***Asynchronous JavaScript and XML (AJAX)***

 **Synchronous Request**

o Recommended for few small requests. JavaScript will not continue to execute, until the server response is ready. If the server is busy or slow, the application will hang or stop.

var xhr = new XMLHttpRequest();

xhr.open(“GET”, “somepage.txt”, false);

xhr.send(null);

if(xhr.status==200){

var str = xhr.responseText;

}

 **Asynchronous Request**

o JavaScript does not have to wait for the server response. It can execute other scripts while waiting for server response, and deal with the response when the response is ready.

var xhr = new XMLHttpRequest();

xhr.open(“POST”, “products.php”, true);

xhr.setRequestHeader(“Content-Type”, “application/x-www-form-urlencoded”);

xhr.onreadystatechange = function(){

if(this.readyState == 4 && this.status == 200){

var hdrDate = this.getResponseHeader(“Date”);

var xml = this.responseXML;

}

}

xhr.send(“productID=1234&catID=5678”);

 **Cross-Browser and Old Browser Support**

var xhr;

if(typeof XMLHttpRequest != “undefined”){

xhr = new XMLHttpRequest();

}else if (window.ActiveXObject){

var activeXIDs = [“MSXML2.XmlHttp.5.0”,

“MSXML2.XmlHttp.4.0”,

“MSXML2.XmlHttp.3.0”,

“MSXML2.XmlHttp”,

“Microsoft.XmlHttp”];

for(var i=0; i<activeXIDs.length;i++){

try{ xhr = new ActiveXObject(activeXIDs[i]);

}catch(e){}

}

}

 **Three important properties** of the XMLHttpRequest Object

o onreadystatechange

Stores a function to be called automatically each time readyState changes

o readyState

0 : request not initialized

1 : server connection established

2 : request received

3 : processing request

4 : request finished and response is ready

o status

200 : OK

404 : Not Found

***Document Object Model***

 Document Object Collections

o anchors[]

o forms[]

o images[]

o links[]

 Document Object Properties

o cookie

o documentMode

o domain

o lastModified

o readyState

o referrer

o title

o URL

 Document Object Methods

o close()

o getElementById()

o getElementsByName()

o getElementsByTagName()

o open()

o write()

o writeln()