

## **Topics**

- AJAX
  - What is AJAX?
  - Intro to XMLHttpRequest()
  - Operation Model
  - Object State
  - Retrieving Data Async

#### AJAX - Introduction...

- AJAX stands for Asynchronous JavaScript and XML.
- Ajax uses XHTML for content, CSS for presentation, along with Document Object Model and JavaScript for dynamic content display.
- A user can continue to use the application while the client program requests information from the server in the background.

## AJAX – XMLHttpRequest...

- ➤ JavaScript object that performs asynchronous interaction with the server.
  - ➤ Supported Browser...
    - Mozilla Firefox 1.0 and above.
    - ➤ Netscape version 7.1 and above.
    - ➤ Apple Safari 1.2 and above.
    - ➤ Microsoft Internet Explorer 5 and above.
    - ➤ Opera 7.6 and above.

### AJAX - XMLHttpRequest ...

- Creating Ajax Object.
  - Following Syntax is Used..

```
/* Creating XMLHttpRequest object in All Browser */
var ajaxRequest;
ajaxRequest = new XMLHttpRequest();
```

```
/* Creating XMLHttpRequest object in IE */
ajaxRequest = new ActiveXObject("Msxml2.XMLHTTP");
ajaxRequest = new ActiveXObject("Microsoft.XMLHTTP");
```

## AJAX - Operation...

- Steps Of AJAX Operation.
  - > A client event occurs.
  - An XMLHttpRequest object is created.
  - > The XMLHttpRequest object is configured.
  - The XMLHttpRequest object makes an asynchronous request to the Webserver.
  - The Webserver returns the result containing XML document.
  - The XMLHttpRequest object calls the callback() function and processes the result.
  - > The HTML DOM is updated.

# AJAX – Object State...

#### > readyState

 The readyState property defines the current state of the XMLHttpRequest object.

State	Description
0	The request is not initialized.
1	The request has been set up.
2	The request has been sent.
3	The request is in process.
4	The request is completed.

## AJAX – Create Example...

Try Catch for Error Handleing...
var ajaxRequest; // The variable that makes Ajax possible!

```
try{
    ajaxRequest = new XMLHttpRequest();
}catch (e){
try{
    ajaxRequest = new ActiveXObject("Msxml2.XMLHTTP");
  }catch (e) {
try{
    ajaxRequest = new ActiveXObject("Microsoft.XMLHTTP");
  }catch (e){
       alert("Your browser broke!");
      return false;
```

# AJAX – Using Object...

Object Previously Created.

```
ajaxRequest.onreadystatechange = function(){
/* Creating a String Element*/
   if(ajaxRequest.readyState == 4){
/* Changing The Output Element With Result */
     var ajaxDisplay = document.getElementById('ajaxDiv');
     ajaxDisplay.innerHTML = ajaxRequest.responseText;
```

## AJAX – Sending Request...

Send the Asynchronous Request.

```
/* Making Request String*/
queryString += "&uname=" + uname + "&pass=" + pass;

/* Sending Request to Server*/
ajaxRequest.open("GET", "process.php" + queryString, true);
ajaxRequest.send(null);
```

N.B. Put Them all in function And Send on Javascript Event.

