

Javascript 2



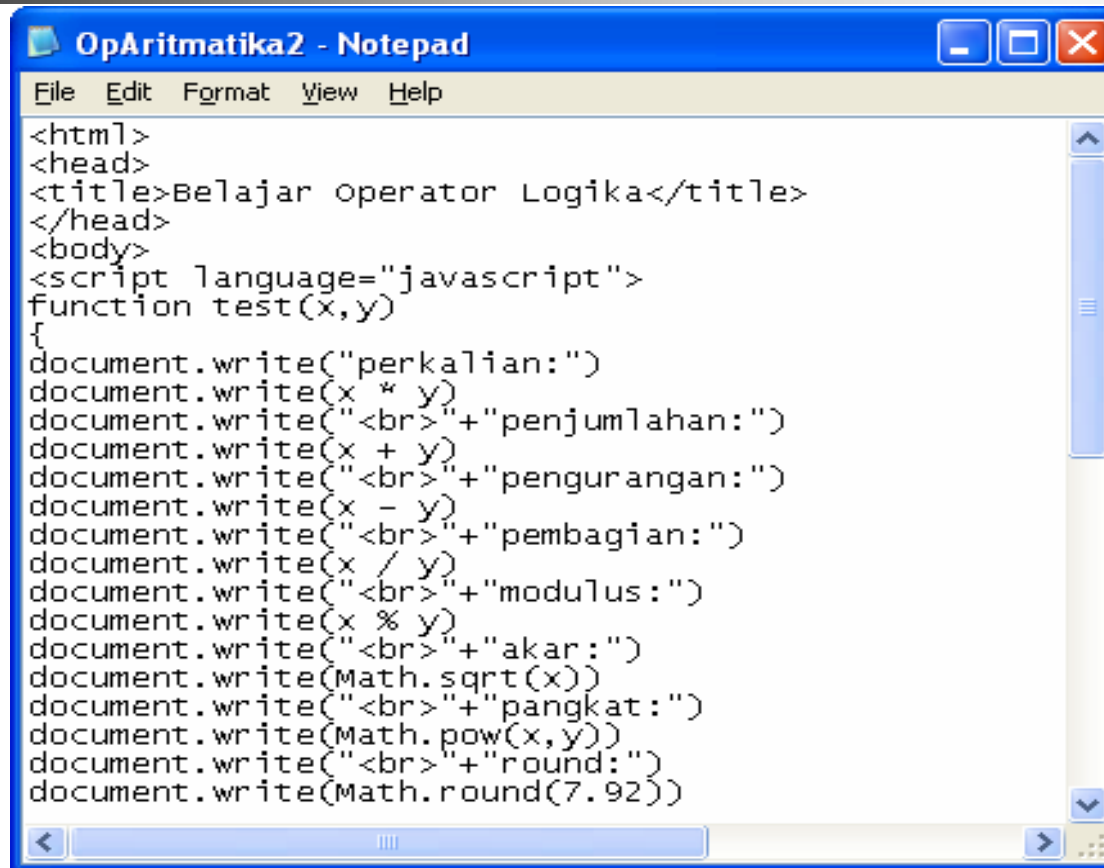
ITS
Institut
Teknologi
Sepuluh Nopember



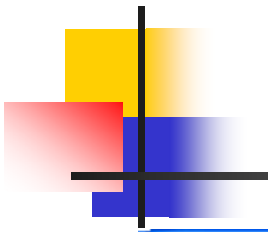
Operator Aritmatika

Sintak Javascript	Keterangan
+	Penjumlahan
-	Pengurangan
*	Perkalian
/	Pembagian
%	Sisa hasil bagi
Math.sqrt(x)	Menghitung akar
Math.pow(x,y)	Menghitung pangkat
Math.round(x)	Membulatkan angka
Math.random(x)	Menentukan nilai random
Math.max(x,y)	Menentukan nilai maksimum
Math.min(x,y)	Menentukan nilai minimum

Contoh Penggunaan Op Aritmatika



```
<html>
<head>
<title>Belajar operator Logika</title>
</head>
<body>
<script language="javascript">
function test(x,y)
{
document.write("perkalian:")
document.write(x * y)
document.write("<br>"+"penjumlahan:")
document.write(x + y)
document.write("<br>"+"pengurangan:")
document.write(x - y)
document.write("<br>"+"pembagian:")
document.write(x / y)
document.write("<br>"+"modulus:")
document.write(x % y)
document.write("<br>"+"akar:")
document.write(Math.sqrt(x))
document.write("<br>"+"pangkat:")
document.write(Math.pow(x,y))
document.write("<br>"+"round:")
document.write(Math.round(7.92))
}
```

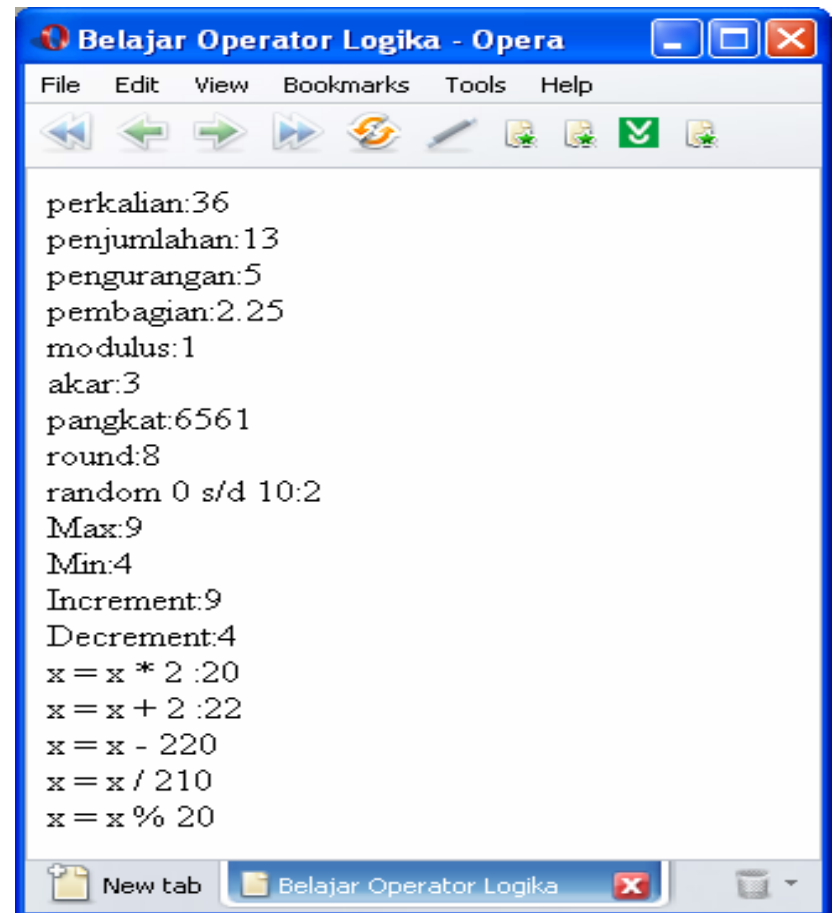
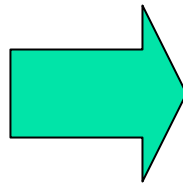
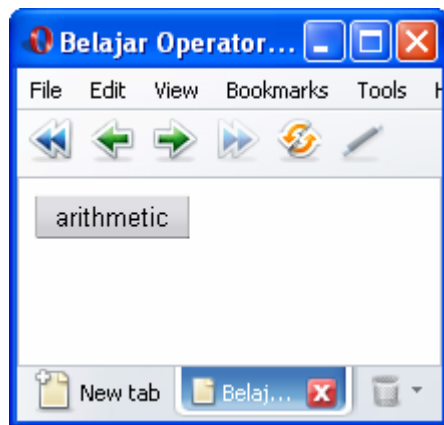


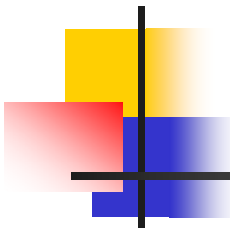
OpAritmatika2 - Notepad

File Edit Format View Help

```
document.write("<br>"+"random 0 s/d 10:")
var no=Math.random() * 10
document.write(Math.round(no))
document.write("<br>"+"Max:")
document.write(Math.max(x,y))
document.write("<br>"+"Min:")
document.write(Math.min(x,y))
document.write("<br>"+"Increment:")
document.write(x++)
document.write("<br>"+"Decrement:")
document.write(y--)
document.write("<br>"+"x = x * 2 :")
document.write(x *= 2)
document.write("<br>"+"x = x + 2 :")
document.write(x += 2)
document.write("<br>"+"x = x - 2")
document.write(x -= 2)
document.write("<br>"+"x = x / 2")
document.write(x /= 2)
document.write("<br>"+"x = x % 2")
document.write(x %= 2)
}
</script>
<input type="button" name="button1" value="arithmetic" onclick="test(9,4)">
</body>
</html>
```

Hasil

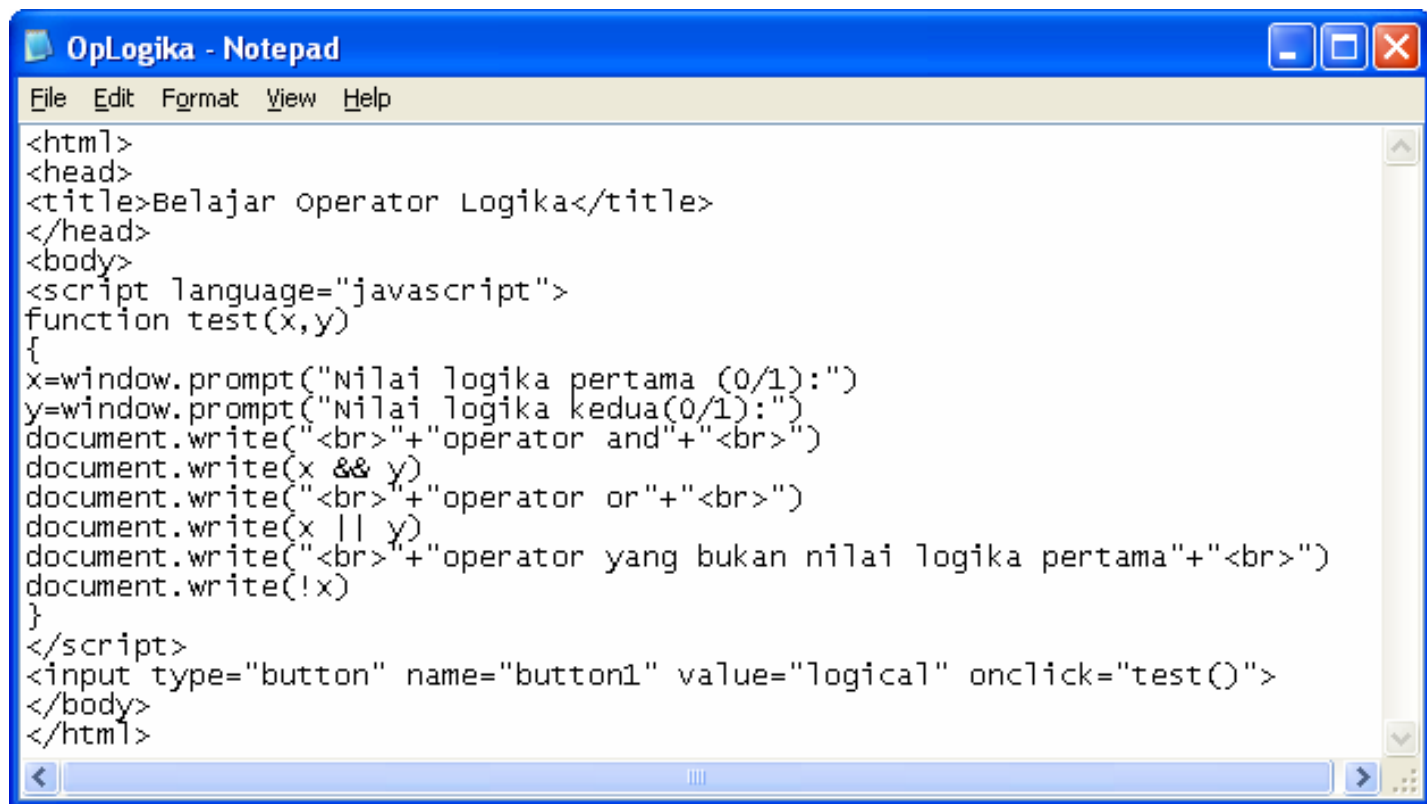




Operator Logika

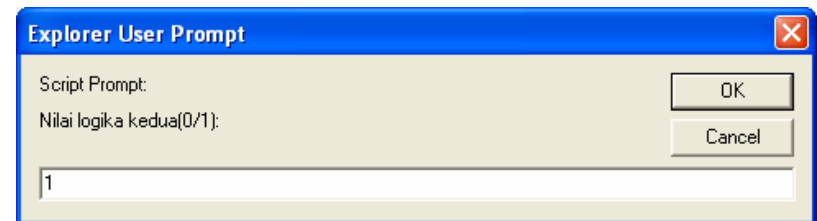
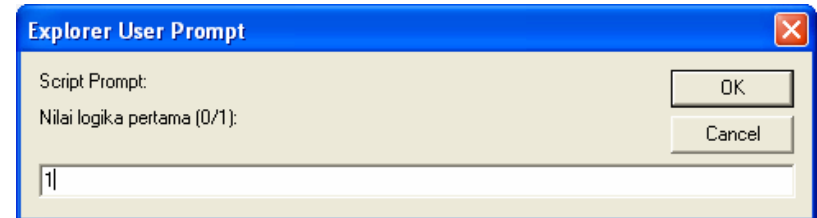
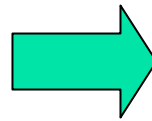
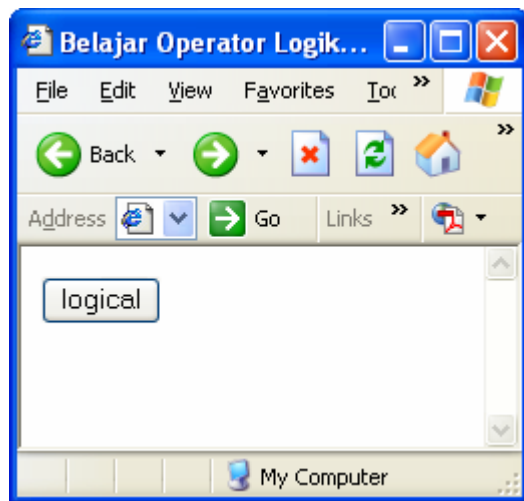
- Menggunakan fungsi AND, OR, dan NOT
- AND diwakili dengan sintak “&&”
- OR diwakili dengan sintak “||”
- NOT diwakili dengan sintak “!”

Contoh penggunaan OP Logika

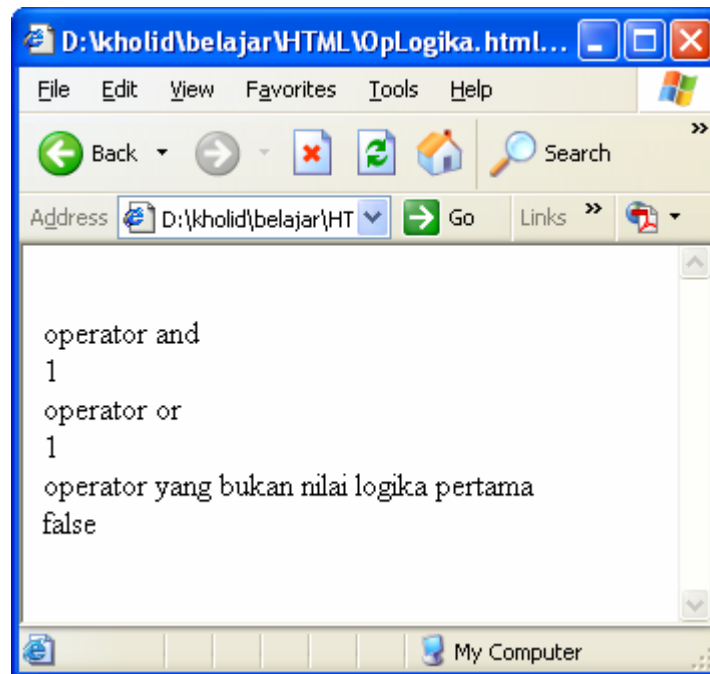


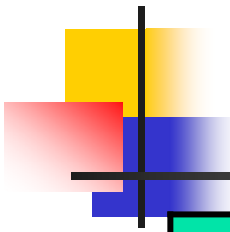
```
<html>
<head>
<title>Belajar Operator Logika</title>
</head>
<body>
<script language="javascript">
function test(x,y)
{
x=window.prompt("Nilai logika pertama (0/1):")
y=window.prompt("Nilai logika kedua(0/1):")
document.write("<br>"+"operator and"+"<br>")
document.write(x && y)
document.write("<br>"+"operator or"+"<br>")
document.write(x || y)
document.write("<br>"+"operator yang bukan nilai logika pertama"+"<br>")
document.write(!x)
}
</script>
<input type="button" name="button1" value="logical" onclick="test()">
</body>
</html>
```

Hasil



Hasil Penggunaan Op Logika

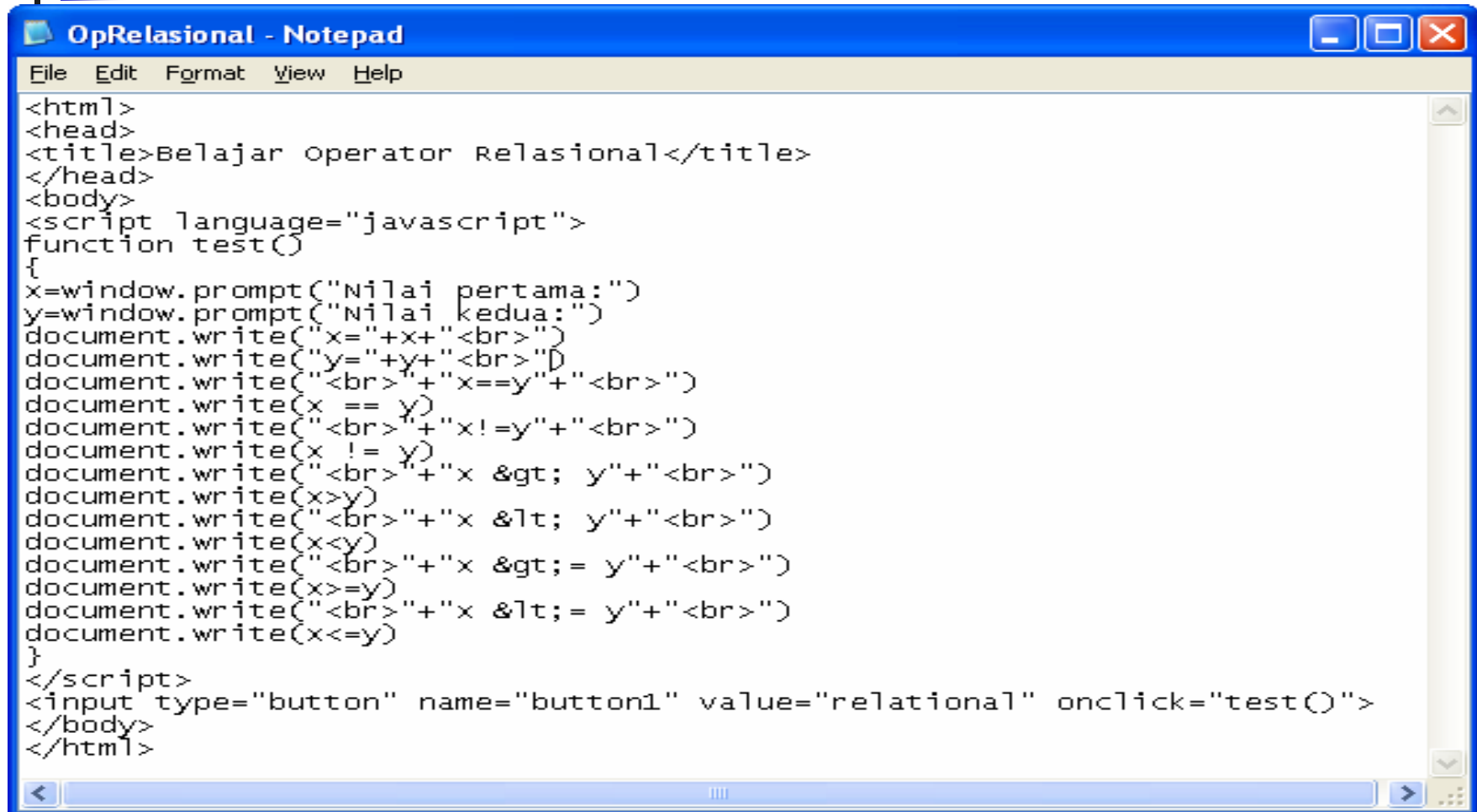




Operator Relasional

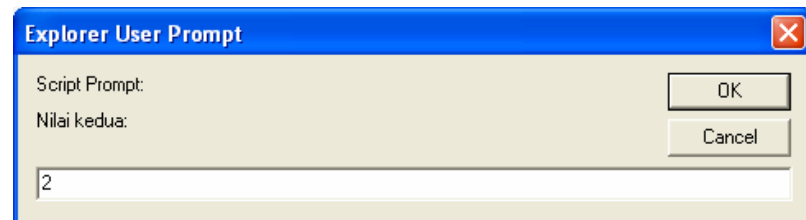
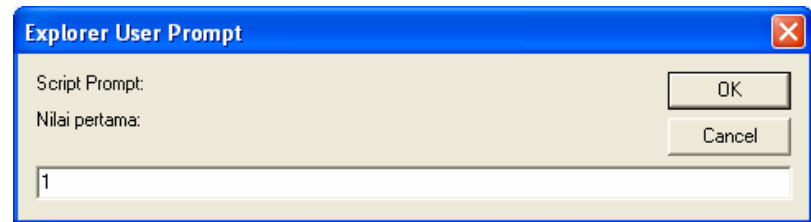
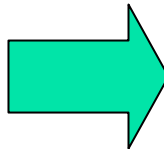
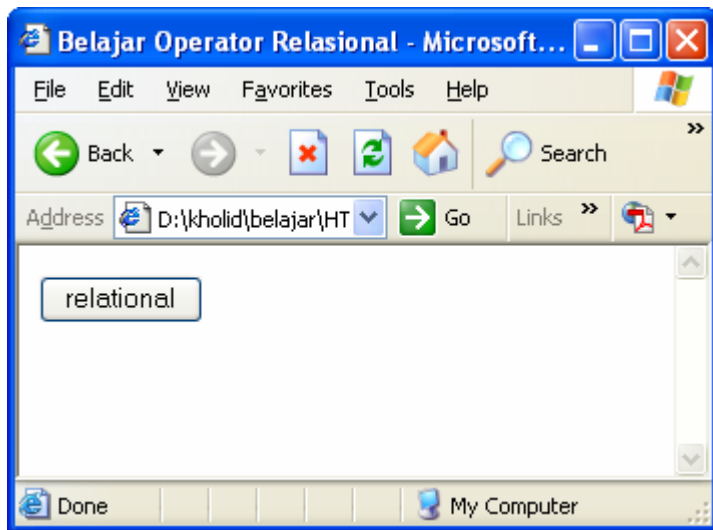
Operator	Fungsi
>	Lebih dari
<	Kurang dari
>=	Lebih dari sama dengan
<=	Kurang dari sama dengan
=	Sama dengan
<>	Tidak sama dengan

Contoh Penggunaan Op Relasional

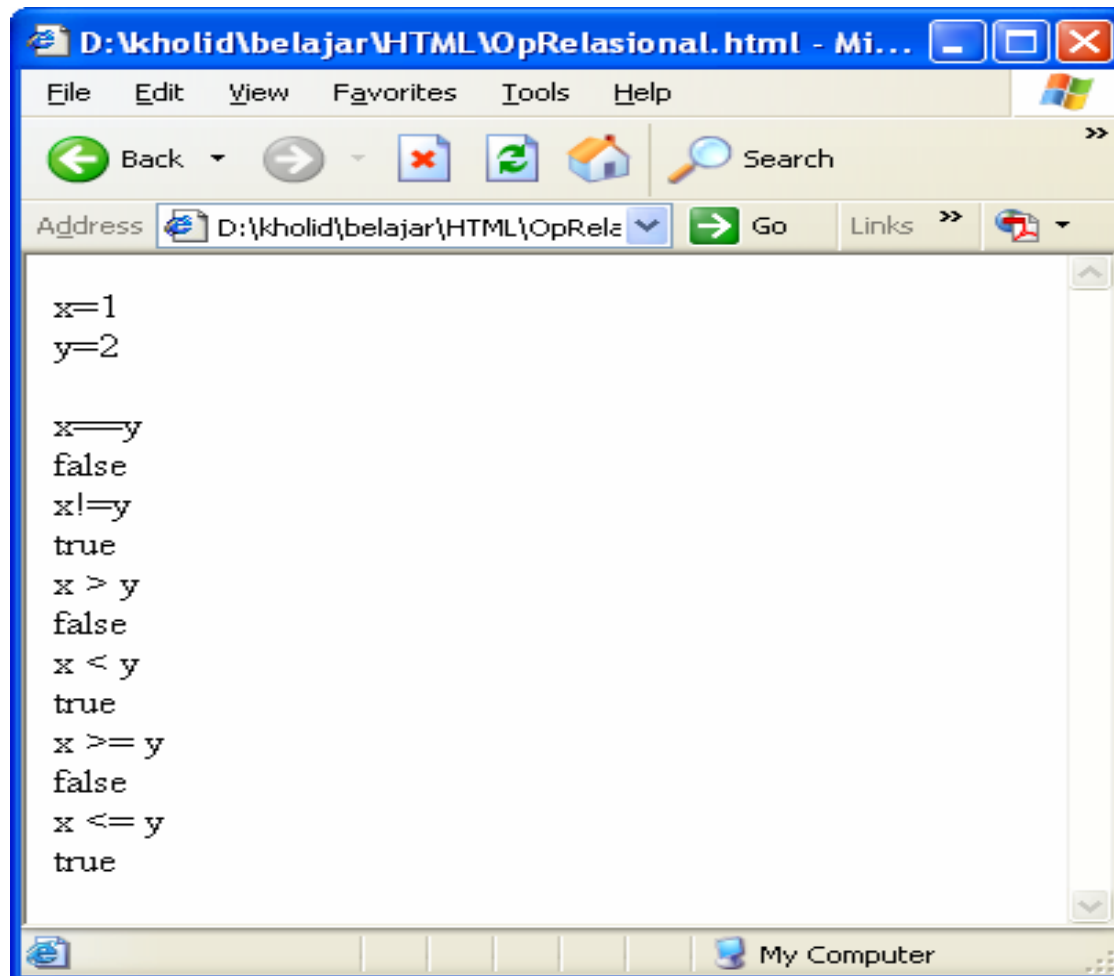


```
OpRelasional - Notepad
File Edit Format View Help
<html>
<head>
<title>Belajar Operator Relasional</title>
</head>
<body>
<script language="javascript">
function test()
{
x=window.prompt("Nilai pertama:")
y=window.prompt("Nilai kedua:")
document.write("x="+x+"<br>")
document.write("y="+y+"<br>")
document.write("<br>"+"x==y"+"<br>")
document.write(x == y)
document.write("<br>"+"x!=y"+"<br>")
document.write(x != y)
document.write("<br>"+"x > y"+"<br>")
document.write(x > y)
document.write("<br>"+"x < y"+"<br>")
document.write(x < y)
document.write("<br>"+"x >= y"+"<br>")
document.write(x >= y)
document.write("<br>"+"x <= y"+"<br>")
document.write(x <= y)
}
</script>
<input type="button" name="button1" value="relasional" onclick="test()">
</body>
</html>
```

Hasil



Hasil



The screenshot shows a Microsoft Internet Explorer browser window. The title bar reads "D:\kholid\belajar\HTML\OpRelasional.html - Mi...". The menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The toolbar contains "Back", "Forward", "Stop", "Reload", "Home", and "Search". The address bar shows the path "D:\kholid\belajar\HTML\OpRelasional.html". The main content area displays the results of logical operations on the variables x=1 and y=2.

```
x=1
y=2

x==y
false
x!=y
true
x > y
false
x < y
true
x >= y
false
x <= y
true
```

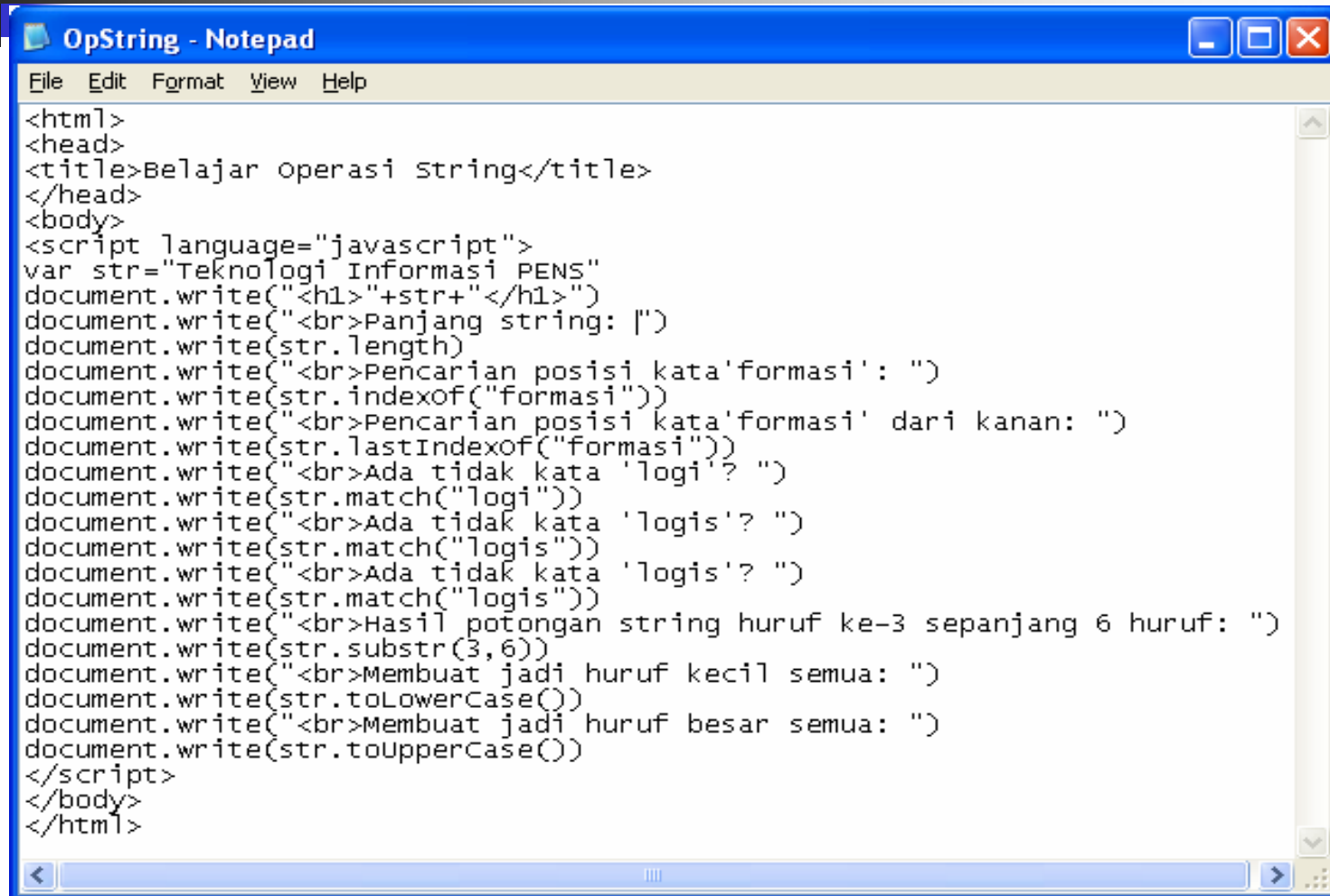
The taskbar at the bottom shows the "My Computer" icon.



Operasi String

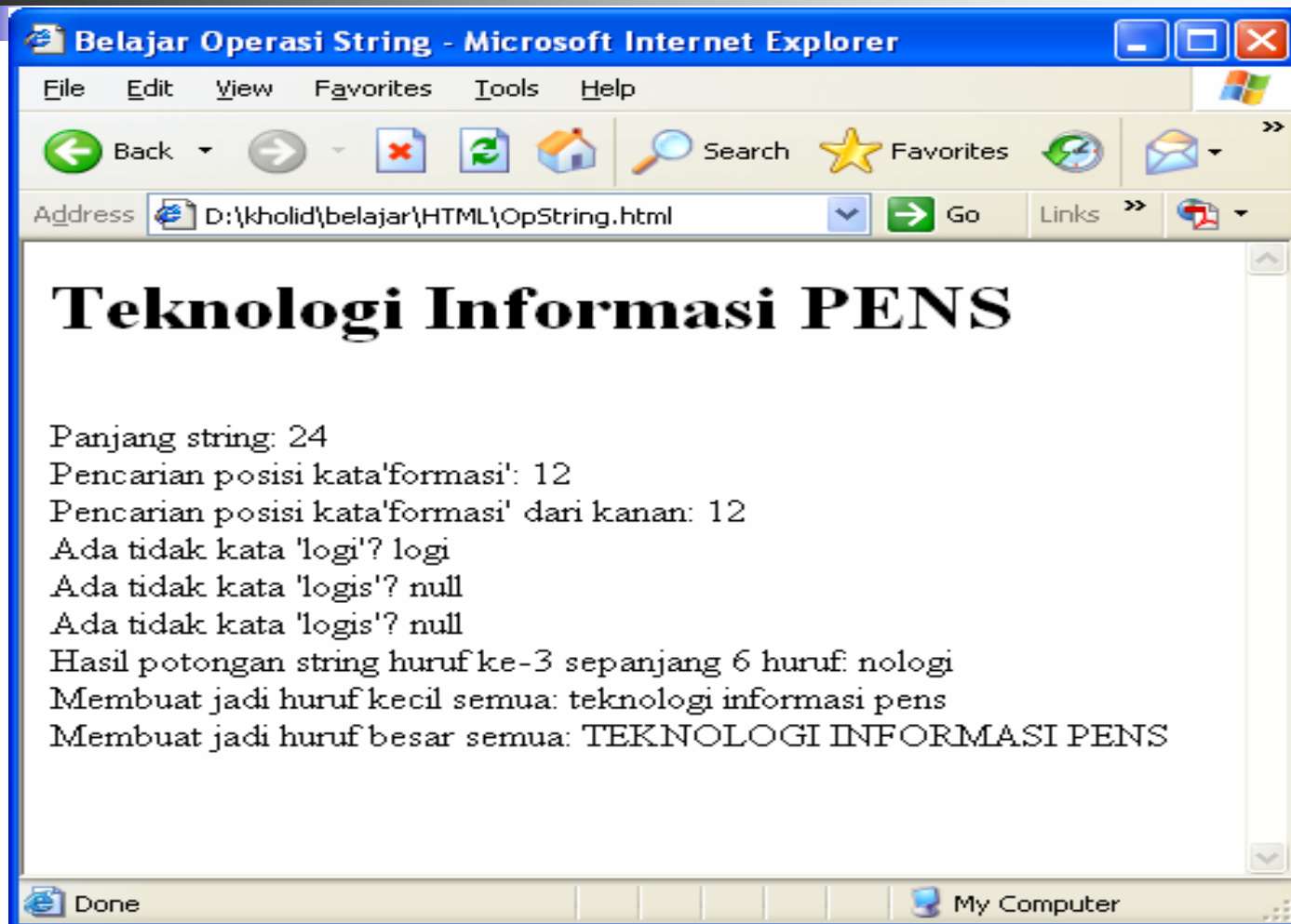
Sintaks	Fungsi
<code>length(string)</code>	Menghitung panjang string
<code>indexOf(string)</code>	Pencarian posisi dari kiri
<code>lastIndexOf(string)</code>	Pencarian posisi dari kanan
<code>match(string)</code>	Membandingkan string
<code>substr(x,y)</code>	Memotong string
<code>toLowerCase(string)</code>	Mengubah ke huruf kecil semua
<code>toUpperCase(string)</code>	Mengubah ke huruf besar semua

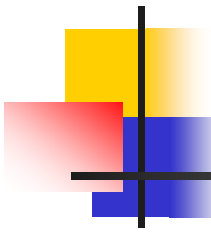
Contoh Operasi String



```
<html>
<head>
<title>Belajar operasi string</title>
</head>
<body>
<script language="javascript">
var str="Teknologi Informasi PENS"
document.write("<h1>"+str+"</h1>")
document.write("<br>Panjang string: |")
document.write(str.length)
document.write("<br>Pencarian posisi kata 'formasi': ")
document.write(str.indexOf("formasi"))
document.write("<br>Pencarian posisi kata 'formasi' dari kanan: ")
document.write(str.lastIndexOf("formasi"))
document.write("<br>Ada tidak kata 'logi'? ")
document.write(str.match("logi"))
document.write("<br>Ada tidak kata 'logis'? ")
document.write(str.match("logis"))
document.write("<br>Ada tidak kata 'logis'? ")
document.write(str.match("logis"))
document.write("<br>Hasil potongan string huruf ke-3 sepanjang 6 huruf: ")
document.write(str.substr(3,6))
document.write("<br>Membuat jadi huruf kecil semua: ")
document.write(str.toLowerCase())
document.write("<br>Membuat jadi huruf besar semua: ")
document.write(str.toUpperCase())
</script>
</body>
</html>
```

Hasil Operasi String





Operasi Date dan Time (1)

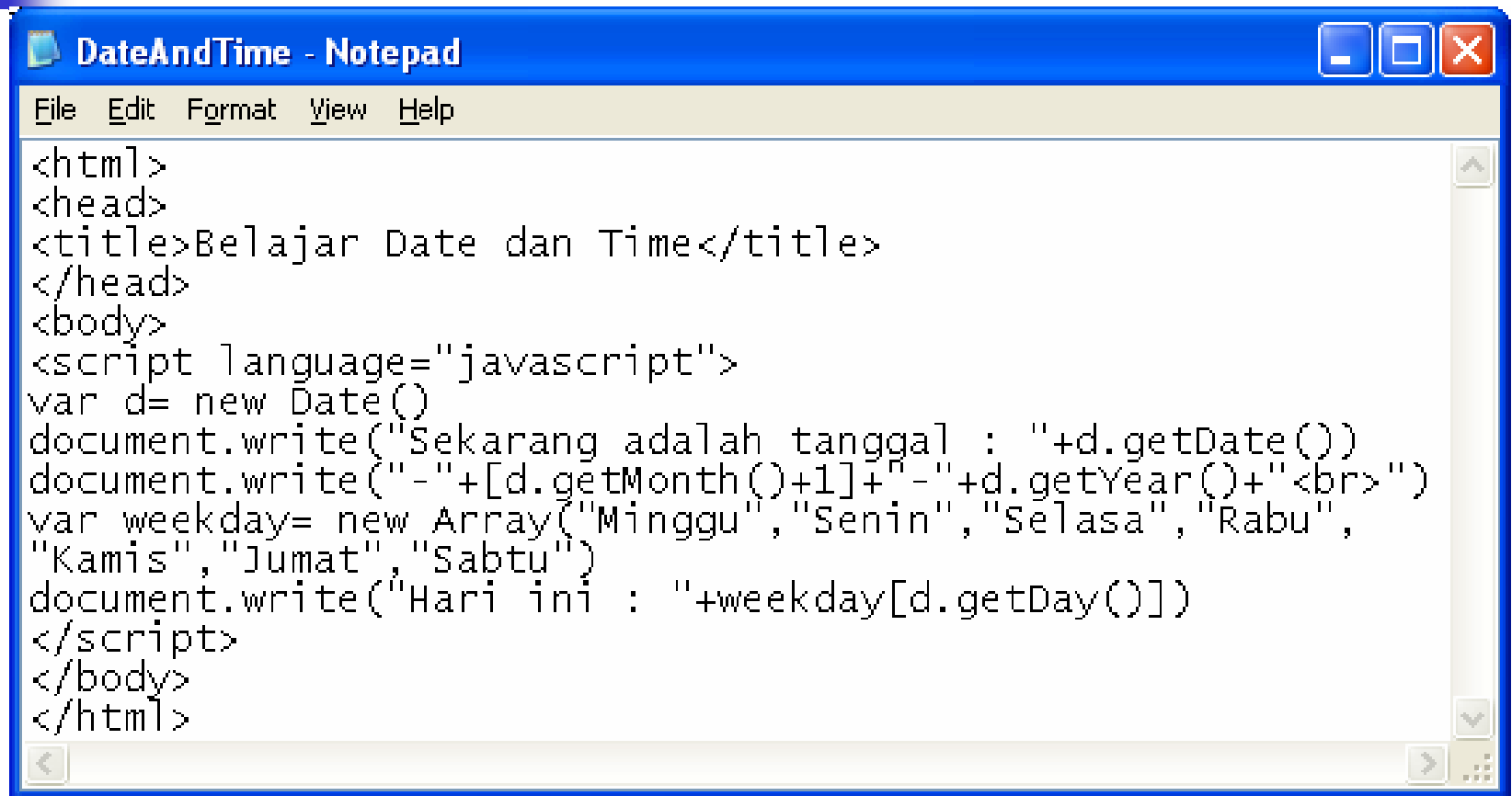
Sintaks	Fungsi
getDate()	Mengambil tanggal
getMonth()	Mengambil bulan
getFullYear()	Mengambil tahun
getHours()	Mengambil jam
getMinutes()	Mengambil menit
getSeconds()	Mengambil detik
setDate()	Mengeset tanggal
setMonth()	Mengeset bulan
setFullYear()	Mengeset tahun
setHours()	Mengeset jam
setMinutes()	Mengeset menit
setSeconds()	Mengeset detik



Operasi Date dan Time (2)

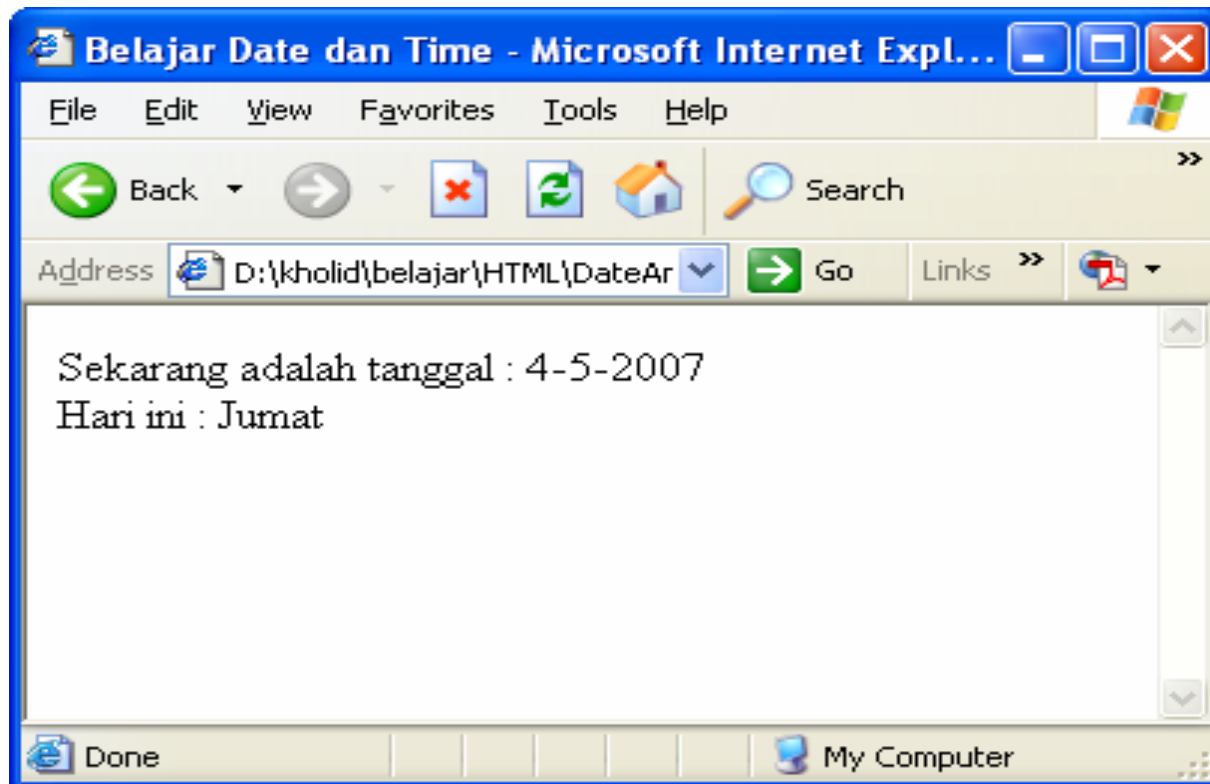
Sintaks	Fungsi
getUTCHours()	Mengambil jam berdasarkan Universal Coordinated Time(UCT)
getUTCMinutes()	Mengambil menit berdasarkan Universal Coordinated Time(UCT)
getUTCSeconds()	Mengambil detik berdasarkan Universal Coordinated Time(UCT)
getDay()	Mengambil hari

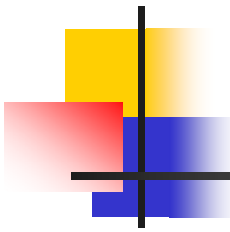
Contoh penggunaan Date dan Time



```
<html>
<head>
<title>Belajar Date dan Time</title>
</head>
<body>
<script language="javascript">
var d= new Date()
document.write("Sekarang adalah tanggal : "+d.getDate())
document.write("-"+[d.getMonth()+1]+"-"+d.getYear()+"<br>")
var weekday= new Array("Minggu","Senin","Selasa","Rabu",
"Kamis","Jumat","Sabtu")
document.write("Hari ini : "+weekday[d.getDay()])
</script>
</body>
</html>
```

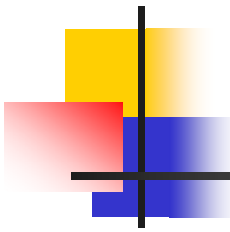
Hasil



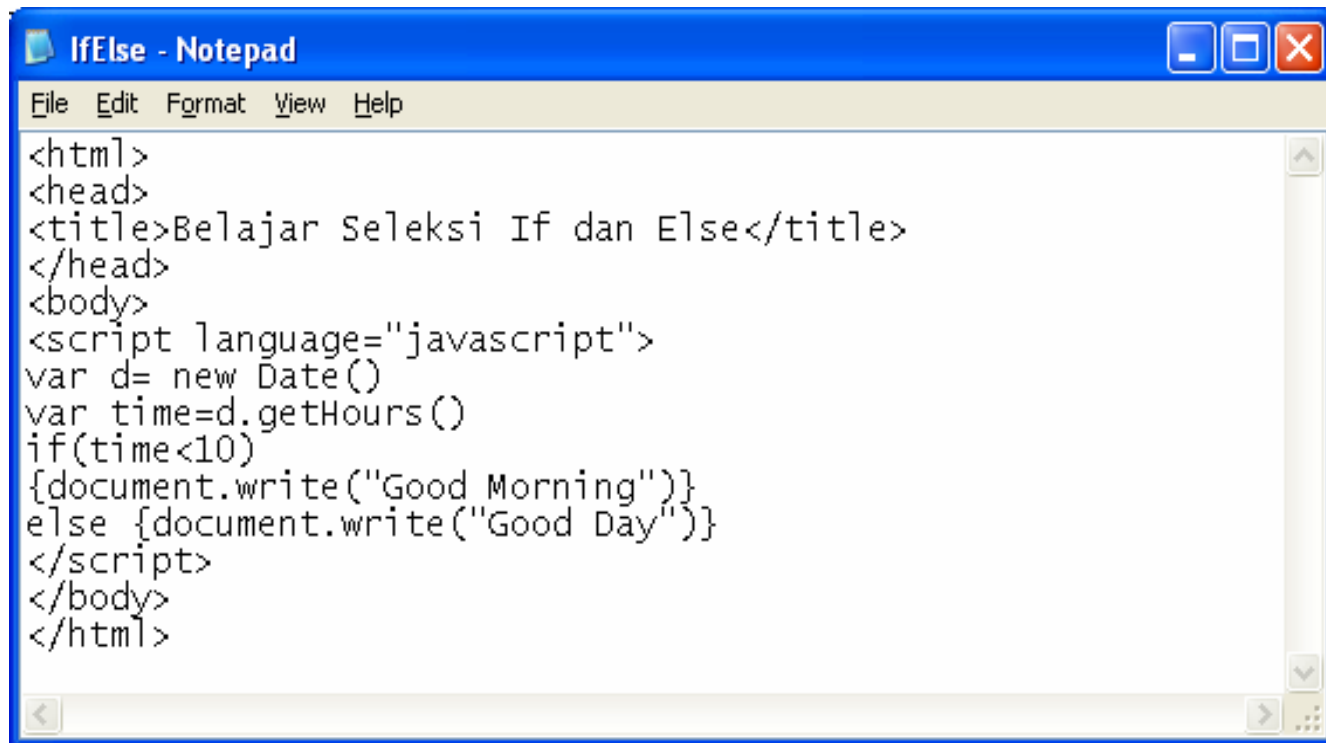


Seleksi dengan If..Else

- Setiap kondisi harus selalu diawali dengan “(” dan diakhiri “)”
- Tidak menggunakan kata “Then”
- Jika lebih dari 1 statement untuk setiap blok harus diawali dengan “{” dan diakhiri dengan “}”

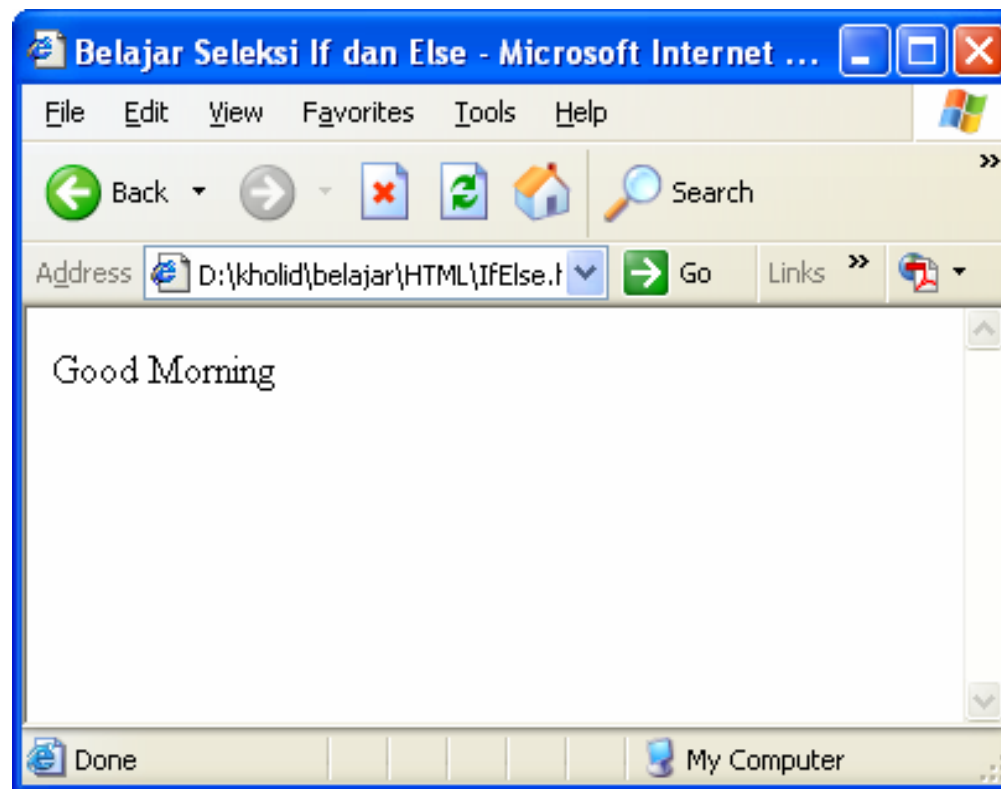


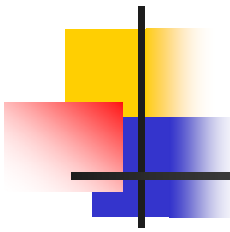
Contoh penggunaan If..Else



```
<html>
<head>
<title>Belajar Seleksi If dan Else</title>
</head>
<body>
<script language="javascript">
var d= new Date()
var time=d.getHours()
if(time<10)
{document.write("Good Morning")}
else {document.write("Good Day")}
</script>
</body>
</html>
```

Hasil

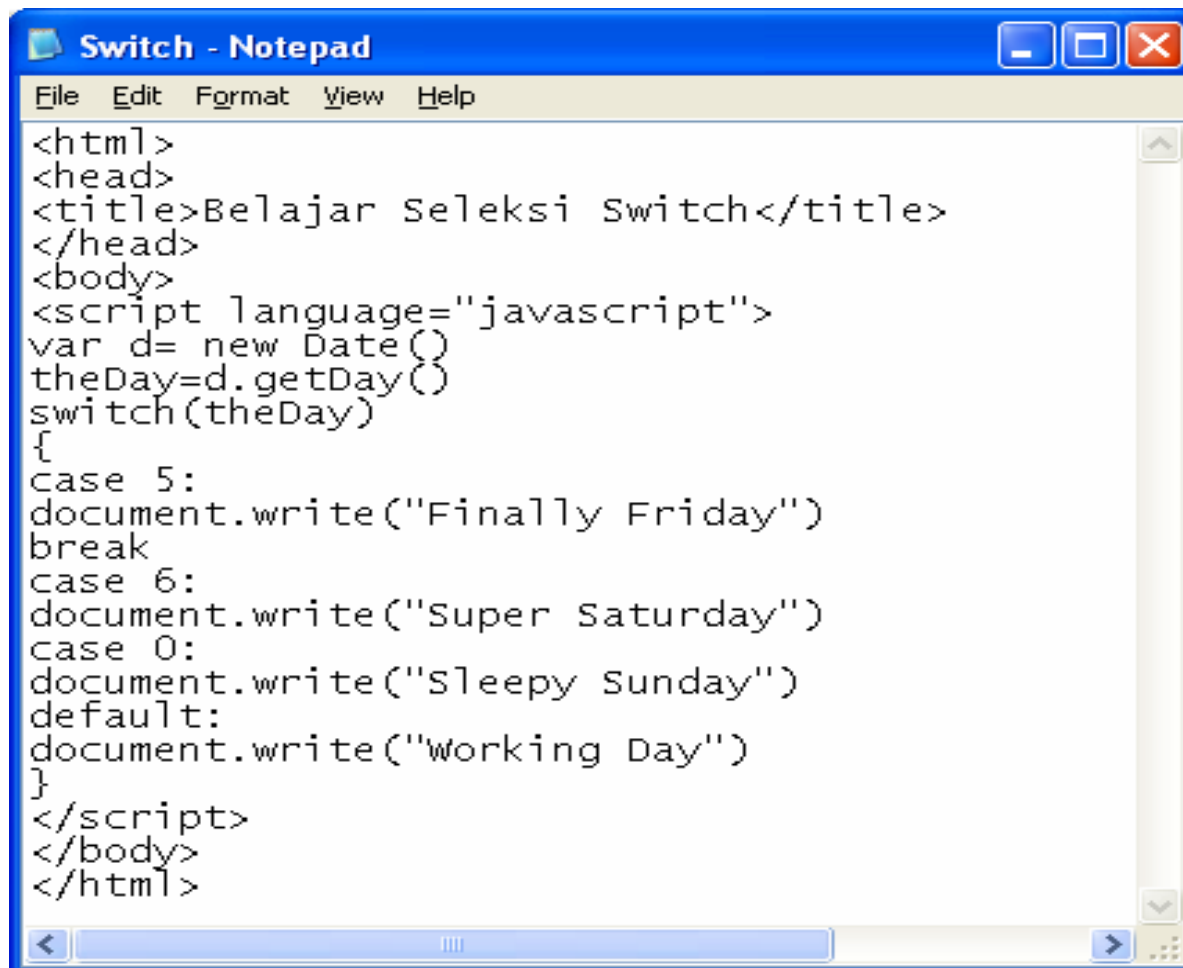




Seleksi dengan Switch

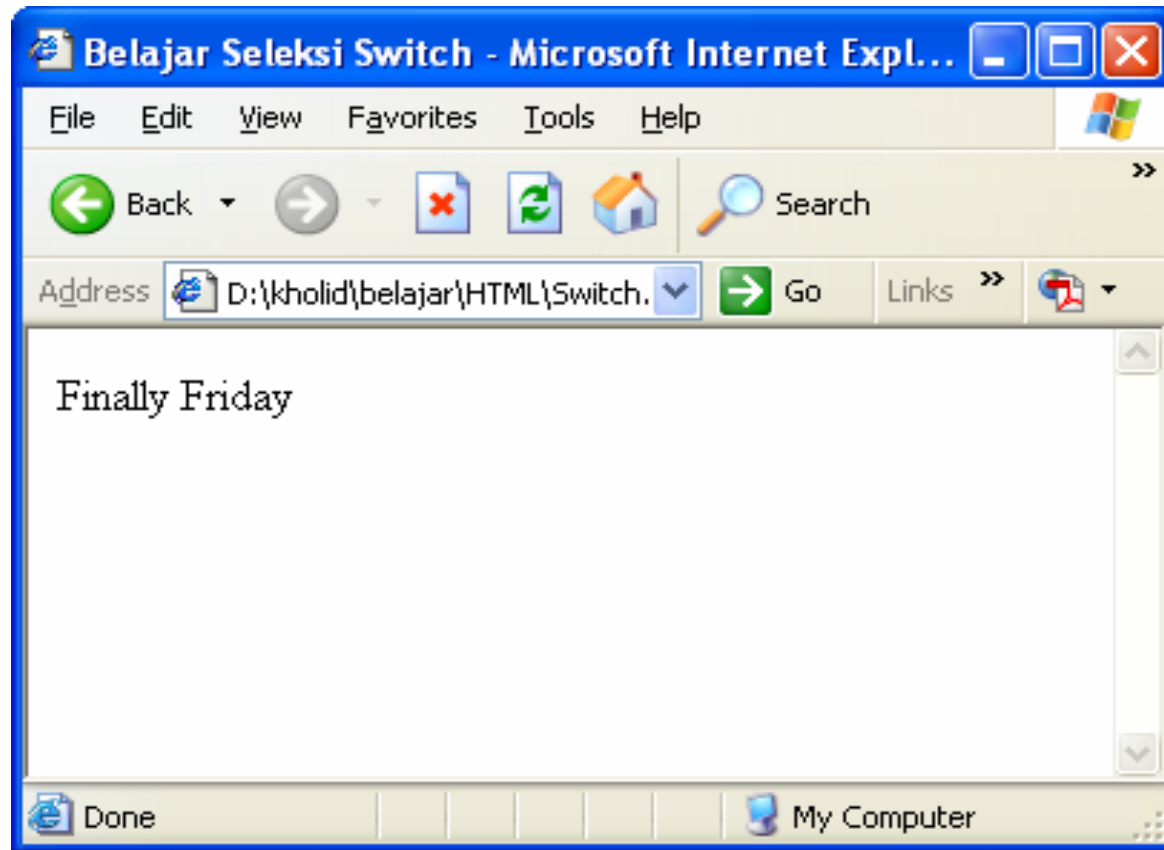
- Jika pilihan lebih dari 2, lebih mudah menggunakan switch
- Kelebihan switch adalah dapat mengatur pilihan sehingga pilihan dapat tidak disjoint
- Caranya adalah dengan menghilangkan statement break sehingga walaupun sudah terpenuhi satu kondisi, program akan tetap melacak pilihan berikutnya

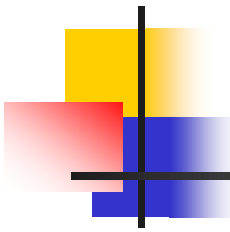
Contoh penggunaan Switch



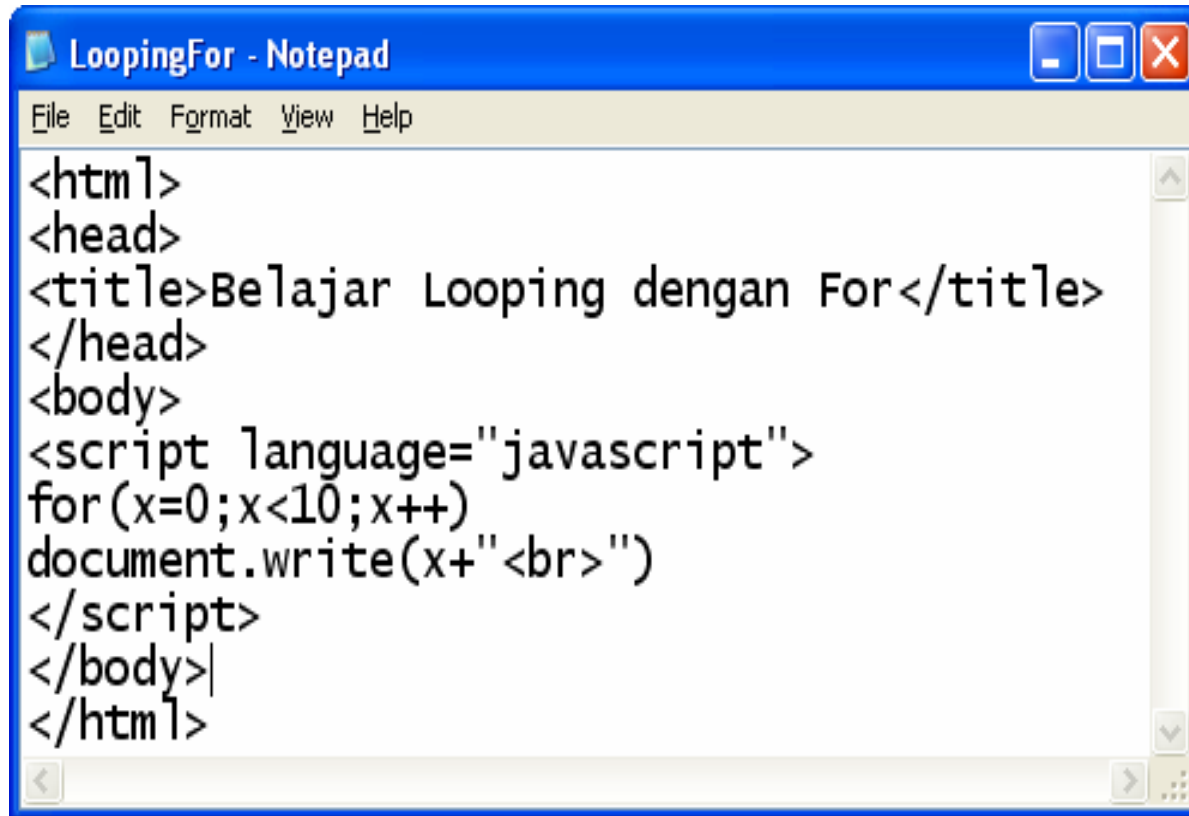
```
<html>
<head>
<title>Belajar Seleksi Switch</title>
</head>
<body>
<script language="javascript">
var d= new Date()
theDay=d.getDay()
switch(theDay)
{
case 5:
document.write("Finally Friday")
break
case 6:
document.write("Super Saturday")
case 0:
document.write("Sleepy Sunday")
default:
document.write("Working Day")
}
</script>
</body>
</html>
```

Hasil



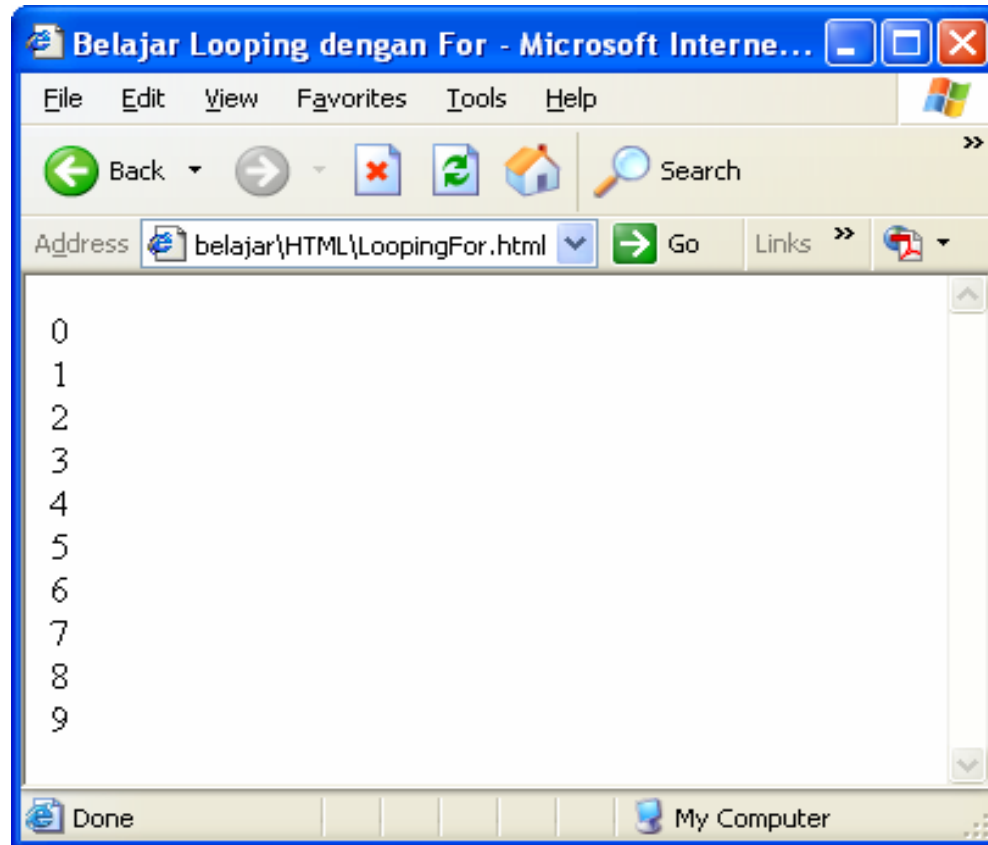


Looping dengan For

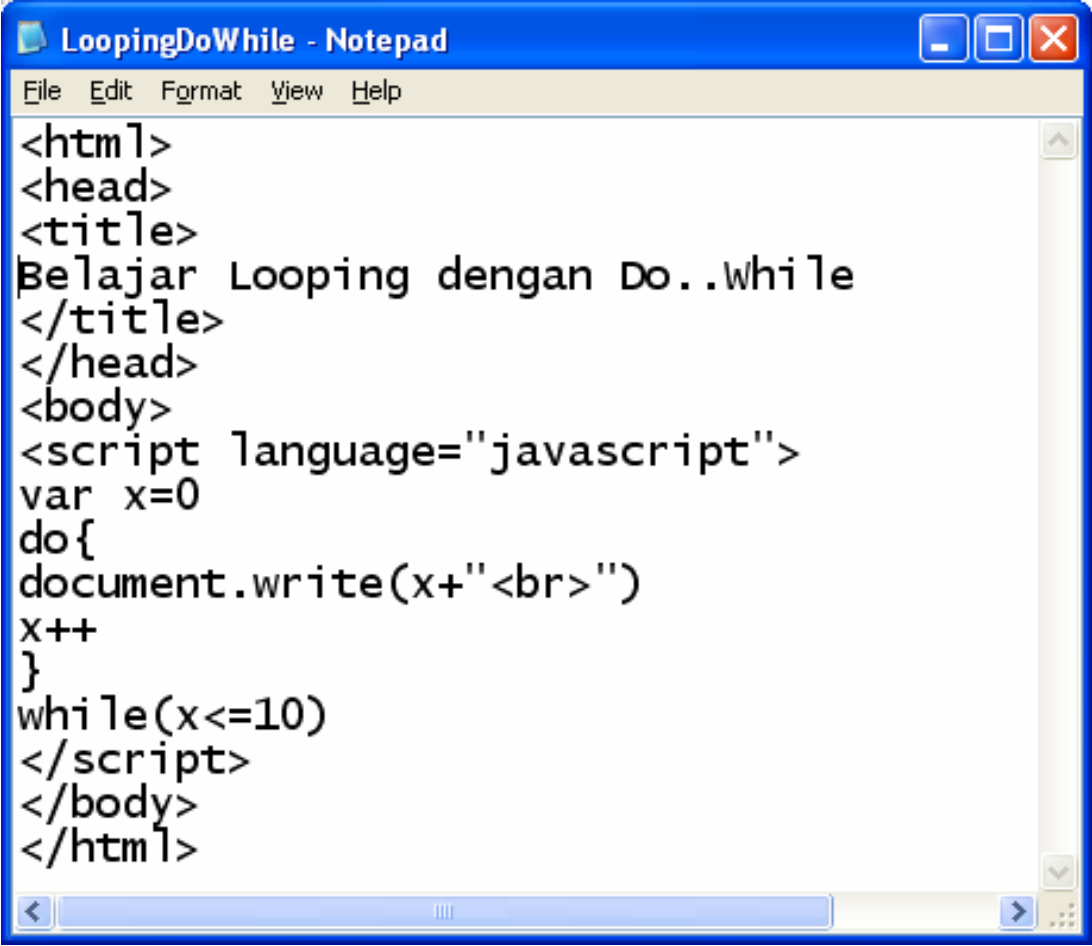


```
<html>
<head>
<title>Belajar Looping dengan For</title>
</head>
<body>
<script language="javascript">
for(x=0;x<10;x++)
document.write(x+"<br>")
</script>
</body>
</html>
```

Hasil

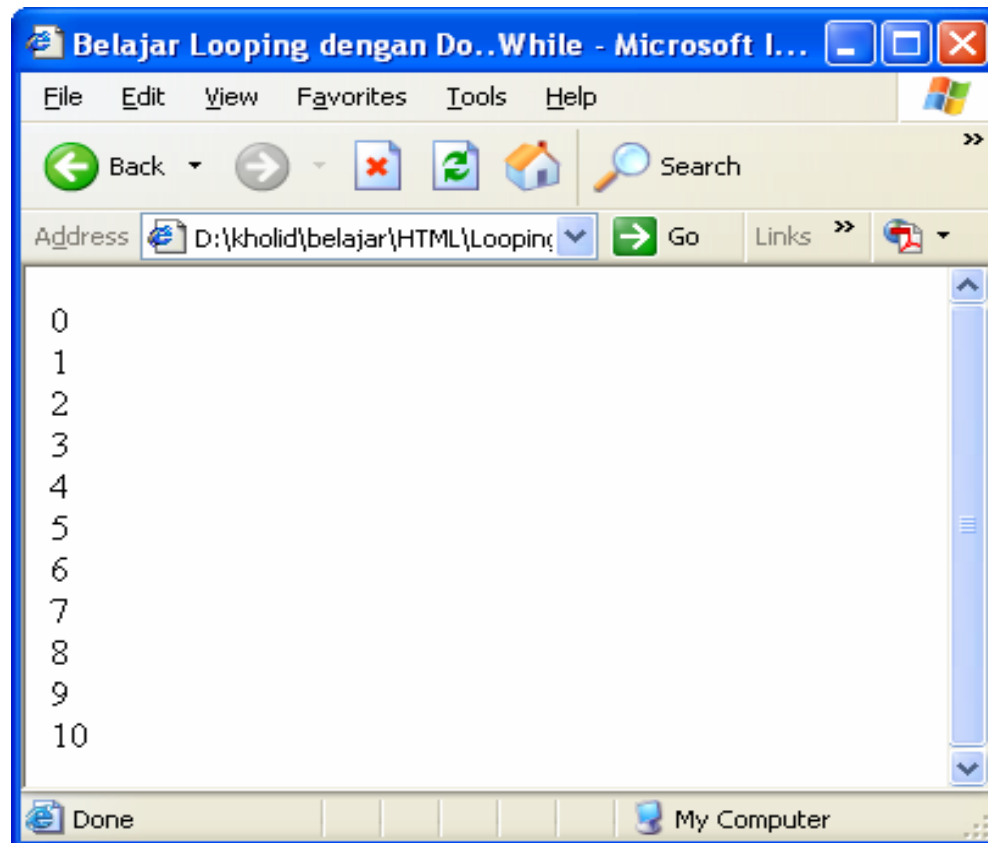


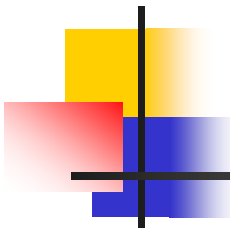
Looping dengan Do..While



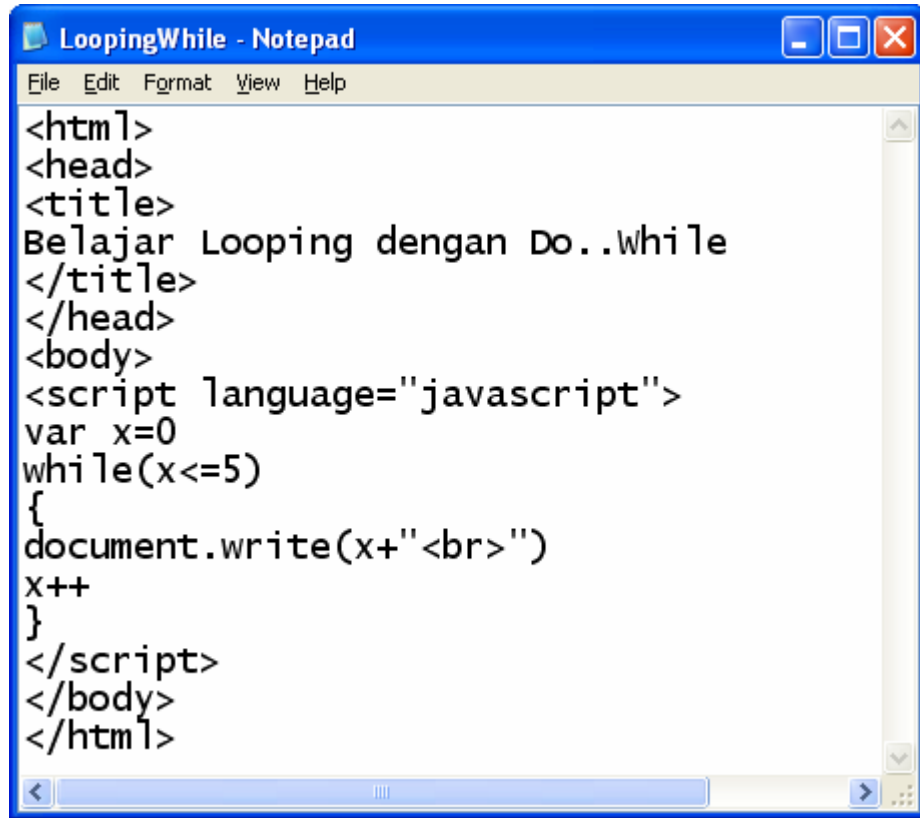
```
<html>
<head>
<title>
Belajar Looping dengan Do..While
</title>
</head>
<body>
<script language="javascript">
var x=0
do{
document.write(x+"<br>")
x++
}
while(x<=10)
</script>
</body>
</html>
```

Hasil Do..While



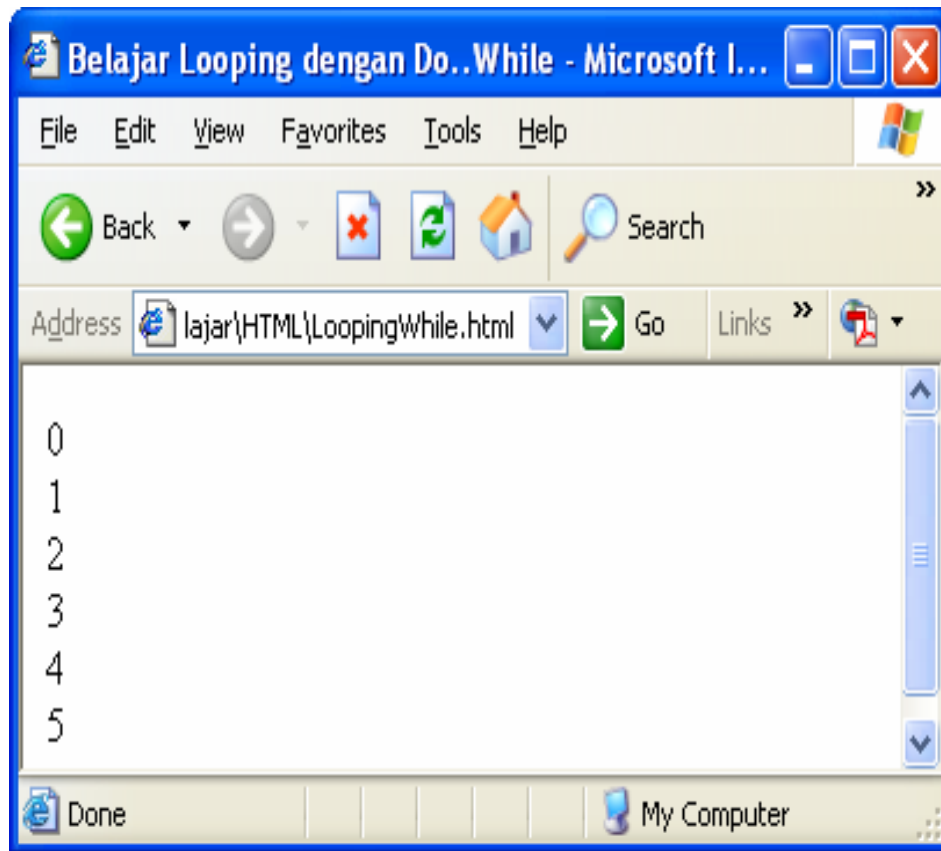


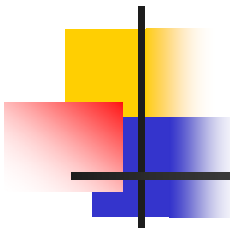
Looping dengan While



```
<html>
<head>
<title>
Belajar Looping dengan Do..while
</title>
</head>
<body>
<script language="javascript">
var x=0
while(x<=5)
{
document.write(x+"<br>")
x++
}
</script>
</body>
</html>
```

Hasil





Selesai
