Movie Web app my understanding:

Programming Assignment 2

Submit Assignment

A Movie Web Application

Description

This project must be done individually. No copying is permitted. The goal of this project is to learn client-side web programming using JavaScript and AJAX. More specifically, you will create a Web application that displays information about movies.

This project must be done individually. No copying is permitted. **Note: We will use a system for detecting software plagiarism, called**[**Moss (Links to an external site.)**](http://theory.stanford.edu/~aiken/moss/)**, which is an automatic system for determining the similarity of programs.** That is, your program will be compared with the programs of the other students in class as well as with the programs submitted in previous years. This program will find similarities even if you rename variables, move code, change code structure, etc.

Note that, if you use a Search Engine to find similar programs on the web, we will find these programs too. So don't do it because you will get caught and you will get an F in the course (this is cheating). Don't look for code to use for your project on the web or from other students (current or past). Just do your project alone using the help given in this project description and from your instructor and GTA only. Finally, you should not post your code nor deploy your project on a public web site.

Platform

You will do this project on your own PC/laptop. You need to install the [XAMPP (Links to an external site.)](https://www.apachefriends.org/) web server, which includes the Apache http web server, PHP, MySQL (MariaDB), and PHPMyAdmin (these are the only components you need). It's about 125MBs (775MBs after installation) and can be installed on Windows, Linux, and OS X. The installation directory is \xampp for Windows, /opt/lampp for Linux, and /Applications/XAMPP for OS X. To start the server on Windows, you run \xampp\xampp-control.exe and you start the Apache web server. You may have to change the Security properties of this executable to Full Control for Users. You will test the project on your PC/laptop using the Mozilla Firefox web browser. The project grading will be done on Firefox browser.

Setting up your project

Download the project2 zipped file [project2.zip](https://uta.instructure.com/courses/57979/files/9856223/download) and unzip it inside your web server document root directory (ie, inside the htdocs sub-directory in the XAMPP instalation directory). On Linux, you may have to do this as the root user.

The project2 directory contains 3 files: proxy.php, movies.html, and movies.js. The proxy script proxy.php is used to avoid the cross-domain restriction when using Ajax. All the web service requests to TMDb should go through this proxy. See the example in movies.js. Your project is to edit movies.html and movies.js as described in the description of the web application.

Getting an access key from TMDb

You are going to use the Web Service REST API of the movie DB [TMDb (Links to an external site.)](https://www.themoviedb.org/documentation/api). You first need to get an API access key from [Sign up a TMDb account (Links to an external site.)](https://www.themoviedb.org/account/signup). The access key will allow you to send web service requests to TMDb (maximum 3 requests per second).

After you get the API key, you put it in proxy.php and you test your setup on your web browser by using the URL address:  
[http://localhost/project2/movies.html (Links to an external site.)](http://localhost/project2/movies.html)  
and by typing the title of your favorite movie. This will display a list of movies that match this title in JSON form.

Documentation

The following web pages contain various tutorials. Use them as a reference only. The class slides contain enough information on AJAX.

* [The Movie Database API (Links to an external site.)](https://developers.themoviedb.org/3/getting-started)
* [AJAX Tutorial (Links to an external site.)](http://www.w3schools.com/js/js_ajax_intro.asp)
* [Ajax (Links to an external site.)](http://www.cs.rochester.edu/courses/210/spring2011/lectures/012/)

Description of the Web Application

Your project is to develop a web application to get information about movies, their cast, their posters, etc. This application should be developed using plain JavaScript and Ajax. You should not use any JavaScript library, such as JQuery. Note that everything should be done asynchronously and your web page should never be redrawn/refreshed completely. This means that the buttons or any other input element in your HTML forms must have JavaScript actions, and should not be regular HTTP requests.

Your application should have a text section where one can type a movie title (eg, The Matrix), one "Display Info" button to search, one section to display the search results, and one section to display information about a movie. The search results is an itemized clickable list of movie titles along with their years they were released. When you click on one of these movie titles, you display information about the movie: the poster of the movie as an image, the movie title, its genres (separated by comma), the movie overview (summary), and the names of the top five cast members (ie, actors who play in the movie).

You need to use the following TMDb HTTP methods listed in [The Movie Database API (Links to an external site.)](https://developers.themoviedb.org/3/getting-started):

* [/3/search/movie (Links to an external site.)](https://developers.themoviedb.org/3/search/search-movies): Search for movies by title.
* [/3/movie/{id} (Links to an external site.)](https://developers.themoviedb.org/3/movies): Get the basic movie information for a specific movie id.
* [/3/movie/{id}/credits (Links to an external site.)](https://developers.themoviedb.org/3/movies/get-movie-credits): Get the cast and crew information for a specific movie id.

You need to call the TMDb web service through the proxy.php. For example, to get information about the movie "The Matrix" (which has id 603), you use the HTTP call proxy.php?method=/3/movie/603 (it doesn't need the API key -- it's already in the proxy). To search for the movie "matrix", you call proxy.php?method=/3/search/movie&query=matrix.

To display an image, prepend this http://image.tmdb.org/t/p/w185/ to the image path.

Note that there is a lot of information returned by these web services. You need to use very few parts of this information only.

What to Submit

After you make sure that your programs runs correctly, zip your project2 directory and submit the project2.zip file.

Goal:

The goal of this project is to learn client-side web programming using JavaScript and AJAX. To be more specific create a web application that displays information about movies.

Your project is to edit movies.html and movies.js as described in the description of the web application.

**Tools:**

XAMPP is an easy to install Apache distribution containing MariaDB, PHP, and Perl.

XAMPP web server, which includes the Apache http web server, PHP, MySQL (MariaDB), and PHPMyAdmin (these are the only components you need).

**XAMPP installation directory:**

/Applications/XAMPP

**Given:**

project2.zip: contains proxy.php, movies.html, and movies.js.

**Proxy.php**: The proxy script is used to avoid the cross-domain restriction when using Ajax.

All the web service requests to TMDb should go through this proxy

**TMDb: What is TMDb API (REST API)?**

The API service is for those of you interested in using our movie, TV show or actor images and/or data in your application. Our API is a system we provide for you and your team to programmatically fetch and use our data and/or images. The API provides a fast, consistent and reliable way to get third party data.

<https://www.themoviedb.org/documentation/api>

**Access Key: 992836ae12ece3726858c45b3bc96e41**

We are going to use Web Service REST API of the movie DB (TMDb). We need to get the access key by singing up to TMDb account so that we can use their API to access the data required for our project. The access key will allow you to send web service requests to TMDb (maximum 3 requests per second/RPS).

Signup details:

Cookie777 / Queen123

Last name: queen

Application name: movie web app

url: http://localhost

Key: **992836ae12ece3726858c45b3bc96e41**

Example API request: https://api.themoviedb.org/3/movie/550?api\_key=992836ae12ece3726858c45b3bc96e41

Graphical user interface, text, application, email

Description automatically generated

LAMP: Linux, Apache, MySQL,PHP

XAMPP: X can be any MACHINE(MAC/WINDOWS/LINUX), Apache, MariaDB (Open source version of MySQL), PHP, PYTHON

XAMPP support for debugging issues:

<https://community.apachefriends.org/f/viewforum.php?f=29&sid=f95bec75ca77b3a97b0368d7d1818ef5>

**What is the difference between XAMPP for OS X and XAMPP-VM?**

XAMPP for OS X is a native installer for OS X. It installs Apache, PHP and other XAMPP components directly on your OS X system, in the /Applications/XAMPP folder.

XAMPP-VM is a virtual machine for OS X. It includes Apache, PHP and other XAMPP components and runs them in a Linux-based virtual machine on your OS X system.

Diagram

Description automatically generated

I have installed XAMPP and copied my html file, JS file and PHP file into the htdocs and browse the path of html file in mozilla <http://localhost/movie_webapp/movies.html?> And you will be able to access the html page.

HTML:

Now write the html code to complete the page for displaying movie titles in the left window and make a right window ready for printing the movie details like title, genre, cast, summary and the poster.

I have learnt how to give style to div: give class attribute in the div and use that class to specify the style.

I have learnt how to change the background color when the mouse is hovered: to make this style applicable to each of the list items use li along with the class name for ul while specifying style

.movie\_list li:hover {

transform: scale(1, 1.5);

color: rgb(140, 225, 247);

}

I have learnt CSS properties.

I have learnt embedding of div inside another to make it responsive when the window is zoomed out or zoomed in

I have learnt how to scale the text inside the page when window is minimized and scaled in or scaled out

@media only screen and (max-width: 900px)

{

body { font-size: 2em; }

}

Javascript:

Now write JavaScript code to make the page responsive.

Read the user input movie title and form the GET request in AJAX and send it to TMDB through REST webservice API, (Access key is added in PHP file and was used to send the request to TMDB)

The JSON response returned from webservice was parsed to get the movie titles related to the search and print it in left window as an itemized unordered list.

Onclick event handler was added to query the TMDB again for some more details of each movie clicked to be displayed in right window, event handler calls a function which handles AJAX request sent to TMDB and parses and prints the details in right window.

Graphical user interface, text, application

Description automatically generated

Austin@123

Graphical user interface, text, email, website

Description automatically generated

Graphical user interface, website

Description automatically generated