CSE 312 Project Phase 2

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MySQL Report

For this project, we decided to use MySQL for developing our social media website. MySQL is an open source data base management software which is really efficient to use with Python. For the the 2nd Sprint for CSE312's Project, we needed to store the images, comments and the votes in a database which can be accessed by all our users and see their uploads and their friends' uploads too and MySQL helps us achieve this with ease. We integrated MySQL through PyMySQL which helps our python code integrate with MySQL. We imported PyMySQL in our database.py(https://github.com/ishaanrc/CSE-312-Web_Apps/blob/master/flaskr/proj312/database.py) file which has several methods about querying through posts, votes and comments. Our application dynamically fetches this data from the MySQL database through the use of websockets. From our base home.html file we have functions that call methods in homepage.py(https://github.com/ishaanrc/CSE-312-Web_Apps/blob/master/flaskr/proj312/homepage.py). For example, when our program runs on the server, one can upvote and downvote images which calls the distribute_vote() (Found at https://github.com/ishaanrc/CSE-312-Web_Apps/blob/master/flaskr/proj312/homepage.py) method which makes a call to the respective database vote value and updates it based on an upvote or a downvote from the HTML button. Similarly, we store the images and comments through PyMySQL. As a first-time user, one needs to initialize this data base from the command line. Through PyMySQL, we established that we can organize and fetch the posted data and help develop our website.

PyMySQL is released under the MIT license. It is purely a MySQL client library and our application uses MySQLdb to store the information. This means that we can copy this software and use it without restriction including distributing and sublicensing as long as we cite them and give them credit.

External Links and Documentation Sources:

1) We found a link that shows an example of how to use PyMySQL →
   https://pymysql.readthedocs.io/en/latest/user/examples.html
2) The installation guides and getting started up links →
   https://pymysql.readthedocs.io/en/latest/user/installation.html
3) Licensing facts → https://pypi.org/project/PyMySQL/ - license