

JavaScript (5A)

- JavaScript

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This document was produced by using OpenOffice and Octave.

Change CSS Style

```
<!DOCTYPE html>
<html>
<body>
<pre>
  if <span id="c1"> (x >= "90") </span> Grade = "A";
  else if <span id="c2"> (x >= "80") </span> Grade = "B";
  else if <span id="c3"> (x >= "70") </span> Grade = "C";
  else Grade = "D";
</pre>
```

```
</body>
</html>
```



```
<script>
function compGrade(x)
{
  var Grade="";
  if (x >= "90") { Grade = "A";
    document.getElementById("c1").style.background="red";
  } else if (x >= "80") { Grade = "B";
    document.getElementById("c2").style.background="green";
  } else if (x >= "70") { Grade = "C";
    document.getElementById("c3").style.background="blue";
  } else Grade = "D";
  document.write("<p> Grade " + x + "--> " + Grade + "</p>");
}

var x = prompt("Grade ? ", "100");
compGrade(x);
</script>
```

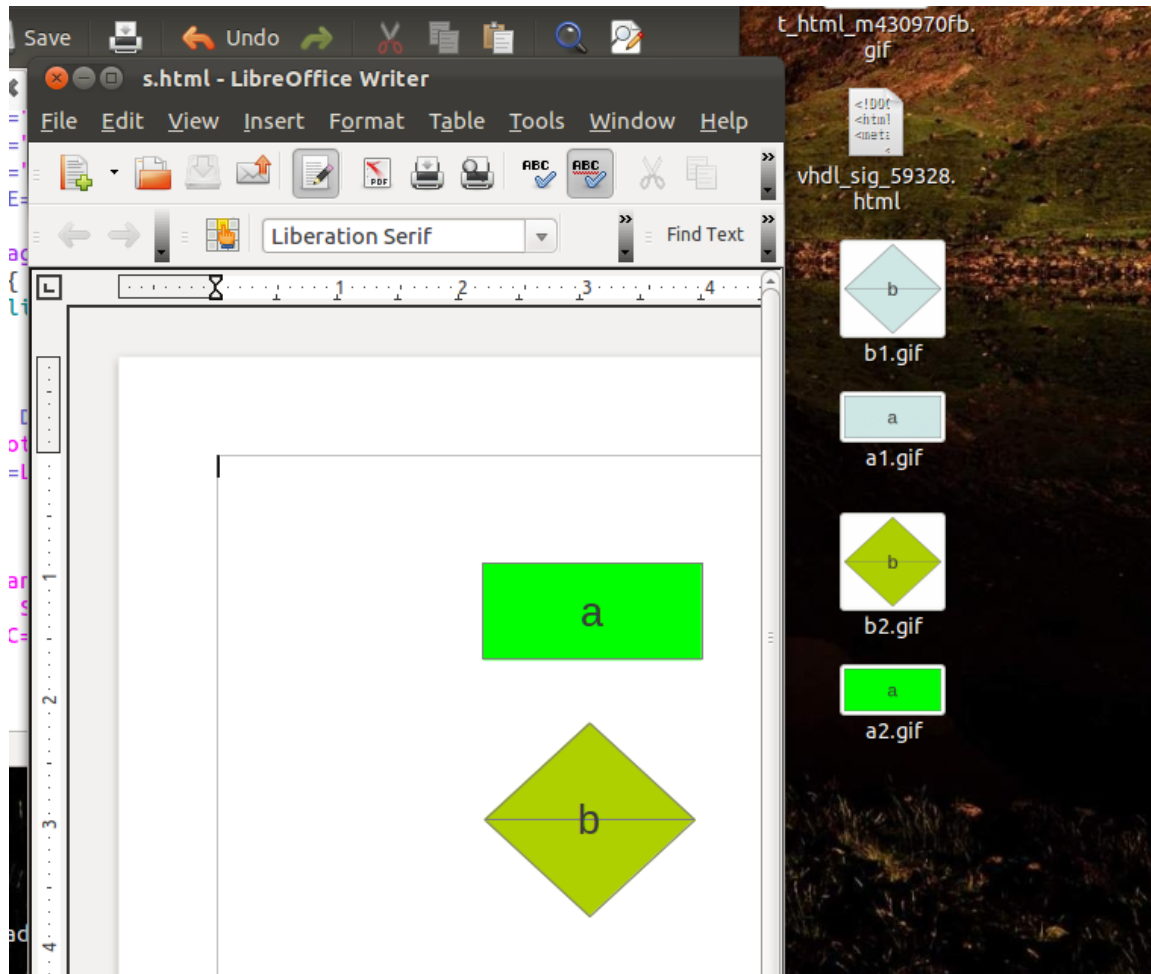
Attribute Node

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<HTML>
<HEAD>
  <META HTTP-EQUIV="CONTENT-TYPE" CONTENT="text/html; charset=utf-8">
  <TITLE></TITLE>

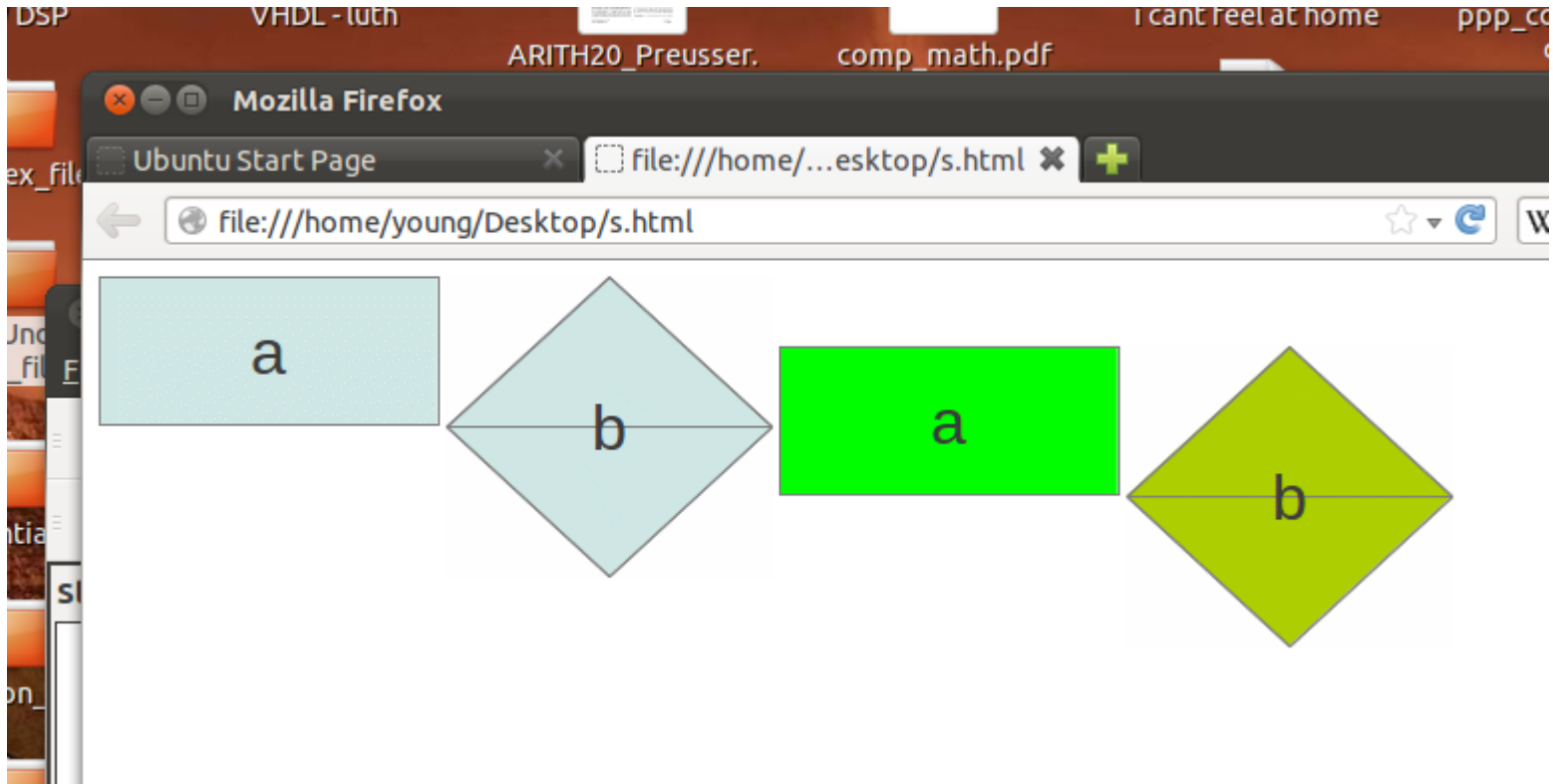
  <STYLE TYPE="text/css">
  <!--
    @page { margin: 0.79in }
    P { margin-bottom: 0.08in }
    A:link { so-language: zxx }
  -->
  </STYLE>
</HEAD>
<BODY LANG="en-US" DIR="LTR">
<P STYLE="margin-bottom: 0in"><IMG SRC="a1.gif" ALIGN=LEFT>
<IMG SRC="b1.gif" ALIGN=LEFT><BR>
</P>

<script>
var x = prompt("change color","y");
document.write("<P STYLE=\"margin-bottom: 0in\"><IMG SRC=\"a2.gif\" ALIGN=LEFT>
<IMG SRC=\"b2.gif\" ALIGN=LEFT><BR>");
</script>
</P>
</BODY>
</HTML>
```

Use OpenOffice Write



HTML file



Infinite Loop Implementation

```
<script>

function change()
{

    var Ex = 0;
    var i = 0;

    while (1) {
        Ex = prompt("Exit ? ", "1");
        document.write("<p> index i= " + i + " exit= " + Ex + "</p>");
        if (Ex != "0") break;
        i = (i+1) % 3;
    }
}

change();

</script>
```

Event Handler Implementation

```
<script>
var Ex =0; // global variable
var i = 0; // global variable

function change()
{
  i = (i+1) % 3;
  document.f.n.value= "Next " + i;
  document.f.e.value= "Exit " + Ex;
}

function SetEx()
{ Ex = 1; }

</script>

<form name="f">
  <input type="button" name="n" value="Next" onclick="change()">
  <input type="button" name="e" value="Exit" onclick="SetEx()">
</form>
```


for loop simulator (1)

```
S=0;  
for (i =0; i < 10; i++)  
{  
    S = S + i;  
}
```



init();

```
S = 0;  
i = 0;
```

check();

```
i < 10
```

body();

```
S = S + i;
```

update();

```
i = i + 1;
```

for loop simulator (2)

```
function init()  
{  
  Ex = 0;  
  i = 0;  
  S = 0;  
  dispVar();  
}
```

```
function check()  
{  
  if (i < 10) Ex = 0;  
  else Ex = 1;  
}
```

```
function body()  
{  
  S = S + i;  
}
```

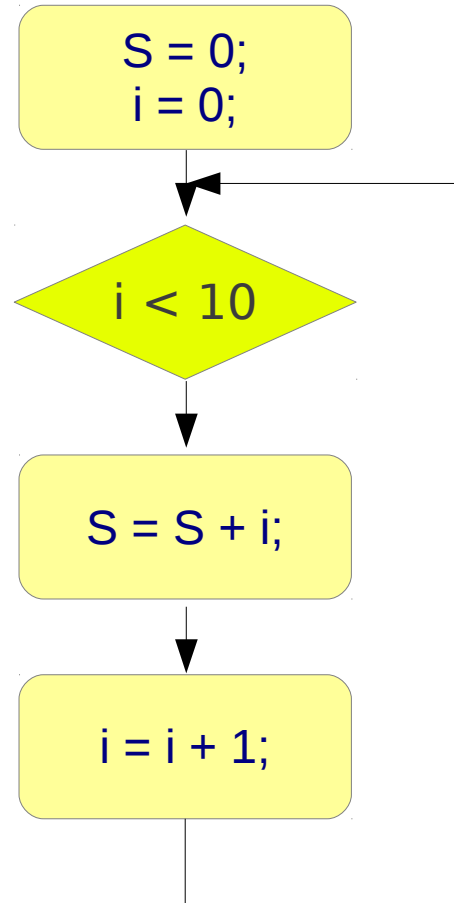
```
function update()  
{  
  i = i + 1;  
}
```

init();

check();

body();

update();



for loop simulator (3)

```
function loop()
{
  if (Ex != 1) {
    if (l == 0) check();
    else if (l == 1) body();
    else if (l == 2) update();
    l = (l+1) %3;
    dispVar();
  }
}

function myexit()
{
  Ex = 1 ;
}

function dispVar() {
  document.getElementById("p").innerHTML = "i= " + i + " S= " + S ;
}
```

for loop simulator (4)

```
<!DOCTYPE html>
<html>
<body>
<script>
var Ex=0, Nx=0;
var i=0, l=0, S=0, n=0;

function init() ...
function check() ...
function body() ...
function update() ...
function loop() ...
function myexit() ...
function dispVar() ...
</script>

<div id="p"> </div>
<form name="f">
  <input type="button" name="s" value="Start" onclick="init()">
  <input type="button" name="n" value="Next" onclick="loop()">
  <input type="button" name="e" value="Exit" onclick="myexit()">
</form>
</body>
</html>
```

for loop simulator (5)

A version without using any form (a confirm dialog box is used)

```
function dispVar() {  
  r = confirm("Next? ");  
  if (r != true) Ex =1;  
  document.getElementById("p").innerHTML = "i= " + i + " S= " + S + " Ex=" + Ex;  
}
```

```
<!DOCTYPE html>  
<html>  
<body>  
<script>  
....  
loop();  
</script>  
  
</body>  
</html>
```

```
function loop() {  
  init();  
  dispVar();  
  check();  
  while (Ex == 0) {  
    body();  
    dispVar();  
    update();  
    dispVar();  
    check();  
  }  
}
```

Array

Regular

```
var A = new Array();  
A[0] = "a";  
A[1] = "b";  
A[2] = "c";
```

```
var A = new Array(3);  
A[0] = "a";  
A[1] = "b";  
A[2] = "c";
```

Condensed

```
var A = new Array("a", "b", "c");
```

Literal

```
var A = [ "a", "b", "c" ];
```

Reference

References

- [1] <http://en.wikipedia.org/>
- [2] <http://www.w3schools.com/>
- [3] K.H. Koh, HTML, CSS, Javascript (in Korean)