배우기

ajax

#ajax

1:

AJAX **(J** avaScript **X** ML)   .   (XMLhttpRequests)   javascript   .

AJAX   .   .   .

AJAX   () [XMLHttpRequest](#) .

Examples

AJAX ?

> AJAX JavaScript XML . XMLHttpRequest   . JSON, XML, HTML   . -Mozilla 2016

AJAX   jQuery .

jQuery ?

> jQuery   JavaScript .   API HTML   , ,   Ajax   . -jquery.com

jQuery   . AJAX . AJAX   !

jQuery

Ajax jQuery . http://jquery.com/download/ jquery   . jQuery   CDN .
http://jquery.com/download/#jquery-39-s-cdn-provided-by-maxcdn . CDN   . jquery   .   .
HTML jquery   . .   . http://jquery.com/download/#jquery . jquery   **jQuery 3.1.1** . jquery-
version.min.js   javascript   jquery-version.min.js .   src = jquery / location .

```
<head>

<script src="path/from/html/page/to/jquery.min.js"></script>

</head>
```

CDN .   http://jquery.com/download/#using-jquery-with-a-cdn   CDN (Content Delivery Network)
.

```
<head>

<script   src="https://code.jquery.com/jquery-3.1.1.min.js"   integrity="sha256-
hVVnYaiADRTO2PzUGmuLJr8BLUSjGIZsDYGmIJLv2b8="   crossorigin="anonymous"></script>

</head>
```

CDN . html .

```
<script>
$(document).ready(function(){
    alert("jQuery Works")
});
</script>
```

jQuery .

jQuery

jQuery.ajax API :

```
$.ajax({
    method: "POST",
    url: "some.php",
    data: {
        name: "John",
        location: "Boston"
    },
    success: function(msg) {
        alert("Data Saved: " + msg);
    },
    error: function(e) {
        alert("Error: " + e);
    }
});
```

jQuery .

- $.ajax - jQuery ajax .

- method: "POST" - POST . !

- url - . . .

- data - . .

- success - msg . msg .

- error - ajax .

- .done

    ```
    success: function(result) {
        // do something
    });
    ```

-

.

```
$('form.ajaxSubmit').on('submit',function(){
    // initilization...
    var form    = $(this);
    var formUrl    = form.attr('action');
    var formType    = form.attr('method');
    var formData    = form.serialize();

    $.ajax({
        url: formUrl,
        type: formType,
        data: formData,
        async: true,
        success: function(data) {
            // .....
        }
    });
    //// code flows through without waiting for the call to complete
    return false;
});
```

.

```
$('form.ajaxSubmit').on('submit',function(){
    // initilization...
    var form    = $(this);
    var formUrl    = form.attr('action');
    var formType    = form.attr('method');
    var formData    = form.serialize();
    var data = $.ajax({
            url: formUrl,
            type: formType,
            data: formData,
            async: false
        }).responseText;
    //// waits for call to complete
    return false;
});
```

XMLHttpRequest   Ajax

```
var httpRequest = new XMLHttpRequest();

httpRequest.onreadystatechange = getData;

httpRequest.open('GET', 'https://url/to/some.file', true);
httpRequest.send();

function getData(){
    if (httpRequest.readyState === XMLHttpRequest.DONE) {
        alert(httpRequest.responseText);
    }
}
```

new XMLHttpRequest()   *XMLHttpRequest* .

onreadystatechange   getData()   .

`.open()` . ('**GET**', '**POST**'), URL,

`.send()` **-** `.send(data)` .

`getData()` . readyState **DONE** `responseText` .

MDN .

 ajax

(es2015) .

```
function ajax(url, callback) {
    var xhr;

    if(typeof XMLHttpRequest !== 'undefined') xhr = new XMLHttpRequest();
    else {
        var versions = ["MSXML2.XmlHttp.5.0",
                        "MSXML2.XmlHttp.4.0",
                        "MSXML2.XmlHttp.3.0",
                        "MSXML2.XmlHttp.2.0",
                        "Microsoft.XmlHttp"]

        for(var i = 0, len = versions.length; i < len; i++) {
            try {
                xhr = new ActiveXObject(versions[i]);
                break;
            }
            catch(e){}
        } // end for
    }

    xhr.onreadystatechange = ensureReadiness;

    function ensureReadiness() {
        if(xhr.readyState < 4) {
            return;
        }

        if(xhr.status !== 200) {
            return;
        }

        // all is well
        if(xhr.readyState === 4) {
            callback(xhr);
        }
    }

    xhr.open('GET', url, true);
    xhr.send('');
}
```

:

```
ajax('myFile.html', function(response) {
    document.getElementById('container').innerHTML = response.responseText;
```

```
});
```

Ecmascript 6 (es2015) **fetch** .

```
fetch('myFile.json').then(function(res){
    return res.json();
  });
```

es2015 furthner :

TypeScript AJAX

AJAX TypeScript .

```
declare var document;
declare var xhr: XMLHttpRequest;

window.onLoad = () =>
{
    Start();
};

function Start()
{
    // Setup XMLHttpRequest (xhr).
    if(XMLHttpRequest)
    {
        xhr = new XMLHttpRequest();
    }
    else
    {
        xhr = new ActiveXObject("Microsoft.XMLHTTP");
    }

    AttachEventListener(document.body, "click", HandleCheckBoxStateChange);
}

function AttachEventListener(element: any, e, f)
{
    // W3C Event Model.
    if(element.addEventListener)
    {
        element.addEventListener(e, f, false);
    }
    else if(element.attachEvent)
    {
        element.attachEvent("on" + e, (function(element, f)
        {
            return function()
            {
                f.call(element, window.event);
            };
        })
        (element, f));
    }
```

```
    element = null;
}

function HandleCheckBoxStateChange(e)
{
    var element = e.target || e.srcElement;

    if(element && element.type == "checkbox")
    {
        if(element.checked)
        {
            AddProductToCart(element);
        }
        else
        {
            // It is un-checked.
            // Remove item from cart.
        }
    }
    else
    {
        break;
    }
}

AddProductToCart(e)
{
    var element = <HTMLInputElement>document.getElementById(e.id);

    // Add the product to the Cart (Database table)
    xhr.onreadystatechange = function()
    {
        if(xhr.readyState == 4)
        {
            if(xhr.status == 200)
            {
                if(element != null)
                {
                    console.log("200: OK");
                }
                else
                {
                    console.log(":-(");
                }
            }
            else
            {
                // The server responded with a different response code; handle accordingly.
                // Probably not the most informative output.
                console.log(":-(");
            }
        }
    }

    var parameters = "ProductID=" + encodeURIComponent(e.id) + "&" + "Action=Add&Quantity=" +
element.value;

    xhr.open("POST", "../Cart.cshtml");
    xhr.setRequestHeader("Content-type", "application/x-www-form-urlencoded");
    xhr.setRequestHeader("Content-length", parameters.length.toString());
    xhr.setRequestHeader("Connection", "close");
```

```
    xhr.send(parameters);

    return e.id;
}
```

. C# `Cart.cshtml` . `cshtml php cshtml` .

: https://riptutorial.com/ko/ajax/topic/1082/-

2:

Examples

""

2xx HTTP   (RFC 2616 10).

```
$.ajaxSetup()    .       .
```

```javascript
$.ajaxSetup({
    error: function (jqXHR, exception, errorThrown) {
        var message;
        var statusErrorMap = {
            '400': "Server understood the request, but request content was invalid.",
            '401': "Unauthorized access.",
            '403': "Forbidden resource can't be accessed.",
            '500': "Internal server error.",
            '503': "Service unavailable."
        };
        if (jqXHR.status) {
            message = statusErrorMap[jqXHR.status];
            if (!message) {
                message = "Unknown Error.";
            }
        } else if (exception == 'parsererror') {
            message = "Error.\nParsing JSON Request failed.";
        } else if (exception == 'timeout') {
            message = "Request Time out.";
        } else if (exception == 'abort') {
            message = "Request was aborted by the server";
        } else {
            message = "Unknown Error.";
        }

        // How you will display your error message...
        console.log(message);
        console.log(errorThrown);
    }
});
```

```
error  $.ajax() "" .
```

```javascript
$.ajax({
    url: './api',
    data: { parametersObject },
    type:'post',
    dataType: 'json',
    success:function(output){
        // Interpret success
    },
    error: function(xhr,textStatus,ErrorThrown){
        // Specific error will not be interpreted by $.ajaxSetup
    }
});
```

: https://riptutorial.com/ko/ajax/topic/7175/

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