| **Activity** | |
| --- | --- |
| **Launching the Activity**  Suppose you work as a developer at your favourite social media company, GenSocial! Your job is to handle data related to social media users.  In this lab, you will work with an existing table and write SQL queries to perform calculations, sort, filter and summarise the data.  Let’s get started!   * In MySQL Command Line Client, create and use a database called “social\_media\_db”. * Download the *SQL-05 - SQL Lab - 1 SQL Files.zip* file and extract the contents. * There will be 9 .sql files in total.   + 8 files with a number in the name correspond to a task from this assessment.     - These .sql files contain part of the required query.     - **Please complete the SQL queries in each file to accomplish the associated task.**   + 1 file named table\_creation.sql contains the necessary SQL query to create the table containing user data.   + You can run your file in MySQL Command Line Client with the following command (to see the output of your written query): source <file path><file name>.sql   For example, to create the user data table, you can run it in the MySQL Command Line Client with the following command: source C:\Sample Folder 1\Sample Folder 2\table\_creation.sql  (Note that you need to update your file path according to the file’s location on your device.)  Feel free to search for MySQL resources online to help you complete the assessment. Good luck! | |
| **SQL Tasks**  **Task 1.** Write a query to fetch all users' account names and their number of followers, sorted in descending order by the number of followers.  Expected Output:    **Task 2.** Write a query to retrieve the account names of all female users who joined before 2020.  Expected Output:    **Task 3.** Write a query to find all users who have more than 100 posts and less than 500 likes.  Expected Output:    **Task 4.** Write a query to count the number of users who joined after January 1st, 2020.  Expected Output:    **Task 5.** Write a query to group users by gender and show the total number of likes per gender.  Expected Output:    **Task 6.** Write a query to find the total number of posts made by all users combined.  Expected Output:    **Task 7.** Write a query to find the average number of likes for users with more than 200 followers.  Expected Output:    **Task 8.** Write a query to retrieve the account names and likes of the top 3 users with the most likes.  Expected Output: | |
| **Code Evaluation**  **Please follow the instructions on Canvas to submit your code for instructor evaluation.**  Before submitting, check your lab results with the *test.py* file.  Steps:   1. Download the file shared with you and copy it to your project folder containing the 8 .sql files 2. Open the file in VS Code. Edit the code between Line 8-13 as per your configuration. 3. Click "File", then "Open Folder" to open the folder for your lab 4. Click "Terminal", then "Open Terminal" to open the integrated terminal 5. Install pytest with the command: python -m pip install pytest 6. Test your lab with the command: python -m pytest test.py 7. Wait for the marking script to finish executing 8. Read the terminal output to see your results | |