# Freight Company Analysis

Problem statement:

As an analyst of a port inspection team at a freight company, you've been asked to perform analyses using VIEWS.

Objective:

To analyze the transportation of orders of various quantities across different ports.

1. **-- create a database named sqlbasics:**
   create database sqlbasics;

2. **-- select database:**
   use sqlbasics;

3. **-- Upload the FreightRates.csv dataset to the lab**
   -- Import freightRates.csv into the database as a table
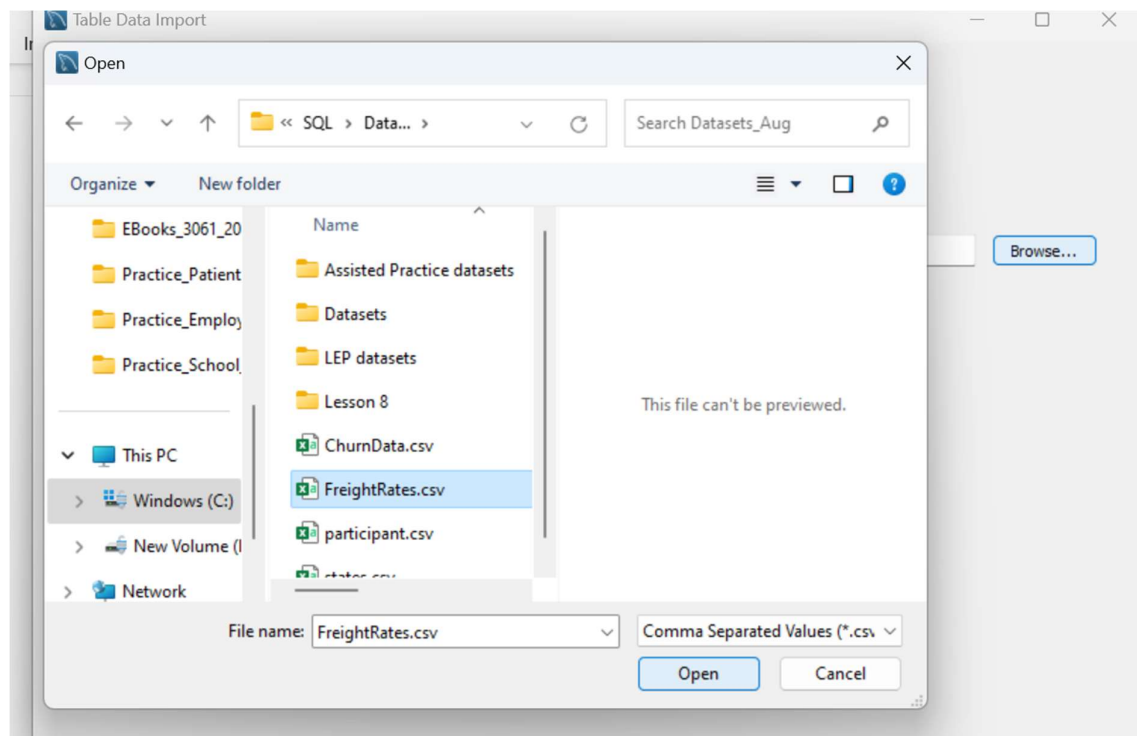
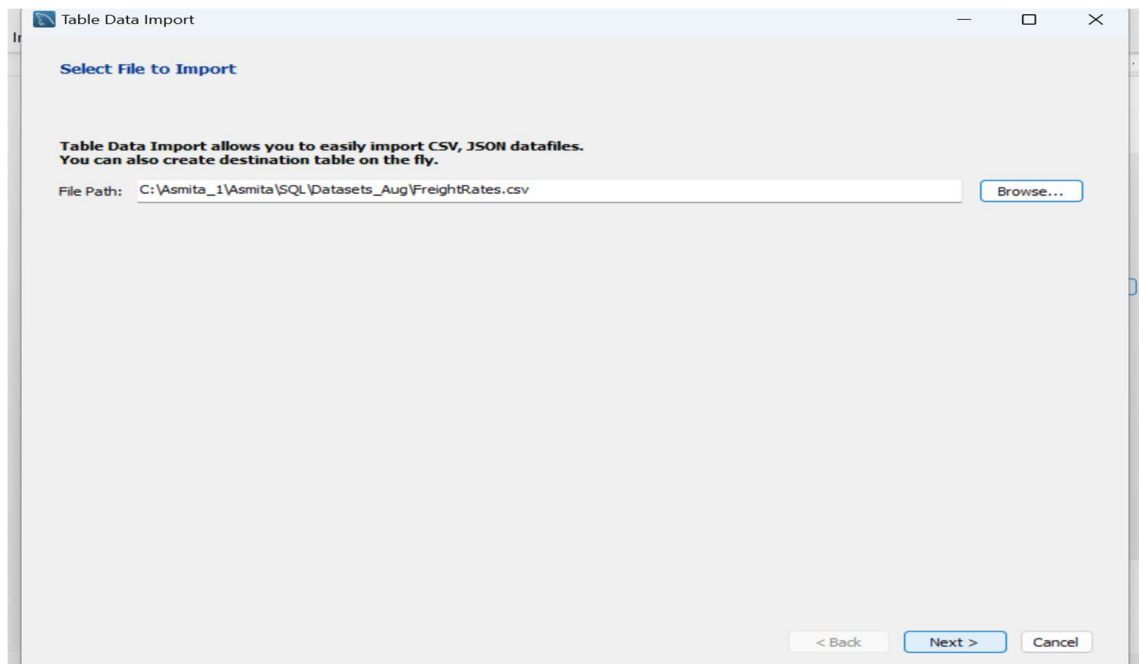   Right click on schema:sqlbasics -> select 'table data import wizard'
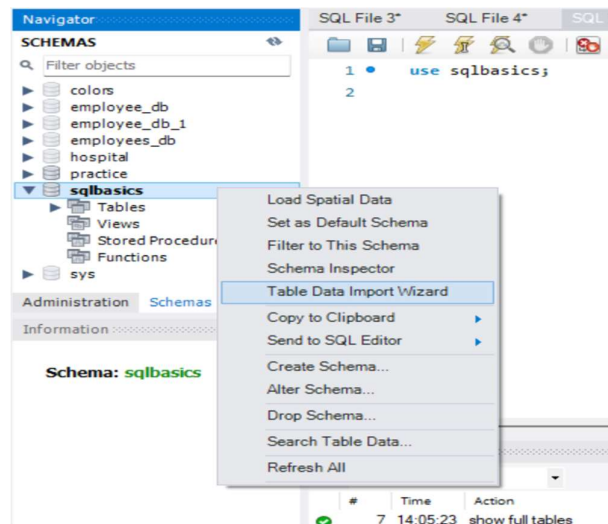
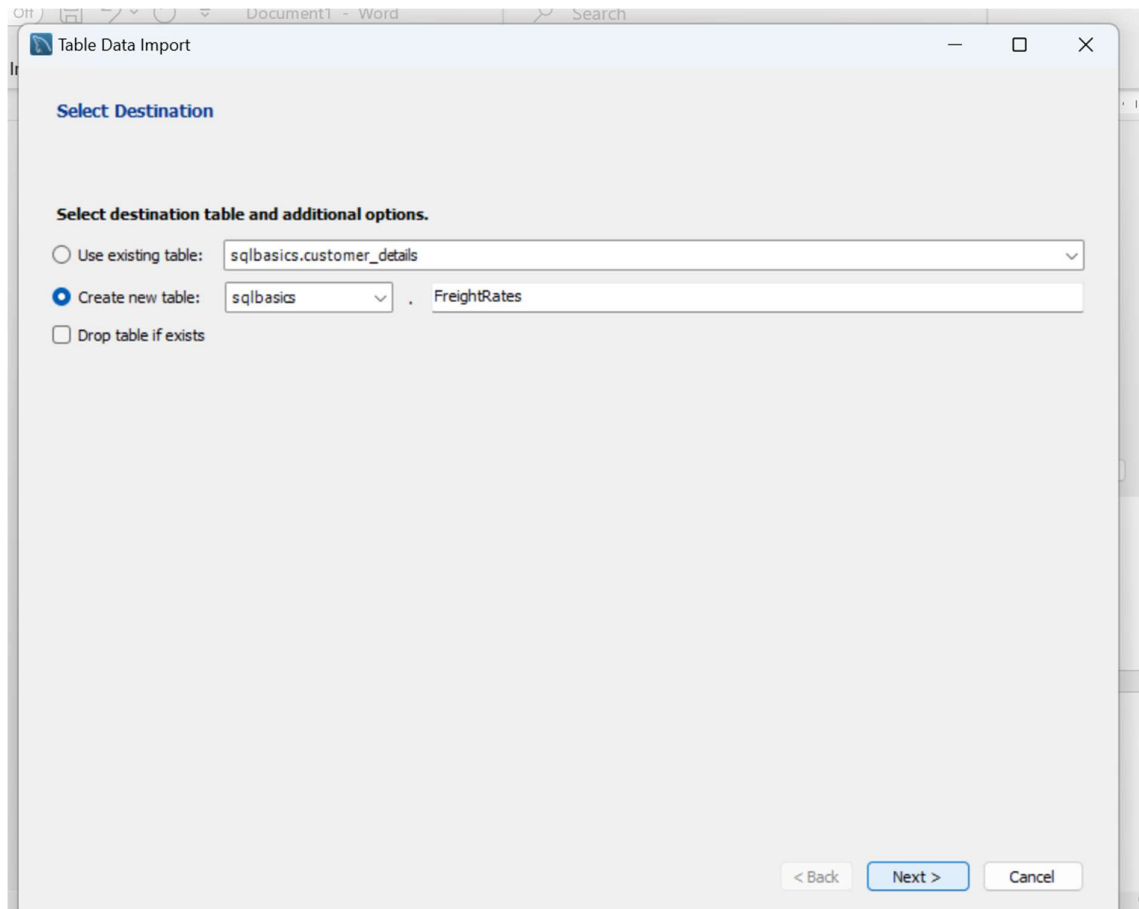   Browse or enter the path of the file to import
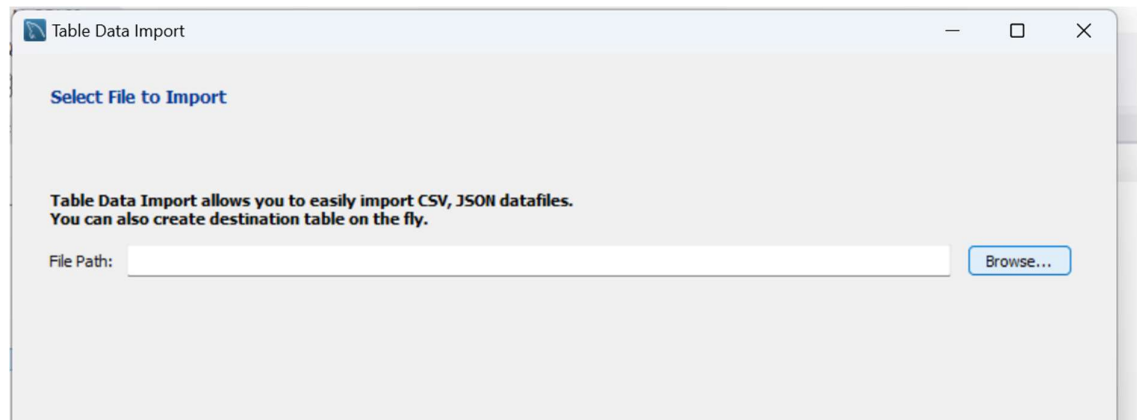
Select the file and then click 'Open'.

Click on the 'Next' button

Select the destination for the table -> click 'Next'

Configure some import settings -> click 'Next'.

Data has been imported -> click 'Next' -> click 'Finish'.

Document1 - Word   Search

Table Data Import   —   ☐   ✕

Import Data

The following tasks will now be performed. Please monitor the execution.

☑ Prepare Import
☑ Import data file

Finished performing tasks. Click [Next >] to continue.

Show Logs   < Back   Next >   Cancel
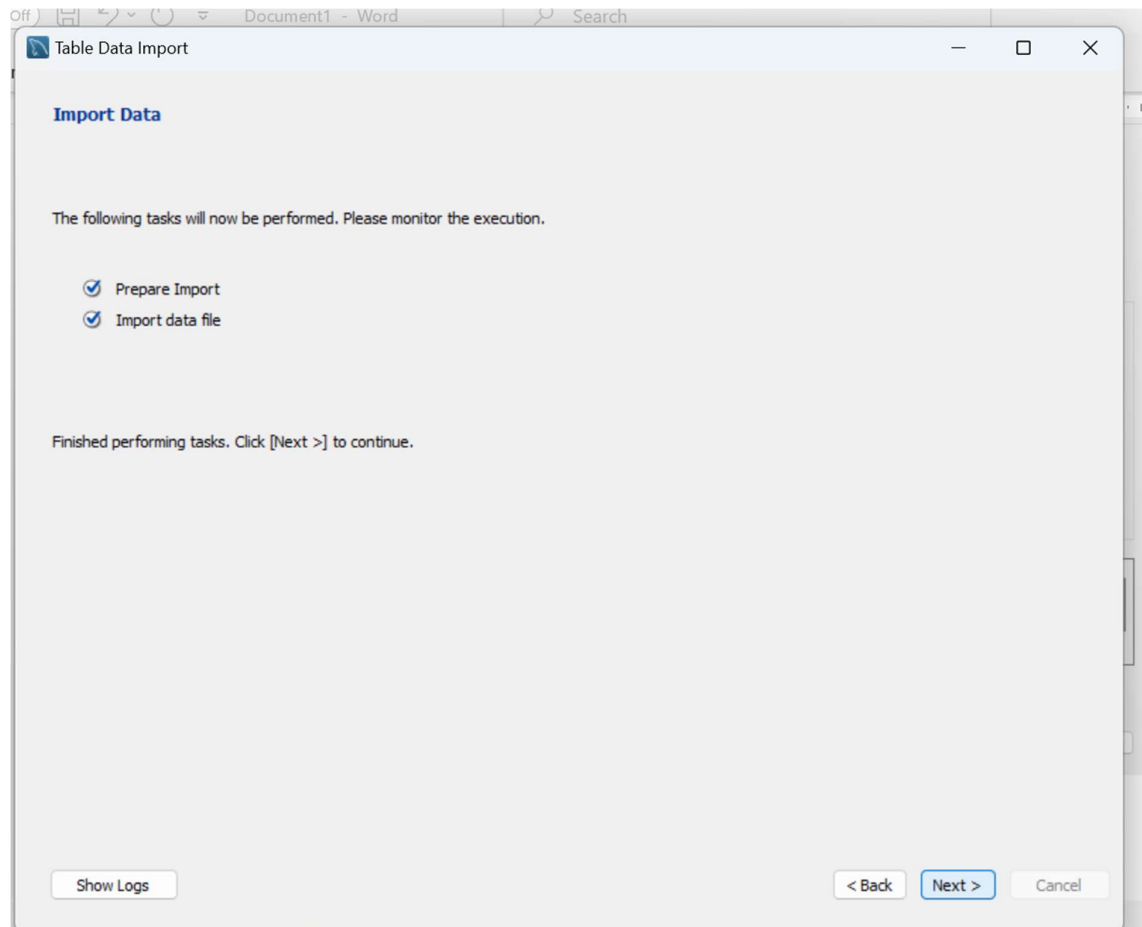
select * from freightrates;

Carrier	orig_port_cd	dest_port_cd	minm_wgh_qty	max_wgh_qty	minimum cost	rate	mode_dsc
V444_6	PORT08	PORT09	250	499.99	43.23	0.71	AIR
V444_6	PORT08	PORT09	65	69.99	43.23	0.75	AIR
V444_6	PORT08	PORT09	60	64.99	43.23	0.79	AIR
V444_6	PORT08	PORT09	50	54.99	43.23	0.83	AIR
V444_6	PORT08	PORT09	35	39.99	43.23	1.06	AIR
V444_6	PORT08	PORT09	100	249.99	43.23	0.71	AIR
V444_6	PORT08	PORT09	500	1999.99	43.23	0.68	AIR
V444_6	PORT08	PORT09	55	59.99	43.23	0.83	AIR
V444_6	PORT08	PORT09	25	29.99	43.23	1.25	AIR

freightrates 2 ✕   ❶ Read Only

4. **-- Create a VIEW and name it FR_GROUND and use it to display the record of the FreightRates table for the orders transported via GROUND:**

create view fr_ground as select * from freightrates where mode_dsc = 'ground';
select * from fr_ground;

5. -- count the records of fr_ground:
    select count(*) from fr_ground;

6. -- Create a VIEW and name it FR_GROUND and use it to display the record of the FreightRates table for the orders transported via Air:

    create view fr_air as select * from freightrates where mode_dsc = 'air';
    select * from fr_air;

7. -- count the records of fr_air:
    select count(*) from fr_air;

count(*)
1511

8. **-- Create a VIEW and name it FR_V1 with mode_dsc and the average rate for each type of value in the mode_dsc column:**

   create view fr_v1 as select mode_dsc, avg(rate) from freightrates group by mode_dsc;
   select * from fr_v1;

mode_dsc	avg(rate)
AIR	2.610463269358038
GROUND	17.61344827586206

9. **-- Alter the VIEW FR_V1 by replacing the column mode_dsc with carrier:**

   create or replace view fr_v1 as select carrier, avg(rate) from freightrates group by carrier;
   select * from fr_v1;

carrier	avg(rate)
V444_6	1.0763157894736843
V444_8	0.14159999999999995
V444_9	0.124
V444_2	0.15026666666666672
V444_1	1.4721917808219152
V444_0	4.597435897435896
V444_5	2.531428571428571
V444_4	3.7951434878587196
V444_7	128.03

fr_v1 8 ×

10. -- Rename the VIEW FR_V1 as FR_GROUPED_DATA:
  rename table fr_v1 to fr_grouped_data;

✓	29 14:50:28 rename table fr_v1 to fr_grouped_data	0 row(s) affected	0.015 sec

select * from fr_grouped_data;
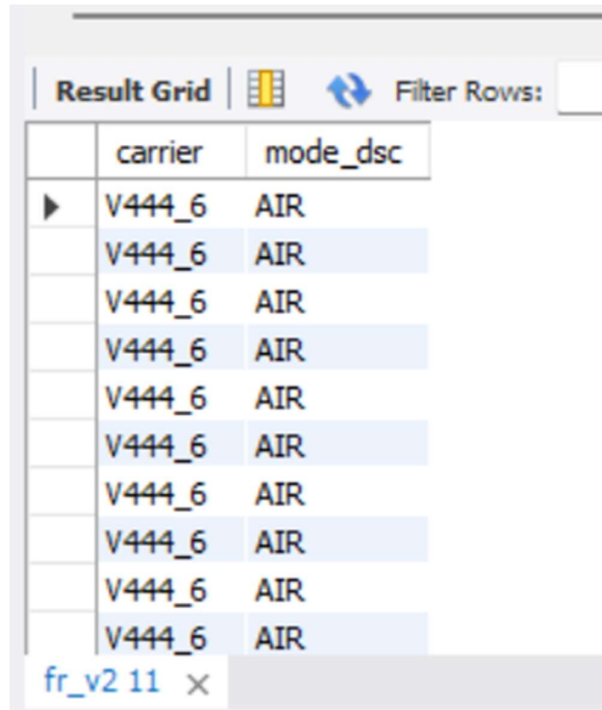
carrier	avg(rate)
V444_6	1.0763157894736843
V444_8	0.14159999999999995
V444_9	0.124
V444_2	0.15026666666666672
V444_1	1.4721917808219152
V444_0	4.597435897435896
V444_5	2.531428571428571
V444_4	3.7951434878587196
V444_7	128.03

fr_grouped_data 9 ×

11. -- Create a VIEW with the carrier and mode_dsc columns using WITH CHECK option to make sure that mode_dsc accepts no entry other than AIR or GROUND:

create view fr_v2 as select carrier, mode_dsc from freightrates
where mode_dsc in ('air','ground')
with check option;

select * from fr_v2;

carrier	mode_dsc
V444_6	AIR
V444_6	AIR
V444_6	AIR
V444_6	AIR
V444_6	AIR
V444_6	AIR
V444_6	AIR
V444_6	AIR
V444_6	AIR
V444_6	AIR

fr_v2 11 ✕

insert into fr_v2 (carrier, mode_dsc) values ('V444_9','water');

⊗ 36 14:58:43 insert into fr_v2 (carrier, mode_dsc) values ('V444_9','water')   Error Code: 1369. CHECK OPTION failed 'sqlbasics.fr_v2'