Pemrograman Web

Sirojul Munir | rojulman@nurulfikri.ac.id

JavaScript Library - JQuery

Sirojul Munir | rojulman@nurulfikri.ac.id

What is Jquery ?

⬥ JQuery is a fast and concise JavaScript Library that simplifies HTML document traversing, event handling, animating, and Ajax interactions for rapid web development. (jQuery.com)

⬥ JQuery was created by John Resig and released 01/06

⬥ Current release

: 3.2.1 (https://code.jquery.com/jquery-3.2.1.min.js)

⬥ Official web : jquery.com

What is Jquery ?

- JQuery : Framework JavaScript Open Source yang menyederhanakan proses scripting di sisi client (browser), untuk proses:
  - Animasi
  - DOM Manipulation
  - AJAX
  - Pengembangan library - plugins

Loading JQuery

```
<!DOCTYPE html>
<html>
<head>
    <title>JavaScript</title>
     <script language="javascript"
             src="js/jquery.min.js"></script>
</head>
<body>
</body>
</html>
```

```
/praktikum05/
        | --- index.html
        | --- src/
            |--- css/
                 | --- mystyle.css
            |--- js/
                 | --- jquery.min.js
```

Dapat juga diletakan di akhir dokumen HTML sebelum tutup tag <body>.

Akses Jquery library dapat juga dilakukan secara online di URL.

```
<script language="javascript"
             src="http://ajax.googleapis.com/ajax/libs/jquery/3.2.1/jquery.min.js"></script>
```
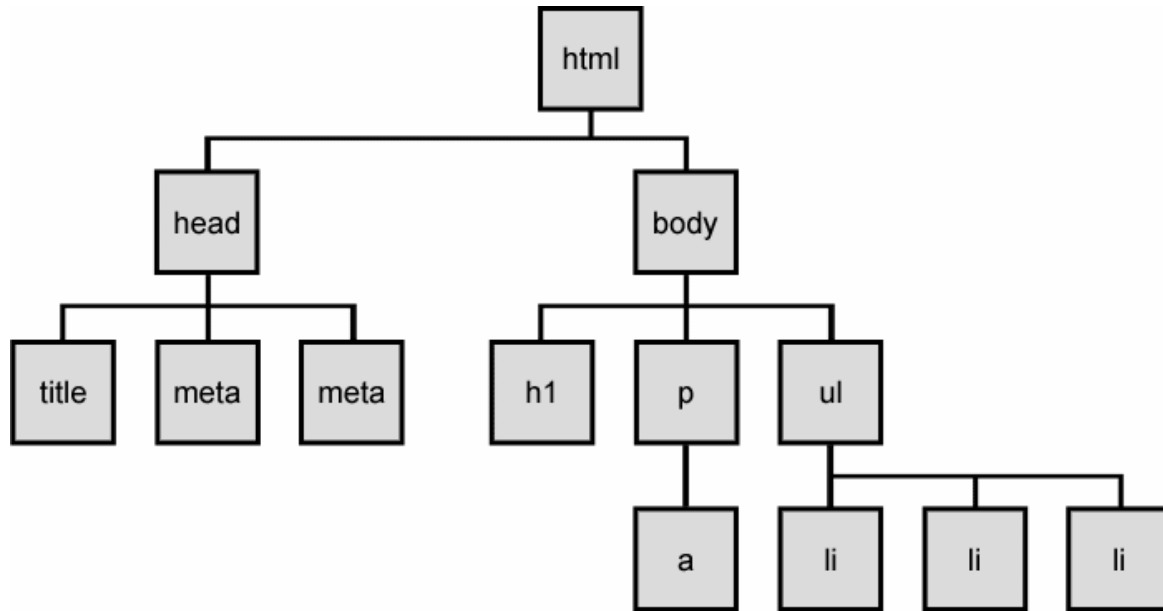
JQuery : Penulisan Script

```html
<script language="JavaScript">
    $("document").ready(function() {
        // The DOM is ready!
        // The rest of the code goes here
    });
</script>
```

Atau cara singkatnya:

```html
<script language="JavaScript">
    $(function() {
        // The DOM is ready!
        // The rest of the code goes here
    });
</script>
```

DOM Tree :: JavaScript DOM Objects

name	description
getElementById	returns array of descendents with the given tag, such as "div"
getElementsByTagName	returns array of descendents with the given tag, such as "div"
getElementsByName	returns array of descendents with the given name attribute (mostly useful for accessing form controls)
querySelector *	returns the first element that would be matched by the given CSS selector string
querySelectorAll *	returns an array of all elements that would be matched by the given CSS selector string

JQuery - Work

- HTML

```
<p>Hello World! I'm Eric</p>
```

- Script

```
$(function(){

    $("p").addClass("isCool");
        //keep telling yourself that..

});
```

- Resulting HTML

```
<p class="isCool">Hello World! I'm Eric</p>
```

JQuery – Detail Proses

```
$(function(){// = $(document).ready(function(){
```

$	("p")	.addClass("isCool");
Initiates the jQuery function	Grabs a DOM element using a CSS selector.	Built in method that adds a class to the jQuery Collection
	Selector is in quotes.	
$ = jQuery	Creates a jQuery "Collection"	Class is in quotes.
	`<p>`	ends with a semicolon.

```
});
```

Jquery - Selector

$("p")

`<p>`

$("div")

`<div>`

$("#foo")

`id="foo"`

$(".foo")

`class="foo"`

api.jquery.com/category/selectors/

Get Class Selector

- jQuery:

```
$("p").addClass("sophisticated");
```

- Before:

```
<p>
```

- After:

```
<p class="sophisticated">
```

\<p\> hilangkan attribute class

- jQuery:

```
$("p").removeClass("sophisticated");
```

- Before:

```
<p class="sophisticated">
```

- After:

```
<p class="">
```

\<div> Hide and Seek

- jQuery:
  ```
  $("div").show();
  ```

- Before:
  ```
  <div style="display:none;">
  ```

- After:
  ```
  <div style="display:block;">
  ```

Mengubah konten text

- jQuery:

```javascript
$("#eric").text("Is Cool");
```

- Before:

```html
<p id="eric">Is Lame</p>
```

- After:

```html
<p id="eric">Is Cool</p>
```

Chain Method : Penggunaan method bersamaan

- ```
  $("p")
      .addClass("sophisticated")
      .text("Hello World!")
      .show();
  ```

Click Event

- ```
  $("#eric").click(function(){
          $(this).text("Is Cool"); // this = #eric
          alert("Take that High School!");
  });
  ```

- ```
  $("#eric").click(function(event){
          $(this).text("Is Cool"); // this = #eric
          alert("Take that High School!");
          event.preventDefault(); //Prevents default action
  });
  ```

Basic Method

`.show()`	• Show a hidden element
`.wrap("<a></a>")`	• wrap an element with <a>
`.parent("p")`	• Select parent <p>
`.html()`	• Get/Set innerHTML
`.val()`	• Get/Set Value

api.jquery.com/

AJAX ?

- Ajax bukanlah sebuah teknologi, Melainkan beberapa teknologi didalamnya.
  AJAX terdiri dari :
    1. Web Standard dengan XHTML dan CSS
    2. Web dinamis dan interaktif dengan Document Object Model (DOM)
    3. Mengubah data beserta manipulasinya menggunakan XML dan XSLT
    4. Mengambil data secara Asynchronous dengan XMLHttpRequest
    5. JavaScript yang memadukan semua teknologi

Web : tradisional VS AJAX

Traditional web model

web browser
- Webpage

HTTP Request

HTML + Resources

web server

AJAX web model

web browser
- Webpage
- Javascript call
- HTML + Resources
- Javascript

HTTP Request

XML
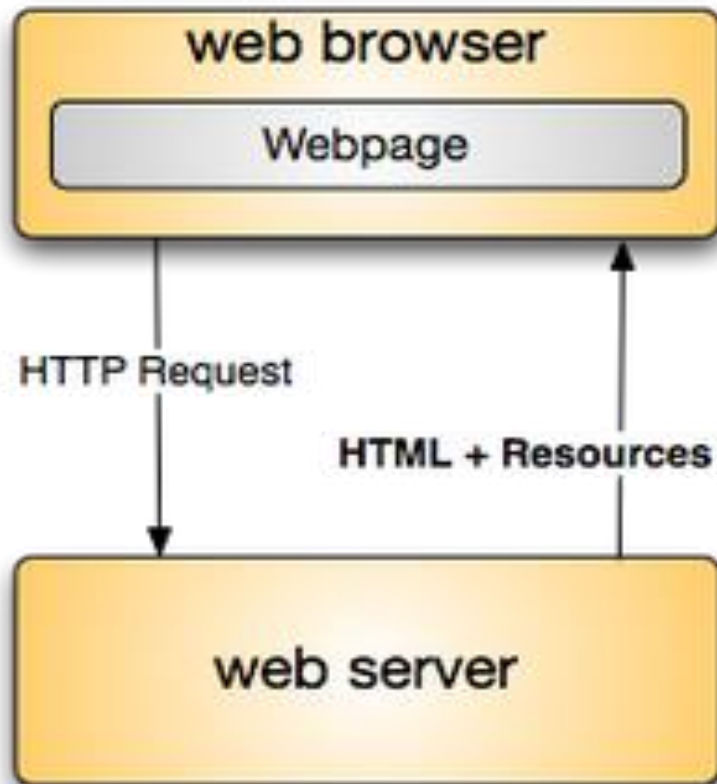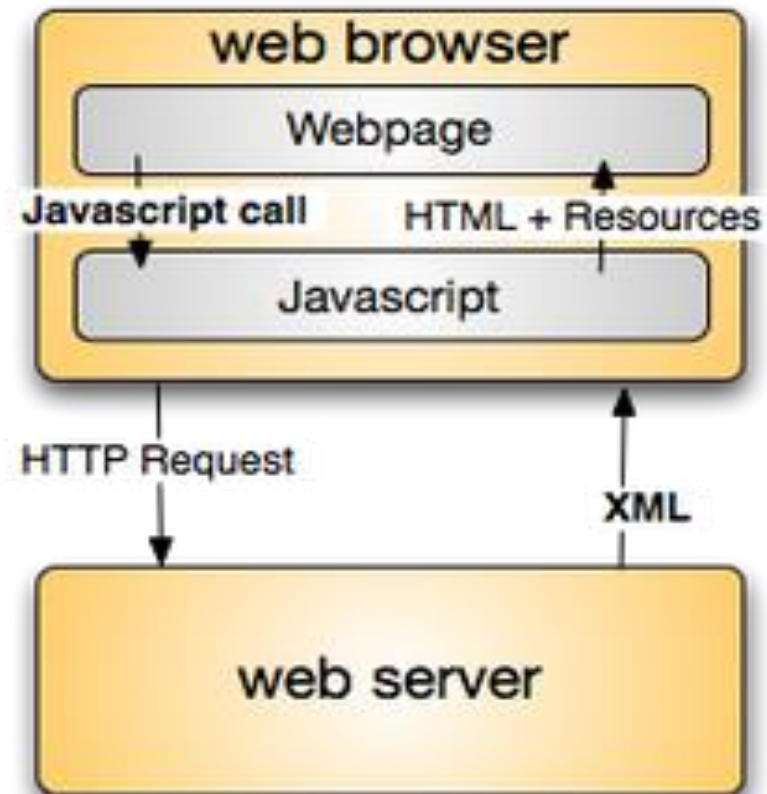
web server

AJAX - Server Side Application
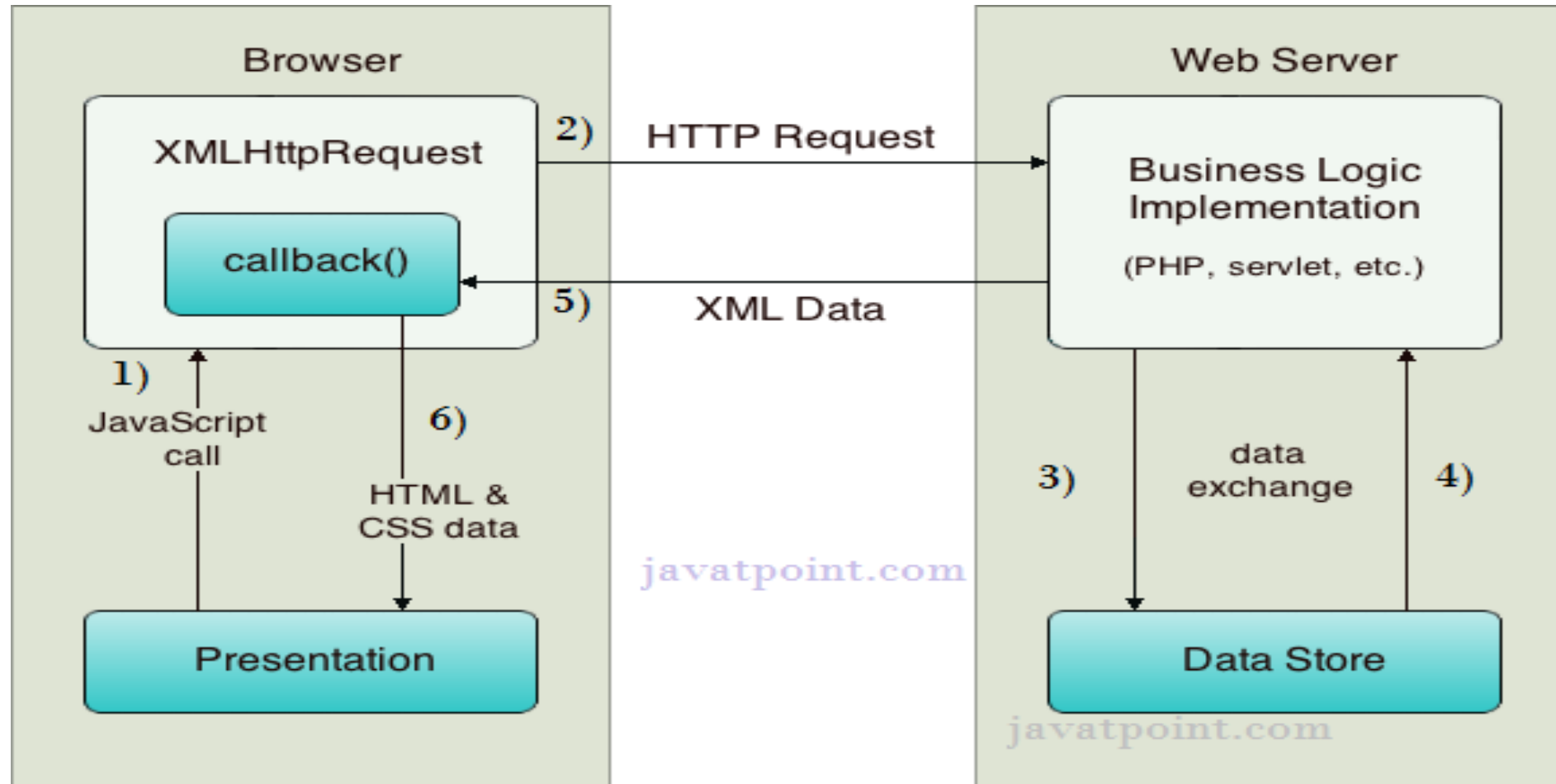
Contoh Implementasi Ajax

- Web Searching

https://www.w3schools.com/xml/tryit.asp?filename=tryajax_suggest_php

- Filtering Data Dropdown Menu:

https://www.w3schools.com/php/php_ajax_database.asp

http://phppot.com/demo/jquery-dependent-dropdown-list-countries-and-states/

- Display image

https://www.xul.fr/ajax/ajax-image-gallery.php