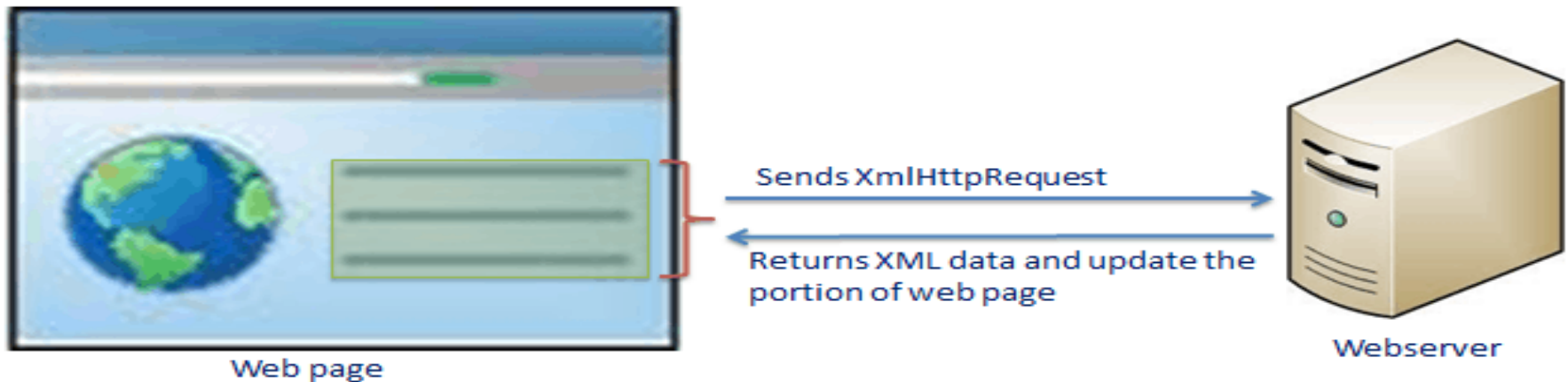# jQuery Ajax Introduction

- Ajax stands for "Asynchronous JavaScript and XML".
- JavaScript includes features of sending asynchronous http request using XMLHttpRequest object.
- Ajax is about using this ability of JavaScript to send asynchronous http request and get the **xml data or JSON** as a response (also in other formats) and update the part of a web page (using JavaScript) without reloading or refreshing entire web page.

Ajax functionality:

Web page

Sends XmlHttpRequest

Returns XML data and update the portion of web page

Webserver

The jQuery library includes various methods to send Ajax requests.

Query Ajax Methods	Description
ajax()	Sends asynchronous http request to the server.
get()	Sends http GET request to load the data from the server.
Post()	Sends http POST request to submit or load the data to the server.
getJSON()	Sends http GET request to load JSON encoded data from the server.
getScript()	Sends http GET request to load the JavaScript file from the server and then executes it.
load()	Sends http request to load the html or text content from the server and add them to DOM element(s).

The jQuery library also includes following events which will be fired based on the state of the Ajax request.

jQuery Ajax Events	Description
ajaxComplete()	Register a handler function to be called when Ajax requests complete.
ajaxError()	Register a handler function to be called when Ajax requests complete with an error.
ajaxSend()	Register a handler function to be called before Ajax request is sent.
ajaxStart()	Register a handler function to be called when the first Ajax request begins.
ajaxStop()	Register a handler function to be called when all the Ajax requests have completed.
ajaxSuccess()	Register a handler function to be called when Ajax request completes successfully.

jQuery ajax() Method

The jQuery ajax() method provides core functionality of Ajax in jQuery. It sends asynchronous HTTP requests to the server.

`$.ajax(url);`

`$.ajax(url,[options]);`

Parameter description:

- **url:** A string URL to which you want to submit or retrieve the data

- **options:** Configuration options for Ajax request. An options parameter can be specified using JSON format. This parameter is optional.
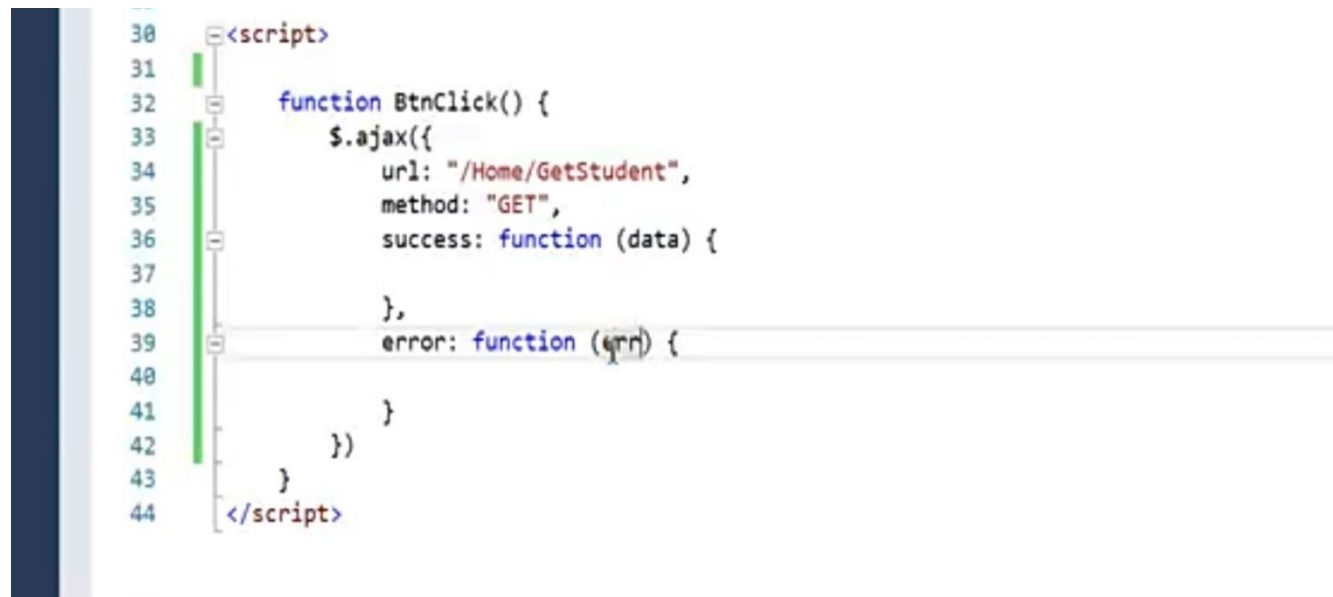
Send Ajax Request

The ajax() methods performs asynchronous http request and gets the data from the server.

how to send a simple Ajax request.

Example: jQuery Ajax Request

```
$.ajax('/jquery/getdata',    // request url
    {
        success: function (data, status, xhr) {// success callback function
            $('p').append(data);
    }
});
```

Visual Studio(Environment)

```
30    <script>
31
32        function BtnClick() {
33            $.ajax({
34                url: "/Home/GetStudent",
35                method: "GET",
36                success: function (data) {

38                },
39                error: function (err) {

41                }
42            })
43        }
44    </script>
```

Data Using Ajax in MVC

```html
 8   <html>
 9   <head>
10       <meta name="viewport" content="width=device-width" />
11       <title>Index</title>
12       <script src="~/Scripts/jquery-3.3.1.js"></script>
13
14   </head>
15   <body>
16       <div>
17           <h1>Hello from index</h1>
18
19           <div>
20               <h2>Id</h2> - <h2 id="stdId"></h2>
21               <h2>Id</h2> - <h2 id="stdId"></h2>
22               <h2>Id</h2> - <h2 id="stdId"></h2>
23           </div>
24
25           <input type="button" onclick="BtnClick()" value="Click me" />
26       </div>
```

```html
18
19          <div>
20              <h2>Id</h2> - <h2 id="stdId"></h2>
21              <h2>Name</h2> - <h2 id="stdName"></h2>
22              <h2>Email</h2> - <h2 id="stdEmail"></h2>
23          </div>
24
25              <input type="button" onclick="BtnClick()" value="Click me" />
26          </div>
27      </body>
28      </html>
```

```html
26          </div>
27      </body>
28      </html>
29
30      <script>
31
32          function BtnClick() {
33
34          }
35      </script>
```

Note: Include – Jquery Library and Add to your Page

Create a Ajax Method in <Script >

```
30    <script>
31
32        function BtnClick() {
33            $.ajax({

35            })
36        }
37    </script>
```

```
22            <h2>Email</h2> - <h2 id="stdEmail"></h2>
23        </div>
24
25        <input type="button" onclick="BtnClick()" value="Click me" />
26    </div>
27    </body>
28    </html>
29
30 <script>
31
32    function Bt          ▲ 1 of 2 ▼  ajax(settings: JQueryAjaxSettings): JQueryXHR
33        $.ajax({                    Perform an asynchronous HTTP (Ajax) request.
34            url: "/Home/GetStudent",    settings: A set of key/value pairs that configure the Ajax request. All settings are optional. A default can be set for
35                    |
36        })
37    }
38 </script>
```

121 % ▾

```html
            <h2>Email</h2> - <h2 id="stdEmail"></h2>
        </div>

        <input type="button" onclick="BtnClick()" value="Click me" />
    </div>
</body>
</html>

<script>

    function BtnClick() {
        $.ajax({
            url: "/Home/GetStudent",
            method:"GET",|    I
        })
    }
</script>
```

▲ 1 of 2 ▼ ajax(**settings: JQueryAjaxSettings**): JQueryXHR
Perform an asynchronous HTTP (Ajax) request.
settings: *A set of key/value pairs that configure the Ajax request. All settings are optional. A default can be set fo*

```html
            <h2>Email</h2> - <h2 id="stdEmail"></h2>
        </div>

        <input type="button" onclick="BtnClick()" value="Click me" />
    </div>
</body>
</html>

<script>

    function BtnClick() {
        $.ajax({
            url: "/Home/GetStudent",
            method: "GET",
            success: function () { }
        })
    }
</script>
```

121 % ▾

```
25              <input type="button" onclick="BtnClick()" value="Click me" />
26          </div>
27      </body>
28      </html>
29
30      <script>
31
32          function BtnClick() {
33              $.ajax({
34                  url: "/Home/GetStudent",
35                  method: "GET",
36                  success: function (data) {
37
38                  },
39                  error: function (err) {
40
41                  }
42              })
43          }
44      </script>
```

121 % ▾

```
25              <input type="button" onclick="BtnClick()" value="Click me" />
26          </div>
27      </body>
28      </html>
29

30      <script>
31

32          function BtnClick() {
33              $.ajax({
34                  url: "/Home/GetStudent",
35                  method: "GET",
36                  success: function (data) {
37                      console.log(data);
38                  },
39                  error: function (err) {
40                      console.error(err);
41                  }
42              })
43          }
44      </script>
```

121 % ▾

```
28  </html>
29
30  <script>
31
32      function BtnClick() {
33          $.ajax({
34              url: "/Home/GetStudent",
35              method: "GET",
36              success: function (data) {
37                  console.log(data);
38              },
39              error: function (err) {
40                  console.error(err);
41              }
42          })
43      }
44  </script>
```

```
28  </html>
29
30  <script>
31
32      function BtnClick() {
33          $.ajax({
34              url: "/Home/GetStudent",
35              method: "GET",
36              success: function (data) {
37                  console.log(data);
38              },
39              error: function (err) {
40                  console.error(err);
41              }
42          })
43      }
44  </script>
```

Hello from index

Id

*

Name

*

Email

*

Click me

Hello from index

Id

.

Name

.

Email

.

Click me

Elements Console Sources Network Performance Memory Application Security Audits Adblock Plus

top ▼ Filter Default levels ▼ ☑ Group similar

{"Id":1,"Name":"Nitish kaushik","Email":"email@gmail.com"}
>

```
28    </html>
29
30    <script>
31
32        function BtnClick() {
33            $.ajax({
34                url: "/Home/GetStudent",
35                method: "GET",
36                success: function (data) {
37                    console.log(data);
38                },
39                error: function (err) {
40                    console.error(err);
41                }
42            })
43        }
44    </script>
```

121 % ▾

```html
            <h2>Id</h2> - <h2 id="stdId"></h2>
            <h2>Name</h2> - <h2 id="stdName"></h2>
            <h2>Email</h2> - <h2 id="stdEmail"></h2>
        </div>

        <input type="button" onclick="BtnClick()" value="Click me" />
    </div>
</body>
</html>

<script>

    function BtnClick() {
        $.ajax({
            url: "/Home/GetStudent",
            method: "GET",
            success: function (data) {

                console.log(data);
                data = JSON.parse(data);

                console.log(data);
            },
            error: function (err) {
                console.error(err);
            }
        })
```

Click me

top ▼   Filter   Default levels ▼ ☑ Group similar

```
{"Id":1,"Name":"Nitish kaushik","Email":"email@gmail.com"}
```

▼ {Id: 1, Name: "Nitish kaushik", Email: "email@gmail.com"} ⓘ
   Email: "email@gmail.com"
   Id: 1
   Name: "Nitish kaushik"
  ▶ __proto__: Object

>

```
30   <script>
31
32      function BtnClick() {
33          $.ajax({
34              url: "/Home/GetStudent",
35              method: "GET",
36              success: function (data) {
37
38
39                  data = JSON.parse(data);
40
41
42              },
43              error: function (err) {
44                  console.error(err);
45              }
46          })
47      }
48   </script>
```

```html
24
25              <input type="button" onclick="BtnClick()" value="Click me" />
26          </div>
27      </body>
28      </html>
29

30      <script>
31
32          function BtnClick() {
33              $.ajax({
34                  url: "/Home/GetStudent",
35                  method: "GET",
36                  success: function (data) {
37
38
39                      data = JSON.parse(data);
40
41                      $("#stdId").text(data.Id);
42                      $("#stdName").text(data.Name);
43                      $("#stdEmail").text(data.Email);
44                  },
45                  error: function (err) {
46                      console.error(err);
47                  }
48              })
49          }
```
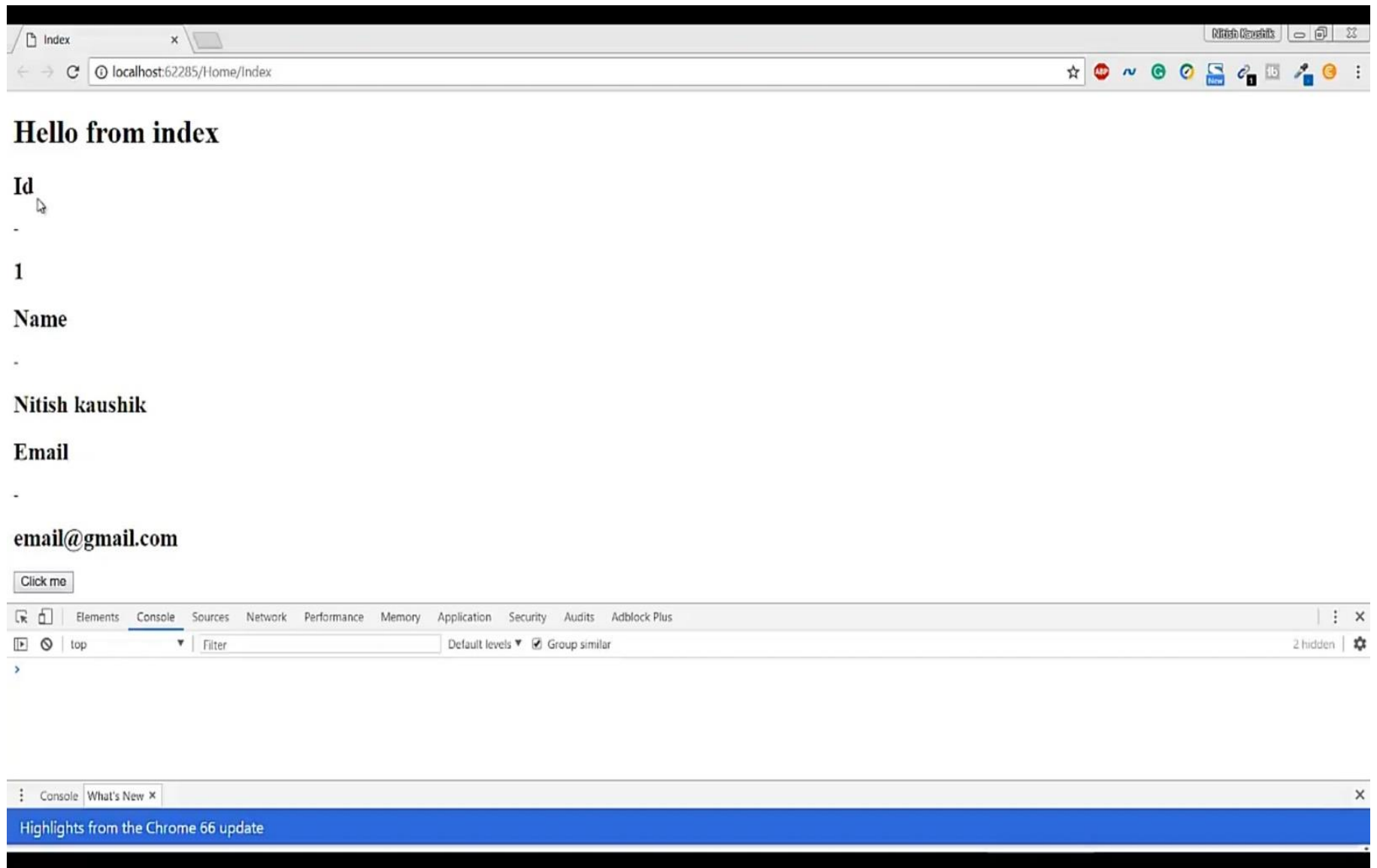
Hello from index

Id

-

1

Name

-

Nitish kaushik

Email

-

email@gmail.com

Click me

Index ×

← → C ⓘ localhost:62285/Home/Index

☆

-

Name

-

Email

-

Click me

Elements   Console   Sources   Network   Performance   Memory   Application   Security   Audits   Adblock Plus

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⊗ ▶ GET http://localhost:62285/Home/GetStudent2 404 (Not Found)   jquery-3.3.1.js:9600

⊗ ▶   Index:52

▼ {readyState: 4, getResponseHeader: f, getAllResponseHeaders: f, setRequestHeader: f, overrideMimeType: f, …} ⓘ

  ▶ abort: f (statusText)

  ▶ always: f ()   function(statusText) { var finalText = statusText || strAbort; if (transport && (finalText) { done(0, finalText) return this }

  ▶ catch: f (fn)

  ▶ done: f ()

  ▶ fail: f ()

  ▶ getAllResponseHeaders: f ()

  ▶ getResponseHeader: f (key)

  ▶ overrideMimeType: f (type)

  ▶ pipe: f (/* fnDone, fnFail, fnProgress */)

  ▶ progress: f ()

  ▶ promise: f (obj)

   readyState: 4

   responseText: "<!DOCTYPE html><html>   <head>   <title>The resource cannot be found.</title>   <meta name="viewport" content="width=device-width" />   <style>   body {font-family:"Verdana";font-w

  ▶ setRequestHeader: f (name, value)

  ▶ state: f ()

   status: 404

  ▶ statusCode: f (map)

   statusText: "Not Found"

Console   What's New ×

Highlights from the Chrome 66 update