AJAX

WHAT IS AJAX

Asynchronous **Ja**vascript and **X**ML

It is a way of communicating with the web server without refreshing the page that the user is viewing.

It is a combination of technologies

- Javascript
- HTML
- CSS
- XML
- DOM
- XMLHttpRequest – Javascript object

AJAX EXAMPLES

Google Suggest

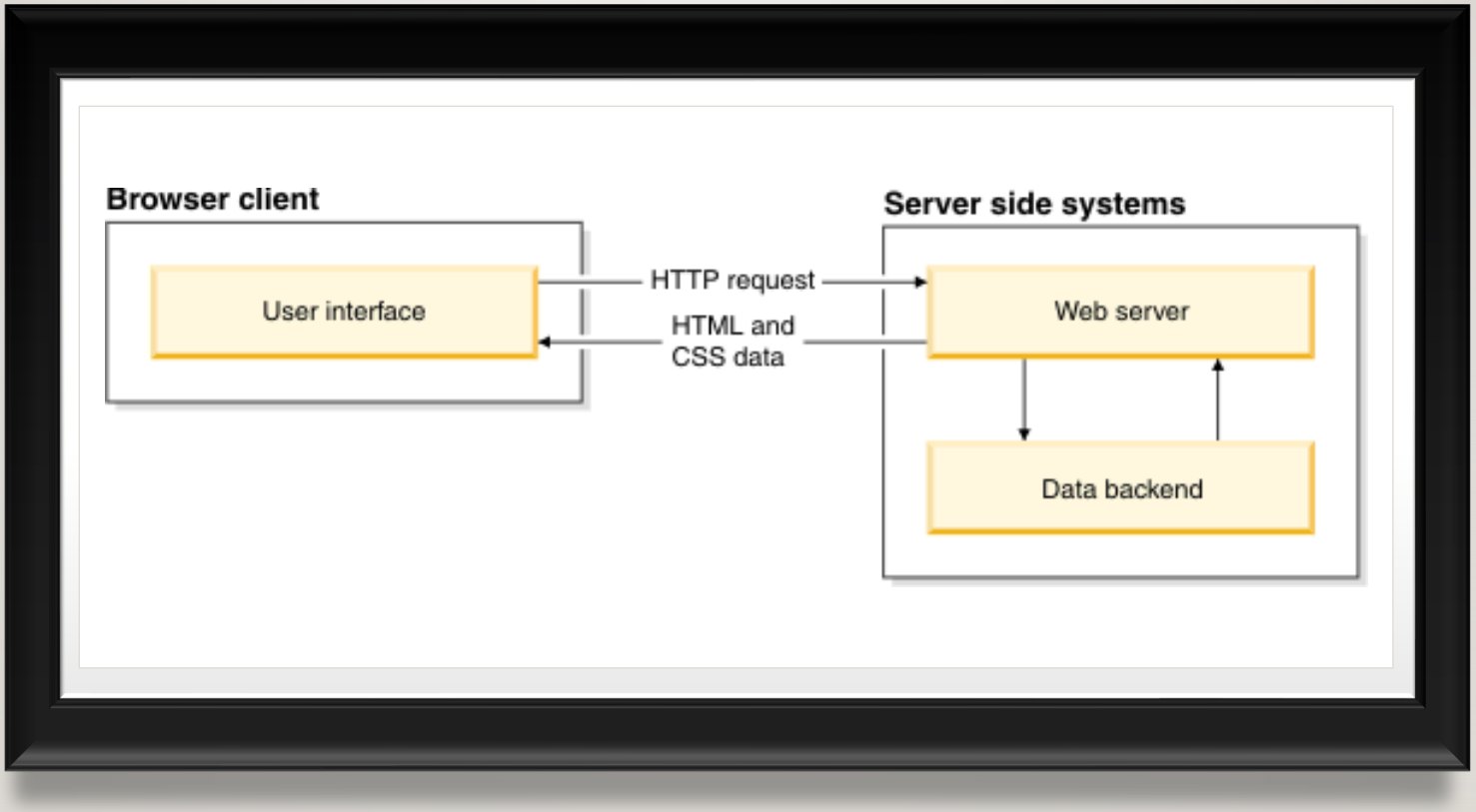
Google Maps

Gmail

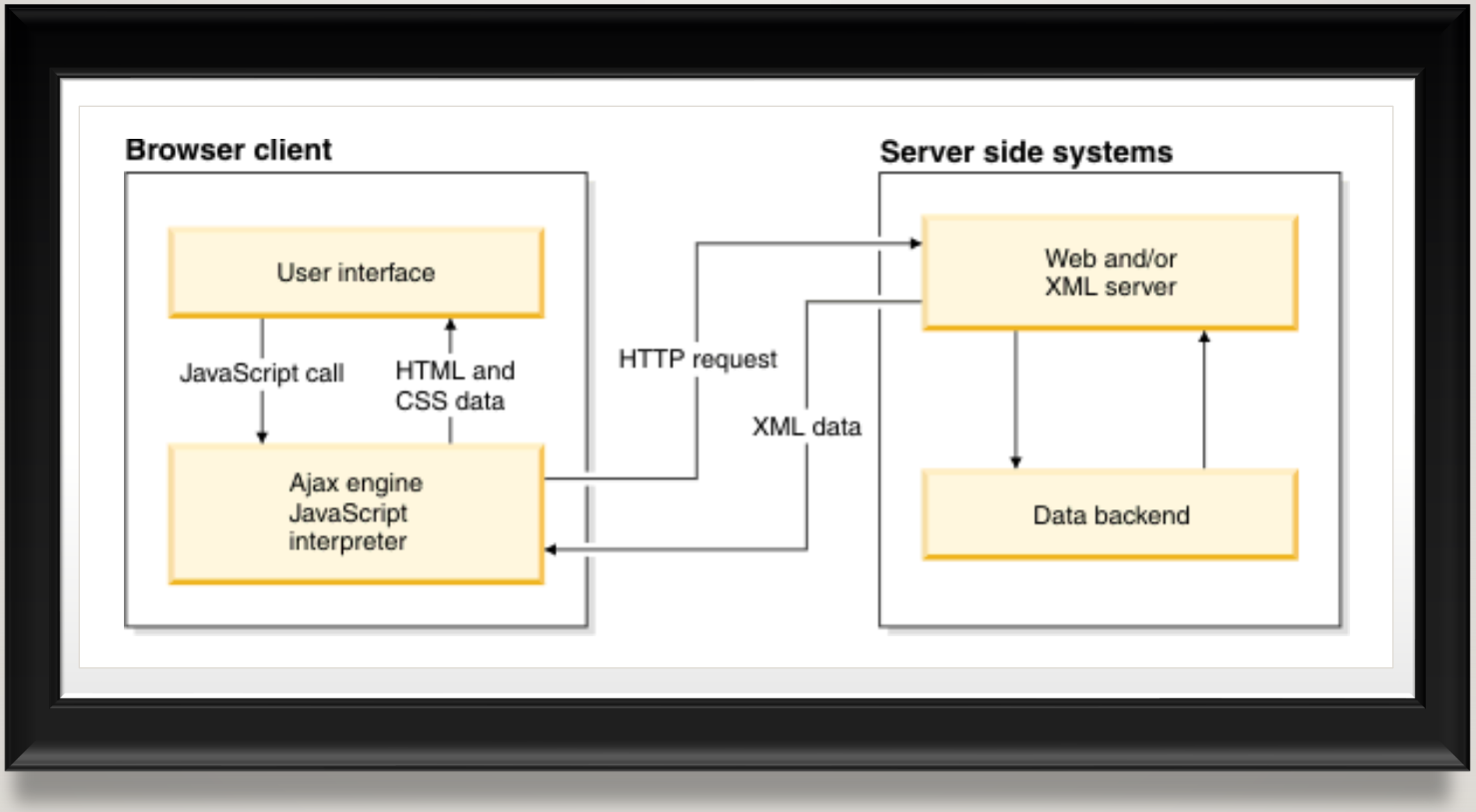
Facebook

YouTube

Instagram



TRADITIONAL WEB APPLICATION



AJAX WEB APPLICATION

XMLHTTPREQUEST

Allows exchange of data with server at the background

Allows the web application to update parts of a web page ,without reloading the whole page

3 STEP PROCESS

Create	Configure and submit	Process
Create an XMLHttpRequest Object	Configure and submit your Http request to the server	Process the server's response

CREATE AN XMLHTTPREQUEST OBJECT

Create an XMLHttpRequest object for all browsers (IE 7, Opera, Firefox, Chrome etc)

- Variable = new XMLHttpRequest();

For IE5 and IE6 create an ActiveXObject (does the same functionality as XMLHttpRequest)

- Variable= new ActiveXObject("Microsoft.XMLHTTP");

CONFIGURE AND SEND REQUEST TO SERVER

Two methods of xmlhttp is used to form and send a request

- Open() and Send()

Xmlhttp.open(method,url,async)

- Method - type of request (GET,POST or HEAD)
- url – location of the resource on the server
- Async
  - true (asynchronous- javascript executes other scripts while waiting for response)
  - False (synchronous –javascript will not execute until response is received)

Xmlhttp.send() – a string is passed as parameter for POST method

PROCESS THE SERVER'S RESPONSE

- ***Onreadystatechange*** property of XmlHttpRequest stores a callback function which is called automatically everytime the state changes
- State change is verified in this function using ***readystate*** property of XMLHttpRequest object
- Readystate holds the status of the XMLHttpRequest
  - 0 – Request not initialized
  - 1 – server connection established (open() method is called)
  - 2 – Request sent (send () method is called)
  - 3 – Partial responses from the server
  - 4 – response received

PROCESS THE SERVER'S RESPONSE

status property of xmlHttpRequest holds the status of the response

- 200 OK
- 404 Not Found

Function receives the result from the server and does the required processing

- responseText – response as a string of text
- responseXML- response as a XML document

THANK YOU