Web Based Development

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JS

JS

Lesson3: JavaScript Objects

› JS Object

› JS Array

› JS String

› JS Date

› JS Math

› JS Number

› JS Boolean

3.1 JS Object

› JavaScript object គឺជា entity ដែលមាន state and behavior (properties and method)។ Ex: car, pen, bike..etc.

› JavaScript គឺជា object-based language ដូចនេះអ្វីៗទាំងអស់ គឺជា Object

› JavaScript គឺជាពុម្ពគំរូដំបូង ដូចនេះយើងមិនចាំបាច់បង្កើតobject ចេញពី Classទេ។ យើងអាចប្រើ object ផ្ទាល់បាន។

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3.1 JS Object

› JS Object ផ្ដល់នូវរបៀបផ្សេៗបាយពាក្នុងការបង្កើត object

– By object literal

– By creating instance of Object directly (using new keyword)

– By using an object constructor (using new keyword)

3.1-1 **By object literal**

Form:

object={property1:value1,property2:value2.....propertyN:valueN}

```
<html>
<body>
<script>
        emp={id:102,name:"Shyam Kumar",salary:40000}
        document.write(emp.id+" "+emp.name+" "+emp.salary);
</script>
</body>
</html>
```

3.1-2 By creating instance of Object

Form:

var objectname=new Object();

```
<script>
var emp=new Object();
     emp.id=101;
     emp.name="Ravi Malik";
     emp.salary=50000;
document.write(emp.id+" "+emp.name+" "+emp.salary);
</script>
```

3.1-3 By using an Object constructor

- You need to create function with arguments

- The **this keyword** refers to the current object.

```
<script>
function emp(id,name,salary){
        this.id=id;
        this.name=name;
        this.salary=salary;
}
e=new emp(103,"Vimal Jaiswal",30000);

document.write(e.id+" "+e.name+" "+e.salary);
</script>
```

3.1-3 Example

```
<script>
    function emp(id,name,salary){
        this.id=id;
        this.name=name;
        this.salary=salary;
        this.changeSalary=changeSalary;
        function changeSalary(otherSalary){
            this.salary=otherSalary;
        }
    }

    e=new emp(103,"Sonoo Jaiswal",30000);

    document.write(e.id+" "+e.name+" "+e.salary);

    e.changeSalary(45000);

    document.write("<br>"+e.id+" "+e.name+" "+e.salary);
</script>
```

3.2 JS Array

› JavaScript Array គឺជាបណ្ដុំអញ្ញាតិ ដែលរាល់ធាតុនីមួយៗរបស់វា ត្រូវតែមាន ប្រភេទនិន្នន័យដូចគ្នា និងមានឈ្មោះរួមដូចគ្នា។រាល់ធាតុនីមួយៗរបស់វា ត្រូវ បានAccess យកតាមរយៈ Index។

› យើងអាចបង្កើត Array បានពារបៀប

› By array literal

› By creating instance of Array directly (using new keyword)

› By using an Array constructor (using new keyword)

3.2-1 By array literal

› Form: var arrayname=[value1,value2.....valueN];

```
<script>
var emp=["Sonoo","Vimal","Ratan"];
for (i=0;i<emp.length;i++){
        document.write(emp[i]  + "<br/>");
}
</script>
```

3.2-2 By creating instance of Array directly

Form: var arrayname=new Array();

```
<script>
var i;
var emp = new Array();
        emp[0] = "Arun";
        emp[1] = "Varun";
        emp[2] = "John";

for (i=0;i<emp.length;i++){
        document.write(emp[i] + "<br>");
}
</script>
```

3.2-2 By using an Array constructor

```
<script>
var emp=new Array("Jai","Vijay","Smith");
for (i=0;i<emp.length;i++){
        document.write(emp[i]  + "<br>");
}
</script>
```

4 JS String

› JavaScript String គឺជាObject ដែលបង្ហាញលំដាប់នៃតួអក្សរ។

› យើងអាចបង្កើត String បាន2របៀប

1.By string literal (var stringname="string value";)
2.By string object (using new keyword)
Form:

      var stringname=new String("string literal");

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5 JS Date

› JavaScript Date គឺជាObject ដែលប្រើសំរាប់ទាញយក ឆ្នាំ ខែ ថ្ងៃ..

 Current Date and Time:

<script>

var today=new Date();

document.getElementById('txt').innerHTML=today;

</script>

JS Date(Continue)

```
<script>

var date=new Date();
var day=date.getDate();
var month=date.getMonth()+1;
var year=date.getFullYear();
document.write("<br>Date is: "+day+"/"+month+"/"+year);

</script>
```

6 JS Number

parseFloat()
It converts the given string into a floating point number.Ex:
document.writeln(Number.parseFloat(a)+"<br>");

parseInt()
It converts the given string into an integer number. Ex:
document.writeln(Number.parseInt(a)+"<br>");

toPrecision()
It returns the string representing a number of specified precision.
Ex:var a=98.9721;
document.writeln(a.toPrecision(2)); //98.97

toString()
It returns the given number in the form of string. Ex:
document.writeln(a.toString()+"<br>");

7 JS Boolean

› **Research YourSelf**