Task-by-Task Guide

If you would like a little more support while completing this project, explore this step-by-step resource to get additional hints and resources to help you along each task.

Task 1 – Import the Classic Model Car Relational Database

For this task you will need access to a workstation with MySQL Workbench installed and up and running. Make sure that you are connected to a local server instance so that you can import the database needed for the project.

To import the database:

1. Download the mintclassicsDB.sql file, which is the SQL script that will create and populate the Mint Classics relational database. The download link is located in the first Reading in the **Part 3: Build your Project** section.
2. Begin the import process by clicking the Server option on the menu bar and select the Data Import tool. Be sure to select the the "Import from Self-Contained File" option from the Data Import and then navigate to the location where your file was downloaded. Click the Start Import button to initiate the import process.
3. When the process completes, you can refresh the Navigator pane and you should the database listed.

Resources:

Import and Export a Database – MySQL Workbench Manual

Use the Navigator – MySQL Workbench Manual

Installing MySQL Workbench - MySQL Workbench Manual

Task 2 – Familiarize yourself with the Mint Classic database and business processes.

Examine the database structure and to see what type of data is stored in each table and how the tables are related. Since the database is designed to represent the business, familiarity with the database builds familiarity with business process.

1. Study the EER (Extended Entity-Relationship) diagram displayed in the first Reading in the **Part 3: Build your Project** section. Look carefully at the table names and how the tables are related/connected. An EER is a model that reads like a blueprint of the database.

   Using the EER, you can visualize how data flows. How it is processed mirrors how business activities occur. For example, an employee works with a customer to place an order. An order

can contain many products. Each product belongs to one product line and is stored in one warehouse.

2. Use the Navigation pane to view the contents of each table to get an even deeper understanding of the data. Look specifically at values for common fields/columns that relate tables. For example, the warehouseCode field is present in both the warehouses table and in the products table.

Resources:

What is an Entity Relationship Diagram – Visual Paradigm

Data Modeling: ER Diagram – Modern Analyst

Task 3 – Investigate the business problem and identify tables impacted.

Review the problem. Mint Classics Company is hoping to close one of their storage facilities. They want suggestions and recommendations for reorganizing or reducing inventory, while still maintaining timely service to their customers.

Now that you are familiar with the data and somewhat familiar with Mint Classics' business processes, you can start to isolate the data that specifically relates to the business problem you are addressing. Which fields store data related to the business problem? In which tables are those fields housed?

Look at the data in those tables more carefully. Use your SQL skills to query the tables. Use the File…Save Script as option to save any scripts/queries you wish to include in the artifacts you will upload to your portfolio.

Resources:

Save a Script using the SQL Query Toolbar – MySQL Workbench Manual

How to Become a Data Analyst in 2023 – Alex the Analyst

Task 4 – Formulate suggestions and recommendations for solving the business problem.

Use SQL queries to analyze the data.

1) Identify patterns. Are some items sold more often than others? Does the price seem to affect sales?
2) Conduct what-if analysis. For example, what impact would it have on the company and customer service if we reduced the quantity on hand for every item by 5%?

3) Use your findings and conclusions to formulate some suggestions that the client could use to address the business question. Be innovative and feel free to include more than one scenario for whether or not it is viable to close a storage warehouse. Just be sure to back your ideas up with data—in the form of one or more saved scripts/queries.

Keep in mind that your overall goal is to provide suggestions for solving the business problem along with correct and impressive SQL code for your portfolio. Accurate and well-written queries with correct and complete query results are critical in proving that your data analysis and SQL skills are impressive.

Resources:

SQL for Data Analysis - Mode

SQL Joins – W3Schools

SQL for Data Analysis – HEVO

Task 5 – Describe your recommendations and conclusions and support them with SQL scripts.

Write a conclusion about your process and any key findings. What are your suggestions and how did you arrive at your conclusions?

This is your opportunity to impress your prospective employer with your critical thinking and problem-solving skills. You may want to discuss the process you followed and share your struggles and how you overcame them. What do you think sets your portfolio project apart from those of other candidates?

At this point, you can prepare the project artifacts for uploading into your portfolio. You should include:

- Your description of the problem
- Your written conclusion
- One or more SQL queries (saved as scripts) that provide evidence of the validity of your conclusion (be sure to name the scripts and refer to them in your written conclusion)