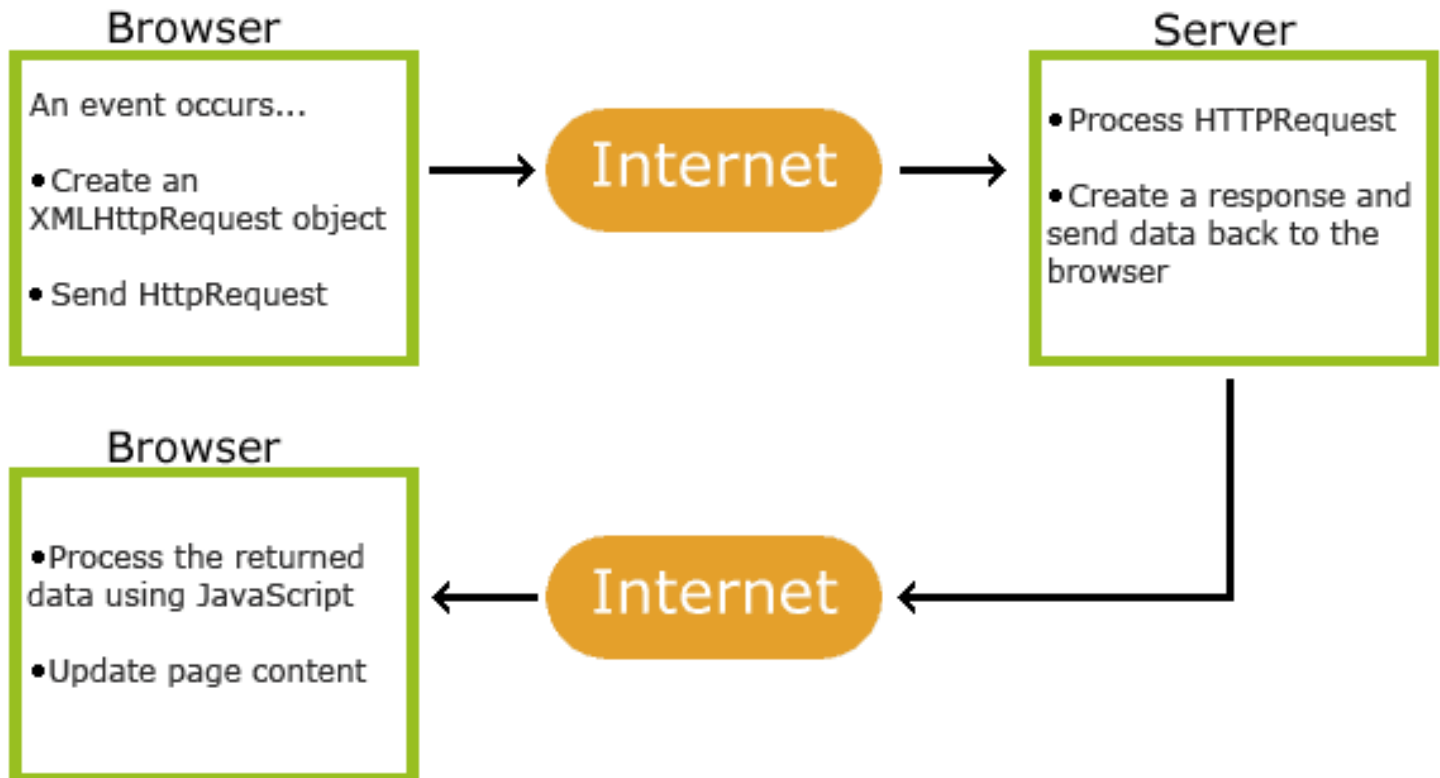


AJAX Essentials 2014

- AJAX = Asynchronous JavaScript and XML.
- AJAX is not a new programming language, but a new way to use existing standards.
- AJAX is the art of exchanging data with a server, and updating parts of a web page - without reloading the whole page.



AJAX is Based on Internet Standards

AJAX is based on internet standards, and uses a combination of:

- XMLHttpRequest object (to exchange data asynchronously with a server)
- JavaScript/DOM (to display/interact with the information)
- CSS (to style the data)
- XML (often used as the format for transferring data)

XMLHttpRequest Object

METHODS

```
abort()
getAllResponseHeaders()
getResponseHeader("header")
open("method","url")
send(content)
setRequestHeader("header","value")
```

string getResponseHeader(string header)

PROPERTIES

onreadystatechange

readyState

responseText

responseXML

status

statusText

GET vs POST

GET when multiple requests will return the same result

POST when changing state on the server

POST when sending large payload (i.e. long URL)

With POST must set Content-Type:

```
xmlHttp.setRequestHeader("Content-Type", "application/x-www-form-urlencoded");
```

Table 3-1.Properties of DOM Elements Useful for Processing XML Documents

Property Name	Description
childNodes	Returns an array of the current element's children
firstChild	Returns the first direct child of the current element
lastChild	Returns the last child of the current element
nextSibling	Returns the element immediately following the current element
nodeValue	Specifies the read/write property representing the element's value
parentNode	Returns the element's parent node
previousSibling	Returns the element immediately preceding the current element

Table 3-3.W3C DOM Properties and Methods Useful When Creating Content Dynamically

Property/Method Description

Property/Method	Description
document.createElement(tagName)	The createElement method on the document object creates the element specified by tagName. Providing the string div as the method parameter produces a div element.
document.createTextNode(text)	This document object's createTextNode method creates a node containing static text.
<element>.appendChild(childNode)	The appendChild method adds the specified node to the current element's list of child nodes. For example, you can add an option element as a child node of a select element.
<element>.getAttribute(name)	These methods, respectively, get and set the

<code><element>.setAttribute(name, value)</code>	value of the attribute name of the element.
<code><element>.insertBefore(newNode, targetNode)</code>	This inserts the node newNode before the element targetNode as a child of the current element.
<code><element>.removeAttribute(name)</code>	This removes the attribute name from the element.
<code><element>.removeChild(childNode)</code>	This removes the element childNode from the element.
<code><element>.replaceChild(newNode, oldNode)</code>	This method replaces the node oldNode with the node newNode.
<code><element>.hasChildnodes()</code>	This method returns a Boolean indicating whether the element has any child elements