

# UNIT III

## JSP & ASP

# Introduction

Active Server Pages (ASP) is a server side scripting language that lets a webmaster transform the plain, static web site into a dazzling, dynamic solution. With Microsoft's server side scripting language you can gather data from your site's visitors, use sessions, cookies, application variables, and more. Using ASP, we can create and run dynamic and interactive web server applications. With ASP, we can combine HTML pages, script commands, and COM components to create interactive Web pages or powerful Web-based applications, which are easy to develop and modify.

All ASP pages will be executed at the server and the page will have the extension ".asp". An ASP page cannot run by simply opening it in a web browser. The page must be requested through a web server that supports ASP, this is why ASP stands for Active Server Pages, no server, no active pages.



- **What is an ASP File?**

- An ASP file is just the same as an HTML file
- An ASP file can contain text, HTML, XML, and scripts
- Scripts in an ASP file are executed on the server
- An ASP file has the file extension ".asp"
- **What can ASP do for you?**
- Dynamically edit, change or add any content of a Web page
- Respond to user queries or data submitted from HTML forms
- Access any data or databases and return the results to a browser
- Customize a Web page to make it more useful for individual users
- The advantages of using ASP instead of CGI and Perl, are those of simplicity and speed
- Provide security since your ASP code can not be viewed from the browser
- Clever ASP programming can minimize the network traffic

- **Write Output to a Browser**

- The response.write command is used to write output to a browser. The following example sends the text "Hello World" to the browser:

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

There is also a shorthand method for the response.write command. The following example also sends the text "Hello World" to the browser:

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





- **JavaScript**

- To set JavaScript as the default scripting language for a particular page you must insert a language specification at the top of the page:

```
<%@language="javascript"%>
```

```
<html>
```

```
<body>
```

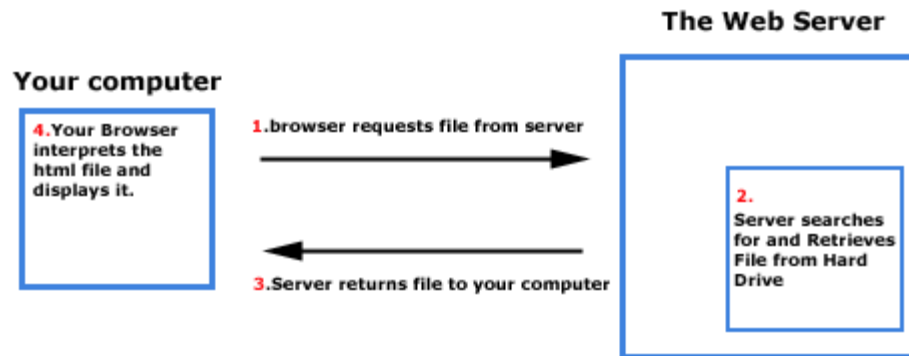
```
<%Response.Write("Hello World!")%>
```

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

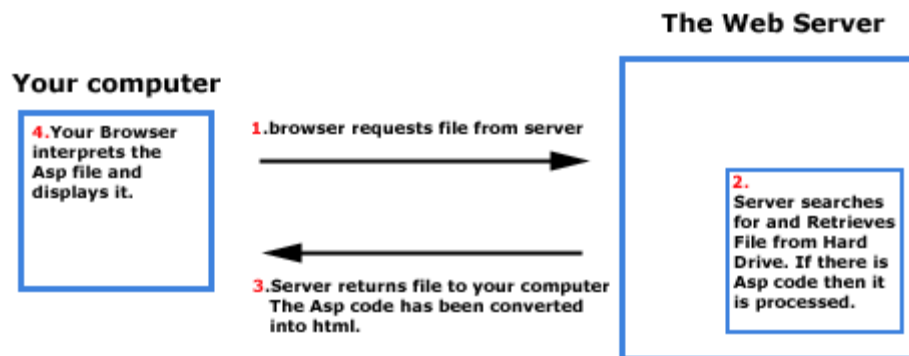


# How ASP works

## How a Html page is displayed



## How an Asp page is displayed



# ASP Forms and User Input

- The `Request.QueryString` and `Request.Form` commands may be used to retrieve information from forms, like user input.
- **User Input**
- The `Request` object may be used to retrieve user information from forms.
- **Form example:**

```
<form method="get" action="simpleform.asp">  
First Name: <input type="text" name="fname" />  
Last Name: <input type="text" name="lname" />  
<input type="submit" value="Submit" /></form>
```



User input can be retrieved in two ways: With Request.QueryString or Request.Form.

- Assume that the ASP file "simpleform.asp" contains the following script:

```
<body>
```

```
Welcome<%response.write(request.querystring("fname"))
```

```
response.write(" request.querystring("lname"))%>
```

```
</body>
```

The browser will display the following in the body of the document:

Welcome Bill Gates



## • Request.Form

- The Request.Form command is used to collect values in a form with method="post". Information sent from a form with the POST method is invisible to others and has no limits on the amount of information to send.
- If a user typed "Bill" and "Gates" in the form example above, the URL sent to the server would look like this:
- Assume that the ASP file "simpleform.asp" contains the following script:

```
<body>
```

```
Welcome<%response.write(request.form("fname"))
```

```
response.write(" " & request.form("lname"))%>
```

```
</body>
```

The browser will display the following in the body of the document:

```
Welcome Bill Gates
```

# ASP Objects

- **Request object**
- **The ASP Request object is used to get information from the user.**
- **QueryString Collection Examples**
- **Send query information when a user clicks on a link**  
This example demonstrates how to send some extra query information to a page within a link, and retrieve that information on the destination page (which is, in this example, the same page).
- ```
<html>  
<body>  
<a href="demo_simplequerystring.asp?color=green">Example</a>  
<%Response.Write(Request.QueryString)%>  
</body>  
</html>
```

## **Output Result:**

**Example**



## Form Collection Examples

- A form collection in its simplest use

This example demonstrates how the **Form** collection retrieves the values from a form. The form uses the POST method, which means that the information sent is invisible to others, and it has no limits (you can send a large amount of information).

- ```
<html>
<body>
<form action="demo_simpleform1.asp" method="post">
First name:<input type="text" name="fname" value="Donald" />
Last name:<input type="text" name="lname" value="Duck" />
<input type="submit" value="Submit" />
</form>
<%Response.Write(Request.Form)%>
</body>
</html>
```

- **Output Result:**

- First name:
- Last name:



# ASP Application Object

- An application on the Web may be a group of ASP files. The ASP files work together to perform some purpose.
- The Application object should hold information that will be used by many pages in the application (like database connection information). This means that you can access the information from any page.

# ASP Session Object

- The computer knows who you are. It knows when you start the application and when you end. But on the internet there is one problem: the web server does not know who you are and what you do because the HTTP address doesn't maintain state.
- ASP solves this problem by creating a unique cookie for each user. The cookie is sent to the client and it contains information that identifies the user. This interface is called the Session object.
- The Session object is used to store information about, or change settings for a user session. Variables stored in the Session object hold information about one single user, and are available to all pages in one application. Common information stored in session variables are name, id, and preferences.



# ASP Server Object

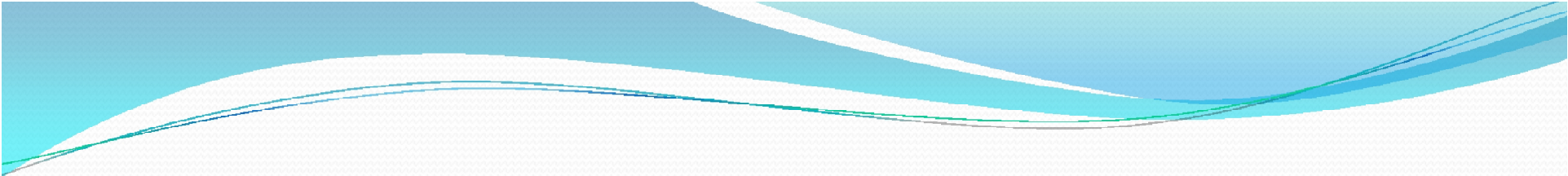
- The ASP Server object is used to access properties and methods on the server.

## The ASPError Object

- The ASPError object was implemented in ASP 3.0 and is available in IIS5 and later.
- The ASPError object is used to display detailed information of any error that occurs in scripts in an ASP page. The ASPError object is created when Server.GetLastError is called, so the error information can only be accessed by using the Server.GetLastError method.





- 
- When a browser connects to a server, an HTTP User Agent Header is also sent to the server. This header contains information about the browser
  - If there is a match between the browser type and version number sent in the header and the information, you can use the `BrowserType` object to list the properties of the matching browser. If there is no match for the browser type and version number in the file, it will set every property to "UNKNOWN".

# COMPONENTS of ASP

- **ASP AdRotator**
- The ASP AdRotator component creates an AdRotator object that displays a different image each time a user enters or refreshes a page. A text file includes information about the images.
- **ASP Browser Capabilities Component**
- The ASP Browser Capabilities component creates a BrowserType object that determines the type, capabilities and version number of each browser that visits your site.



# ASP Content Linking Component

- The Content Linking component returns a Nextlink object that is used to hold a list of Web pages to be navigated.
- **ASP Content Rotator (ASP 3.0)**
- The ASP Content Rotator component creates a ContentRotator object that displays a different HTML content string each time a user enters or refreshes a page.
- The content strings can contain HTML tags so you can display any type of content that HTML can represent: text, images, colors, or hyperlinks.



# Scope of research

ASP (Active Server Pages) is a language which do not support all the operating systems available in the market. This is the main limitation of ASP.

Unless the above limitation is not removed from ASP, it is very difficult for any language to capture present IT market.





# Application

1. Dynamic web page – Since ASP supports scripting languages, which run on the web server, your web page can be dynamically created.
2. Browser independent – ASP is browser independent because all the scripting code runs on the server.
3. Database Access – One of the greatest assets of ASP is database connectivity.
4. Building-in objects – The five built-in objects that come with ASP facilitate Web application development.
5. Free availability – Yes, it's free. You can download web server (IIS or PWS) for free from Microsoft's web site.