JS101
Javascript

```
/**
 * @name
 * @email cybaek@netsgo.com
 * @homepage http://cybaek.com/
 */
```

Javascript

HTML   2%   .   ,
                                <form>
                        ,
                                HTML   ,
Javascript   .

Visual Basic Script Edition (, VBScript)   , Javascript
            (   )
            ,   Netscape Communicator
                Javascript   .

            ,   Internet Explorer   VBScript
                        VBScript
Javascript   Javascript   .

❑   .

❑ HTML   .

❑ <form>   .

                        Javascript   .
                        (, Editplus, Ultraedit   )   ,
                                        (Drag & Drop)   .

```
basic.1.html

<html>
<head>

<script language="javascript">
//                              .
</script>

</head>
<body>

</body>
</html>
```

                                                        .   .

```
basic.2.html

<html>
<head>
```

```
<script language="javascript">
var a, b, c;

a = 3;
b = 6;
c = a + b;
alert(c);
alert(a-b);
alert(a*b);
alert(b/a);
</script>

</head>
<body>

</body>
</html>
```

var

Javascript   var
                                                        .

var a, b, c   a, b, c   .

+, -,, *, /

                                                                              .

alert()

                                                                         .

alert(c)   c   3+6   9   9   .

if, for, while, switch   .
                                                                   .

```
<html>
<head>

<script language="javascript">
var a, b, c;

a = 3;
b = 6;
c = a + b;

if (c>5){
      alert('5           .');
}
else if (c<5){
      alert('5            .');
```

```
}
else{
      alert('        5        .');
}

var i, total;
for(i=0, total=0; i<10; i=i+1){
      total = total + i;
}
alert('for  : 0      9                  ' +  total + '        .');

i=0;
total=0;
while(i<10){
      total = total + i;
      i++;
}
alert('while  : 0      9                  ' +  total + '        .');

i = 2;
switch(i){
      case 0:
            alert(0);
      case 1:
            alert(1);
      case 2:
            alert(2);
      default:
            alert('     ');
}
</script>

</head>
<body>

</body>
</html>
```

if

if   if, else if, else   .

alert

                                          .

```
if (c>5){
      alert('5            .');
}
```

┌───┐
│   ?   │
│   .   │
└───┘

```
if (c>5){
      alert('      \'5\'              .');
}
```

for

for ( ) .

```
for(i=0, total=0; i<10; i=i+1){
     total = total + i;
}
```

for .
i 0 total 0 .

for
. i 10 .

for , i
. i++ .

```
alert('for : 0    9           ' +  total + '     .');
```

alert .
+ .

while

while for
.

switch

swtich if .

i 0 , 1 , 2 ,
. if . , if . i 2
alert(2) alert(' ') .

> , case .
> , case break
> .

```
switch(i){
     case 0:
          alert(0);
          break;
     case 1:
          alert(1);
          break;
     case 2:
          alert(2);
          break;
     default:
          alert('    ');
}
```

▬▬▬▬▬▬▬

.

.

```html
<html>
<head>

<script language="javascript">
var a, b, c, min;
a = 12;
b = 23;
c = 56;

min = a;
if (b<min){
     min = b;
}
if (c<min){
     min = c;
}
alert(min + '  (  )              .');


a = 56;
b = 23;
c = 123;

min = a;
if (b<min){
     min = b;
}
if (c<min){
     min = c;
}
alert(min + '  (  )             .');


</script>

</head>
<body>

</body>
</html>
```

.

.

.

```html
<html>
<head>

<script language="javascript">
var a, b, c, min;
a = 12;
b = 23;
```

```
c = 56;
min = getMin(a, b, c);
alert(min + ' ( )                    .');

min = getMin(56, 23, 123);
alert(min + ' ( )                  .');

function getMin(x, y, z){
      var min;
      min = x;
      if (y<min){
            min = y;
      }
      if (z<min){
            min = z;
      }

      return min;
}

</script>

</head>
<body>

</body>
</html>
```

function

___

                                                                                                   .   , getMin

    (x, y, z)   .

getMin(1, 2, 3)   ,   x, y, z   1, 2, 3   .

return

___

                                                          return   .

   , a = getMiin(1,2,3)   return 1   a = 1
                   .

                                 return   .
                                 return   .

getMin(a, b, c)

___

getMin(a, b, c)   , getMin(56, 23, 123)
                   .

Javascript   .   , Javascript
               HTML   name, id, class
               .

.

```
event.1.html

<html>
<head>

<script language="javascript">
function func1(){
      alert('                .');
}
</script>

</head>
<body>
<a href="http://www.microsoft.com/" onClick="func1(); return false;">   </a>

</body>
</html>
```

onClick   Javascript   .

.

return false;

return false;   .   <a>
                        href   .   ,
        onClick   false,   .   ,
                    ,   http://www.microsoft.com/
                    .

onLoad
```
event.2.html

<html>
<head>

<script language="javascript">
function func1(){
      alert('              !');
}
</script>

</head>
<body onLoad="func1();">

                        .

</body>
</html>
```

HTML   ,   ,
                                .   <body>   .

onMouseOut, onMouseOver

```
<html>
<head>

<script language="javascript">
function func1(){
     alert('                             .');
}

function func2(){
     alert('                               .');
}
</script>

</head>
<body>
<h1 onMouseOver="func1();" onMouseOut="func2();">    </h1>
          .

</body>
</html>
```

                              <h1>   fun1()   ,
                    func2()   .   CSS
                        .

---

onSubmit, onKeypress
                        .

■■■■■■■■■■■■■■■■

                         Hello, World   <a>   name,
                    href, target   .

```
<html>
<head>

<script language="javascript">
function func1(obj){
     alert("name: " + obj.name);
     alert("href: " + obj.href);
     alert("target: " + obj.target);
     alert("name: " + document.links[0].name);
}

</script>
```

```
</head>
<body>
<a href="a.html" name="a_doc" target="main"
      onClick="func1(this); return false;"><b>Hello, world.</b></a>
<a href="b.html"
      onClick="func1(this); return false;"><b>Hello, world.2</b></a>
</body>
</html>
```

onClick   func1()   func1(this)   .
Javascript   this
            . (Java, C#, C++
              .)

            func1   this   func1
                                            func1(obj)   .

            obj   .

            Hello, world   , Hello, world.2   href
                                              . (
              .)

            func1   .

```
      alert("name: " + document.links[0].name);
```

                  this.name   ,   this   (   )
                                        . <a>   link   . links[0]
                                  .

            links[0]   .
            Thanks this for this.

innerHTML, innerText, outerHTML, outerText

                                                    .

```
<html>
<head>

<script language="javascript">
function func1(obj){
      alert("innerHTML " + obj.innerHTML);
      alert("innerText " + obj.innerText);
      alert("outerHTML " + obj.outerHTML);
      alert("outerText " + obj.outerText);
}

</script>

</head>
<body>
<a href="a.html" name="a_doc" target="main"
      onClick="func1(this); return false;"><b>Hello, world.</b></a>

</body>
</html>
```

innerXXX   outerXXX   .

XXXHTML   , XXXText   <>
                                        .

━━━━━━━━━━━━━━

name   id

                                                    (   )   .
                                    name   id
                    .

              ,   id   .   <form>
                    name   .
                    <form>   name
                        id   .

```
name_id.html

<span id=id1 value="test">name1_id1</span>
<span id=id2 value="    ">name1_id2_1</span>
<span id=id2>name1_id2_2<span id=id21 value="   ">Hello</span></span>
<form id=form1>
      <input type=text name=name2 value="name2 1">
      <input type=text name=name2 value="name2 2">
      <input type=text id=id4 value="id4">
      <input type=text id=id5 value="id5 1">
      <input type=text id=id5 value="id5 2">
</form>
<table id=table1 value="TABLE">
<tr id=tr1 value="TR">
      <td id=td1 value="TD"><span id=id6 value="          span"></span></td>
</tr>
</table>

<script>

alert('id1: ' + id1.value);
alert('id2_1: ' + id2[0].value);
alert('id21: ' + id21.value);

alert('id4: ' + form1.id4.value);

alert('table1: ' + table1.value);
alert('tr1: ' + tr1.value);
alert('td1: ' + td1.value);
alert('id6: ' + id6.value);
</script>
```

┌──┐
│   <form>   <form>   │
│   .   │
└──┘

```
alert('id4: ' + form1.id4.value);
```

<form>

.

```
form.1.html

<html>
<head>

<script language="javascript">
function func1(){
      var e;
      e = document.forms['testForm'].elements;
      alert('subject: ' + e['subject'].value);
      alert('content: ' + e['content'].value);
      alert('type: ' + e['type'].value);
}

function func2(){
      var e;
      e = document.forms['testForm'].elements;
      var len = e.length;
      var i;
      for (i=0; i<len; i++){
            alert(e[i].name + ': ' + e[i].value);
      }
}

</script>

</head>
<body>
<form name='testForm'>
    : <input type=text name=subject><br>
    : <textarea name=content rows=5 cols=20></textarea><br>
     : <select name=type>
            <option value="0">HTML
            <option value="1">HTML+Text
            <option value="2">Text
      </select><br>
<input type=submit value="    ">
</form>

<a href="" onClick="func1(); return false;">       1</a>
<a href="" onClick="func2(); return false;">       2</a>
</body>
</html>
```

func1()   <form>   .

<form name='testForm'>

<form>   testForm

```
var f;
f = document.forms['testForm'];
```

<form>   <input>
. <form>   elements   .   ,
<form>

```
var e;
e = document.forms['testForm'].elements;
```

,   <input name=subject>

```
var o;
o = document.forms['testForm'].elements['subject'];
```

.value   .

```
var value;
value = document.forms['testForm'].elements['subject'].value;
```

```
var e;
e = document.forms['testForm'].elements;
var subject, content;
subject = e['subject'].value;
content = e['content'].value;
```

func1()

HTML   0

```
var e, i;
e = document.forms[0].elements;

for (i=0; i<10; i++){
    alert(e[i].value);
}
```

onSubmit

<form>   onSubmit   .
' . '

사용자가 폼에 입력한 값을 서버로 보내기 전에 값을 검증하는 작업이 필요하다. onSubmit 이벤트 핸들러에서,
폼에 입력한 값을 검사하는 Javascript 함수를 호출하도록 한다.

만약 검증 작업에서 오류가 발견되면 return false 를 리턴하여 폼이 전송되지 않도록 한다.
입력값에 오류가 없는 경우에만 폼이 정상적으로 전송된다. onSubmit 이벤트 핸들러가 return
false 를 리턴하면 폼은 전송되지 않는다.

아래 예제를 수정하여, 폼에 입력한 값을 검증하는 func1() 함수를 완성하도록 하자.

```
form.2.html

<html>
<head>

<script language="javascript">
function func1(){
      var e;
      e = document.forms['testForm'].elements;
      alert('subject: ' + e['subject'].value);
      alert('content: ' + e['content'].value);
      alert('type: ' + e['type'].value);

      return true;
}

</script>

</head>
<body>
<form name='testForm' onSubmit="return func1();">
    제목 : <input type=text name=subject><br>
    내용 : <textarea name=content rows=5 cols=20></textarea><br>
      형식 : <select name=type>
            <option value="0">HTML
            <option value="1">HTML+Text
            <option value="2">Text
      </select><br>
<input type=submit value="  전송  ">
</form>
</body>
</html>
```

예제 설명 : <form>

❑ 입력값이 HTML 코드를 포함하고 있는지 검사하는 함수를 작성한다.

❑ subject 필드의 값이 5글자 이상, content 필드의 값이 10글자 이상,
    Text 형식이어야 통과되도록 한다.

❑ 모든 검증을 통과하면 1을 리턴하도록 한다.

❑ <input type=submit> 버튼을 눌렀을 때 검증
    함수가 호출되도록 한다.

.

```
var a;
a = 'hello';
alert(a.length);
```

Javascript

HTML
,   HTML
.

Javascript   .

form.3.html   form3.js   .

```
form.3.html

<html>
<head>

<script language="javascript" src="form.3.js"></script>

</head>
<body>
<form name='testForm' onSubmit="return func1();">
    : <input type=text name=subject><br>
    : <textarea name=content rows=5 cols=20></textarea><br>
       : <select name=type>
            <option value="0">HTML
            <option value="1">HTML+Text
            <option value="2">Text
      </select><br>
<input type=submit value="    ">
</form>
</body>
</html>
```

Javascript   , <script>
.

```
form.3.js

function func1(){
      var e;
      e = document.forms['testForm'].elements;
      alert('subject: ' + e['subject'].value);
      alert('content: ' + e['content'].value);
      alert('type: ' + e['type'].value);

      return true;
}
```