

# DATA 201

## Database Technologies for Data Analytics

Spring 2025  
Sections 21 and 71  
Instructor: Ron Mak

### Assignment #8

Assigned: Saturday, March 22  
Due: Saturday, March 29  
Team assignment, 20 points max

### Team project proposal

The purpose of this assignment is to make sure you take some time to think about your team project. Each project should:

- Design and implement an operational database (the type of database we've been doing so far).
- Design and implement an analytical database (suitable for a data warehouse, which we'll cover soon).
- Design and develop a GUI-based Python front-end application that connects to your databases.

Your emphasis should be on the design and development of the databases. Your data should be adequate for running your application, and can be data you've downloaded, actual data from work, or completely made-up data such as generated by mockaroo. Your databases should reside on the remote school server.

### Presentation and report

Each project team will give an short oral presentation and demo of their application during the time scheduled for the final exam. (The project takes the place of the final exam.)

Each project will include a short written report:

- Briefly describe what your application is and what data it uses.
- Conceptual ER diagrams(s).
- Logical relational and star schema diagrams (we'll cover star schemas soon).
- Your extract-transform-load process (ETL, which we'll cover soon).
- Screenshots of key use cases.
- Instructions on how to run your application, including any required usernames and passwords.

## What to submit

A few paragraphs submitted in the Canvas text box that briefly describe the operational part of your application and where its data will come from. You don't need to describe your database design.

You can still change your mind later and turn in a different application at the end of the semester. But don't wait until the last minute to decide what to do.

## Rubric

Criteria	Max points
<b>A few paragraphs that briefly describe:</b>	<b>20</b>
<ul style="list-style-type: none"><li>• What is your application.</li></ul>	<ul style="list-style-type: none"><li>• 10</li></ul>
<ul style="list-style-type: none"><li>• Where is your data from.</li></ul>	<ul style="list-style-type: none"><li>• 10</li></ul>