CS 418 Web Programming Extra Credit Project 2

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ABSTRACT
In this report, I'll describe the procedure I took to complete an additional project to my semester assignment of making a social media website. The type of website that I have built has similar functionality to the web app Slack. If you are not too familiar with Slack, the functionality is where users can communicate in different groups called channels by sharing text, files, pictures, and computer code. With the various groups a user would be in, how would the user know which particular group the message the user is looking for is in? I added a search engine of the database used in this project to allow users to look up a message by key words to see which group it was from. This particular feature is called OpenSearch. I will be sharing my process in three steps which were research, implementation, and demonstration. In the research section I explain how I took the time to look up how to do the things necessary to complete this project. In the implementation part, I walk through the steps I took from what I researched. In the demonstration is where the steps lived out in a live setting, explain what is supposed to take place.

CCS Concepts
• Web Development → Database management system engines
• Programming Languages → HTML, CSS, and jQuery.

Keywords
OpenSearch; YouTube; phpMyadmin; query; SQL; QR code; reCAPTHA;

1. INTRODUCTION
This project is the second of four extra credit projects. The OpenSearch feature can be related to Google. Google has a database of information and links that once the database is queried by a user from searching key words the database will show the user the results of their search. The average internet user is used to the usage and process of popular search engines like Google. The different is from Google and I is that I used a particular setting in my database manager myPhpAdmin to make this possible within my SQL database. You will see how exactly this came as I explain the research, implementation, and demonstration of this project.

2. OPENSEARCH
Speaking of Google, my second project is OpenSearch which is a good way to show on a smaller level how to run a search engine against a database. This was done by enabling full text search functionality in order to grab search results of all posts from all groups in the website.

2.1 RESEARCH
This feature was chosen to be done when I noticed it required a small implementation. I did not know what an OpenSearch was by name, but I have used this feature before within other social media websites. I took to YouTube again to find what was the best way to implement this feature. I found a video by thenewboston who walked through how to enable the functionality needed to make this the OpenSearch work. I noticed that the functionality was called full text capability and was set once creating the database table the developer wanted to be used for this search engine.

2.2 IMPLEMENTATION
What made this feature easy to implement was that as the developer I only had to work on the database side and type a few instructions. I went into phpMyAdmin, which is the control panel for all the local databases used by the developer, to made changes to my tbl_comment table. This tbl_comment table is where data from status post is uploaded. I had to enable full text on this table for this SQL code to work: SELECT * FROM tbl_comment WHERE MATCH (message) Against('$search'). I will explain this further in the demonstration section next.

2.3 DEMONSTRATION
As seen in Section 3.2, the SQL query that I placed in my php code took what the user types into the search bar shown in Figure 3 on the main landing page. If a user types "hello" in this search bar, the SQL query will be running to find all the data entries from table tbl_comment where the text in the message column matches against what was searched.

Figure 1: Search Bar

Once the database has that information from the query the user is now show the results. For example, if the user types "hello" the user will get a result list like what is shown in Figure 4 below.

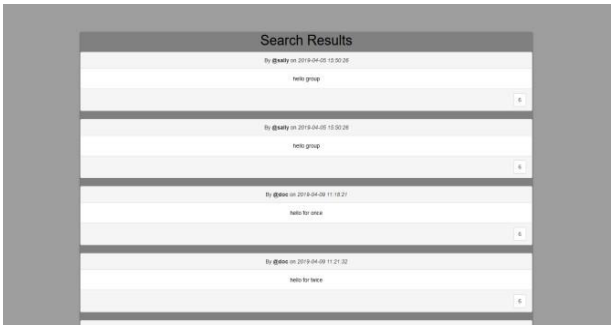

Figure 2: Search Results

3. FIGURES/CAPTIONS

4. CONCLUSION

I noticed that in finishing the requirements of the different milestones and finishing these extra credit projects that it is amazing the effort that goes into the social media sites we seem to abuse. This assignment helped me see why as developers we want the user to be compelled by the aesthetics, functionality, and security of what we create. There is nothing as a developer I would change concerning the execution of these two projects. The reason why I used YouTube heavily was due to the time I had to get this complete. YouTube served as a tutor in when I could not receive help.

5. ACKNOWLEDGMENTS

Thanks to Dr. Justin Brunelle for being so kind and for showing grace, allowing me an extension. I would also like to thank him for his advice. I'm a better programmer now because of what he showed me about debugging and troubleshooting. I would like to thank the many content creators who made this process that much easier by showing each step in their content. Lastly, I will like to acknowledge friends and family who echoed how I needed to finish this project.

6. REFERNCES

thenewboston. (2012, January 23). *MySQL Database Tutorial-25- Full-Text Searching*. Retrieved from YouTube: https://www.youtube.com/watch?v=d--v0NhjIfc