



SNS COLLEGE OF ENGINEERING

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Accredited by NBA – AICTE and Accredited by NAAC – UGC with ‘A’ Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING-IOT Including CS&BCT

**COURSE NAME : 19SB602 FULL STACK DEVELOPMENT FOR NEXT
GENERATION IOT**

III YEAR / VI SEMESTER

Unit II- FRONT-END MODULES

Topic : JQuery Syntax, AJAX.



jQuery Syntax

The jQuery syntax is tailor-made for selecting HTML elements and performing some action on the element(s).

Basic syntax is: `$(selector).action()`

A \$ sign to define/access jQuery

A (selector) to "query (or find)" HTML elements

A jQuery `action()` to be performed on the element(s)



The Document Ready Event

You might have noticed that all jQuery methods in our examples, are inside a document ready event:

```
$(document).ready(function(){  
  
    // jQuery methods go here...  
  
});
```



This is to prevent any jQuery code from running before the document is finished loading (is ready).

It is good practice to wait for the document to be fully loaded and ready before working with it. This also allows you to have your JavaScript code before the body of your document, in the head section.

Here are some examples of actions that can fail if methods are run before the document is fully loaded:

Trying to hide an element that is not created yet

Trying to get the size of an image that is not loaded yet



jQuery Selectors



jQuery selectors are one of the most important parts of the jQuery library.

jQuery selectors allow you to select and manipulate HTML element(s).

jQuery selectors are used to "find" (or select) HTML elements based on their name, id, classes, types, attributes, values of attributes and much more.

It's based on the existing CSS Selectors, and in addition, it has some own custom selectors.

All selectors in jQuery start with the dollar sign and parentheses: `$()`.



The element Selector

The jQuery element selector selects elements based on the element name.

You can select all <p> elements on a page like this:

```
$("#p")
```

Example

When a user clicks on a button, all <p> elements will be hidden:

Example

```
$(document).ready(function(){  
  $("#button").click(function(){  
    $("#p").hide();  
  });  
});
```



The #id Selector

The jQuery #id selector uses the id attribute of an HTML tag to find the specific element.

An id should be unique within a page, so you should use the #id selector when you want to find a single, unique element.

To find an element with a specific id, write a hash character, followed by the id of the HTML element:

```
$("#test")
```

Example

When a user clicks on a button, the element with id="test" will be hidden:



```
$(document).ready(function(){  
  $("button").click(function(){  
    $("#test").hide();  
  });  
});
```




AJAX



AJAX = Asynchronous JavaScript And XML.

AJAX is not a programming language.

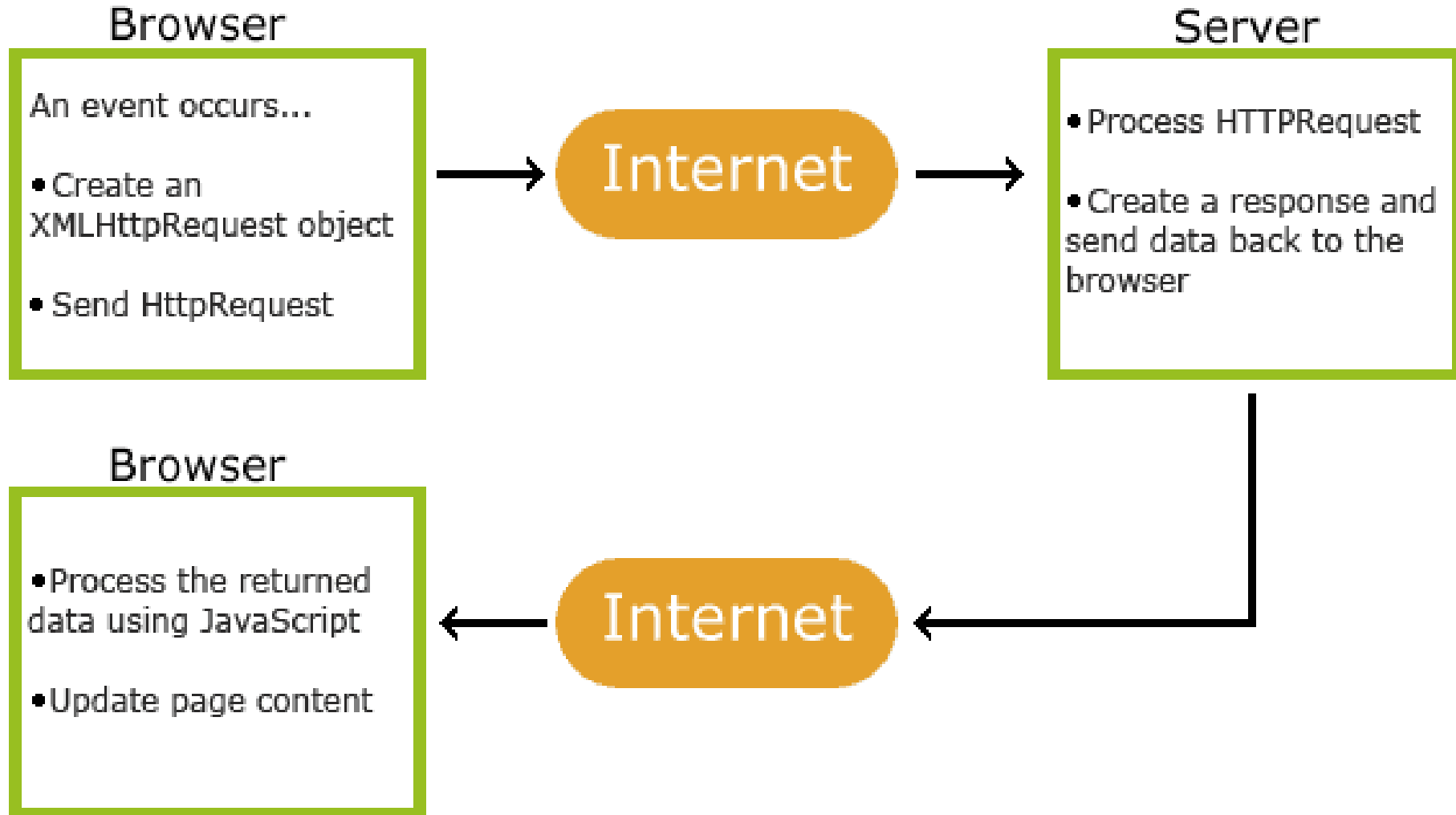
AJAX just uses a combination of:

A browser built-in XMLHttpRequest object (to request data from a web server)

JavaScript and HTML DOM (to display or use the data)



How AJAX Works





1. An event occurs in a web page (the page is loaded, a button is clicked)
2. An XMLHttpRequest object is created by JavaScript
3. The XMLHttpRequest object sends a request to a web server
4. The server processes the request
5. The server sends a response back to the web page
6. The response is read by JavaScript
7. Proper action (like page update) is performed by JavaScript



The XMLHttpRequest Object

All modern browsers support the XMLHttpRequest object.

The XMLHttpRequest object can be used to exchange data with a server behind the scenes.

This means that it is possible to update parts of a web page, without reloading the whole page.



Create an XMLHttpRequest Object

All modern browsers (Chrome, Firefox, Edge (and IE7+), Safari, Opera) have a built-in XMLHttpRequest object.

Syntax for creating an XMLHttpRequest object:

```
variable = new XMLHttpRequest();
```



```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h1>The XMLHttpRequest Object</h1>
```

```
<p id="demo">Let AJAX change this text.</p>
```

```
<button type="button" onclick="loadDoc()">Change Content</button>
```

```
<script>
```

```
function loadDoc() {
```

```
    var xhttp = new XMLHttpRequest();
```

```
    xhttp.onreadystatechange = function() {
```

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



```
document.getElementById("demo").innerHTML =
this.responseText;
    }
};
xhttp.open("GET", "ajax_info.txt", true);
xhttp.send();
}
</script>

</body>
</html>
```



The XMLHttpRequest Object

Let AJAX change this text.

Change Content



Any Query?????

Thank you.....