**Scenario**

You are a data engineer at a data analytics consulting company. You have been assigned a project to decongest the national highways by analyzing the road traffic data from different toll plazas. Each highway is operated by a different toll operator with a different IT setup that uses different file formats. Your job is to collect data available in different formats and consolidate it into a single file.

In this assignment, you will develop an Apache Airflow DAG that will:

* Extract data from a csv file
* Extract data from a tsv file
* Extract data from a fixed-width file
* Transform the data
* Load the transformed data into the staging area

**Grading Criteria**

There are a total of **25 points for 13 tasks** in this final project spread in one hands-on lab.

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:

* **Exercise 1: Create imports, DAG argument and definition**
  + Task 1.1: Define DAG arguments (2pts)
  + Task 1.2: Define the DAG (2pts)
* **Exercise 2: Create the tasks using BashOperator**
  + Task 2.1: Create a task to unzip data. (2pts)
  + Task 2.2: Create a task to extract data from csv file (2pts)
  + Task 2.3: Create a task to extract data from tsv file (2pts)
  + Task 2.4: Create a task to extract data from fixed width file (2pts)
  + Task 2.5: Create a task to consolidate data extracted from previous tasks (2pts)
  + Task 2.6: Transform the data (2 pts)
  + Task 2.7: Define the task pipeline (1pt)
* **Exercise 3: Getting the DAG operational**
  + Task 3.1: Submit the DAG (1pt)
  + Task3.2: Unpause and trigger the DAG (3pt)
  + Task 3.3: List the DAG tasks (2 pt)
  + Task 3.4: Monitor the DAG (2pt)

**How to submit**

You will need to submit a screenshot in the JPEG or PNG format or 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.