

**TEAMMATES:**

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## ICP4 – Report

**Programming Tools:**

GitHub, VS Code

**Source Code:**

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<https://github.com/JVSPAVAN/WebMobile-2022Spring/tree/ICP4/Web/ICP4>

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<https://github.com/VamsiAlapaty/Web-Mobile-Spring2022/tree/ICP4>

**Task:**

As part of ICP4, a GitHub user finder web app has been developed using HTML, CSS and Javascript.

**Description:**

JavaScript is a high-level, often just-in-time compiled language that uses ECMAScript standard. JavaScript is a scripting language that enables you to create dynamically updating content. It interacts with the DOM elements.

AJAX stands for 'Asynchronous JavaScript And XML'. It communicates with the servers using the XMLHttpRequest objects. It can send and receive the json objects or HTML or text files. It helps to make requests to the server without reloading the page.

Using ajax calls, the API data for the given username is obtained. 'get' method is used to obtain the json data of requested username. It is displayed on the HTML page using the dynamic HTML code in the JavaScript file.

```

18 JS index.js > repos > fail() callback
19
20 function getGithubInfo(user) {
21     //1. Create an instance of XMLHttpRequest class and send a GET request using it.
22     // The function should finally return the object(it now contains the response!)
23     $.ajax({
24         type: "GET",
25         url: "https://api.github.com/users/" + user,
26     })
27     .done(function (data) {
28         console.log(data);
29         $("#username").text(data.login);
30         console.log("data ", data);
31         showUser(data);
32     })
33     .fail(function (data) {
34         noSuchUser(username);
35     });
36 }
37
38 function showUser(user) {
39     //2. set the contents of the h2 and the two div elements in the div '#profile' with the user content
40     document.getElementById("user").innerHTML = user.login;
41     document.getElementById("avatarpic").src = user.avatar_url;
42     document.getElementById("link").href = user.html_url;
43     document.getElementById("link").style.visibility = "visible";
44     document.getElementById("gitid").innerHTML = user.id;
45     repos(user);
46 }
47
48

```

'getGithubInfo' function is called when the enter key is pressed after entering the username in the HTML page. In this function the 'GET' call is made to receive the data from the API. The obtained data is put sent to 'showUser' function.

The received user data is given below:

```

{
  "login": "JVSPAVAN",
  "id": 25749879,
  "node_id": "MDQ6VXNlcnJlNzQ5ODc5",
  "avatar_url": "https://avatars.githubusercontent.com/u/25749879?v=4",
  "gravatar_id": "",
  "url": "https://api.github.com/users/JVSPAVAN",
  "html_url": "https://github.com/JVSPAVAN",
  "organizations_url": "https://api.github.com/users/JVSPAVAN/orgs",
  "repos_url": "https://api.github.com/users/JVSPAVAN/repos",
  "type": "User",
  "name": "JVS PAVAN",
  "email": null,
  "bio": null,
  "public_repos": 11,
  "followers": 2,
  "following": 1,
  "created_at": "2017-02-13T17:15:00Z",
  "updated_at": "2022-01-29T21:56:54Z"
}

```

'document.getElementById' is used to retrieve the required HTML element. '.innerHTML' attribute is used to put the text dynamically on the HTML page.

As per the task, the below items are displayed on the HTML page.

- Username
- Avatar
- Git ID
- GitHub Link

In addition to this, the below items are shown.

- Repo names
- Stars per each repo
- Watchers per each repo
- Forks per each repo
- Repo link

The list of repos is obtained with another 'GET' call to the API. The obtained data is displayed by iterating in the JavaScript file using 'for' loop. This data is displayed using dynamic HTML code in the JavaScript file.

```
28
29 function repos(user) {
30   $.ajax({
31     type: "GET",
32     url: "https://api.github.com/users/" + user.login + "/repos",
33   })
34   .done(function (data) {
35     console.log(data);
36     $("#username").text(data.login);
37     console.log("data ", data);
38     showRepos(data);
39   })
40   .fail(function (data) {
41     console.log(data);
42   });
43 }
44
45 function showRepos(repos) {
46   document.getElementById("repos").style.visibility = "visible";
47   for (i = 0; i < repos.length; i++) {
48     let code = `
49       <div class = "card m-2">
50         <div class = "row">
51           <div class = "col-md-6">
52             <label class="form-label mt-4">Repo Name</label>
53             <h4 id="reponame">${repos[i].name}</h4>
54             <div class="information mt-3"><a id="reposlink" href="${repos[i].html_url}" target="_blank">Repo Link</a></div>
55           </div>
56           <div class = "col-md-6">
57             <label class="form-label mt-1 mb-0">Stars</label>
58             <h4 id="repoStars">${repos[i].stargazers_count}</h4>
59             <label class="form-label mb-0">Watchers</label>
60             <h4 id="repoWatchers">${repos[i].watchers_count}</h4>
61             <label class="form-label mb-0">Forks</label>
62             <h4 id="repoForks">${repos[i].forks_count}</h4>
63           </div>
64         </div>
65       </div>
66     `;
67     document.getElementById("repos").innerHTML += code;
68   }
69 }
70
71 function noSuchUser(username) {
72   //3. set the elements such that a suitable message is displayed
73   let codeNotFound = `
74     <div class="row mt-5">
75       <div class="col-md-12 text-center">
76         
77       </div>
78     </div>
79   `;

```

*Under the exceptional case:*

If a username is not existed in the GitHub database, then a 'user not found' page will be displayed.


## Screenshots:

Q Github Finder

Username

@

JVSPAVAN



25749879

[Github Link](#)

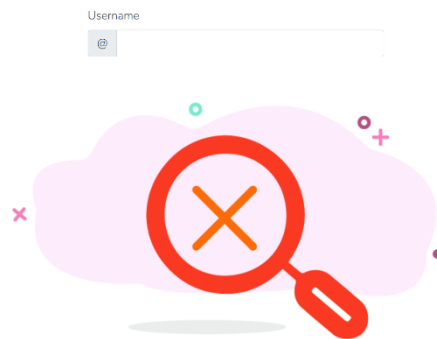
Repo Name	Stars
angular	0
<a href="#">Repo Link</a>	Watchers
	0
	Forks
	1

Repo Name	Stars
ChatBase	0
<a href="#">Repo Link</a>	Watchers
	0
	Forks
	0

Repo Name	Stars
Java-Backend	0
<a href="#">Repo Link</a>	Watchers
	0
	Forks
	0

Repo Name	Stars
real-world-angular-app	0
<a href="#">Repo Link</a>	Watchers
	0
	Forks
	0

Q Github Finder



Oops! No Data found.  
We will provide this soon.