**Group 7**

This Readme file includes 3 questions and corresponding answers:

Question1: How to collect data?

Question2: How to execute the SQL implementation?

Question3: How to see results in Tableau?

**Q1 : How to collect data?**

**Real Data**: Neighborhood (nghHealth Center, nghEntertainment…)

Apartment ( aptCampsDistance, rptGoogleReview…)

Room (RomStatus, RomPrice..)

**Makeup Data**: Renter (rntId, rntFirstName…)

Employee (empId, empFirstName…)

Company (cpyId, cpyName…)

**Data Collection Technique**

We put the python code in the file called "Project0503-07\_Python\_Data\_Collection\_Code.py".

We wrote this program so that it could help us effectively get the real estate data from the rental website "www.apartment.com".

**Step1: Put the file on the Desktop and Install Python3 and use Anaconda to open the Spider 3**

**Python3 Installation Address:**

**Windows:** [**https://www.python.org/downloads/windows/**](https://www.python.org/downloads/windows/)

**Mac:** [**https://www.python.org/downloads/mac-osx/**](https://www.python.org/downloads/mac-osx/)

**Anaconda Installation Address:**

**Windows:** [**https://docs.anaconda.com/anaconda/install/windows/**](https://docs.anaconda.com/anaconda/install/windows/)

**Mac:** [**https://docs.anaconda.com/anaconda/install/mac-os/**](https://docs.anaconda.com/anaconda/install/mac-os/)

**Step2: Run the code**

A screenshot of a cell phone

Description automatically generated

Suggestion: In order to run this program, you may first need to install the selenium package and chrome driver.

If you want to get more data from other regions, just change the key words above, then you could get millions or billions of data effectively if you want.

**Q2: How to execute the SQL implementation?**

First, open SQL Server Management Studio and login to the respective server with your user details.

Then, use the Project0503-07\_{purpose}-DDL CREATE TABLE.sql file to create the tables in the database, and if you need to drop any tables, you can find the DROP TABLE statements in the Project0503-07\_{purpose}-DDL DROP TABLE.sql file.

To insert the data into the tables created earlier, execute the Project0503-07\_{purpose}-DDL INSERT INTO.sql file.

To create views use the Project0503-07\_{purpose}-DDL CREATE VIEW.sql file and if certain views are to be dropped the Project0503-07\_{purpose}-DDL DROP VIEW.sql file can be used.

Finally, for the user queries and the count statements, execute the Project0503-07\_{purpose}-DML SELECT FROM.sql file.

**Q3: How to see results in Tableau?**

Open the Tableau and login in with your user details.

If you cannot see some sheets, be sure to click the regenerate the extract button and save it on your computer.

If necessary, my Tableau username and password are provided here:

Username: BUDT758\_Student\_132

Password: yushengfu0421

Open the file ‘Project0503-07\_Tableau.twb’ to see the tables and dashboards.