Module 4 | Overview

OVERVIEW

This module continues covering the basics of acquiring data from different sources; adding in the ability to investigate existing databases, running simple SQL queries, and storing the result into a pandas data frame.

Additionally, this module we have our very important discussion about Data Science Ethics (one of the best discussions!) and you will complete Project 4-2 and the proposal for your semester project. Finally, this module we will ask for your feedback on your learning experience thus far in the course through an anonymous survey.

LEARNING OUTCOMES

This module will support these course level learning outcomes:

* Acquire, clean, and organize data from a variety of sources, including raw data files, SQL databases, and online repositories.
* Run simple SQL queries to manipulate and analyze data in relational databases and other data stores implementing SQL front ends.
* Recognize and address the ethical issues arising from data collection and statistical and machine learning.

ASSIGNMENTS

This is an approximation of the amount of time each activity will take the average student. If you find you are taking more time than suggested, please contact me for help.

| ASSIGNMENT ORGANIZER | |
| --- | --- |
| **Activity** | **Time (Hrs)** |
| Study/Reflect Time | 1:00 |
| Watch & Study [Instructional Videos & Learning Materials: Intro to SQL](https://elearning.mines.edu/courses/52392/pages/instructional-videos-and-learning-materials-intro-to-sql) | 1:00 |
| Watch & Discuss [Data Ethics Case Study](https://elearning.mines.edu/courses/52392/discussion_topics/256387) | 3:00 |
| Submit [Semester Project: Proposal](https://elearning.mines.edu/courses/52392/assignments/354755) | 5:00 |
| Submit [Project 4-2: Data Acquisition SQL](https://elearning.mines.edu/courses/52392/assignments/354745) | 5:00 |
| **Total Hours:** | **15:00** |