95882 Enterprise Web Development Course Project Part 3

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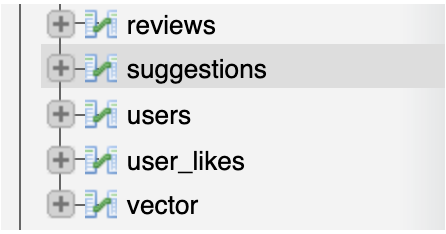
How to Run:

1. Put all the code-related files in XAMPP environment: “lamp/htdocs”.
2. Since all the data is in my local machine, you need to ask for my IP address to access the local database.
3. Ask me to add your IP address to my database admin system to grant you the privileges.
4. Modify the database connection code in each page with the new IP address.
5. Run the “rottenpotatoes.php” file through XAMPP which is the homepage of my website.
6. If you want to update the vector and suggestions table in the database, you need to run “vector_calculate_offline.php” and “suggestion_offline.php” through your browser via link http://localhost:8080/vector_calculate_offline.php and http://localhost:8080/suggestion_offline.php . If your xampp port number is not 8080, you need to replace it with your actual port number. When you see a message “Done” on the browser, which means updating is executed successfully, you can then continue the search operation.

Description of Database:

In addition to the *reviews* and *users* tables from the previous assignments, I had three new tables in the database. The *user_likes* table contains a mapping relation between users and the reviews they liked. The *vector* table saves the user profile vector for each user and the *suggestions* table has the ids of the related reviews associated to every review in the *reviews* table.

Database structure:



The user_likes table:

username	review_id
Allen	11
Allen	4
Allen	9
Frank	8
Frank	7
Frank	4

The vector table:

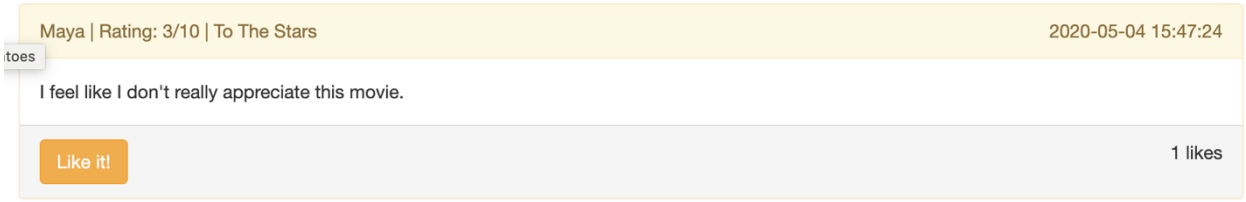
username	vector
Abby	jump 0.051282051282051,scares 0.051282051282051,we...
Allen	never 0.055555555555556,breather 0.055555555555556...
Frank	Force 0.041666666666667,has 0.041666666666667,lost...
Hellen	jump 0.083333333333333,scares 0.083333333333333,we...
Maya	Basic 0.25,competency 0.25,I 0.25,missed 0.25,

The suggestions table:

review_id	related_id
3	5 13
4	11 9 8 7
5	3 13 11 11

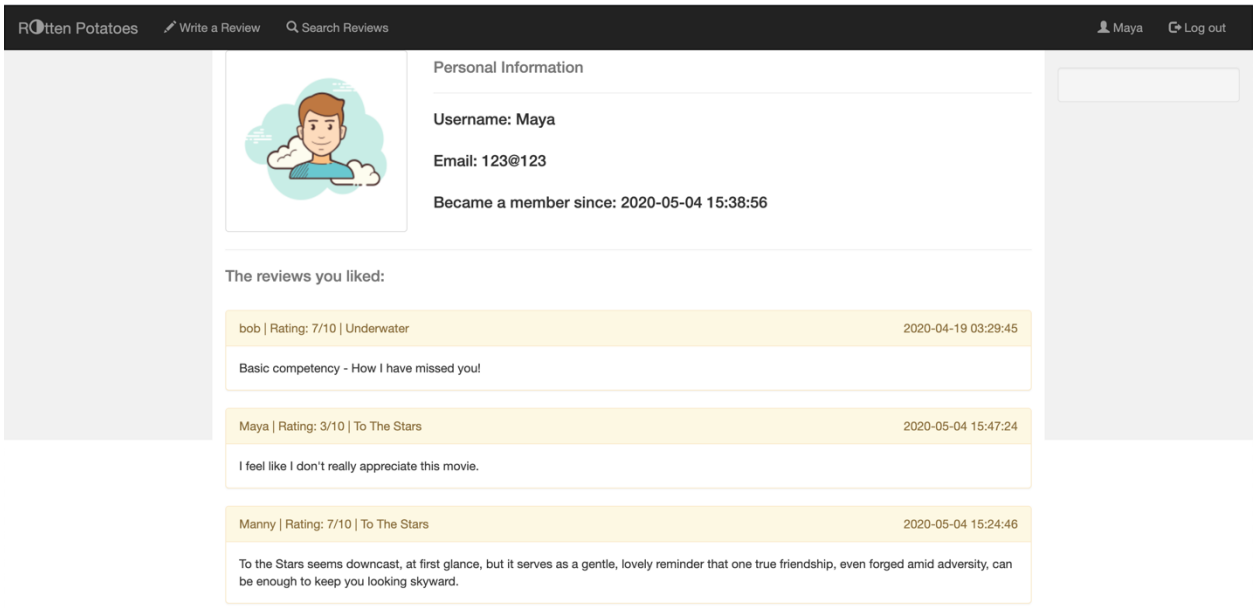
New Features:

1. Favorite/Bookmark:
   Users can click “Like it” button for each review to mark as their favorite reviews. They can come back and see the reviews they liked on their own user profile page.



2. Voting:
   Each review has a counter to show how many people liked this review. The number of likes can be used to sort the search results.

3. User Profile Vector:
   An offline program named “vector_calculate_offline.php”. When running this program, it calculates the user profile vector for each user based on their favorite reviews and saves the vectors in database.



4. Re-sort search result based on user profile vector:
   The search engine gets the word vector for the current user and calculate scores for every review in the search result. Then, the engine ranks the results based on their scores in descending order.

5. Suggestion:
   The offline program named “suggestion_offline.php” finds the related reviews for every review published on the website. It uses Related Content method which is explained in the video to find

the similar reviews and saves them in database. The search engine gets a list of related reviews to the top review in the search result and removes the duplicate reviews that already be contained in search results. Then, it randomly picks one review from the rest as the suggestion shown to the user. If the engine cannot find any related content, it picks three newest reviews as the suggestions.