What is Ajax?
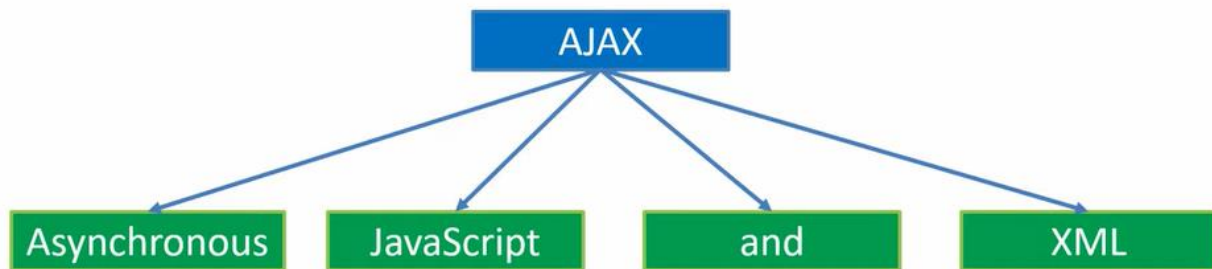
Ajax is an acronym for Asynchronous Javascript and XML. It is used to communicate with the server without refreshing the web page and thus increasing the user experience and better performance. With use of Ajax a good user experience (user friendly) can achieved.

Ajax is a technique by which you can make page dynamic and fast loaded

How Ajax make fast webpage loading: It just reloaded required data.It will not reload css javascript each time only particular content will be loaded
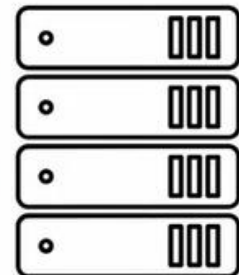
How AJax works

XMLHttpRequest → Server

Request

Response

Text File

XML Data

JSON Data

5 Steps

readyState

0: request not initialized
1: server connection established
2: request received
3: processing request
4: request finished and response is ready

Status

200: "OK"
403: "Forbidden"
404: "Not Found"

responseText
or
responseXML

Means there is problem in server

var xhttp=new XMLHttpRequest();//indicates that the code will use ajax

xhttp.open("GET","fileneame.txt",true);

//asyn mode true:means your request will send to server and you can perform your next task and server will respond after process request

filename.txt:which you want to access from server

xhttp.send();//request will be sent to server

Note: Use live server for practice

Eg. Facebook like button does not reload facebook site.It just increase like count

NodeJs	AJAX	JQuery
NodeJs is an open-source framework based on JavaScript v8 engine.	AJAX is a web development technique for making asynchronous calls to the server.	jQuery is a JavaScript library for designing and make some web development tasks easy.
NodeJs is an open-source framework based on JavaScript v8 engine.	AJAX is a web development technique for making asynchronous calls to the server.	jQuery is a JavaScript library for designing and make some web development tasks easy.
It works on the server-side.	It only works on the client-side.	It also works on the client-side.

Types of Ajax

- *Asynchronous Ajax*
  - Asynchronous ajax call allow the next line of code to execute
- *Synchronous Ajax*
  - Synchronous call stop JavaScript execution until the response from server.

Ajax Examples

- *Facebook like and comments*
- *Country State and City dropdown.*

Example

```
DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <p id="demo">Data will load here</p>
    <button onclick="loaddata()">Click me</button>
    <script>
        function loaddata()
        {
            var xhttp=new XMLHttpRequest();
            xhttp.onreadystatechange=function()
            //to check the state .this funtion will automatically execute in
each state change
            {
                if(this.readyState==4 && this.status==200)//status==200 means
requested file get
                    {

document.getElementById("demo").innerHTML=this.responseText;
                    }
                    else if(this.readyState==4 && this.status==404)
                    {
                        document.getElementById("demo").innerHTML="File not
found";

                    }
                }
            xhttp.open('GET',"file.txt",true);
            xhttp.send();
        }
    </script>
</body>
</html>
```
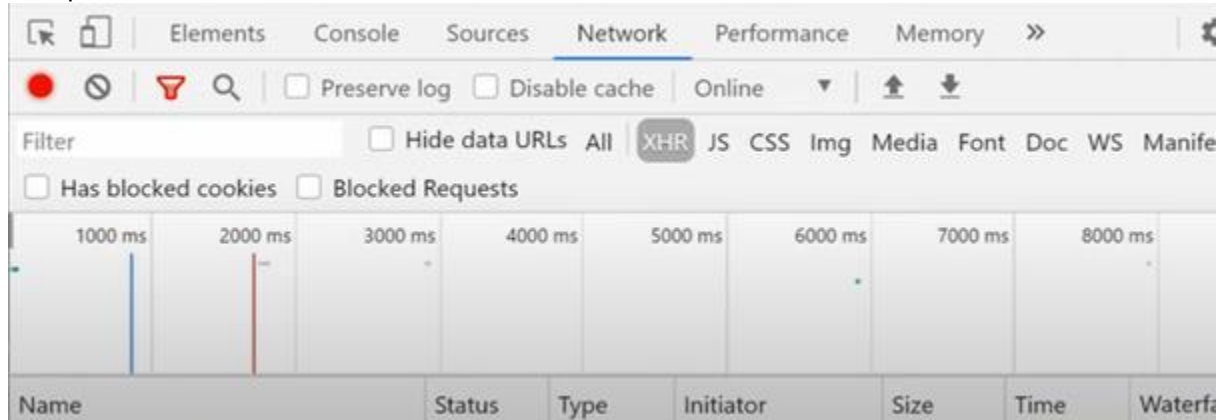
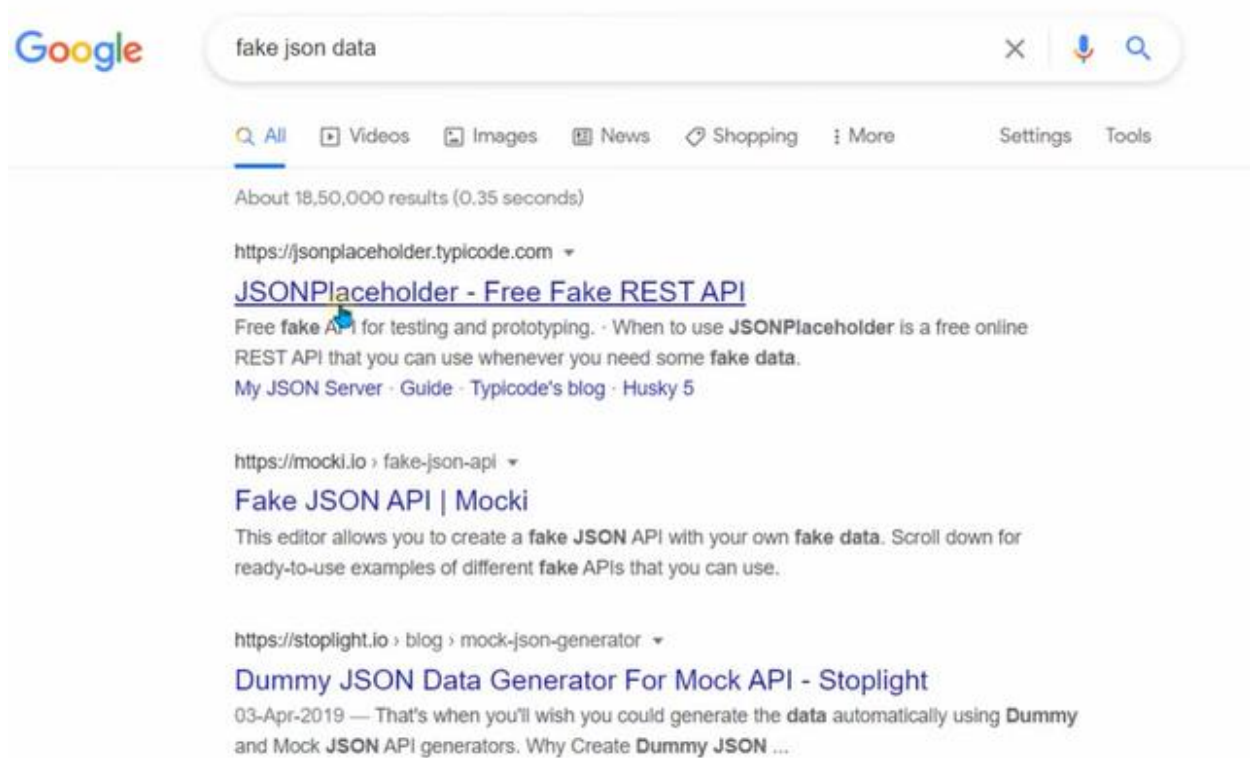In developer option you can see requested file
X:XML
H:Http
R:Request

In actual data will be in JSON(JavaScript Object Notation) format so you can test it as

Resources

JSONPlaceholder comes with a set of 6 common resources:

/posts	100 posts
/comments	500 comments
/albums	100 albums
/photos	5000 photos
/todos	200 todos
/users	10 users

Copy URL and paste it in place of file name to check the JSON format data sent by server