

CIT 225 Lab2 Instructions

Lab 2 will involve importing data from excel files into staging tables and then moving the data from the staging tables into the corresponding database tables. We will use SQL Developer to import from the excel files into the staging tables.

1. Run the lab1.sql script.
2. The first step in lab 2 is to import data from an excel file into a staging table. We will use SQL Developer to do this.
 - a. You should have the incident.xlsx file on your machine (if you do not, you can download it from I-Learn)
 - b. Under the truck schema, Right-Click on the “Tables (Filtered)” folder and select “Import Data...”
 - c. Navigate to the Incident.xlsx file on your machine and open it.
 - d. The “Data Import Wizard” should be open:
 - i. Step 1: Header checkbox should be checked (click Next)
 - ii. Step 2: Select “Insert Script” in the Import Method dropdown
 - iii. Step 2: Put “incident_stage” in the Table Name field (click Next)
 - iv. Step 3: Should not require any changes (click Next)

- v. Step 4: Make sure that each “Source Data Column” has an appropriate data type (click Next)
 - vi. Step 5: Click the Verify button
 - vii. Click Finish
- 3. A new Import-Incident-xlsx.sql file should have appeared
- 4. Copy and Paste all the code from the Import-Incident-xlsx.sql file into your lab2.sql file
- 5. Write a select statement to show the rows of the incident_stage table but with the employee_id and vehicle_id substituted in place of the employee and vehicle names. (Hint: You can use correlated subqueries or joins to do this)
- 6. Visually verify that the employee_id and vehicle_id values are correct.
- 7. Write one insert statement that will insert all the rows from the incident_stage table into the incident table. This insert statement will use the select statement written in step 5 above.
- 8. Import data from the haul.xlsx file into the haul_stage table:
 - a. You should have the Haul.xlsx file on your machine (if you do not, you can download it from I-Learn)
 - b. Under the truck schema, Right-Click on the “Tables (Filtered)” folder and select “Import Data...”
 - c. Navigate to the Haul.xlsx file on your machine and open it.

d. The “Data Import Wizard” should be open:

- i. Step 1: Header checkbox should be checked (click Next)
- ii. Step 2: Select “Insert Script” in the Import Method dropdown
- iii. Step 2: Put “haul_stage” in the Table Name field (click Next)
- iv. Step 3: Should not require any changes (click Next)
- v. Step 4: Make sure that each “Source Data Column” has an appropriate data type (click Next)
- vi. Step 5: Click the Verify button.
- vii. Click Finish

9. A new Import-Haul-xlsx.sql file should have appeared

10. Copy and Paste all the code from the Import-Haul-xlsx.sql file into your lab2.sql file

11. Verify that the haul_stage table has 40 rows of data.

12. Write a select statement to show the rows of the haul_stage table but with the employee_id, city_id, city_id, client_id and vehicle_id substituted in place of the values that appear in the haul_stage table. (Hint: You can use correlated subqueries or joins to do this)

13. Write one insert statement that will insert all the rows from the haul_stage table into the haul table. This insert statement will use the select statement written in step 12 above.

14. Repeat steps 8-10 above but for the Haul2.xlsx file. Import the data into a file called haul_stage2.
15. Write a Merge statement to merge the data from haul_stage2 into the haul table. The haul_stage2 table has ten rows but five of them are duplicates of data that already exists in the haul table. So the Merge operation only results in five new rows being added to the haul table.

16. Verification Code

```
SELECT COUNT(*)  
FROM haul;
```

Result Set:

50

```
SELECT e.first_name, COUNT(*) AS Cnt  
FROM haul h JOIN employee e  
ON h.employee_id = e.employee_id  
GROUP BY e.first_name  
ORDER BY first_name;
```

Result Set:

Judy 14

Matt 21

Troy 15

```
SELECT v.name, COUNT(*) AS Cnt
FROM haul h JOIN vehicle v
  ON h.vehicle_id = v.vehicle_id
GROUP BY v.name
ORDER BY v.name;
```

Result Set:

Big Dog 14

Classy Cat 16

Mad Max 20

```
SELECT bc.code, COUNT(*) AS Cnt
FROM haul h JOIN city bc
  ON h.begin_city_id = bc.city_id
GROUP BY bc.code
ORDER BY bc.code;
```

Result Set:

BOI	10
SEA	16
SFO	11
SLC	13

```
SELECT c.name, COUNT(*) AS Cnt
FROM haul h JOIN client c
  ON h.client_id = c.client_id
GROUP BY c.name
ORDER BY c.name;
```

Result Set:

Idaho Potatoes Inc	15
Oregon Lumber Inc	20
Washington Apples Inc	15