AJAX

ASYNCHRONOUS JAVASCRIPT AND XML

WHAT IS IT?

- Allows to make **HTTP requests in Javascript**
- AJAX requests are **asynchronous** (non-blocking)
- Build by Microsoft in 1998 for Internet Explorer 5

JAVASCRIPT SYNTAX

```javascript
var http = new XMLHttpRequest();

req.open("GET", "http://lewagon.org", true);
req.setRequestHeader("Content-Type", "text/html");

req.onload = function(e) {
  console.log('Page chargée !');
};
req.onerror = function(e) {
  console.log('Un problème est survenu');
};

req.send(null);
```
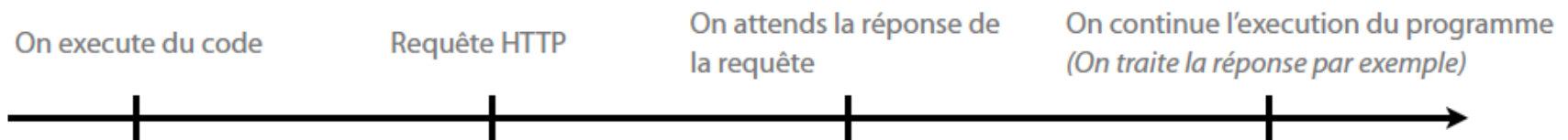
JQUERY SYNTAX

```javascript
$.ajax({
  type: "GET",
  url: "http://lewagon.org",
  beforeSend: function(request) {
    request.setRequestHeader("Content-Type", 'text/html');
  },
  success: function(data) {
    console.log('Page chargée !');
  },
  error: function(data) {
    console.log('Un problème est survenu');
  }
});
```
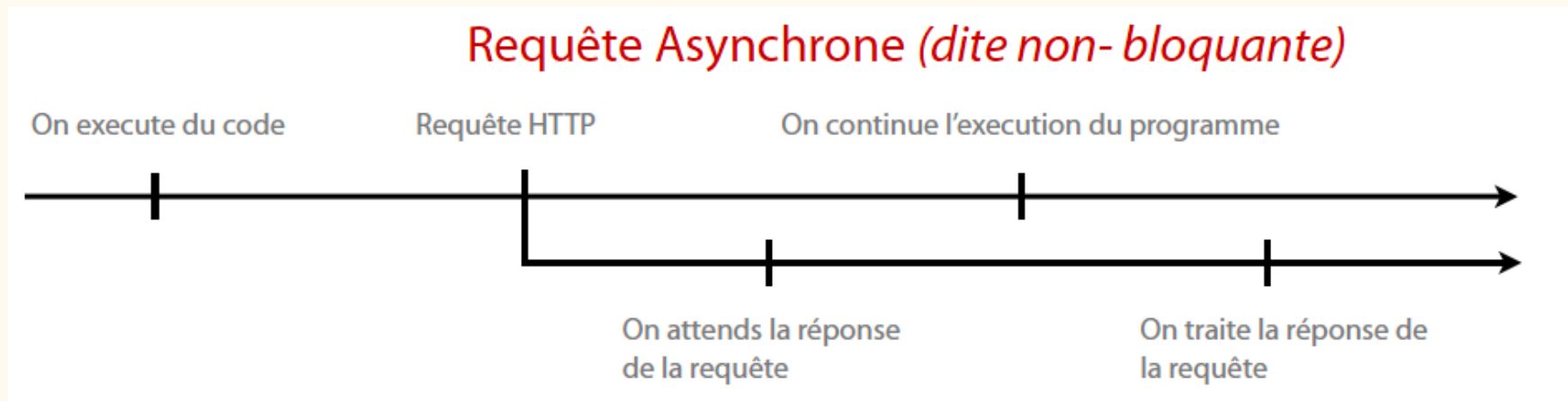
WHAT DOES ASYNCHRONOUS MEAN?

Send request and wait for response **without blocking your JS script**

BLOCKING SCRIPT

Requête Synchrone *(dite bloquante)*

On execute du code   Requête HTTP   On attends la réponse de la requête   On continue l'execution du programme *(On traite la réponse par exemple)*

NON-BLOCKING SCRIPT

Requête Asynchrone *(dite non- bloquante)*

On execute du code   Requête HTTP   On continue l'execution du programme

On attends la réponse
de la requête

On traite la réponse de
la requête

IMAGINE A BLOCKING SCRIPT

```javascript
console.log('Loading page lewagon.org...');    // Loading pa

$.ajax({                                        //
  type: "GET",                                  //
  url: "http://lewagon.org",                    //
  success: function(data) {                      //
    console.log('Page chargée !');              // Page loade
  },                                            //
  error: function(data) {                        //
    console.log('Un problème est survenu');     //
  }                                             //
});                                             //
                                                //
console.log('Doing some stuff');               // Doing some
```

HAPPILY

Our request is asynchronous :)

```javascript
console.log('Loading page lewagon.org...');      // Loading pa
                                                  //
$.ajax({                                          //
  type: "GET",                                    //
  url: "http://lewagon.org",                      //
  success: function(data) {                        //
    console.log('Page chargée !');                //
  },                                              //
  error: function(data) {                          //
    console.log('Un problème est survenu');       //
  }                                               //
});                                               //
                                                  //
console.log('Doing some stuff');                  // Doing som
```

JQUERY SYNTAX

- $.ajax()
- $.get()
- $.post()
- $.getJSON()

$.get()

```javascript
$.get( "http://lewagon.org", function( data ) {
  console.log("Page chargée !");
  console.log(data); // Code HTML
});
```

$.post()

```
$.post( "http://lewagon.org/login",
  {
    email: "dehan.gabriel@gmail.com",
    password: "hellokitty"
  },
  function( data ) {
    console.log("Vous avez bien été authentifié !");
  }
);
```

READ THE DOC

- https://api.jquery.com/jQuery.ajax/
- https://api.jquery.com/jQuery.get/
- https://api.jquery.com/jQuery.post/