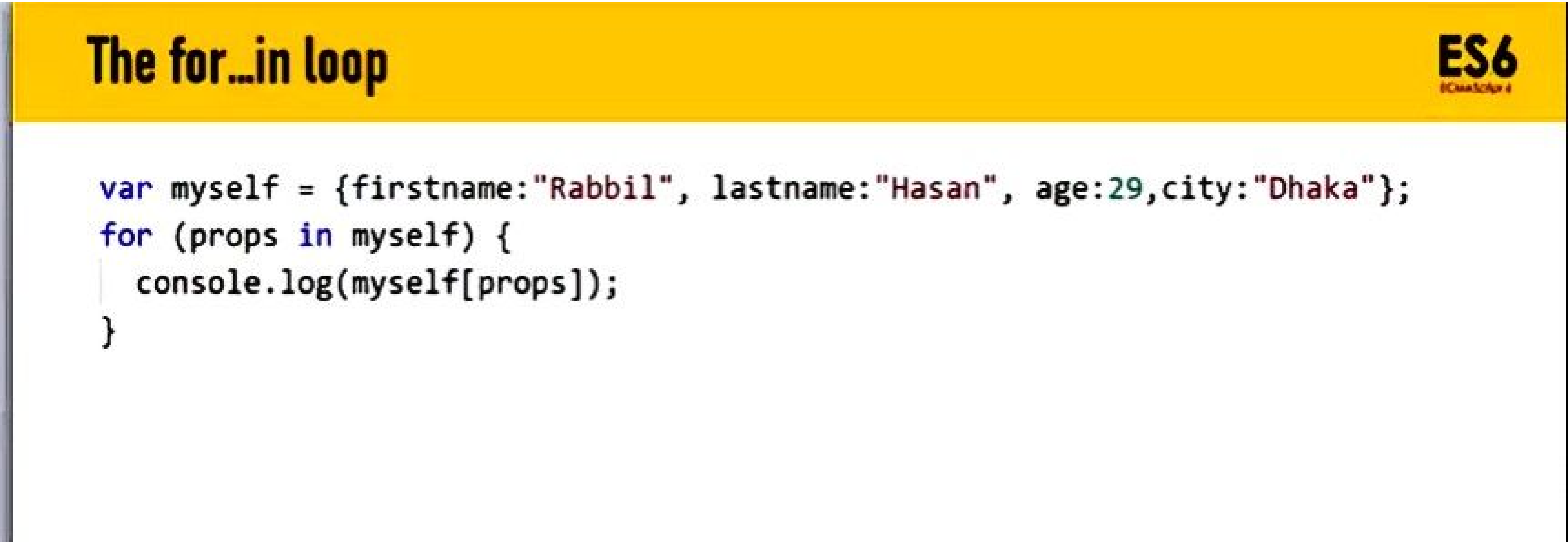
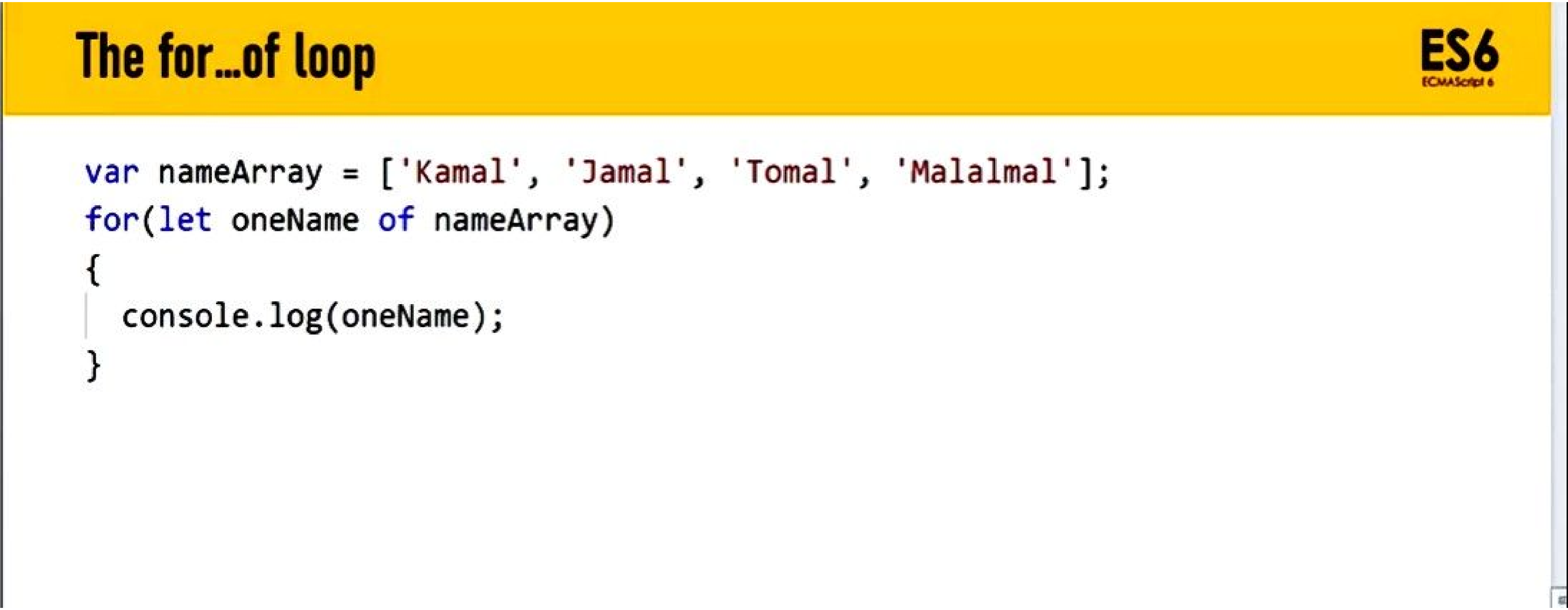


# The for...in loop

ES6

```
var myself = {firstname:"Rabbil", lastname:"Hasan", age:29,city:"Dhaka"};
for (props in myself) {
  console.log(myself[props]);
}
```



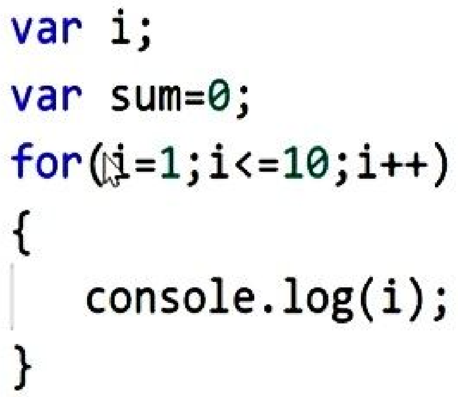
# The for…of loop

ES6

ECMAScript 6

```
var nameArray = ['Kamal', 'Jamal', 'Tomal', 'Malalmal'];
for(let oneName of nameArray)
{
  console.log(oneName);
}
```

# simple for loop

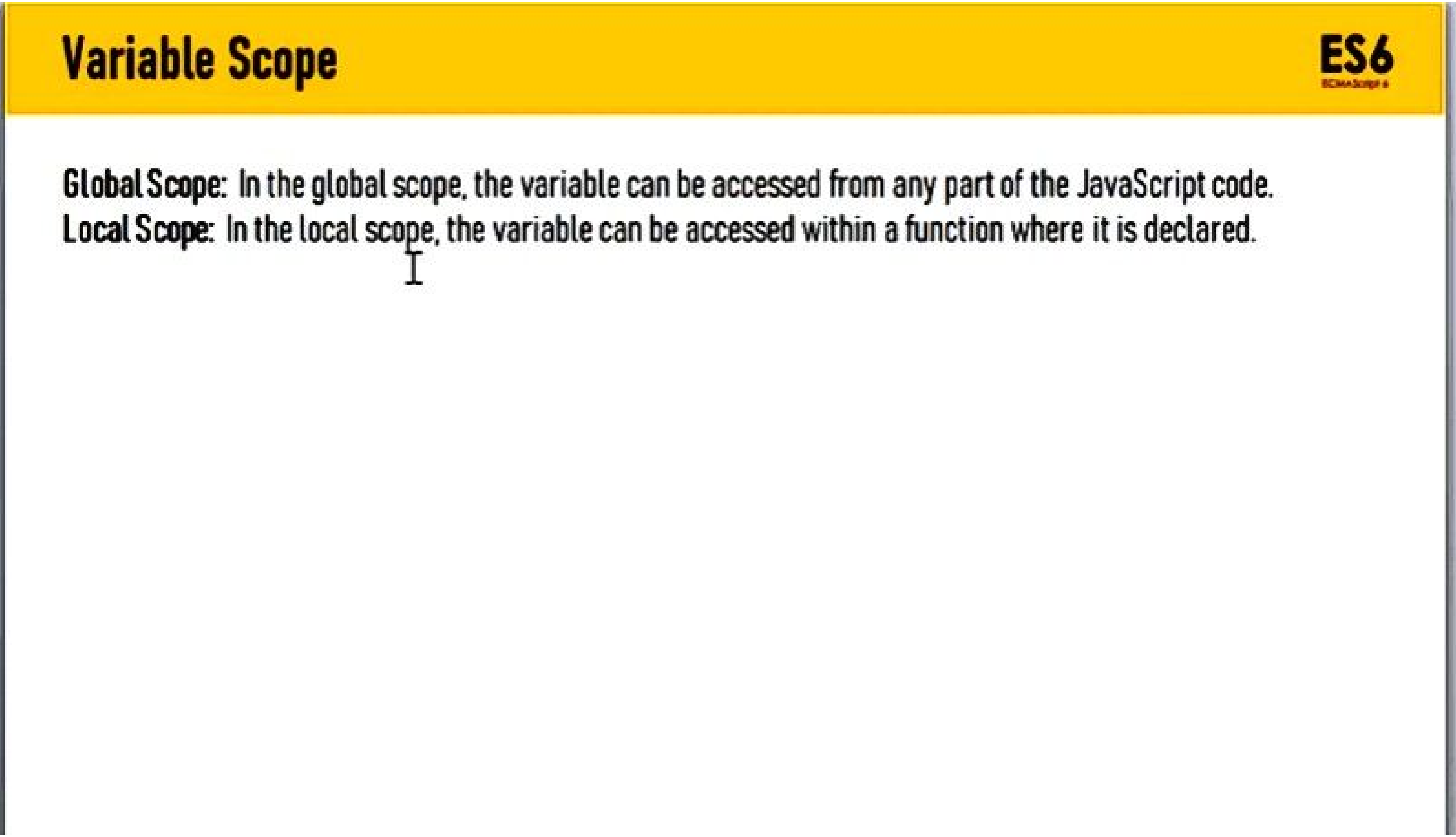


```
var i;
var sum=0;
for(i=1;i<=10;i++)
{
   console.log(i);
}
```

# Variable Hoisting

ES6
ECMAScript 6

Hoisting মানে উত্তোলন
Value assign আগে,
Declare পরে



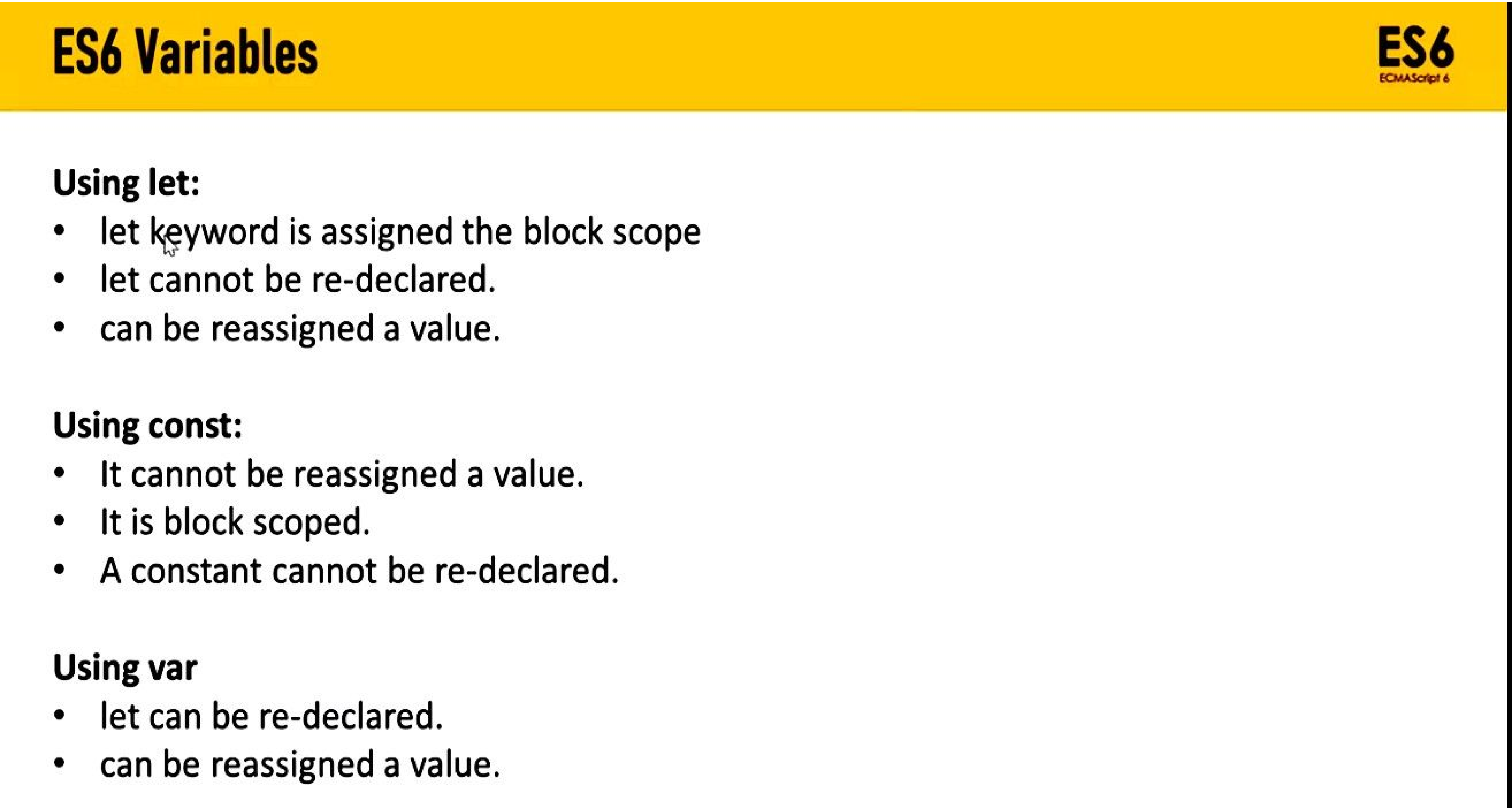
# Variable Scope

ES6

ECMAScript 6

**Global Scope:** In the global scope, the variable can be accessed from any part of the JavaScript code.

**Local Scope:** In the local scope, the variable can be accessed within a function where it is declared.



# ES6 Variables

**Using let:**

- let keyword is assigned the block scope
- let cannot be re-declared.
- can be reassigned a value.

**Using const:**

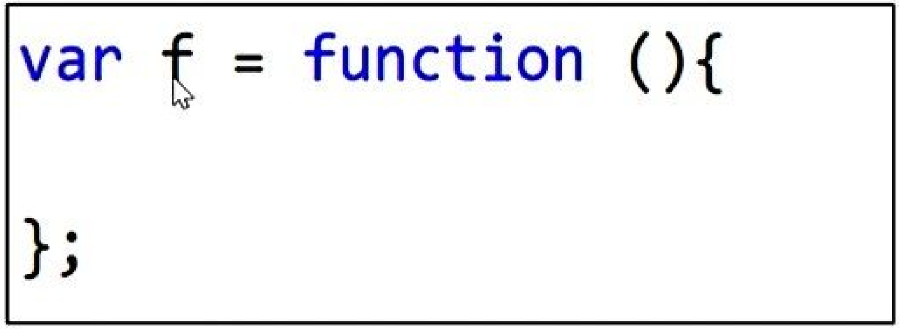
- It cannot be reassigned a value.
- It is block scoped.
- A constant cannot be re-declared.

**Using var**

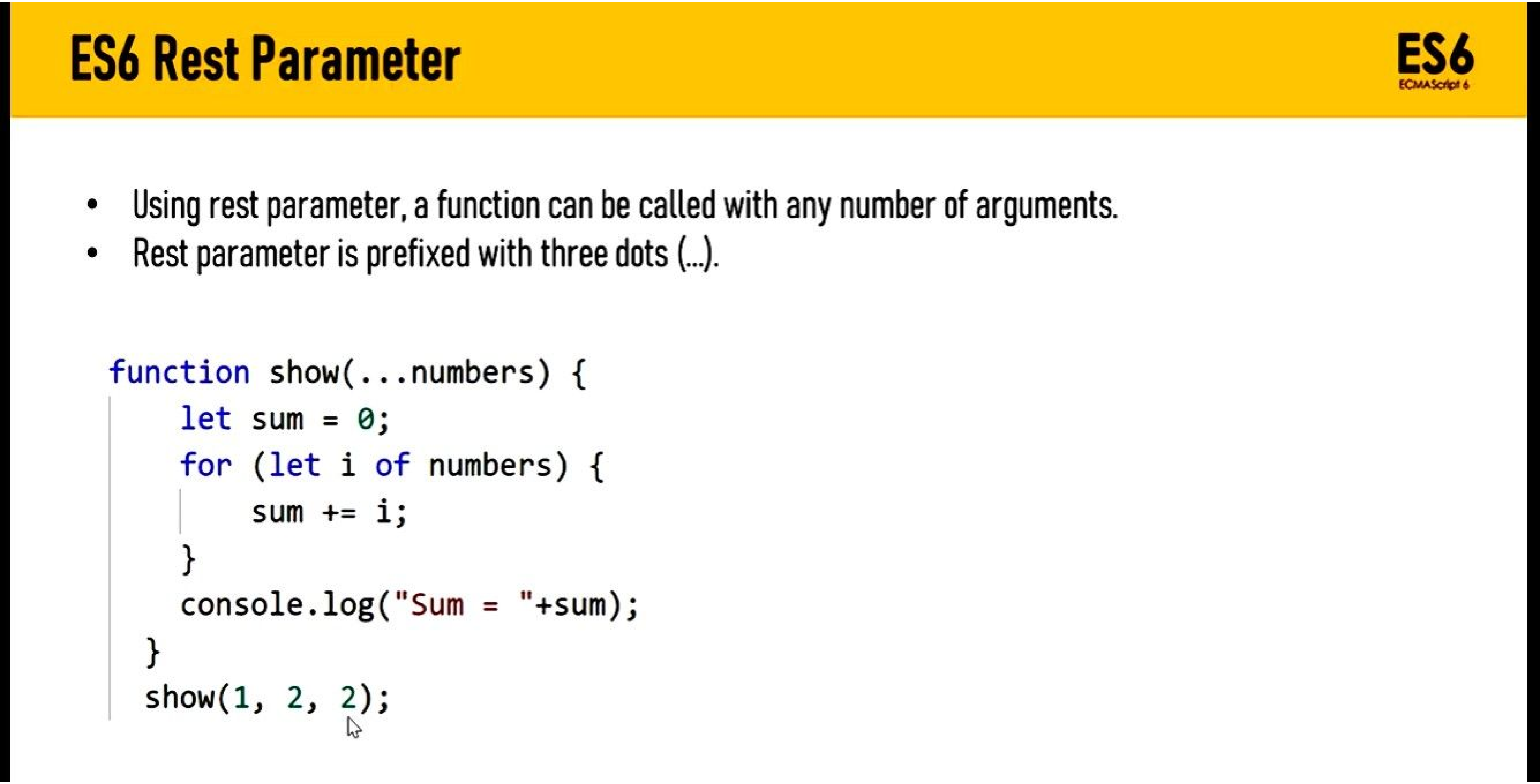
- let can be re-declared.
- can be reassigned a value.

# Dynamic function

- Functions by using the function constructor.



```
var f = function (){


};
```

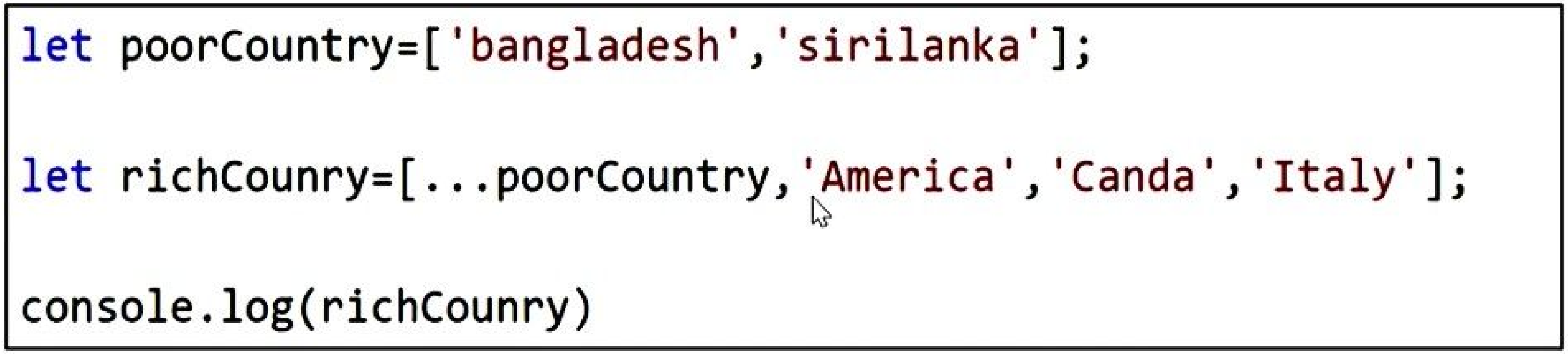


# ES6 Rest Parameter

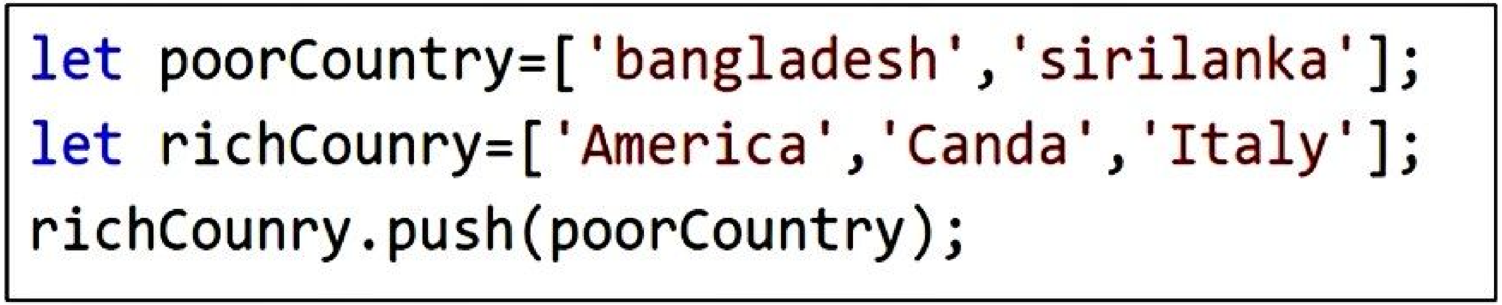
- Using rest parameter, a function can be called with any number of arguments.
- Rest parameter is prefixed with three dots (...).

```
function show(...numbers) {
    let sum = 0;
    for (let i of numbers) {
        sum += i;
    }
    console.log("Sum = "+sum);
 }
 show(1, 2, 2);
```

# Without using spread operator



```
let poorCountry=['bangladesh','sirilanka'];

let richCounry=[...poorCountry,'America','Canda','Italy'];

console.log(richCounry)
```

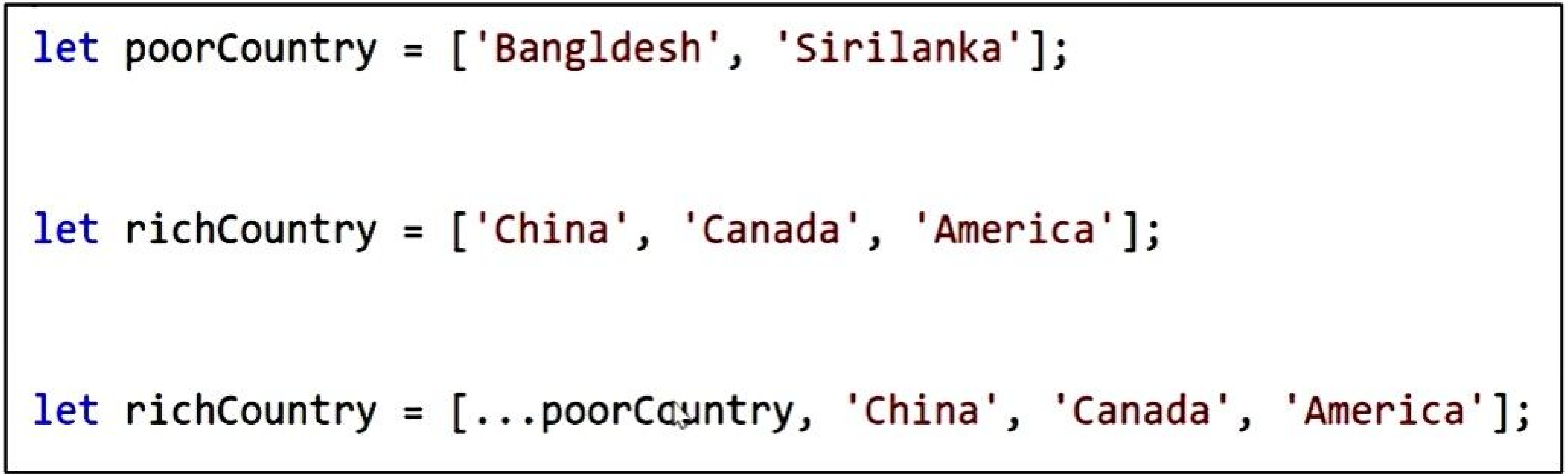


```
let poorCountry=['bangladesh','sirilanka'];
let richCounry=['America','Canda','Italy'];
richCounry.push(poorCountry);
```

# ES6 Spread Operator

- **Spread= প্রসার, বিস্তার**

- three dots (...).
- Array কে প্রশস্ত করে নতুন ভেলু যোগ করে

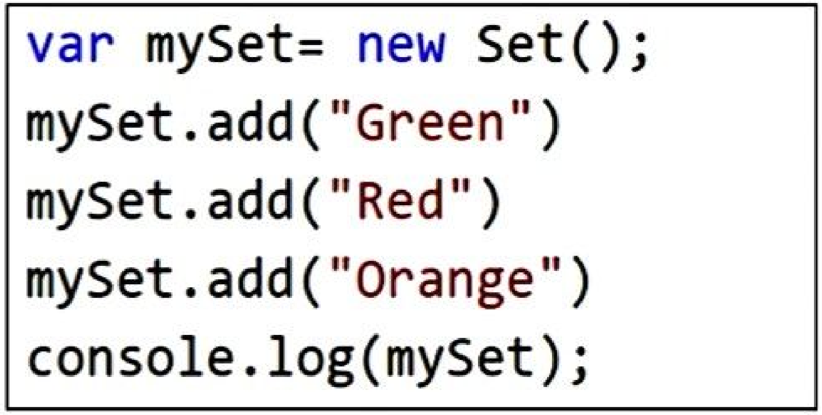


```
let poorCountry = ['Bangldesh', 'Sirilanka'];


let richCountry = ['China', 'Canada', 'America'];


let richCountry = [...poorCountry, 'China', 'Canada', 'America'];
```

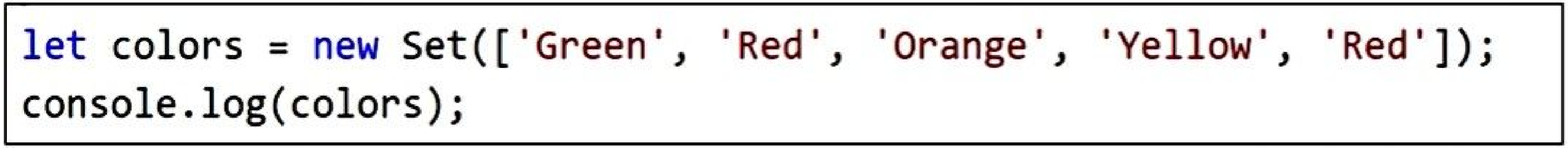
# ES6 Arrays

## ES6 Set

- Set is a collection of data
- Set is almost like  array
- But it does not contain any duplicates.



```
var mySet= new Set();
mySet.add("Green")
mySet.add("Red")
mySet.add("Orange")
console.log(mySet);
```



```
let colors = new Set(['Green', 'Red', 'Orange', 'Yellow', 'Red']);
console.log(colors);
```

# ES6 Arrays

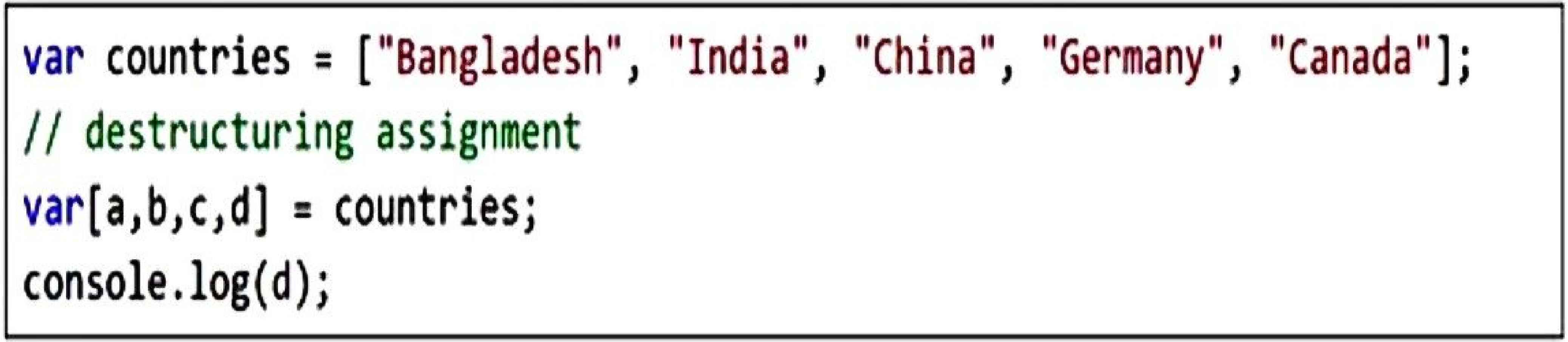
## ES6 Map

- Map is a collection of data

```
var map = new Map();

map.set('key1', 'Bangladesh');
map.set('key2', 'India');
map.set('key3', 'Canada');
map.set('key4', 'America');

console.log(map.values());
console.log(map.keys());
```

# ES6 Array de-structuring

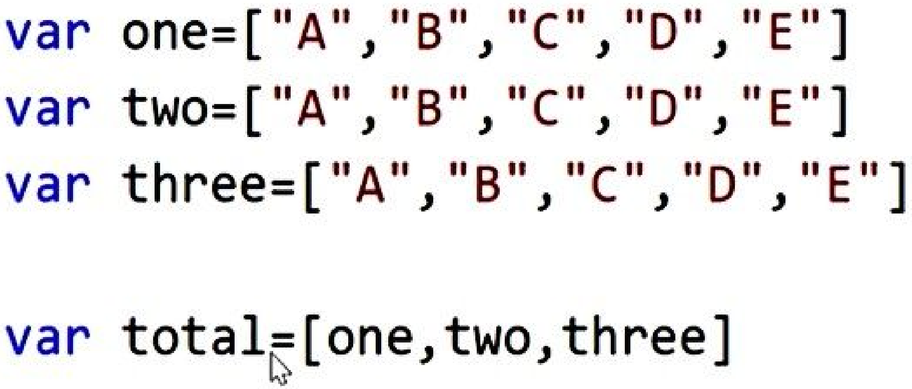
- break down a complex structure into simpler parts.



```
var countries = ["Bangladesh", "India", "China", "Germany", "Canada"];
// destructuring assignment
var[a,b,c,d] = countries;
console.log(d);
```

# ES6 Arrays

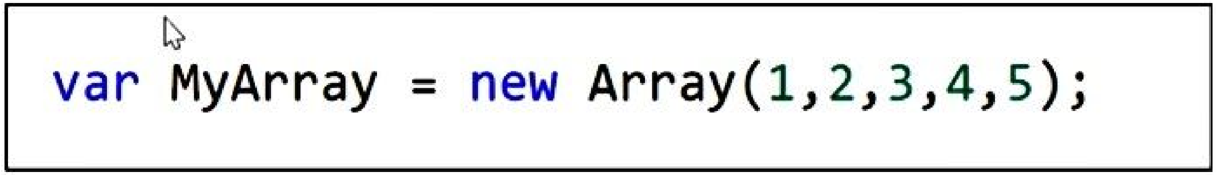
- ES6 Multidimensional Arrays



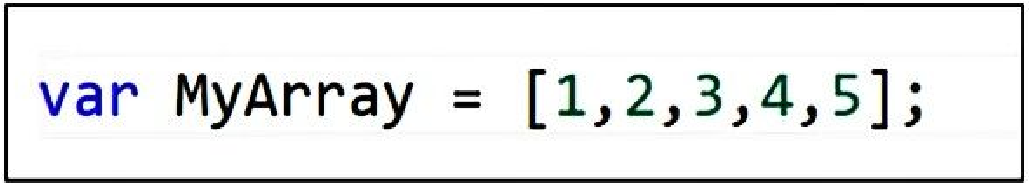
```
var one=["A","B","C","D","E"]
var two=["A","B","C","D","E"]
var three=["A","B","C","D","E"]

var total=[one,two,three]
```

# ES6 Arrays

- Simple Array



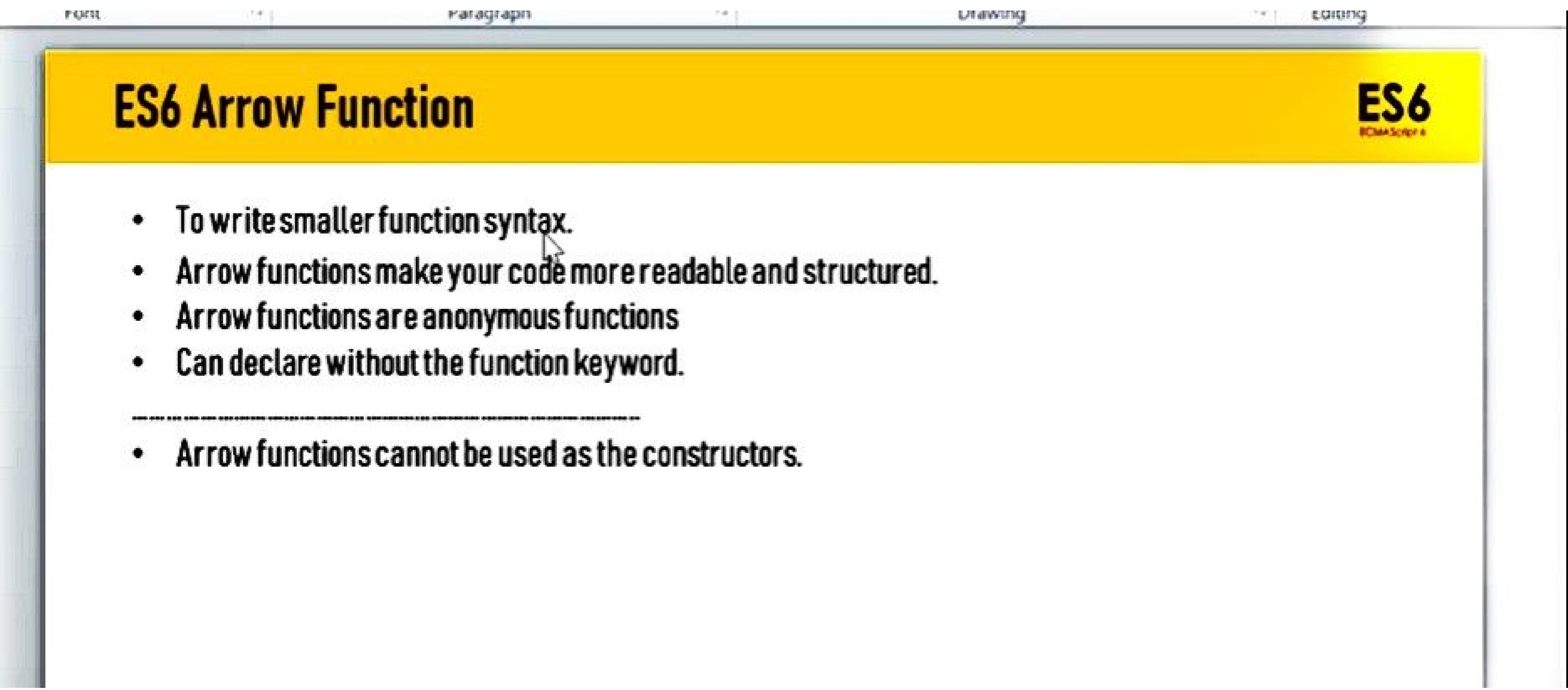
```
var MyArray = new Array(1,2,3,4,5);
```



```
var MyArray = [1,2,3,4,5];
```

# ES6 Arrays

- ES6 Arrays
- ES6 Array Methods
- ES6 Array destructuring
- ES6 Map
- ES6 Set

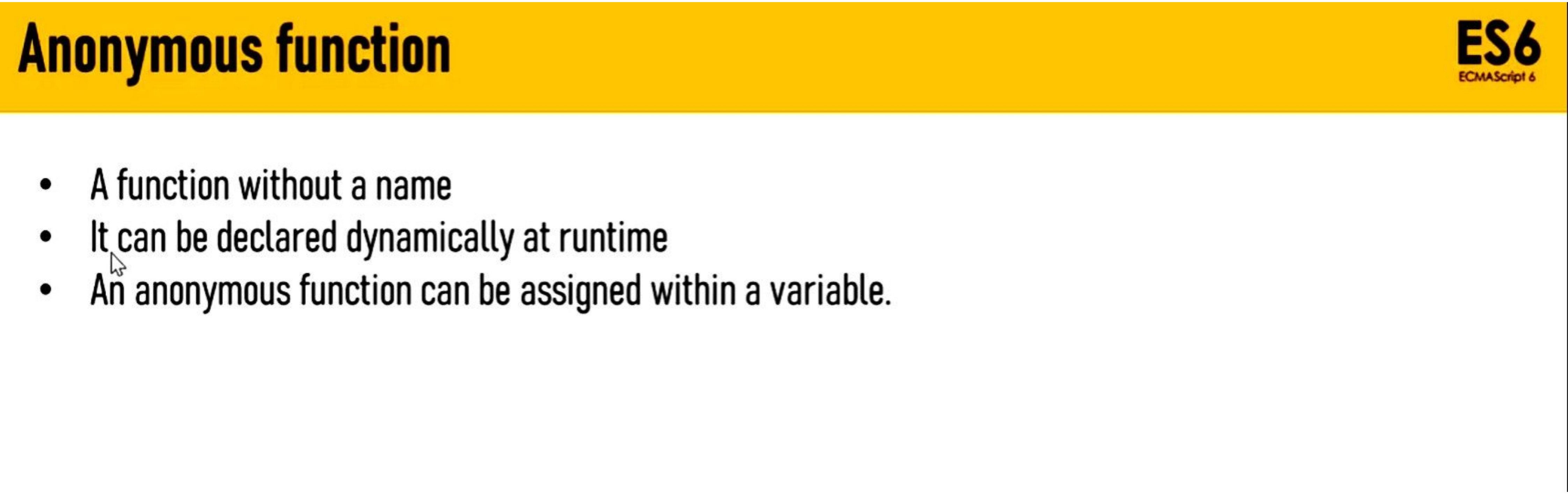


# ES6 Arrow Function

- To write smaller function syntax.
- Arrow functions make your code more readable and structured.
- Arrow functions are anonymous functions
- Can declare without the function keyword.

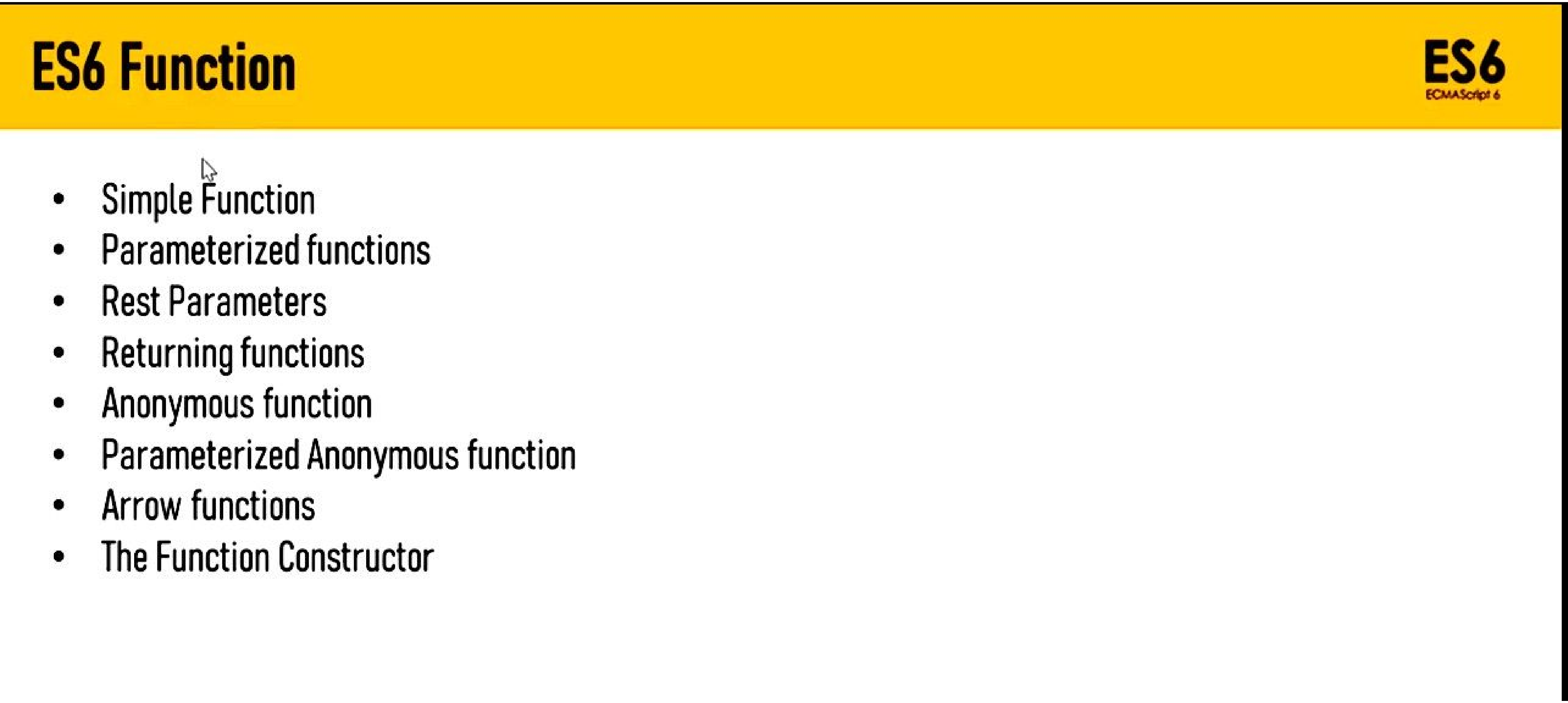
---

- Arrow functions cannot be used as the constructors.



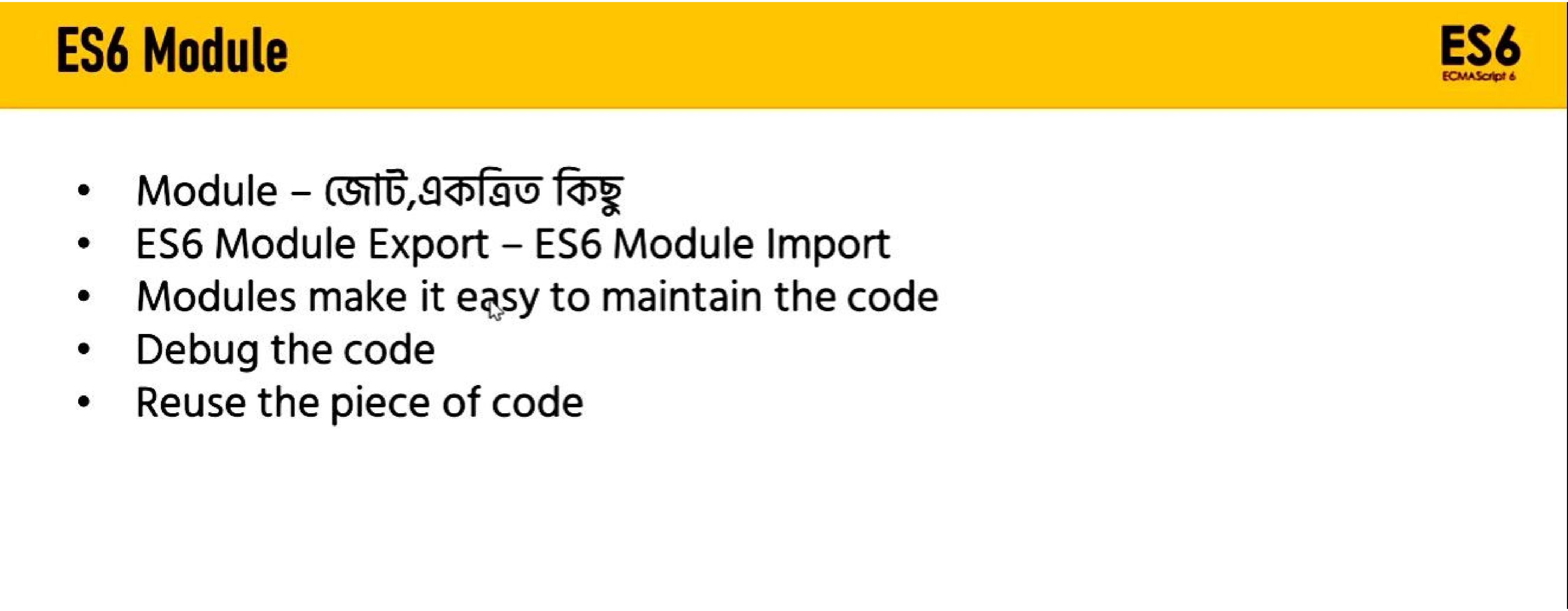
# Anonymous function

- A function without a name
- It can be declared dynamically at runtime
- An anonymous function can be assigned within a variable.



# ES6 Function

- Simple Function
- Parameterized functions
- Rest Parameters
- Returning functions
- Anonymous function
- Parameterized Anonymous function
- Arrow functions
- The Function Constructor



# ES6 Module

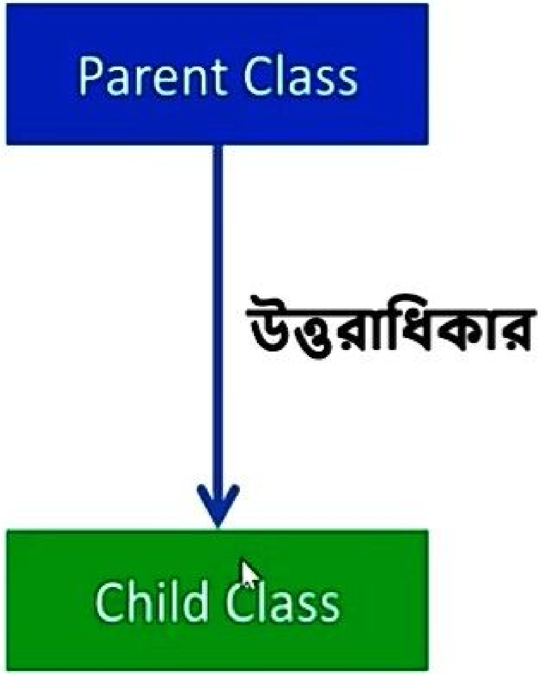
- Module – জোট,একত্রিত কিছু
- ES6 Module Export – ES6 Module Import
- Modules make it easy to maintain the code
- Debug the code
- Reuse the piece of code

# ES6 Class

Super Keyword

# ES6 Class

## Class Inheritance



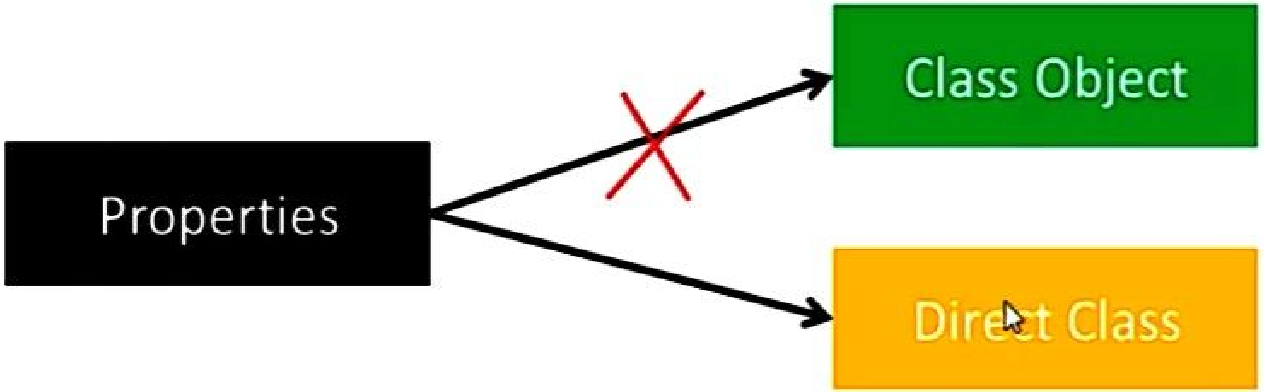
Parent Class

উত্তরাধিকার

Child Class

# ES6 Class

## With Static Keyword:



Properties

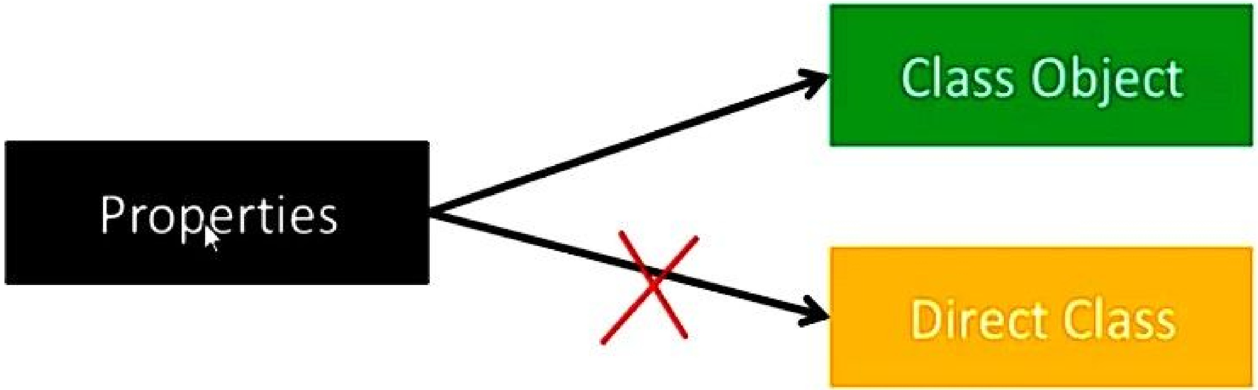
Class Object

Direct Class

# ES6 Class

ES6
ECMAScript 6

## Without Static Keyword:


Properties

Class Object

Direct Class

# ES6 Class

## ES6 Class Constructor

- Constructor  হচ্ছে ক্লাসের নিজেস্ব মেথড/ফাংশন
- ক্লাস অবজেক্ট তৈরি হলেই, Constructor অটো কল হয়
- অন্য ফাংশনের মতোই Constructor কাজ করে
- কিন্তু Constructor রিটার্ন করতে পারে না

# ES6 Class

ক্লাস কেনো দরকার ?

- Before ES6, it was hard to create a class in JavaScript.
- But in ES6, we can create the class by using the class keyword

# ES6 Arrays

## ES6 Set

- .clear()
- .delete(value)
- .has(value)
- .values()
- Set.size

# Module Export Import

- Class Export
- Function Export
- Variable Export

- Class Import
- Function Import
- Variable Import

- Named : Export-Import By Using Same Name
- Default:  Export – Import By Using Any Name