

# JavaScript Programming

## Basic Skills (2)

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# Object

- Object = Property + Method

```
<script language="javascript">
  var e= new Array("a","b","c","e","f","d");
  alert(e.sort());
  alert(e.reverse());
  len=e.length;
</script>
```

- **Window Object** have 4 major sub-objects
  - Document
    - **Anchor**, **Area**, **Applet**, **Image**, **Link**, **Form**
  - Frame
  - History
  - Location
  - **[Ex]** [java4-1-object.htm](#)

# Window Object (1)

- **Method**

Method	Examples
<b>open(URL,name,features,replace)</b>	<b>w=window.open("part1-1.htm", "win","width=200, height=100");</b>
window_name.close()	<b>w.close();</b>
prompt(display_text,default_value)	prompt("Input account","f1234");
alert(message)	alert("welcome!");
confirm(message)	confirm("are you sure?")

```
<script language="javascript">  
  var name= window.prompt("Please input your  
    name");  
  window.alert("Hello "+name);  
</script>
```

# Window Object (2)

- **Method**

Method	Examples
<code>moveTo(x,y)</code>	<code>moveTo(20,20)</code>
<code>moveBy(x,y)</code>	<code>moveBy(-20,-20)</code>
<code>resizeTo(w,h)</code>	<code>resizeTo(1024,768)</code>
<code>resizeBy(w,h)</code>	<code>resizeBy(-100,100)</code>
<code>scroll(x,y)</code>	<code>scroll(20,20)</code>
<code>scrollTo(x,y)</code>	<code>scrollTo(20,20)</code>
<code>scrollBy(x,y)</code>	<code>scrollBy(-20,-20)</code>

# Window Object (3)

- **Method**

Method	Examples
<code>setTimeout(statement,time)</code>	<code>timer1= setTimeout("alert("wait 3 sec...",3000);</code>
<code>clearTimeout(timeobject)</code>	<code>clearTimeout(timer1);</code>
<code>setInterval(statement,time)</code>	<code>function movewindow(){     moveBy(-20,-20); } timer2= setInterval("movewindow()",5000);</code>
<code>clearInterval(timeobject)</code>	<code>clearInterval(timer2);</code>

# Features of Open Method (1)

- **Feature property**

Feature	Examples
left	<code>open("part1-1.htm", "win","left=100");</code>
top	<code>open("part1-1.htm", "win","top=200");</code>
height	<code>open("part1-1.htm", "win","height=300");</code>
width	<code>open("part1-1.htm", "win","width=600");</code>
menubar	<code>open("part1-1.htm", "win","menubar=yes");</code>
location	<code>open("part1-1.htm", "win","location=yes");</code>

# Features of Open Method (2)

- **Feature property**

Feature	Examples
toolbar	<code>open("part1-1.htm", "win","toolbar=yes");</code>
titlebar	<code>open("part1-1.htm", "win","titlebar=yes");</code>
scrollbars	<code>open("part1-1.htm", "win","scrollbars=yes");</code>
directories	<code>open("part1-1.htm", "win","directories=yes");</code>
resizeable	<code>open("part1-1.htm", "win","resizeable=yes");</code>
status	<code>open("part1-1.htm", "win","status=yes");</code>

- **[ Ex ]** [java4-2-open-window.htm](#)

# Location Object

- Display HTML source code
  - [Ex] [java4-3-window-location.htm](#)



# Document Object (1)

- **Method**

Method	Examples
<code>open(mime-type,replace)</code>	<code>w=window.open("part1-1.htm", "toolbar=yes"); w.document.open("text/html",replace);</code>
<code>close()</code>	<code>w.document.close();</code>
<code>write(string)</code>	<code>write("welcome!");</code>
<code>writeln(string)</code>	<code>writeln("welcome!");</code>

# Document Object (2)

- **Property**

Method	Examples
bgColor	<code>document.bgColor="red";</code>
fgColor	<code>document.fgColor="yellow";</code>
linkColor	<code>document.linkColor="yellow";</code>
alinkColor	<code>document.alinkColor="blue";</code>
vlinkColor	<code>document.vlinkColor="green";</code>

– [Ex] [java4-4-document-object.htm](#)

# Document Object (3)

- **Property**


Property	Examples
URL	<code>alert(document.URL);</code>
title	<code>alert(document.title);</code>
cookie	<code>alert(document.cookie);</code>
domain	<code>alert(document.domain);</code>
lastModified	<code>alert(document.lastModified);</code>
anchors	<code>alert(document.anchors);</code>
forms	<code>alert(document.forms);</code>
images	<code>alert(document.images);</code>
applets	<code>alert(document.applets);</code>

# Document Object (4)

- Method
  - getElementById
  - getElementsByName
  - getElementsByTagName
  - getElementsByClass
- Examples
  - [java4-5-innerText.htm](#)

# Note

- `<td id="XXX">YYYY</td>`



`obj.id="XXX"`



`obj.innerHTML="YYYY"`

# Form Object

- Examples
  - [Ex] [java4-6-form-radio.htm](#)
  - [Ex] [java4-7-online-test2.htm](#)

# String Object

- Methods
  - `link("URL")`
  - `fontcolor("color")`
  - `fontsize(size)`
  - `strike()`, `sub()`, `sup()`, `blink()`
- Examples
  - [Ex] [java4-8-string-object.htm](#)

# Image Object

- Method
  - Image()
- Property
  - src
- Examples

```
var img1= new Image();  
img1.src="../HTML/planets.gif";
```

- [Ex] [java4-9-image-object.htm](#)



# Date Object

## Methods

getDate(), setDate()

getFullYear(), setFullYear()

getHours(), setHours()

getMonth(), setMonth()

getYear(), setYear()

getMinutes(), setMinutes()

getSeconds(), setSeconds()

getTime(), setTime()

getDay(), setDay()

toString()

```
var t= new Date();  
t_year=t.getFullYear();  
t_date=t.getDate();  
t_day=t.getDay();  
t.setMonth(10);
```

# User-Defined Object

- Example: [java4-10-userdefined-object.htm](#)

```
<script language="javascript">
  var notebook= new Object();
  notebook.brand="ASUS";
  notebook.price=25000;
  notebook.color="black";
  notebook.display= show;
  notebook.display(); //execute method
  function show(){
    document.write("brand:"+this.brand+"<br>");
    document.write("price:"+this.price+"<br>");
    document.write("color:"+this.color+"<br>");
  }
</script>
```