Exercises: AJAX & jQuery AJAX

1. XHR (XmlHttpRequest)

Your task is to **write** a JS function that **loads** a GitHub repository **asynchronously with AJAX**.

- Create a file called **"xhr.js"** and write the function **loadRepos()** in it. If you take a closer look at the provided skeleton, you will see that this file is linked in the head section.
- **Create** an instance of **XmlHttpRequest** and attach an **onreadystatechange** event to it.
- Replace the text content of a **div** element with **id="res"** with the value of the **responseText** property of the request when the **readyState** attribute reaches a value of **4** (it is ready).
- **Do NOT format** the response in any way. Submit your **loadRepos()** function.

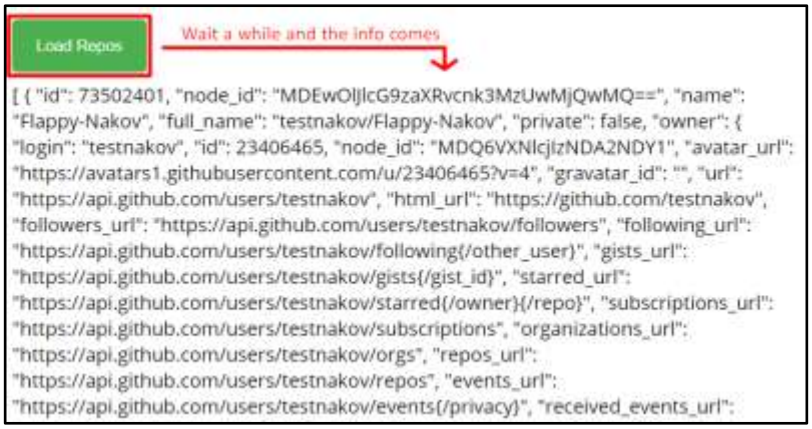
Read more about **XmlHttpRequest** here.

Skeleton

xmlHttpRequest.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>XmlHttpRequest Example</title>
    <script src="xhr.js"></script>
    <style>
      @import url(https://fonts.googleapis.com/css?family=Open+Sans);
      body {
        font-family: "Open Sans", serif;
      }
      button {
        background-color: #4caf50;
        color: white;
        padding: 14px 20px;
        margin: 8px 0;
        border: none;
        border-radius: 4px;
        cursor: pointer;
      }
      button:hover {
        background-color: #45a049;
      }
    </style>
</head>
<body>
<button onclick="loadRepos()">Load Repos</button>
<div id="res"></div>
</body>
</html>
```

Example



Wait a while and the info comes

```
[ { "id": 73502401, "node_id": "MDEwOlJlcG9zaXRvcnk3MzUwMjQwMQ==", "name":
"Flappy-Nakov", "full_name": "testnakov/Flappy-Nakov", "private": false, "owner": {
"login": "testnakov", "id": 23406465, "node_id": "MDQ6VXNlcjIzNDA2NDY1", "avatar_url":
"https://avatars1.githubusercontent.com/u/23406465?v=4", "gravatar_id": "", "url":
"https://api.github.com/users/testnakov", "html_url": "https://github.com/testnakov",
"followers_url": "https://api.github.com/users/testnakov/followers", "following_url":
"https://api.github.com/users/testnakov/following{/other_user}", "gists_url":
"https://api.github.com/users/testnakov/gists{/gist_id}", "starred_url":
"https://api.github.com/users/testnakov/starred{/owner}{/repo}", "subscriptions_url":
"https://api.github.com/users/testnakov/subscriptions", "organizations_url":
"https://api.github.com/users/testnakov/orgs", "repos_url":
"https://api.github.com/users/testnakov/repos", "events_url":
"https://api.github.com/users/testnakov/events{/privacy}", "received_events_url":
```

2. AJAX Load

Use **jQuery** to **write** a JS function that loads an online resource into a div with **`id="text"`.** Make a request to "**`text.html`**" and replace the target div element's content with the returned **HTML**. Create the files **`ajax-load.html`** and **`text.html`** and place them in the same folder, so that your script can find them.

Submit your **`loadTitle()`** function.

Skeleton

ajax-load.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>AJAX Load Example</title>
    <script src="https://code.jquery.com/jquery-3.1.1.min.js"></script>
    <style>
      @import url(https://fonts.googleapis.com/css?family=Open+Sans);
      body {
        font-family: "Open Sans", serif;
      }
      button {
        background-color: #4caf50;
        color: white;
        padding: 14px 20px;
        margin: 8px 0;
        border: none;
        border-radius: 4px;
        cursor: pointer;
      }
      button:hover {
        background-color: #45a049;
      }
    </style>
</head>
<body>
<div id="text">
    <h1>AJAX jQuery.load()</h1>
    <button onclick="loadTitle()">Load Title</button>
</div>
</body>
</html>
```

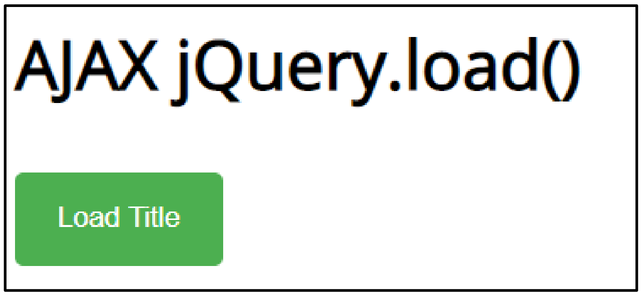
text.html

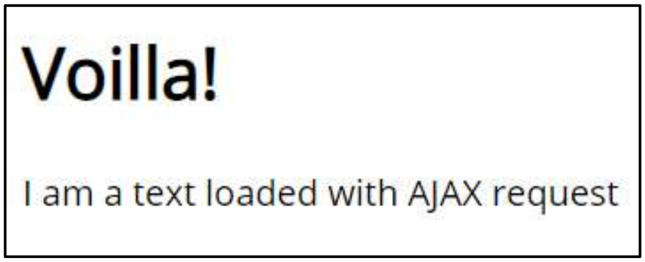
```
<h1>Voilla!</h1>
<p>I am a text loaded with AJAX request</p>
```

ajax-load.js

```
function loadTitle() {
  // TODO
}
```

Example


AJAX jQuery.load()


Voilla!

I am a text loaded with AJAX request

3. Github Repos

Your task is to **write** a JS function that **executes** an **AJAX** request with **jQuery** and loads all user **GitHub repositories** by a given username (taken from an input field with **`id="username"`**) into a **list** (each repository as a **list-item**) with **`id="repos"`**. Use the properties **`full_name`** and **`html_url`** of the returned objects to create a link to each repo's GitHub page. If an **error** occurs (like 404 "Not Found"), **append** to the list a list-item with **text** "Error" instead. Clear the contents of the list before any new content is appended. See the **highlighted lines** of the skeleton for formatting details of each list item. Submit your **`loadRepos()`** function that should be created in a file called "**`loadRepos.js`**".

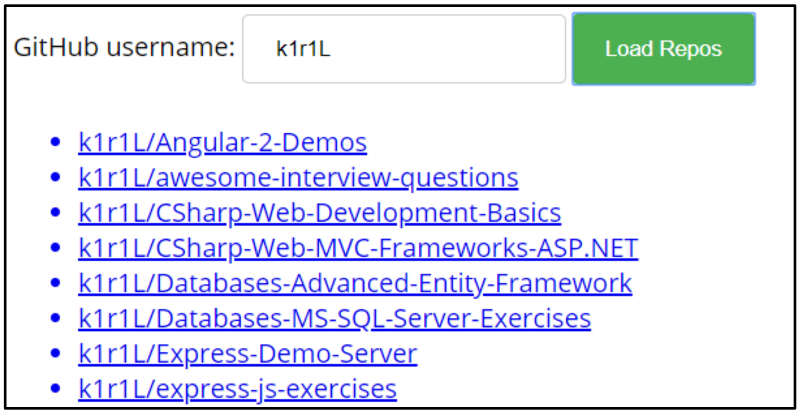
Skeleton

github-repos.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>GitHub Repos</title>
    <script src="https://code.jquery.com/jquery-3.1.1.min.js"></script>
    <script src="loadRepos.js"></script>

    <style>
      @import url(https://fonts.googleapis.com/css?family=Open+Sans);
      body {
        font-family: "Open Sans", serif;
      }
      button {
        background-color: #4caf50;
        color: white;
        padding: 14px 20px;
        margin: 8px 0;
        border: none;
        border-radius: 4px;
        cursor: pointer;
      }
      input[type=text] {
         padding: 12px 20px;
         margin: 8px 0;
         display: inline-block;
         border: 1px solid #ccc;
         border-radius: 4px;
      }
    </style>
</head>
<body>
GitHub username:
<input type="text" id="username" value="k1r1L" />
<button onclick="loadRepos()">Load Repos</button>
<ul id="repos">
  <li>
    <a href="{repo.html_url}">
      {repo.full_name}
    </a>
  </li>
</ul>
</body>
</html>
```

Example



- k1r1L/Angular-2-Demos
- k1r1L/awesome-interview-questions
- k1r1L/CSharp-Web-Development-Basics
- k1r1L/CSharp-Web-MVC-Frameworks-ASP.NET
- k1r1L/Databases-Advanced-Entity-Framework
- k1r1L/Databases-MS-SQL-Server-Exercises
- k1r1L/Express-Demo-Server
- k1r1L/express-js-exercises

4. Phonebook

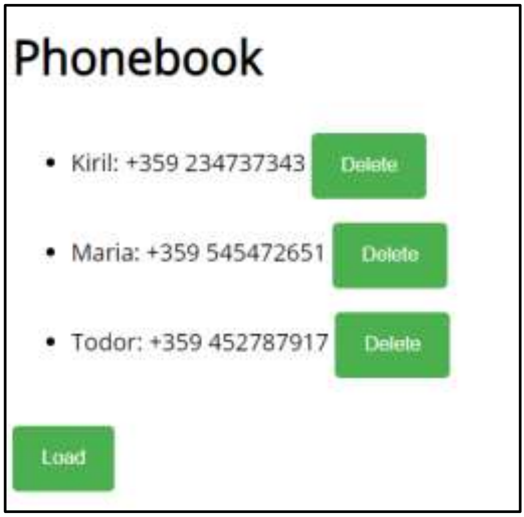
Use **Firebase** and **jQuery** to create a simple phonebook app. The user should be able to see all contacts, **loaded** from the server, **create** a new contact and **delete** any of the contacts. Use the lecture presentation for detailed instructions on this task. Place your code in a file called "phonebook.js", as shown in the skeleton. This task is not evaluated by Judge, it is for practice only.

Skeleton

phonebook.html

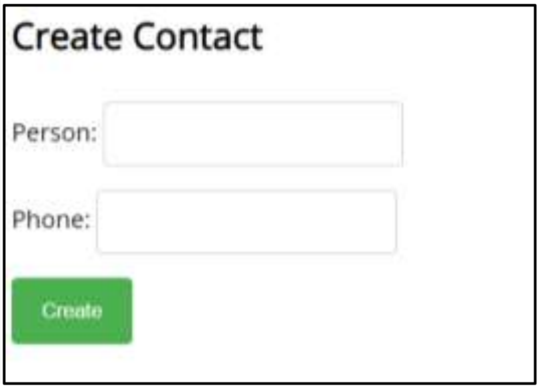
```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Phonebook</title>
  <script src="https://code.jquery.com/jquery-3.1.1.min.js"></script>
  <style>
      @import url(https://fonts.googleapis.com/css?family=Open+Sans);
      body {
        font-family: "Open Sans", serif;
      }
      button {
        background-color: #4caf50;
        color: white;
        padding: 14px 20px;
        margin: 8px 0;
        border: none;
        border-radius: 4px;
        cursor: pointer;
      }
      input[type=text] {
         padding: 12px 20px;
         margin: 8px 0;
         display: inline-block;
         border: 1px solid #ccc;
         border-radius: 4px;
      }
    </style>
</head>
<body>
  <h1>Phonebook</h1>
  <ul id="phonebook"></ul>
  <button id="btnLoad">Load</button>
  <h2>Create Contact</h2>
  Person: <input type="text" id="person" />
  <br>
  Phone: <input type="text" id="phone" />
  <br>
  <button id="btnCreate">Create</button>
  <script src="phonebook.js"></script>
</body>
</html>
```

Example



Phonebook

- Kiril: +359 234737343
- Maria: +359 545472651
- Todor: +359 452787917



Create Contact

Person:

Phone: