

AJAX, which stands for asynchronous JavaScript and XML, is a technique that allows web pages to be updated asynchronously, which means that the browser doesn't need to reload the entire page when only a small bit of data on the page has changed. AJAX passes only the updated information to and from the server.

Standard web applications process interactions between web visitors and the server synchronously. This means that one thing happens after another; the server does not multitask. If you click a button, the message is sent to the server, and the response is returned. You cannot interact with any other page elements until the response is received and the page is updated.

Ex:

Let's consider one web page, having block to fill certain data based on your request by clicking on button. Now, when we click on button, instead on loading entire page again (by sending request for data and receiving reply), if we succeed only in altering content, then this is possible using ajax. In this case, generally data can be retrieved in xml form OR JSON format. Now a days, JSON is getting more popular than XML.

Benefits:

1. No page reload / refresh
2. Better user experience
3. Saves network bandwidth
4. Very interactive

What one can prefer? To reload entire page OR to update only requested page?

To achieve these functionalities, AJAX uses XMLHttpRequest object (also called as xhr object). Modern website uses JSON instead of XML for data transfer. Data can be transferred in any format even in .txt, .html or any thing. But, JSON is popular.

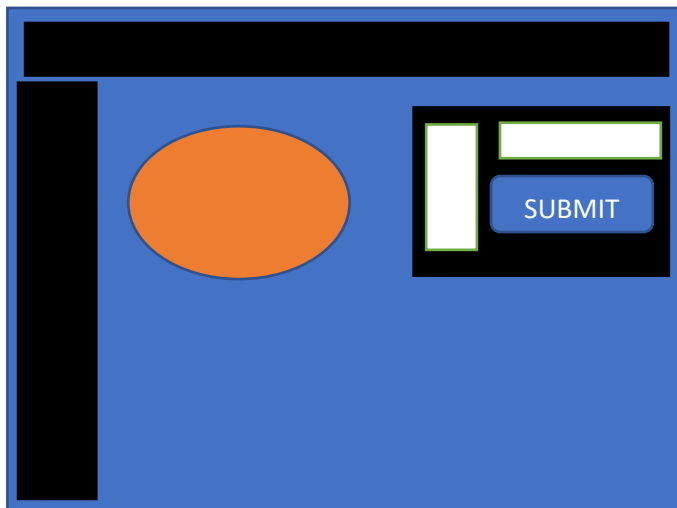
Create one .html and .js file.

To avoid writing code from scratch, go to getbootstrap page and open documentation page. Now, copy get started code and paste in html page.

Now, to create button go to components and lets select any two buttons.

TO work with Json data, lets take one dummy dataset by searching 'fake json data'. Then open <https://jsonplaceholder.typicode.com/>

<https://learnwebcode.github.io/json-example/animals-1.json>



[https://www.w3schools.com/xml/ajax\\_xmlhttprequest\\_response.asp](https://www.w3schools.com/xml/ajax_xmlhttprequest_response.asp)

<https://learnwebcode.github.io/json-example/animals-1.json>

<https://javascript.info/xmlhttprequest>

<https://developer.mozilla.org/en-US/docs/Web/API/Element/insertAdjacentHTML>