antonio');
  saludar('Laura');
}

function abrirPuerta() {
  console.log('ABRIR PUERTA');
}

entrarAFiesta(); ←

console.log('FIN');
|
```

abrirPuerta

entrarAFiesta

```
console.log('INICIO');

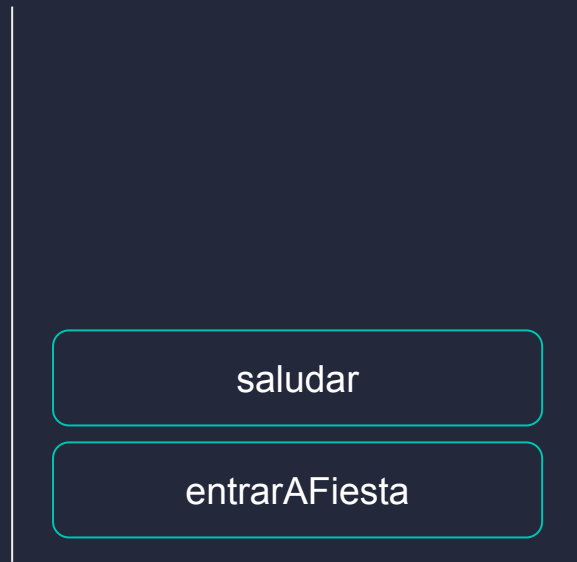
function saludar(nombre) {
  console.log(`HOLA ${nombre}`);
}

function entrarAFiesta() {
  abrirPuerta();
  saludar('Juan');
  saludar('Maria');
  saludar('Antonio');
  saludar('Laura');
}

function abrirPuerta() {
  console.log('ABRIR PUERTA');
}

entrarAFiesta();

console.log('FIN');
```



```
console.log('INICIO');
```

```
function saludar(nombre) {  
  console.log(`HOLA ${nombre}`);  
}
```

```
function entrarAFiesta() {  
  abrirPuerta();  
  saludar('Juan');  
  saludar('Maria');  
  saludar('Antonio');  
  saludar('Laura');  
}
```

```
function abrirPuerta() {  
  console.log('ABRIR PUERTA');  
}
```

```
entrarAFiesta();
```

```
console.log('FIN');
```

```
|
```

saludar

entrarAFiesta

```
console.log('INICIO');

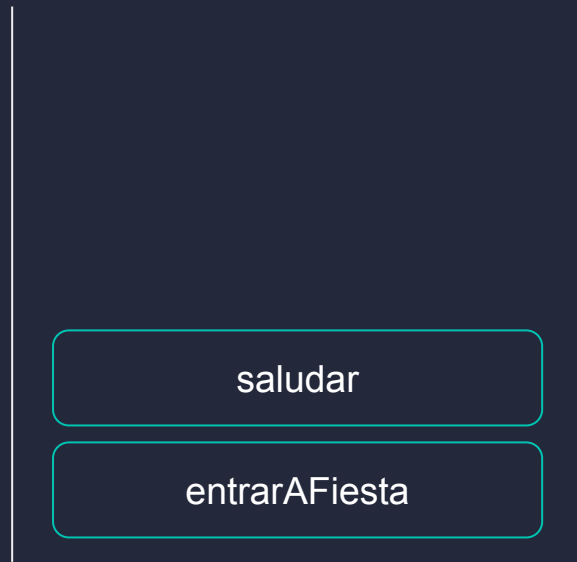
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function abrirPuerta() {
  console.log('ABRIR PUERTA');
}

entrarAFiesta();

console.log('FIN');
```



```
console.log('INICIO');
```

```
function saludar(nombre) {  
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}
```

```
function abrirPuerta() {  
  console.log('ABRIR PUERTA');  
}
```

```
entrarAFiesta();
```

```
console.log('FIN');
```

```
|
```

saludar

entrarAFiesta

```
console.log('INICIO');
```

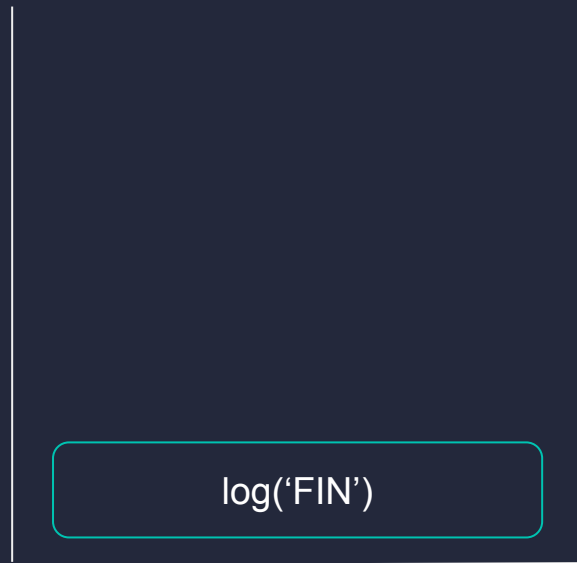
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  console.log(`HOLA ${nombre}`);  
}
```

```
function entrarAFiesta() {  
  abrirPuerta();  
  saludar('Juan');  
  saludar('Maria');  
  saludar('Antonio');  
  saludar('Laura');  
}
```

```
function abrirPuerta() {  
  console.log('ABRIR PUERTA');  
}
```

```
entrarAFiesta();
```

```
console.log('FIN');
```



WEB APIS TASK QUEUE

```
▶ console.log('HOLA');  
▶ setTimeout(function volverAllamar() {  
  console.log('TIMEOUT');  
}, 3000);  
  
console.log('ADIOS');
```

CALL STACK

log('HOLA')

WEB APIS

setTimeout()

```
console.log('HOLA');
```



```
▶ setTimeout(function volverAlLamar() {  
  console.log('TIMEOUT');  
}, 3000);
```

```
▶ console.log('ADIOS');
```

TASK QUEUE

CALL STACK

log('ADIOS')

volverAlLamar()

WEB APIS

setTimeout()



EVENT LOOP

```
console.log('HOLA');
```



```
setTimeout(function volverAllamar() {  
  console.log('TIMEOUT');  
}, 3000);
```

```
console.log('ADIOS');
```

EVENT LOOP



TASK QUEUE

CALL STACK

volverAllamar()

WEB APIS

volverAllamar()

MICRO TASK QUEUE

```
console.log('HOLA');
```

```
setTimeout(function volverAllamar() {  
  console.log('TIMEOUT');  
}, 1000);
```

```
Promise.resolve()
```

```
▶ .then(function () {  
  console.log('PROMESA 1');
```

```
▶ .then(function () {  
  console.log('PROMESA 2');
```

```
console.log('ADIOS');
```

EVENT LOOP



MICRO TASK QUEUE

TASK QUEUE

CALL STACK

WEB APIS

function(){console.log('PROMESA 1')}

function(){console.log('PROMESA 1')}

function(){console.log('PROMESA 2')}

```
console.log('HOLA');
```

```
setTimeout(function volverAllamar() {  
  console.log('TIMEOUT');  
}, 1000);
```

```
Promise.resolve()  
  .then(function () {  
    console.log('PROMESA 1');  
  })  
  .then(function () {  
    console.log('PROMESA 2');  
  });
```

```
console.log('ADIOS');
```

EVENT LOOP



MICRO TASK QUEUE

TASK QUEUE

CALL STACK

function(){console.log('PROMESA 1')}

function(){console.log('PROMESA 2')}

WEB APIS


```
console.log('HOLA');
```

```
setTimeout(function volverAllamar() {  
  console.log('TIMEOUT');  
}, 1000);
```

```
Promise.resolve()  
  .then(function () {  
    console.log('PROMESA 1');  
  })  
  .then(function () {  
    console.log('PROMESA 2');  
  });
```

```
console.log('ADIOS');
```

EVENT LOOP



1

MICRO TASK QUEUE

2

TASK QUEUE

CALL STACK

function(){console.log("PROMESA 2")}

function(){console.log("PROMESA 2")}

WEB APIS

REPRESENTACIÓN FINAL

▶ `console.log('HOLA');`

```
setTimeout(function volverAllamar() {  
  console.log('TIMEOUT');  
}, 1000);
```

```
Promise.resolve()  
  .then(function () {  
    console.log('PROMESA 1');  
  })  
  .then(function () {  
    console.log('PROMESA 2');  
  });
```

`console.log('ADIOS');`

EVENT LOOP



MICRO TASK QUEUE

TASK QUEUE

CALL STACK

log('HOLA')

WEB APIS

```
console.log('HOLA');
```

```
setTimeout(function volverAllamar() {  
  console.log('TIMEOUT');  
}, 1000);
```

```
Promise.resolve()  
  .then(function () {  
    console.log('PROMESA 1');  
  })  
  .then(function () {  
    console.log('PROMESA 2');  
  });
```

```
console.log('ADIOS');
```

EVENT LOOP



MICRO TASK QUEUE

TASK QUEUE

CALL STACK

log('ADIOS')

WEB APIS

```
console.log('HOLA');
```

```
setTimeout(function volverAllamar() {  
  console.log('TIMEOUT');  
}, 1000);
```

```
Promise.resolve()  
  .then(function () {  
    console.log('PROMESA 1');  
  })
```

```
  .then(function () {  
    console.log('PROMESA 2');  
  });
```

```
console.log('ADIOS');
```

EVENT LOOP



MICRO TASK QUEUE

TASK QUEUE

CALL STACK

WEB APIS

setTimeout()

function(){console.log('PROMESA 1')}

function(){console.log('PROMESA 1')}

function(){console.log('PROMESA 2')}

volverAllamar()

```
console.log('HOLA');
```

```
setTimeout(function volverAllamar() {  
  console.log('TIMEOUT');  
}, 1000);
```

```
Promise.resolve()  
  .then(function () {  
    console.log('PROMESA 1');  
  })  
  .then(function () {  
    console.log('PROMESA 2');  
  });
```

```
console.log('ADIOS');
```

EVENT LOOP



MICRO TASK QUEUE

TASK QUEUE

CALL STACK

WEB APIS

function(){console.log('PROMESA 2')}

function(){console.log('PROMESA 2')}

volverAllamar()

```
console.log('HOLA');
```

```
setTimeout(function volverAllamar() {  
  console.log('TIMEOUT');  
}, 1000);
```

```
Promise.resolve()  
  .then(function () {  
    console.log('PROMESA 1');  
  })  
  .then(function () {  
    console.log('PROMESA 2');  
  });
```

```
console.log('ADIOS');
```

EVENT LOOP



MICRO TASK QUEUE

TASK QUEUE

CALL STACK

volverAllamar()

WEB APIS

volverAllamar()