Project Overview

**Instructions**

Now that you are equipped with the knowledge and skills to work with Data Warehouses you will use these skills to design and implement a data warehouse for a company in the Hands-on Labs.

**Scenario**

You are a data engineer hired by a solid waste management company. The company collects and recycles solid waste across major cities in the country of Brazil. The company operates hundreds of trucks of different types to collect and transport solid waste. The company would like to create a data warehouse so that it can create reports like:

* total waste collected per year per city
* total waste collected per month per city
* total waste collected per quarter per city
* total waste collected per year per truck type
* total waste collected per truck type per city
* total waste collected per truck type per station per city

**Grading Criteria**

**There are a total of 28 points possible for this final project.**

Your final assignment will be graded by your peers who are also completing this assignment within the same session. Your grade will be based on the following tasks:

* Task 1: Design the dimension table MyDimDate (2 pts)
* Task 2: Design the dimension table MyDimWaste (1 pt)
* Task 3: Design the dimension table MyDimZone (1 pt)
* Task 4: Design the fact table MyFactTrips (2 pts)
* Task 5: Create the dimension table MyDimDate (2 pts)
* Task 6: Create the dimension table MyDimWaste  (1 pt)
* Task 7: Create the dimension table MyDimZone (1 pt)
* Task 8: Create the fact table MyFactTrips (2 pts)
* Task 9:Load data into the dimension table DimDate (1 pt)
* Task 10:Load data into the dimension table DimTruck (1 pt)
* Task 11:Load data into the dimension table DimStation (1 pt)
* Task 12: Load data into the fact table FactTrips (1 pt)
* Task 13: Create a grouping sets query (2 pts)
* Task 14:Create a rollup query (2 pts )
* Task 15: Create a cube query using the columns year, city, station, average waste collected (2 pts )
* Task 16: Create an MQT named max\_waste\_per\_station using the columns city, station, trucktype, max waste collected  (2 pts)
* Task 17: Create a pie chart in the dashboard (1 pt)
* Task 18: Create a bar chart in the dashboard (1 pt)
* Task 19:Create a line chart in the dashboard (1 pt)
* Task 20: Create a pie chart in the dashboard (1 pt)

**How to submit**

A screenshot in JPEG or PNG format is required to be submitted for all tasks. The screenshots will be uploaded in the submission step of the final project. You will be prompted to save screenshots throughout the labs and these will be the files you submit during the Project Submission and Peer Review section of this course.