**MySQL Workflow Theory**

There are steps that are recommended before the data import.

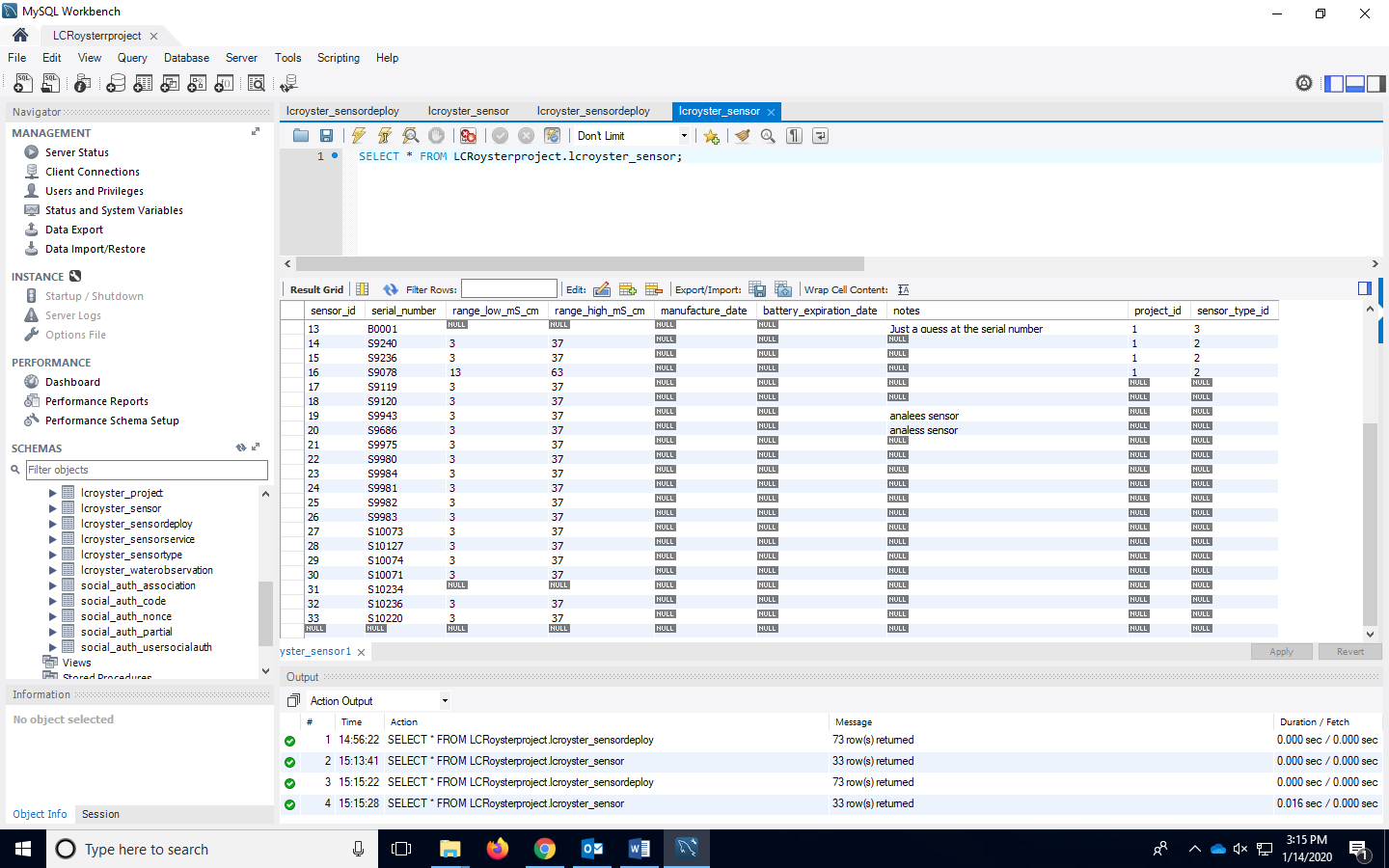
Pre-steps

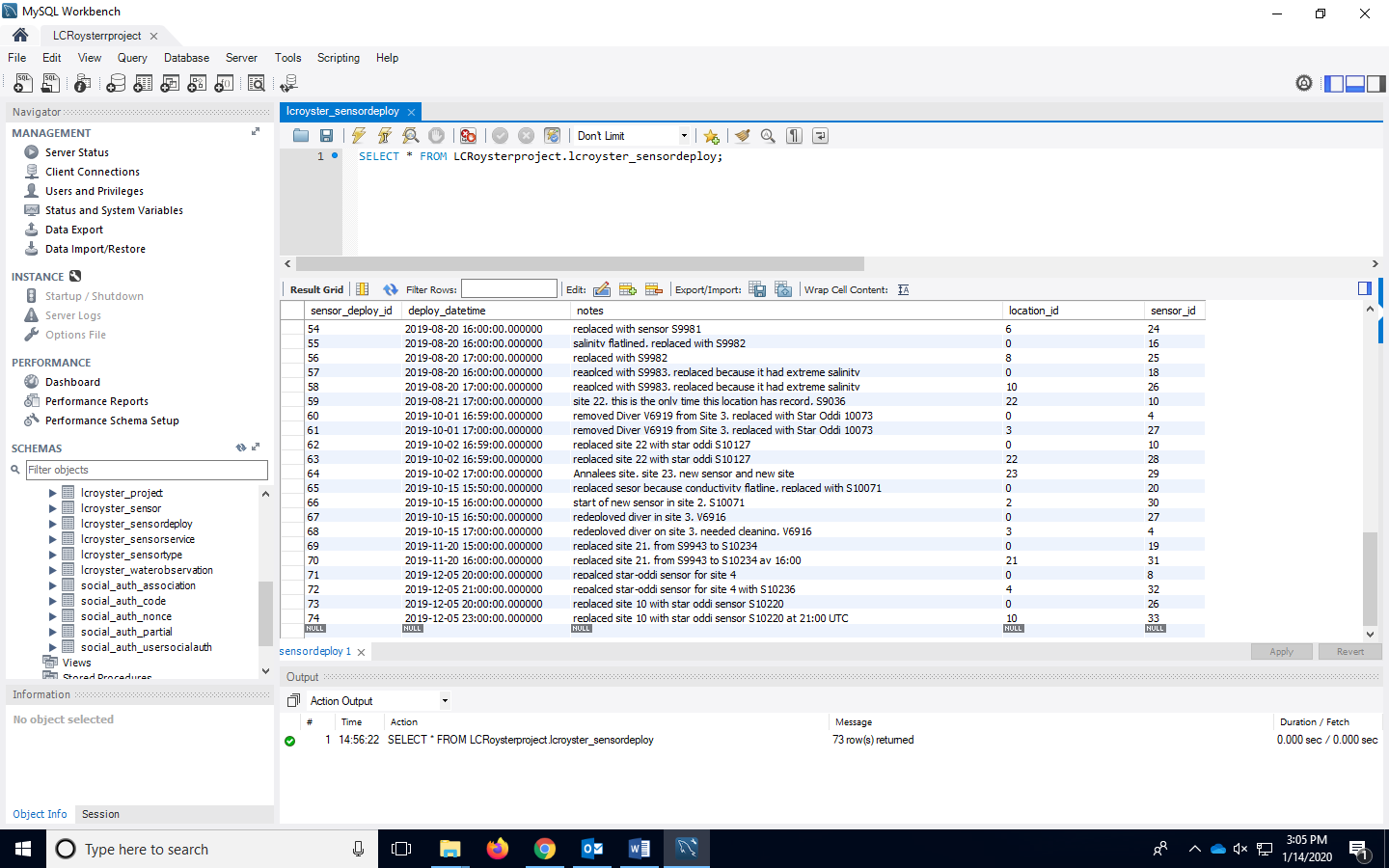
1. Enter the latest water quality service information into the service\_log.xlsx file located in:

T:\Oyster Project\oyster\_project2\project\_task\_working\t7\_data\_management\wq

* Find the scanned data sheets here: T:\Oyster Project\oyster\_project2\project\_task\_working\t7\_data\_management\wq\data\wq\_datasheet
* Enter in the information from the scanned data sheets into the service log including, date, times, observation count, and most importantly the sensor serial numbers.

2. Noticing which sensors are in what location is the main goal of entering in the data of the service log. If a sensor is exchanged or taken out from the field, the MySQL databases needs to have those changes before the import process.

* Take note of which location the sensor is located, what is the old serial number of the sensor, and what is the new sensor serial number.
* The MySQL database has a “check-in” and “check-out” procedure for updating sensors.
* All sensor serial numbers need to be entered prior to any “check-in” or “check-out” procedure. Enter all new sensor serial numbers the table **lcroyster\_sensor**. Add all applicable information. Include an “S” for Star-Oddi serial numbers.
* The **lcroyster\_sensordeploy** table is the table to edit which sensors are in which site location.
  + Make sure to check out the sensor by adding the date and time what the sensor should be “checked-out” and make the location\_id to 0. Make sure to save every time a new MySQL line is created and completed. Add a new line with the date and time that the new/replacement sensor should be active. This time can be in the future.

**SENSOR UPDATES NEED TO BE COMPLETED PRIOR TO IMPORT.**

**Import Steps:**

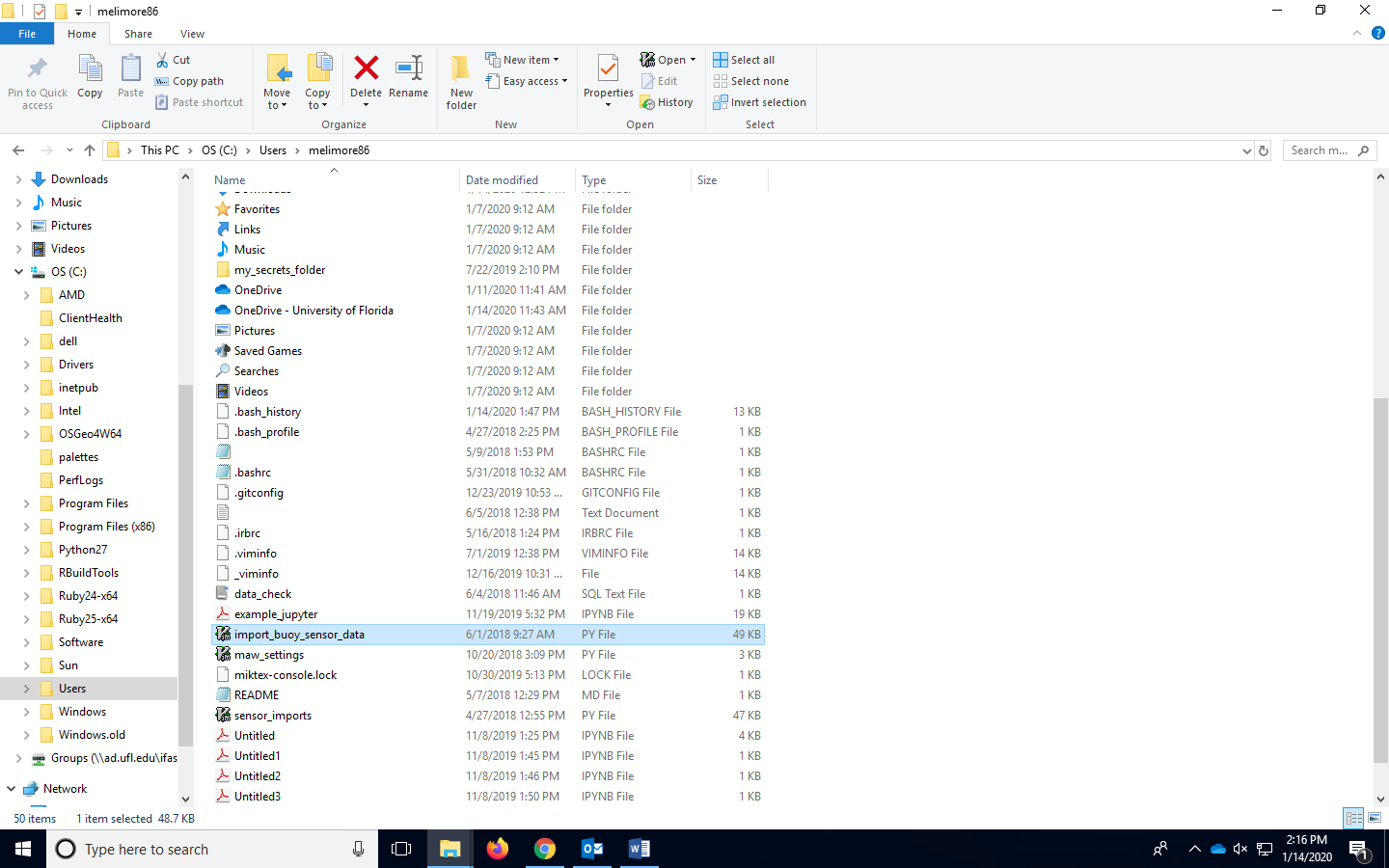
Location of data files:

T:\Oyster Project\oyster\_project2\project\_task\_working\t7\_data\_management\wq

1. Verify all files are complete and correct in the `new\_data` folder.

* You can verify that all of the files are complete, by clicking on each file, and checking the data contents inside. The contents should have variable observations.
* You can also verify that the names of the data files are correctly named.
  + 20200103\_wq10\_star <- this should be the format of the name of the file
  + Be aware the .star and .dat files will import differently, so the last prefix will need to be the name of type of sensor file
  + \_diver are files from the Diver sensor (.mon)
  + \_star are files from the Star- Oddi Sensor (.dat)

2. Navigate to the folder where your *import\_buoy\_sensor\_data.py* and my\_secrets\_folder are located.



3. Right click to your Git Bash terminal. The code for the import process is

*python import\_buoy\_sensor\_data.py*

An import process should start and each file will end in a result. An import report will also appear in the **new\_data** folder, where

4. Move the newly imported files into the **imported\_data** folder.

Discrete date data entry

Resources:

<https://www.youtube.com/watch?v=9ylj9NR0Lcg>

<https://www.mysqltutorial.org/>

<https://www.guru99.com/mysql-tutorial.html>