

D211 ADVANCED DATA ACQUISITION

Welcome, Study Plan and Course Pacing Guide!

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NOT SURE WHERE TO START IN THE COURSE?? You are in the right place!

Your D211 instructor team has put together the following guide full of resources and course tips to help you get the most out of this course and to help you pass the course in the most efficient way possible!

Welcome to D211 Advanced Data Acquisition!

In this course you will be learning linear regression and logistic regression as model building methods for organizational decision making. You will apply data preparation and exploration skills learned in previous classes then proceed to assumptions of regression, variable selection, model building, model metrics, and limitations. The course culminates in communication of your model building decisions, results, and limitations in both written and video reports.

D211 STUDY PLAN OUTLINE(with Tips and Extra Resources!)

This study plan outline is a result of lots of student feedback on what has helped your fellow Night Owls be successful!

Many students find that the most efficient way to complete this course is by working through each part of the Performance Assessment in order (Part 1, Part 2, Part 3).



There may be some aspects of the project you can complete using skills you might remember from previous SQL courses – like creating tables, and inserting data into tables – but, there will likely be some aspects of the project that will be more unfamiliar to you.

As you encounter a task in the project you aren't as familiar with, that is a good time to consult the course materials and the supplemental resources shared below, for help in understanding new concepts and seeing examples of those new SQL commands in action



D211 RECOMMENDED STUDY PLAN

- 1. Read through all of the requirements of the Performance Assessment, including the Task Descriptions as well as the Project Rubric and the Weblinks section for additional information.
 - a. You can access the Performance Assessment by clicking on the View Task link in the Assessment section of your course page. Completing the Task in this course is a continuation of what you completed in D210.
 - b. Use Tableau to connect to Postgres and review the databases. Also, begin to search for external data that you can scrape and join to one of the existing database tables on a common column.



2. Use Tableau Visualizations

a. As you did in D210, use Tableau visualization and sheets to present your data in an Executive Dashboard.



PRO TIP: SAVE YOUR CODE FREQUENTLY!! Be sure to transfer a copy of your code to your written document after completing each section. While rare, it is possible that the lab environment could be reset and you don't want to lose your code, so save a copy frequently! You can do this by retyping your code into your document, or by emailing yourself a copy of your code through the virtual environment and then pasting the code into your document.

b. Make a Custom SQL Query for your data JOIN with one of the database tables provided and your external data.

3. Study Tableau

- a. Use the DataCamp extensive custom track (8 courses)
- b. Study the textbook: <u>Visual Analytics</u> with Tableau
 - i. Focus on Chapter 2: Data Sources and Chapter 3: Creating Data Visualizations



▼ Visual Analytics with Tableau



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4. Attend Live Webinars

- a. During the live webinars, we discuss course navigation, course content, and the performance assessment. Live webinars are conducted the first three Sundays at 4:30 pm MST and the link to join is emailed prior to the scheduled event.
- b. If you are unable to attend, watch the recorded webinars. Recordings can be located by selecting Course Tips on the right-hand side of the course of study page. Then select View All.

5. Select one of the available databases: Churn or Medical data in Postgres.

- The databases can be found in Labs (Learn) on Demand Virtual Desktop in the Postgres PgAdmin.
- Make your visualizations on the tables in one particular database: Churn or medical data.
- c. Provide at least four or five visualizations, including the JOIN Figure 5.1 The entry between one of the tables and your external data.

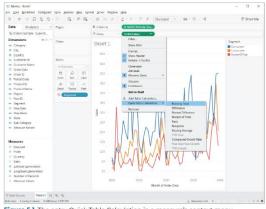


Figure 5.1 The entry Quick Table Calculation in a measure's context menu.

6. Consider combining your external data with a Postgres database.

- a. As an alternative, you may create a table for your external data in the Postgres database you are using. Then you can load the external data and join the two tables together. This way, you can simplify your work in Tableau by having only one data source.
- b. If you choose the one data source approach, be sure to provide the CREATE TABLE statement in your submission so that the Evaluator will be able to recreate your work.

7. Record your Panopto video to demonstrate your work.

a. You will describe the use of SQL in preparing the data from the two data sets for the analysis and then demonstrate the functionality of the SQL scripts and other codes that supported the creation of the dashboards.

8. Write your Report for the Performance Assessment



- a. Follow the instructions in the rubric. In the Webinars, we carefully provide our insight into what is being requested and Best Practices. This will save you time.
- Be sure to include the SQL statements that Tableau is generating on behalf of your visualization. This is a rubric requirement for Part 1: Data Dashboards A.4 Provide a copy of all SQL code and other code supporting the dashboards.
- c. If you need additional help: call, email or set up a time to meet with your course instructor.

9. Submit your Performance Assessment!

- a. Your submission should include: Word document, dashboard (.twbx file), external data in the form of a .csv, written instructions in how to install and navigate your dashboard (similar to what you did in D210).
- b. If you do not pass on your first attempt, don't panic! View your evaluator's feedback by clicking on the View Task link in the Assessments section of your course page, and then clicking on the Evaluation tab on the next screen. Read your evaluator's comments and note what they ask you to change in each section that it not marked 'Competent' in green.
- c. If you have any questions about how to go about making the requested changes, reach out directly to your course instructor.

D211 COURSE PACING GUIDE

Many students are able to complete this course in 6 weeks. To meet this **45-day Challenge**, we suggest the following pacing:

- Weeks 1 and 2 Engage with Resources:
 Familiarize yourself with the course, DataCamp resources, read the Performance Assessment and other introductory course materials. Attend a live webinar or watch the webinar recordings located in the Course Tips.
- Week 3 Data Dashboards: Use SQL and Tableau to create data dashboards to support executive decision-making. Your dashboards





should enable leaders to answer a specific research question on an organizational need.

- Week 4 Data Dashboards: Continue to develop your data dashboards. Revise and modify as necessary.
- Week 5 Demonstration: Record your Panopto video. You will describe the use of SQL in preparing the data from the two data sets for the analysis and then demonstrate the functionality of the SQL scripts and other codes that supported the creation of the dashboards.
- Week 6 Report: Write your reflection paper to outline the organizational need and summarize the findings from the analysis. Complete and submit your work. Be sure that your Tableau dashboard can be opened in the LOD environment and that you submit it as a Packaged Workbook.

Your course instructors are here to help and encourage you with the course content. You can email or schedule an appointment with a course instructor if you have any questions about the course content. We want to help you succeed in this course!

Where to Get Help ... for the Performance Assessment!

Α

Programming help and Access Issues!

- Reach out to your Course Instructor for access issues related to DataCamp, Tableau, or LOD.
- Explore the <u>Programming Center</u>.

В

Using & Citing Sources!

- Student Writing Center
 - How to document sources (article)
 - How to Cite Webpages (article)
 - o How to Cite Webpages (video)

C

Creating Your Panopto Video!

- Online Panopto resources:
 - o How to Create a Video Using Panopto
 - How to Submit Your Performance
 Assessment including Video Link
- Contact Assessment Services at 877-HELP-WGU Option 2 if you:
 - Need Panopto access / no CREATE button
 - Can't adjust your video sharing settings / evaluator cannot access video

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Professional Communication!

- www.grammarly.com
- WGU Student Writing Center
- I Need Help with Professional <u>Communication</u>, which includes links to Writing Center resources on writing, grammar, and more!