

# Web开发基础 VBScript &ASP programming



# Outline

- VBScript
- ASP
- ADO

# What is VBScript?

- VBScript is one of "Script" language
- "Script" language is light-weight programming language
- VBScript light-weight version of Visual Basic
- VBScript in HTML document, run when document is loaded or "Trigger" by event

### Where to use VBScript in HTML document?

```
<html>
  <head>
  </head>
  <body>
  <script type="text/vbscript">
  document.write("Hello from VBScript!")
  </script>
  </body>
  </html>
```

- head
  - VbScript function in
     HTML head 

     Make sure
     functions is loaded
     before it is called
- body
  - A piece of VBScript code.run when the page is loaded。

```
<html>
<head>
<script type="text/vbscript">
some statements
</script>
</head>
<body>
<script type="text/vbscript">
some statements
</script>
</body>
```

## Variables

dim name
name=some value
or
name=some value

option explicit
dim name
name=some value



### Sub type of Variant

类 型	描述	
Empty	未初始化的Variant,对数值变量值为0,对字符串变量值为0长度字符串	
Nu11	不包含有任何有效数据的Viariant	
Boolean	值只能是true或false	
Byte	包含0~255之间的整数	
Integer	包含-32768~32767之间的整数	
Currenc y	包含-922 337 203 685 477~922 337 203 685 477.5807之间的数字	
Long	包含-2 147 483 648~2 147 483 647之间的整数	
Single	包含单精度浮点数,负数范围从-3.402 823 E38到-1.401 298 E~45,正数 范围从1.401 298E~45到3.402 823 E38	
Double	包含双精度浮点数,负数范围从-1.797 693 134 862 32E 308到-4.940 656 458 412 47E~324,正数范围从4.940 656 458 412 47E-324到1.797 693 134 862 32E 308	
Date	包含表示日期的数字,日期范围为公元100年1月1日~公元9999年12月31日	
String	字符串,最大字符串长度为20亿个字符	
0bject	对象子变量	
Error	包含错误编号	

# **VBScript Operators: Math**

Operator	English	Example	Result
+	Add	8+7	15
-	Subtract	11-10	1
*	Multiply	7*8	56
/	Divide	8/2	4
Λ	Exponent	2^4	16
Mod	Modulus	15 Mod 10	5

# **VBScript Operators: Comparison**

Operator	English	Example	Result
=	Equal To	10 =1 4	False
>	Greater Than	10 > 14	False
<	Less Than	10 < 14	True
>=	Greater Than Or Equal To	10 >= 14	False
<=	Less Than Or Equal To	10 <= 14	True
<>	Not Equal To	10 <> 14	5

# **VBScript Operators: Logic**

Operator	English	Example	Result
Not	Inverts Truth Value	Not False	True
Or	Either Can Be True	True Or False	True
And	Both Must Be True	True And False	False

## **VBScript String Concatenation Operator**

Operator	English	Example	Result
&	Connected To	"Hello" & " there"	"Hello there"

## Sub & function

Sub mysub(argument1,argument2)

some statements

**End Sub** 

-----

Call MyProc(argument)

Function myfunction(argument1,argument2)

some statements

myfunction=some value

**End Function** 

\_\_\_

name = findname()

## **Conditional Statements**

```
if payment="Cash" then
 msgbox "You are going to pay
   cash!"
elseif payment="Visa" then
 msgbox "You are going to pay with
   visa."
elseif payment="AmEx" then
 msgbox "You are going to pay with
   American Express."
else
 msgbox "Unknown method of
   payment."
end If
```

```
select case payment
case "Cash"
 msgbox "You are going to pay cash"
case "Visa"
 msgbox "You are going to pay with
   visa"
case "AmEx"
 msgbox "You are going to pay with
   American Express"
case Else
 msgbox "Unknown method of
   payment"
end select
```

# Looping

For...Next

For i=2 To 10 Step 2 some code Next Do…Loop

```
<html>
<body>
<script type="text/vbscript">
i=0
do while i < 10
 document.write(i & "<br />")
 i=i+1
loop
</script>
</body>
</html>
```

# **VBScript MsgBox**

- Button (Integer)- Allows you to set which buttons will be displayed on your popup. OK button is the default setting.
- Title (String)- Sets the title of the popup window, much like the HTML title tag sets the title of the browser window.



```
<script type="text/vbscript">
   Function myPopup OnClick()
   MsgBox "Hello there!", 1,
   "Greeting Popup"
   End Function
</script>
<form>
<input type="button" value="Click"
   Me!" name="myPopup" />
</form>
```

## ASP?

- ASP Active Server Pages
- ASP run in IIS
- ASP same as HTML
- ASP may include text \ HTML\ XML & Script
- Script in ASP file can run on the server-side
- ASP file ".asp" or ".asa"

## **ASP Vs. HTML?**

- HTML will send to browser without any change
- ASP file will send to ASP engine first ,which analysis the file , run the Script in the file ,then return the result to the browser in HTML format

## What can ASP do for U?

- Dynamic edit change or add any page item
- Deal with the data in the form user submit
- Access file or database, and return the result to the user
- Improve page usability
- Improve site security because the asp code can't read from the browser
- A good asp coding can reduce the network load

## **Basic ASP rule**

- ASP file include HTML tags, like the HTML file.but, ASP include server-side script, which with tag <% & %>.
- server-side script run on the server

```
<%@LANGUAGE="VBSCRIPT" CODEPAGE="936"%>
```

• • •

<%

'VBSCRIPT code here

%>

## Hello world!

```
<html>
<body>
<br/>
<% response.write("Hello World!") %>
</body>
</html>
```

```
<html>
<body>
<%="Hello World!"%>
</body>
</html>
```

# **VBScript & JavaScript**

```
<html>
<body>
<% response.write("Hello
  World!")
%>
</body>
</html>
```

```
<%@ language="javascript"%>
<html>
<body>
<%
Response.Write("Hello
  World!")
%>
</body>
</html>
```

注意:与 VBScript 不同 - JavaScript 对大小写敏感

# Lifetime of Variables

- function
- Session
- Application

# **ASP** form and user input

Get http://www.test.org/simplefor m.asp?fname=Bill&Iname= Gates <body> Welcome <% response.write(request.querystring(" fname")) response.write(" " & request.querystring("lname")) %> </body>

Post

```
<body>
Welcome
<%
response.write(request.form("fname "))
response.write(" " & request.form("Iname"))
%>
</body>
```

## #include

- #include
  - Insert another asp file before asp file is run

```
<html>
<body>
<h2>Words of Wisdom:</h2>
<!--#include file="wisdom.inc"-->
<h2>The time is:</h2>
<!--#include file="time.inc"-->
</body>
</html>
```

#### wisdom.inc

"One should never increase, beyond what is necessary, the number of entities required to explain anything."

#### time.inc

<% Response.Write(Time) %>

# Response

 ASP Response used as output to browser

```
<html>
<body>
<%
response.write("<h2>您可以使用 HTML 标签来格式 化文本</h2>")
%>
<%
response.write("<p style='color:#0000ff'>这段文本 的样式是通过 style 属性添加的。")
%>
</body>
</html>
```

### 您可以使用 HTML 标签来格式化文本

这段文本的样式是通过 style 属性添加的。

# **ASP Request**

- <html>
- <%
- dim cars
- cars=Request.Form("cars")
- %
- <body>
- <form action="/example/aspe/demo\_aspe\_radiob.asp" method="post">
- · 请选择您喜欢的汽车:
- <input type="radio" name="cars"</li>
- <%if cars="Volvo" then Response.Write("checked")%>
- value="Volvo">Volvo</input>
- <br/>
- <input type="radio" name="cars"</li>
- <%if cars="Saab" then Response.Write("checked")%>
- value="Saab">Saab</input>
- <br/><</pre>
- <input type="radio" name="cars"</li>
- <%if cars="BMW" then Response.Write("checked")%>
- value="BMW">BMW</input>
- <br/><br/></pr>
- <input type="submit" value="提交" />
- </form>
- <%
- if cars<>"" then
- Response.Write("您喜欢的汽车是" & cars & "")
- end if
- %
- </body>
- </html>

#### 请选择您喜欢的汽车:

- Volvo
- Saab
- BMW

#### 提交

您喜欢的汽车是BMW

```
<html>
<body>
>
<b>您正在通过这款浏览器访问我们的站点: </b>
<%Response.Write(Request.ServerVariables("http_user_agent"))%>
>
<%Response.Write(Request.ServerVariables("remote_addr"))%>
>
<b > IP 地址的 DNS 查询是: </b>
<%Response.Write(Request.ServerVariables("remote_host"))%>
>
<b>调用该页面所用的方法是: </b>
<%Response.Write(Request.ServerVariables("request_method"))%</pre>
    >
</body>
```

怒正在通过这款浏览器访问我们的站点: Mozilla/4.0 (compatible; MSIE 7.0; Windows NT 6.1; Trident/4.0; GTB6.5; QQDownload 661; SLCC2; .NET CLR 2.0.50727; .NET CLR 3.5.30729; .NET CLR 3.0.30729; Media Center PC 6.0; InfoPath.2; Tablet PC 2.0; .NET CLR 3.0.4506.2152; .NET4.0C; SE 2.X)

您的 IP 地址是: 123.117.177.11

IP 地址的 DNS 查询是: 123.117.177.11

调用该页面所用的方法是: GET

</html>

### Server

- ASP Server
  - Access server object method and property

本文件的最后修改时间是: 2008-9-21 20:40:16

```
<html>
<body>
<%
Set fs =
    Server.CreateObject("Scripting.FileSystemObject
Set rs =
    fs.GetFile(Server.MapPath("/example/aspe/dem
    o aspe lastmodified.asp"))
modified = rs.DateLastModified
%>
本文件的最后修改时间是:
    <%response.write(modified)
Set rs = Nothing
Set fs = Nothing
%>
```

</body>

### **ADO**

### ADO?

- ADO from Microsoft
- ADO means ActiveX Data
   Objects
- ADO installed IIS
- ADO is the interface to access the data in database

### Access database from ASP page

- Create ADO connection
- Open the connection
- Create ADO recordset
- Open the recordset
- Get the data from recordset
- Close recordset
- Close connection

### **ADO** connection

### DSN-less connection

```
<%
set
    conn=Server.CreateObject("ADOD
    B.Connection")
conn.Provider="Microsoft.Jet.OLEDB.
    4.0"
conn.Open
    "c:/webdata/northwind.mdb"
%>
```

### ODBC connection

```
<% set
    conn=Server.CreateObject("ADOD
    B.Connection")
conn.Open "northwind"
%>
```

### **ADO Recordset**

```
<%
set
   conn=Server.CreateObject("ADODB.C
   onnection")
conn.Provider="Microsoft.Jet.OLEDB.4.0"
conn.Open "c:/webdata/northwind.mdb"
set
   rs=Server.CreateObject("ADODB.reco
   rdset")
rs.Open "Customers", conn
%>
```

```
<%
set
   conn=Server.CreateObject("ADODB.C
   onnection")
conn.Provider="Microsoft.Jet.OLEDB.4.0"
conn.Open "c:/webdata/northwind.mdb"
set
   rs=Server.CreateObject("ADODB.reco
   rdset")
rs.Open "Select * from Customers", conn
%>
```



## Get data from the recordset

```
<%
set conn=Server.CreateObject("ADODB.Connection")
conn.Provider="Microsoft.Jet.OLEDB.4.0"
conn.Open "c:/webdata/northwind.mdb"
set rs=Server.CreateObject("ADODB.recordset")
rs.Open "Select * from Customers", conn
for each x in rs.fields
 response.write(x.name)
 response.write(" = ")
 response.write(x.value)
next
%>
```

```
<html>
<body>
<%
set conn=Server.CreateObject("ADODB.Connection")
conn.Provider="Microsoft.Jet.OLEDB.4.0"
conn.Open(Server.Mappath("/db/northwind.mdb"))
set rs = Server.CreateObject("ADODB.recordset")
rs.Open "Select * from Customers", conn
do until rs.EOF
 for each x in rs.Fields
   Response.Write(x.name)
   Response.Write(" = ")
   Response.Write(x.value & "<br />")
  next
 Response.Write("<br />")
 rs.MoveNext
loop
rs.close
conn.close
%>
</body>
</html>
```

CustomerID = Nokia
CompanyName = Nokia Corporation
ContactName = Olli-Pekka Kallasvuo
Address = P.O. Box 226, FIN-00045 Nokia Group, Finland
City = Helsinki
PostalCode = none
Country = Finland

CustomerID = Google
CompanyName = Google, Inc.
ContactName = Larry Page
Address = 1600 Amphitheatre Parkway Mountain View, CA 94043
City = Mountain View
PostalCode = 94043
Country = USA

```
<html>
<body>
<%
set conn=Server.CreateObject("ADODB.Connection")
conn.Provider="Microsoft.Jet.OLEDB.4.0"
conn.Open(Server.Mappath("/db/northwind.mdb"))
set rs = Server.CreateObject("ADODB.recordset")
sql="SELECT Companyname, Contactname FROM Customers"
rs.Open sql, conn
%>
<%for each x in rs.Fields
 response.write("" & x.name & "")
next%>
<%do until rs.EOF%>
 <%for each x in rs.Fields%>
  <%Response.Write(x.value)%>
 <%next
 rs.MoveNext%>
 <%loop
rs.close
```

Companyname	Contactname	
Nokia Corporation	Olli-Pekka Kallasvuo	
Google, Inc.	Larry Page	
Sony Corporation of America	Kazuo Hirai	
Apple Computer, Inc.	Steven Jobs	
BAIDU, Inc	Li YanHong	
Canon USA, Inc.	Tsuneji Uchida	



```
<html>
<body>
set conn=Server.CreateObject("ADODB.Connection")
conn.Provider="Microsoft.Jet.OLEDB.4.0"
conn.Open(Server.Mappath("/db/northwind.mdb"))
set rs=Server.CreateObject("ADODB.recordset")
sql="SELECT DISTINCT Country FROM Customers ORDER BY Country"
rs.Open sql,conn
country=request.form("country")
<form method="post">
Choose Country <select name="country">
<% do until rs.EOF
 response.write("<option")
 if rs.fields("country")=country then
 response.write(" selected")
end if
 response.write(">")
 response.write(rs.fields("Country"))
 rs.MoveNext
rs.Close
set rs=Nothing %>
</select>
<input type="submit" value="Show customers">
</form>
if country<>"" then sql="SELECT Companyname,Contactname,Country FROM Customers WHERE country="" & country & ""
 set rs=Server.CreateObject("ADODB.Recordset")
 Companyname
  Country
 <%
 response.write("")
 response.write("" & rs.fields("companyname") & "")
response.write("" & rs.fields("contactname") & "")
response.write("" & rs.fields("country") & "")
 response.write("")
rs.MoveNext
rs.close
conn.Close
set rs=Nothing
<% end if %>
```

Choose Country USA ▼

Show customers

Companyname	Contactname	Country	
Google, Inc.	Larry Page	USA	
Sony Corporation of America	Kazuo Hirai	USA	
Apple Computer, Inc.	Steven Jobs	USA	
Canon USA, Inc.	Tsuneji Uchida	USA	

</body>



```
<html>
<body>
<form method="post" action="demo add.asp">
CustomerID:
Company Name:
<input name="compname">
Contact Name:
<input name="contname">
Address:
<input name="address">
City:
/td>
Postal Code:
<input name="postcode">
Country:
<br /><br />
<input type="submit" value="Add New">
<input type="reset" value="Cancel">
</form>
</body>
```

```
<body>
<%
set conn=Server.CreateObject("ADODB.Connection")
conn.Provider="Microsoft.Jet.OLEDB.4.0"
conn.Open "c:/webdata/northwind.mdb"
sql="INSERT INTO customers (customerID,companyname,"
sql=sql & "contactname,address,city,postalcode,country)"
sql=sql & " VALUES "
sgl=sgl & "(" & Request.Form("custid") & "',"
sql=sql & """ & Request.Form("compname") & "',"
sgl=sgl & """ & Request.Form("contname") & "',"
sql=sql & """ & Request.Form("address") & "',"
sql=sql & """ & Request.Form("city") & "',"
sql=sql & """ & Request.Form("postcode") & "',"
sql=sql & """ & Request.Form("country") & "")"
on error resume next
conn.Execute sql,recaffected
if err<>0 then
 Response.Write("No update permissions!")
else
 Response.Write("<h3>" & recaffected & " record added</h3>")
end if
conn.close
%>
</body>
</html>
```



</html>

# Lab4 server side programming

### Purpose

 The purpose of this lab is to practice ASP server side programming based on Lab3

### Exercice 1: record user' score in the database

- You are given an access database named score.mdb
  - Table : score with field s\_name,s\_score
- Setting the DSN for this database on your server
- Rename and modify the test form to record the tester's name and his/her score in the database when tester push the submit button

- Exercice 2 display all the score
  - Adding code to display all the score history user got on the bottom of the test form

### Exercice 3

– "decorate" your "online test application" upon yourself

- Exercice 4 Advanced requirement
  - Sort the result by the score
  - Show the score list in a table
     Hint:You can use "sort" phase of SQL