Abiodun Oke 117180166

L10-DBS301-savepoint rollback etc

You will **create 2 tables** first, then **remove / restore** these tables and also to **add / modify /remove** certain database objects like **views** in this lab.

1. Create table CITIES **from table LOCATIONS,** but only for location numbers less than 2000 (do NOT create this table from scratch).

🡪 You will have exactly 10 rows here.

When you describe CITIES, the output is shown below:

SQL> DESC cities

Name Null? Type

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LOCATION\_ID NUMBER(4)

STREET\_ADDRESS VARCHAR2(40)

POSTAL\_CODE VARCHAR2(12)

CITY NOT NULL VARCHAR2(30)

STATE\_PROVINCE VARCHAR2(25)

COUNTRY\_ID CHAR(2)

**ANSWER:**

**CREATE TABLE CITIES AS**

**(SELECT LOCATION\_ID, STREET\_ADDRESS, POSTAL\_CODE, CITY, STATE\_PROVINCE, COUNTRY\_ID**

**FROM LOCATIONS**

**WHERE LOCATION\_ID < 2000);**

**OUTPUT:**

**LOCATION\_ID STREET\_ADDRESS POSTAL\_CODE CITY STATE\_PROVINCE CO**

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**1000 1297 Via Cola di Rie 00989 Roma IT**

**1100 93091 Calle della Testa 10934 Venice IT**

**1200 2017 Shinjuku-ku 1689 Tokyo Tokyo Prefecture JP**

**1300 9450 Kamiya-cho 6823 Hiroshima JP**

**1400 2014 Jabberwocky Rd 26192 Southlake Texas US**

**1500 2011 Interiors Blvd 99236 South San Francisco California US**

**1600 2007 Zagora St 50090 South Brunswick New Jersey US**

**1700 2004 Charade Rd 98199 Seattle Washington US**

**1800 147 Spadina Ave M5V 2L7 Toronto Ontario CA**

**1900 6092 Boxwood St YSW 9T2 Whitehorse Yukon CA**

**10 rows selected**

2. Create table TOWNS **from table LOCATIONS,** but only for location numbers less than 1500 (do NOT create this table from scratch). This table will have same structure as table CITIES.

🡪 You will have exactly 5 rows here.

**ANSWER:**

**CREATE TABLE TOWNS AS**

**(SELECT LOCATION\_ID, STREET\_ADDRESS, POSTAL\_CODE, CITY, STATE\_PROVINCE, COUNTRY\_ID**

**FROM LOCATIONS**

**WHERE LOCATION\_ID < 1500);**

**OUPUT:**

**LOCATION\_ID STREET\_ADDRESS POSTAL\_CODE CITY STATE\_PROVINCE CO**

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3. Now you will insert a row in TOWNS table, then delete the rows with Country\_id CA. Check the new values with SELECT. Later run the command rollback, and then check the values in the table.

**ANSWER: THE DELETED ROW IS BACK AFTER TOLLBACK COMMAND.**

4. INSERT INTO cities VALUES (2000, ‘70 Pond Rd’, ‘M1L’, ‘Toronto’, ‘ON’, ‘CA’);

SAVEPOINT Insert\_Done;

DELETE FROM cities WHERE country\_id = ‘IT’;

SAVEPOINT Delete\_Done;

UPDATE city SET city = 'York';

What will be the result if you execute the following command:

* 1. ROLLBACK to SAVEPOINT Delete\_Done;

**ITS ROLLBACK TO THE DELETED STATE**

**OUTPUT:**

**LOCATION\_ID STREET\_ADDRESS POSTAL\_CODE CITY STATE\_PROVINCE CO**

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**1600 2007 Zagora St 50090 South Brunswick New Jersey US**

**1700 2004 Charade Rd 98199 Seattle Washington US**

**1800 147 Spadina Ave M5V 2L7 Toronto Ontario CA**

**1900 6092 Boxwood St YSW 9T2 Whitehorse Yukon CA**

**2000 70 Pond Rd M1L Toronto ON CA**

**9 rows selected**

* 1. COMMIT Delete\_Done;

**Commit complete.**

* 1. Rollback;

**ROLLBACK CANNOT ROLLCBACK THE COMMIT.**

**OUTPUT:**

**LOCATION\_ID STREET\_ADDRESS POSTAL\_CODE CITY STATE\_PROVINCE CO**

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**1600 2007 Zagora St 50090 South Brunswick New Jersey US**

**1700 2004 Charade Rd 98199 Seattle Washington US**

**1800 147 Spadina Ave M5V 2L7 Toronto Ontario CA**

**1900 6092 Boxwood St YSW 9T2 Whitehorse Yukon CA**

**2000 70 Pond Rd M1L Toronto ON CA**

**9 rows selected**

5. Add a check constraint in Cities table that will have country\_id as IT and CA only.

6. Create simple view called CA\_CITY\_VU, based on table CITIES so that will contain only columns Street\_Address, City and State\_Province for locations only in CANADA. Then display all data from this view.

7. Modify your simple view so that will have following aliases instead of original column names: Street, City and Prov and also will include cities from ITALY as well. Then display all data from this view.

8. Create complex view called CITY\_DEPNAME\_VU, based on tables EMPLOYEES, LOCATIONS and DEPARTMENTS, so that will contain only columns Last\_name, Department\_Name, City and State\_Province for locations in ITALY or CANADA. Then display all data from this view.

9. Modify your complex view so that will have following aliases instead of original column names: Lname, DName, City and Prov and also will include all cities outside United States.

Then display all data from this view.

10. Check in the Data Dictionary what Views (their names and definitions) are created so far in your account. Then drop your CITY\_DEPNAME\_VU and check Data Dictionary again. What is different?