

#### **Teradata Connection**

This tutorial assumes you have access to the University of Arkansas VMWare client or the Remote desktop client for participating universities. The intent of this exercise is to extract KPI data from the Dillard's 2016 dataset to an Excel file in order to load the information into an application of your choice.

NOTE: the data used during this workshop should not be downloaded to your personal drives and should remain on the Remote Desktop S: drive provided by the University of Arkansas. This is due to our agreement with the data providers.

(2) Query

- 1. From the Desktop or Start Menu, search for and open the software Teradata SQL Assistant. You will see a Windows similar to the below screenshot.
- Copy and paste the query below onto the Query window to access the UA\_Dillards\_2016 and click on the "footsteps" execute button

DATABASE ua dillards 2016;



DATABASE ua\_dillards\_201 DATABASE ua\_dillards\_201 DATABASE ua\_dillards\_201

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| (2) Query   |  |
| DATABASE ua_dillards_2016;  |  |

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Walton College Teradata Walton College Teradata Walton College Teradata

- 3. A Select Data Source window will pop up to ask you the credentials to access the Dillard's database. Navigate to the Machine Data Source tab on top. Then double-click on Walton College Teradata (as shown to the right).
- 4. Click OK
- 5. Here you will see another pop-up window called **Teradata Database Connect...**
- 6. Enter the **Username**: and **Password**: provided by your instructor. Click **OK**
- Congratulations! Now you are connected to the UA\_Dillards\_2016 database and ready to extract the data needed for your assignment.

| Teradata Database   | Connect  | ×      |
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| DBC Name or Addre<br>Authentication<br>Use Integrated<br>Mechanism: | ess: 130. 184. 26. 161<br>Security                                   | •      |
| Parameter:  |  | Change |
| Username:<br>Password:  | *your given username*       ***********       Teradata Wallet String |        |
| Optional<br>Default Database:<br>Account String:                    | []   |        |
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### SQL Query to extract data

The Dillard's 2016 dataset has approximately 450 million rows. We need to narrow the data extraction down to only the KPI's we are interested in reviewing. To do this, we will run a query to extract transaction data from the TRANSACT table and associated identifying information (Store, City, State & Zip\_Code) from the STORE table.

- 8. Running the Query
  - a. Navigate to the query window and delete any current code
  - b. Copy and paste the SQL query below into the query window

```
SELECT tran_date, Store.City, Store.Zip_code, Store.State,
        Store.Store, SUM(tran_amt) AS amount
FROM Transact
INNER JOIN store
        ON transact.store = store.store
WHERE tran_type = 'p'
GROUP BY tran_date, city, State, Zip_Code, store.store
ORDER BY tran_date;
```

- 9. Click the "footsteps" execute button 🔒 on the menu bar.
- 10. The final query should take **approximately 30 seconds to 1 minute to run** depending on the connection from your computer. You should have 298,516 rows of records in the final selection. Your result table should look like the picture below and the records can be verified on this screen.

| Query  | (Walton C   | College T  | eradata)   |                                 |                                   |                         |             |                  |  |        |
|--------|---|--|--|---------------------------------|-----------------------------------|-------------------------|-------------|------------------|--|--------|
|        | SELECT<br>FROM<br>INNER JO<br>ON 1<br>WHERE<br>GROUP BY<br>ORDER BY | tran_c<br>Transa<br>DIN sto<br>transac<br>tran_t<br>tran_t<br>tran_<br>t tran_ | date, Sto<br>act<br>bre<br>st.store :<br>yype = 'p<br>date, ci<br>_date; | re.Cit<br>= stor<br>'<br>ty, St | y, Store.<br>e.store<br>ate, Zip_ | Zip_code,<br>Code, sto: | Store.State | a, Store.Stor    | re, SUM(tran_amt) AS amount                      |        |
| •      |   |  |  |                                 |                                   |                         |             |                  |  |        |
| Answe  | erset 1   |  |  |                                 |                                   |                         |             |                  |  |        |
|        | TRAN_DA   | TE   | CITY   |                                 | ZIP_CODE                          | STATE                   | STORE       | amount           |  |        |
| 1      | 1/1/20  | 14 JAC   | KSONVILLE  |                                 | 32225                             | FL                      | 511         | 5,145.40         |  |        |
| 2      | 1/1/20  | 14 LON   | GVIEW  |                                 | 75605                             | TX                      | 748         | 79,596.14        |  |        |
| 3      | 1/1/20  | 14 MIDI  | AND  |                                 | 79705                             | TX                      | 746         | 77,607.09        |  |        |
| 4      | 1/1/20  | 14 HUN   | TSVILLE  |                                 | 35801                             | AL                      | 460         | 74,033.21        |  |        |
| 5      | 1/1/20  | 14 CED   | AR PARK  |                                 | 78613                             | TX                      | 735         | 79,348.10        |  |        |
| 6      | 1/1/20  | 14 HUM   | IBLE   |                                 | 77338                             | TX                      | 780         | 54.484.41        |  |        |
| 7      | 1/1/20  | 14 AUR   | ORA  |                                 | 80012                             | CO                      | 982         | 29,735.11        |  |        |
| 8      | 1/1/20  | 14 ABIL  | ENE  |                                 | 79606                             | TX                      | 744         | 66.863.06        |  |        |
| 9      | 1/1/20  | 14 LAKE  | E HAVASU C   | ITY                             | 86404                             | AZ                      | 912         | 20,109.53        |  |        |
| 10     | 1/1/20  | 14 ALE   | KANDRIA  |                                 | 71301                             | LA                      | 436         | 63,927.25        |  |        |
| 11     | 1/1/20  | 14 ASH   | EVILLE   |                                 | 28806                             | NC                      | 508         | 4,734.55         |  |        |
| 12     | 1/1/20  | 14 MUF   | FREESBOR   | 10                              | 37129                             | TN                      | 427         | 57,252.94        |  |        |
| 13     | 1/1/20  | 014 ST. I  | OUIS   |                                 | 63117                             | MO                      | 301         | 109,337.12       |  |        |
|        |   |  |  |                                 |                                   |                         |             |                  |  |        |
| V Hi   | istory  |  |  |                                 |                                   |                         |             |                  |  |        |
| P      | ate /   | Source   | Elapsed  | Rows                            | s Resul                           | t Notes                 |             |                  | SQL Statement                                    | Length |
| 1 5/15 | 2018 (Wa  | alton Coll   | 00:01:06   | 298                             | 516                               |                         | SELECT tran | date, Store.City | , Store Zip_code, Store State, Store Store, SUM( | 263    |
| 2 5/15 | 2018 Wa   | alton Coll   | 00:00:00   |                                 | 1                                 |                         | DATABASE    | a dillards 2016; |  | 26     |
| -      |   |  |  |                                 |                                   |                         |             |                  |  |        |

Created 5/14/2018 by Ron Freeze

#### Export result table in a text file

Now we will export to a file in order to provide access to the application of our choice

- 11. Navigate to File on the top bar, and select Export Results...
- 12. Now click the "footsteps" execute button again to have Teradata run the query again and export the result directly.
- 13. You will now see a pop up window, prompting you for the location you want to save
- 14. Select your desired location, the File name: and make sure you Save as type: Delimited Text [ANSI] (\*.txt).
- 15. <u>IMPORTANT</u>: after you click Save, Teradata will take a while to export everything. It will take about 3 minute or less depending on your computer, since there are 298,516 rows of data to be exported.
- 16. After Teradata finishes saving the result table as txt file in your folder, go to the location that you saved it to make sure it exports successfully. In this example, the file has been named DillardsTUN-Export-KPIs.txt

| Name                    | Date modified     | Туре          | Size      |
|-------------------------|-------------------|---------------|-----------|
| DillardsTUN-Export-KPIs | 5/15/2018 8:23 AM | Text Document | 12,267 KB |

### Import Text file into Excel

- 17. Open MS Excel.
- Select File -> Open and Navigate to your .txt file folder
- 19. Choose the file format as **All Files** (as shown below)
- 20. Select your file
- 21. Click Open.







- 22. You will now see a window called **Text Import Wizard**, with different options of how you want to format your Excel file from a text file.
- 23. Accept the default settings and click **Finish** to import the file.
- 24. After couple seconds, you will now see the result is successfully imported into Excel. See next page for a screen shot.
- 25. **Save** the Excel file after you are done reviewing the data as a **.csv** comma delimited excel file



| Text Import Wizard - Step 1 of 3   |               | × |
|--|---------------|---|
| The Text Wizard has determined that your data is Delimited.  |               |   |
| f this is correct, choose Next, or choose the data type that best describes your data.   |               |   |
| Original data type   |               |   |
| Choose the file type that best describes your data:  |               |   |
| Delimited - Characters such as commas or tabs separate each field.   |               |   |
| O fixed which - theids are anglied in coldnins with spaces between each field.   |               |   |
| Start import at row: 1 🗧 File origin: 437 : OEM United States  |               | ~ |
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| 4 9/12/2015P79.9979.99177586257712403FAYETTEVILLEAR727031.00   |               |   |
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|   | 1          | TRAN_DATE        | CITY                            | ZIP_CODE | STATE | STORE | amount   |      |         |             |                |            |   |
|   | 2          | 1/1/2014         | JACKSONVILLE                    | 32225    | FL    | 511   | 5145.4   |      |         |             |                |            |   |
|   | 3          | 1/1/2014         | LONGVIEW                        | 75605    | ТΧ    | 748   | 79596.14 |      |         |             |                |            |   |
|   | 4          | 1/1/2014         | HUNTSVILLE                      | 35801    | AL    | 460   | 74033.21 |      |         |             |                |            |   |
| 1 | 5          | 1/1/2014         | MIDLAND                         | 79705    | ТΧ    | 746   | 77607.09 |      |         |             |                |            |   |
| 1 | 6          | 1/1/2014         | CEDAR PARK                      | 78613    | ТΧ    | 735   | 79348.1  |      |         |             |                |            |   |
|   | 7          | 1/1/2014         | HUMBLE                          | 77338    | ТΧ    | 780   | 54484.41 |      |         |             |                |            |   |
|   | 8          | 1/1/2014         | AURORA                          | 80012    | CO    | 982   | 29735.11 |      |         |             |                |            |   |
|   | 9          | 1/1/2014         | ABILENE                         | 79606    | ТΧ    | 744   | 66863.06 |      |         |             |                |            |   |
|   | 10         | 1/1/2014         | LAKE HAVASU CITY                | 86404    | AZ    | 912   | 20109.53 |      |         |             |                |            |   |