

Advanced JavaScript (ES6)

Narasimha

Sr. Corporate Trainer, Mentor



ES6

What is ES6?

What is ES6?

- ES6 - ECMAScript6
- ECMA means European Computer Manufacturer's Association.
- Scripting language specification.
- It is used by scripting Languages like JavaScript.
- Influenced by prog. languages like Perl, Python, Java, C# etc.

ECMAScript Versions

Year	Name	Description
1997	ECMAScript 1	First Edition.
1998	ECMAScript 2	Editorial changes only.
1999	ECMAScript 3	Added Regular Expressions. Added try/catch.
	ECMAScript 4	Was never released.
2009	ECMAScript 5	Added "strict mode". Added JSON support.
2011	ECMAScript 5.1	Editorial changes.
2015	ECMAScript 6	Many new features. Read more in JS Version 6 .

New Features ES6

New Features ES6

- a. Template Literals
- b. Spread/Rest, Default parameters
- c. Destructuring
- d. Arrow functions
- e. Class, Inheritance

Template Literals

Before ES6

```
var str = "Employee Id : " + eid + ", Employee  
Name : " + ename + ", Designation : " + job;
```

After ES6

```
var str = `Employee Id : ${eid} , Employee  
Name : ${ename} , Designation : ${job}`;
```

Default Parameters

In ES6

```
function getTotal(price, qty = 1)
{
    var total = price * qty;
    console.log(total);
}

getTotal(2500);
getTotal(1500, 2);
```


Spread Attribute

In ES6

```
sum(10,20);  
sum(10,20,30);  
sum(10,20,30,40,50);
```

```
function sum(...arrayName)  
{  
    // code to perform sum of all numbers in array  
}
```

Destructuring

Object Destructuring

Before ES7

```
var obj = {sid:1025, sname : "Scott"};  
var sid = obj.sid;  
var sname = obj.sname;
```

After ES7

```
var obj = {sid:1025, sname : "Scott"};  
var {sid, sname} = obj;  
var {x, y} = obj;
```

Array Destructuring

Before ES7

```
var arr =[10,20,30]  
var x = arr[0];  
var y = arr[1];  
var z = arr[2];
```

After ES7

```
var arr =[10,20,30]  
var [x,y,z] = arr;  
var [x,y] = arr;
```

Arrow Functions

In ES6

1. **`var sum = (x,y) => x + y;`**
2. **`ar.map(x => x * x);`**
3. **`ar.findIndex(x => x.empno == 4566);`**
4. **`ar.find(x => x.empno == 4566);`**
5. **`ar.filter(x => x.job == "Manager");`**

Few more...

Block Scope

In ES6

```
if( ..... )  
{  
    var x = 123;  
    let y = 456;  
}  
  
console.log(x);  
console.log(y); // Error
```

Constants

In ES6

```
const MAX = 100;
```

```
MAX = 120; // Error. It is Read  
only
```


Object Oriented Programming in ES6

Class

In ES6

```
class Demo
{
    add(x,y)
    {
        console.log(x+y);
    }
}

var obj = new Demo();
obj.add(10,20);
```

Class - Constructor (without parameters)

In ES6

```
class Student
{
    constructor()
    {
        this .sid  = 1025;
        this .sname = "Scott";
    }
}
```

Class - Constructor (with parameters)

In ES6

```
class Student
{
    constructor(id, name)
    {
        this .sid  = id;
        this .sname = name;
    }
}

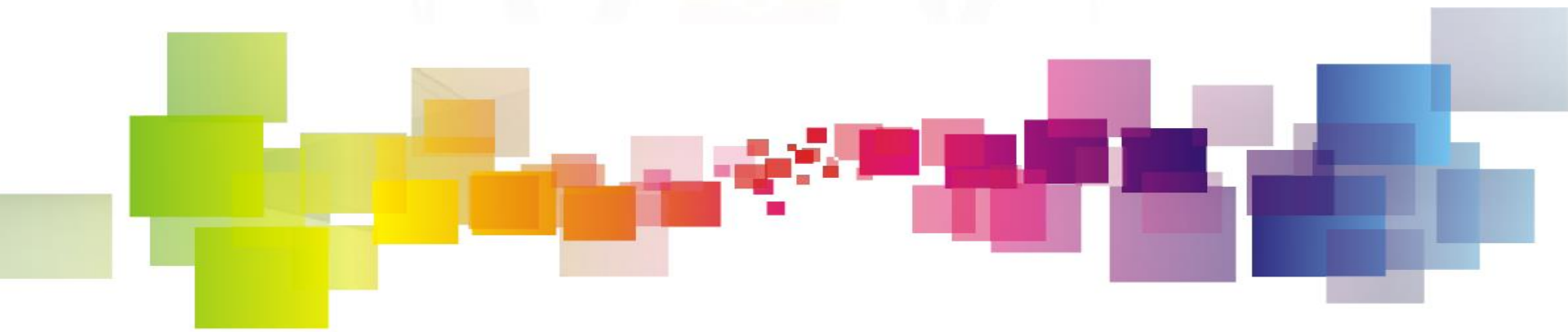
var obj = new Student(2566, "Smith");
```

Class Inheritance

In ES6

```
class Person
{
    // members of super class
}

class Student extends Person
{
    // members of sub class
}
```



Thank you...!

