

Module Patterns in ES5



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Overview



Immediately-invoked function expressions

Revealing Module pattern

- Singletons
- Constructor functions



Reducing Global Scope Pollution

IIFE
Immediately
Invoked
Function
Expression



What is an IIFE?

Anonymous function

Invoked when declared

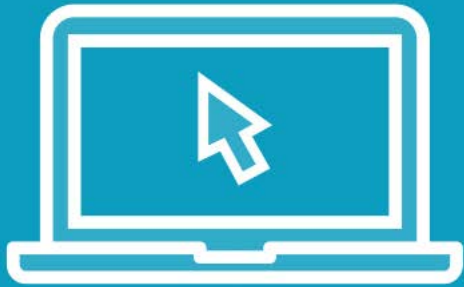
Provides encapsulation

Reduces global scope pollution

No dependency management



Demo



Creating an IIFE



Revealing Module Pattern

Function scoping provides encapsulation

Adds one value to global scope per module

Clear delineation between private implementation and public API

No dependency management

Pure JavaScript that works in modern browsers

Comes in two popular flavors

- Singleton
- Constructor function



Revealing Module Pattern - Singleton

```
var scoreboard = function() {  
    var message = 'Welcome to the game!';  
    function printMessage() {  
        console.log(message);  
    }  
    return {  
        showMessage: printMessage  
    }  
}();
```




Revealing Module Pattern - Singleton

```
var scoreboard = function() {  
    var message = 'Welcome to the game!';  
    function printMessage() {  
        console.log(message);  
    }  
    return {  
        showMessage: printMessage  
    }  
}();
```

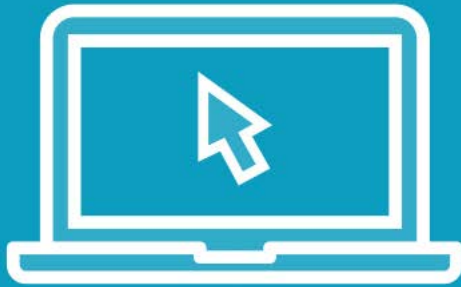


Revealing Module Pattern - Singleton

```
var scoreboard = function() {  
    var message = 'Welcome to the game!';  
    function printMessage() {  
        console.log(message);  
    }  
    return {  
        showMessage: printMessage  
    }  
}();
```



Demo



Implementing the Revealing Module pattern with a singleton



Revealing Module Pattern – Constructor

```
var Scoreboard = function() {
```



```
};
```



Revealing Module Pattern – Constructor


```
var Scoreboard = function() {
```

```
};
```

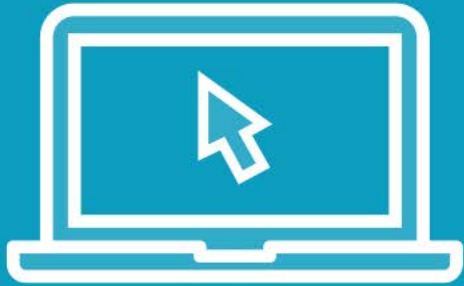


Revealing Module Pattern – Constructor

```
var Scoreboard = function() {  
    var message = 'Welcome to the game!';  
    function printMessage() {  
        console.log(message);  
    }  
    return {  
        showMessage: printMessage  
    }  
};  
  
var myScoreboard = new Scoreboard();  
myScoreboard.showMessage();
```



Demo



Implementing the Revealing Module pattern with a constructor function



Summary



Immediately-invoked function expressions

Revealing Module pattern

- Singletons
- Constructor functions

Related courses

- *Structuring JavaScript Code*
- *Practical Design Patterns in JavaScript*

