**Assignment: SQL Day-1**

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**DDL (Data Definition Language):**

**CREATE TABLE LMS\_CUSTOMER\_M\_kushmakar(**

**Customer\_ID VARCHAR(20) NOT NULL,**

**First\_Name VARCHAR(20) NOT NULL,**

**Last\_Name VARCHAR(20),**

**Gender VARCHAR(1) NOT NULL,**

**Date\_Of\_Birth DATE NOT NULL,**

**Contact\_Number VARCHAR(10) NOT NULL,**

**Email\_Address VARCHAR(40) NOT NULL,**

**Monthly\_Income NUMBER(8,2) NOT NULL,**

**Profession VARCHAR(40),**

**Total\_Monthly\_Expense NUMBER(8,2) NOT NULL,**

**Designation VARCHAR(40),**

**Company\_Name VARCHAR(40)**

**);**

****SELECT \* FROM LMS\_CUSTOMER\_M\_kushmakar;**

**--2. Create the table LoanProductCategory based on the following instance chart.**

CREATE TABLE LMS\_PRODUCT\_CATEGORY\_M\_kushmakar(

category\_ID VARCHAR(10) NOT NULL,

Category\_Name VARCHAR(50) NOT NULL,

Asset\_Based VARCHAR (1) NOT NULL check(Asset\_based IN('Y','N')),

Description VARCHAR(150),

SecuredLoan VARCHAR(2) NOT NULL, check(securedLoan in('S','US'))

);

***SELECT \* FROM LMS\_PRODUCT\_CATEGORY\_M\_kushmakar;***

******

**--3. Create the table LoanProduct based on the following instance chart.**

CREATE TABLE LMS\_Product\_M\_kushmakar(

Product\_Code VARCHAR(20) NOT NULL,

Product\_Name VARCHAR(100) NOT NULL,

Product\_Description VARCHAR(200),

Product\_Category VARCHAR(10) NOT NULL,

Max\_Tenure Number(2),

Min\_Tenure Number(2)

);

***SELECT \* FROM LMS\_Product\_M\_kushmakar;***

******

**--4 Create the table Loan\_Agreement based on the following instance chart.**

CREATE TABLE LMS\_AGREEMENT\_DTL\_kushmakar(

Agreement\_ID VARCHAR(20) NOT NULL,

Lessee\_ID VARCHAR(100) NOT NULL,

Tenure Number(2),

ROI NUMBER(3,1),

Loan\_Amount NUMBER(10,2),

Repayment\_Frequency VARCHAR(2),

Loan\_Disbursal\_Date DATE,

Status VARCHAR(10),

Product\_Code VARCHAR(20) NOT NULL,

Constraint chk1234Kush check(Repayment\_Frequency IN('M','Y','Q','HY')),

Constraint chk12345Kush check(Status IN('Pending','Approved', 'Rejected', 'Active', 'Closed'))

);



***SELECT \* FROM LMS\_AGREEMENT\_DTL\_kushmakar;***

**--5. Create the table EMI\_Schedule**

CREATE TABLE LMS\_REPAYSCH\_DTL\_kushmakar(

Agreement\_id Varchar(20)NOT NULL,

PropInstID Number(8) GENERATED BY DEFAULT AS IDENTITY,

Installment\_Amount Number(8,2)NOT NULL,

Installment\_Number Number(3) NOT NULL,

Principal\_Component Number(8,2) NOT NULL,

Interest\_ComponentNumber Number(8,2) NOT NULL,

Balance\_Principal\_Amount Number(8,2)NOT NULL,

Penalty\_Charges Number(8,2),

Installment\_Due\_Date Date NOT NULL

);

***SELECT \* FROM*** LMS\_REPAYSCH\_DTL\_kushmakar***;***

**--6. Create the table Transaction\_Type.**

CREATE TABLE LMS\_TXNTYPE\_M\_kushmakar(

Txn\_Type VARCHAR(20) Not Null,

Description VARCHAR(100),

Constraint chk12345Kush1 check(Txn\_Type IN('Installment', 'LPP '))

);



***SELECT \* FROM* LMS\_TXNTYPE\_M\_kushmakar*;***

**--7. Create the table Advice.**

CREATE TABLE LMS\_TXN\_ADVICE\_DTL\_kushmakar(

Txn\_Advice\_ID Number(8) GENERATED BY DEFAULT AS IDENTITY,

Adviceamt Number(8,2) Not Null,

AdviceDate Date Not Null,

Case\_Id Varchar(20),

TxnID Number(8) Not Null,

TxnType Varchar(20) Not Null

);

***SELECT \* FROM LMS\_TXN\_ADVICE\_DTL\_kushmakar;***



**--8. Create the table Payment.**

CREATE TABLE LMS\_CHEQUE\_DTL\_kushmakar(

Cheque\_Id NUMBER(8) GENERATED BY DEFAULT AS IDENTITY,

Payment\_Mode VARCHAR(1) NOT NULL,

Cheque\_Num VARCHAR(50) NOT NULL,

Cheque\_Date DATE,

Cheque\_Amount NUMBER(10,2), Drawn\_On\_Bank VARCHAR(50),

Deposit\_Date DATE, 

Status VARCHAR(1)

check(Status IN('C' ,'D' ,'X' ,'R')),

check(Cheque\_Num IN('Instrument')),

check(Payment\_Mode IN('C','Q','D','T'))

);

***SELECT \* FROM LMS\_CHEQUE\_DTL\_kushmakar;***

***--9. Create the table Receipt\_Allocation.***

CREATE TABLE LMS\_PAYMENT\_DTL\_kushmakar(

Payment\_ID Number(8) unique not null,

Cheque\_ID Number(8) unique not null,

Payment\_Date Date NOT NULL,

Status Varchar(1) NOT NULL check(Status IN('c','N')),

Txn\_Advice\_Id Number(8)NOT NULL

);

**10. select table\_name from user\_tables;**

**11. Alter the tables to add the primary key as per the below given chart Primary Key Reference Name Table Name Column Name:-**

ALTER TABLE LMS\_CUSTOMER\_M00

ADD CONSTRAINT LMS\_CUSTOMER\_M00\_PK PRIMARY KEY (Customer\_ID);

ALTER TABLE LMS\_PRODUCT\_CATEGORY\_M\_kushmakar

ADD CONSTRAINT LMS\_PRODUCT\_CAT\_M\_kushmakar\_PK PRIMARY KEY (Category\_ID);

ALTER TABLE LMS\_PRODUCT\_M\_kushmakar

ADD CONSTRAINT LMS\_PRODUCT\_M\_kushmakar\_PK\_ PRIMARY KEY (Product\_Code);

ALTER TABLE LMS\_AGREEMENT\_DTL\_kushmakar

ADD CONSTRAINT LMS\_AGREEMENT\_DTL\_kushmakar\_PK PRIMARY KEY (Agreement\_ID);

ALTER TABLE LMS\_REPAYSCH\_DTL\_kushmakar

ADD CONSTRAINT LMS\_REPAYSCH\_DTL\_kushmakar\_PK PRIMARY KEY (PropInstID);

ALTER TABLE LMS\_TXN\_ADVICE\_DTL\_kushmakar

ADD CONSTRAINT LMS\_TXNTYPE\_M\_kushmakar\_PK PRIMARY KEY (TxnType);

ALTER TABLE LMS\_TXN\_ADVICE\_DTL\_kushmakar

ADD CONSTRAINT LMS\_TXN\_ADVICE\_DTL\_kushmakar\_PK PRIMARY KEY (Txn\_Advice\_ID);

ALTER TABLE LMS\_CHEQUE\_DTL\_kushmakar

ADD CONSTRAINT LMS\_CHEQUE\_DTL\_kushmakar\_PK PRIMARY KEY (Cheque\_ID);

ALTER TABLE LMS\_PAYMENT\_DTL\_kushmakar

ADD CONSTRAINT LMS\_PAYMENT\_DTL\_kushmaka\_PK PRIMARY KEY (Payment\_ID);

**--12. Alter the tables to add the foreign keys as per the below given chart**

Alter table LMS\_Product\_M\_kushmakar

ADD CONSTRAINT LMS\_Product\_Cat\_FK\_kushmakar

FOREIGN KEY (Product\_Category) REFERENCES LMS\_Product\_Category\_M\_kushmakar (Category\_ID);

Alter table LMS\_Agreement\_DTL\_kushmakar

ADD CONSTRAINT LMS\_Agreement\_Dtl\_FK1\_kushmakar

FOREIGN KEY (Lessee\_ID) REFERENCES LMS\_Customer\_M\_kushmakar(Customer\_ID);

Alter table LMS\_Agreement\_DTL\_kushmakar

ADD CONSTRAINT LMS\_Agreement\_Dtl\_FK2\_kushmakar

FOREIGN KEY (Product\_Code) REFERENCES LMS\_Product\_M\_kushmakar (Product\_Code);

Alter table LMS\_Repaysch\_DTL\_kushmakar

ADD CONSTRAINT LMS\_Repaysch\_DTL\_FK\_kushmakar

FOREIGN KEY (Agreement\_Id) REFERENCES LMS\_Agreement\_DTL\_kushmakar (Agreement\_Id);

Alter table LMS\_TXN\_ADVICE\_DTL\_kushmakar

ADD CONSTRAINT LMS\_TXN\_ADVICE\_DTL\_FK1\_kushmakar

FOREIGN KEY (TxnType) REFERENCES LMS\_TXNTYPE\_M\_kushmakar (Txn\_Type);

Alter table LMS\_TXN\_ADVICE\_DTL\_kushmakar

ADD CONSTRAINT LMS\_TXN\_ADVICE\_DTL\_FK2\_kushmakar

FOREIGN KEY (Case\_Id) REFERENCES LMS\_AGREEMENT\_DTL\_kushmakar (Agreement\_id);

Alter table LMS\_TXN\_ADVICE\_DTL\_kushmakar

ADD CONSTRAINT LMS\_TXN\_ADVICE\_DTL\_FK3\_kushmakar

FOREIGN KEY (TxnId) REFERENCES LMS\_REPAYSCH\_DTL\_kushmakar (PropInstID);

Alter table LMS\_PAYMENT\_DTL\_kushmakar

ADD CONSTRAINT LMS\_Payment\_Dtl\_FK1\_kushmakar

FOREIGN KEY (Cheque\_Id) REFERENCES LMS\_CHEQUE\_DTL\_kushmakar(Cheque\_id);

Alter table LMS\_PAYMENT\_DTL\_kushmakar

ADD CONSTRAINT LMS\_Payment\_Dtl\_FK2\_kushmakar

FOREIGN KEY (Txn\_Advice\_Id) REFERENCES LMS\_TXN\_ADVICE\_DTL\_kushmakar(Txn\_Advice\_id);

**--13. Modify the Customer table to allow for longer Customer Last Names. Confirm your modification.**

ALTER TABLE LMS\_CUSTOMER\_M00 MODIFY last\_Name VARCHAR(30) NOT NULL;

**--14. Create the table Customer2 based on the structure of Customer table. Include only the Customer\_id, first\_name, email\_address, profession, monthlyIncome. Name the columns in your new table as ID, NAME, EMAIL, PROFESSION, INCOME.**

CREATE TABLE CUSTOMER\_kushmakar(

ID VARCHAR(20)NOT NULL,

NAME VARCHAR(20)NOT NULL,

EMAIL VARCHAR(40)NOT NULL,

PROFESSION VARCHAR(40),

INCOME NUMBER(8,2)

);



**--15. Drop the table Customer2;**

**drop table CUSTOMER\_kushmakar;**

****

**--16. Query the recycle bin to see whether the table is present.**

SELECT \*FROM RECYCLEBIN WHERE ORIGINAL\_NAME ='CUSTOMER\_kushmakar';

**--17. Undrop the table Customer2.**

FLASHBACK TABLE CUSTOMER\_kushmakar TO BEFORE DROP;

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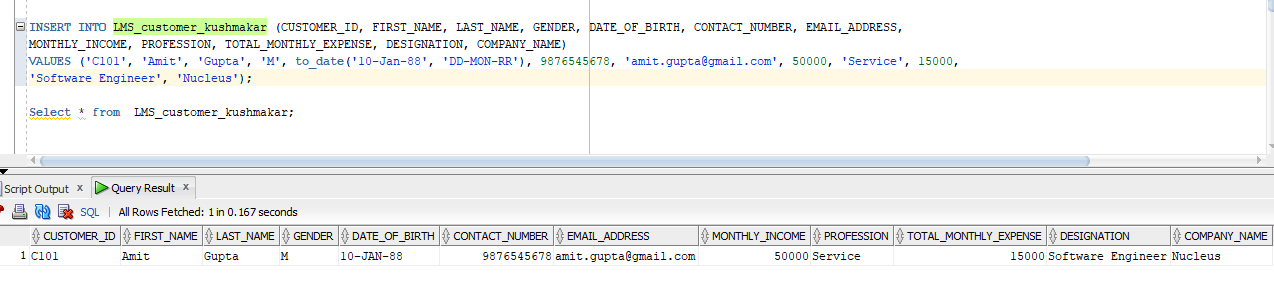
**--18. Drop the column FIRST\_NAME from the Customer2 table. Confirm your modification by checking the description of the table.**

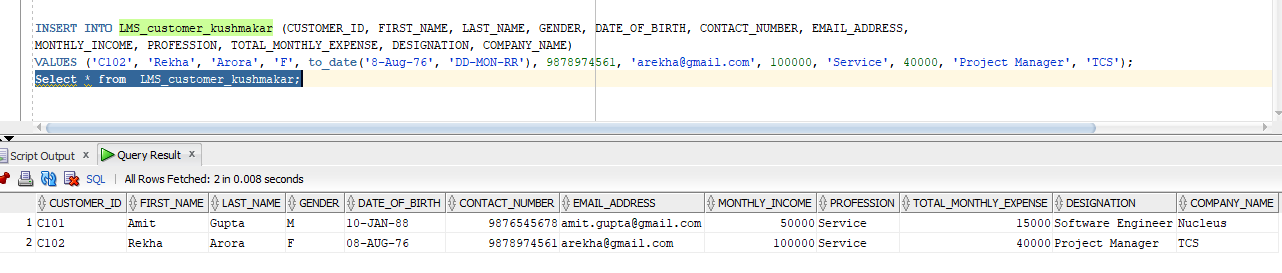
ALTER TABLE CUSTOMER\_Kushmakar

DROP COLUMN NAME;

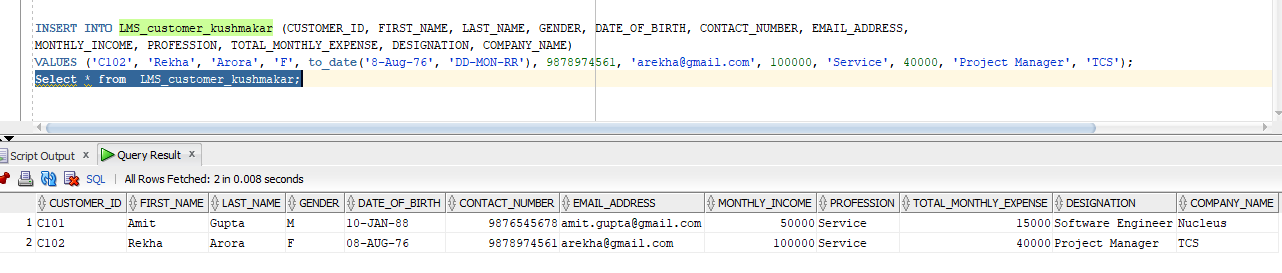
SELECT\* FROM CUSTOMER\_KUSHMAKAR;

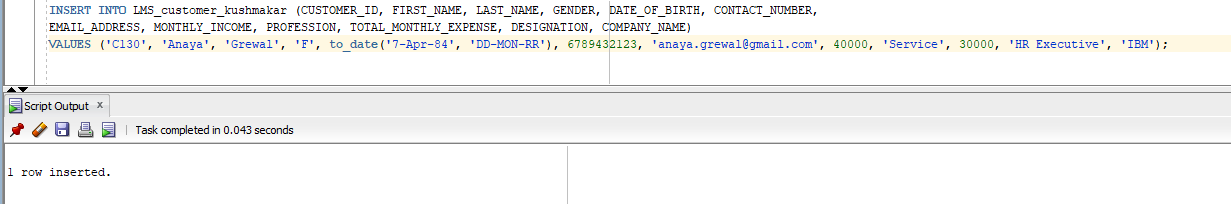
DML (Data Manipulation Language):

--1.**Create an INSERT statement to add the first row of the data in the Customer table being created. Do not list the columns in the INSERT Clause. Do not enter all rows yet.**

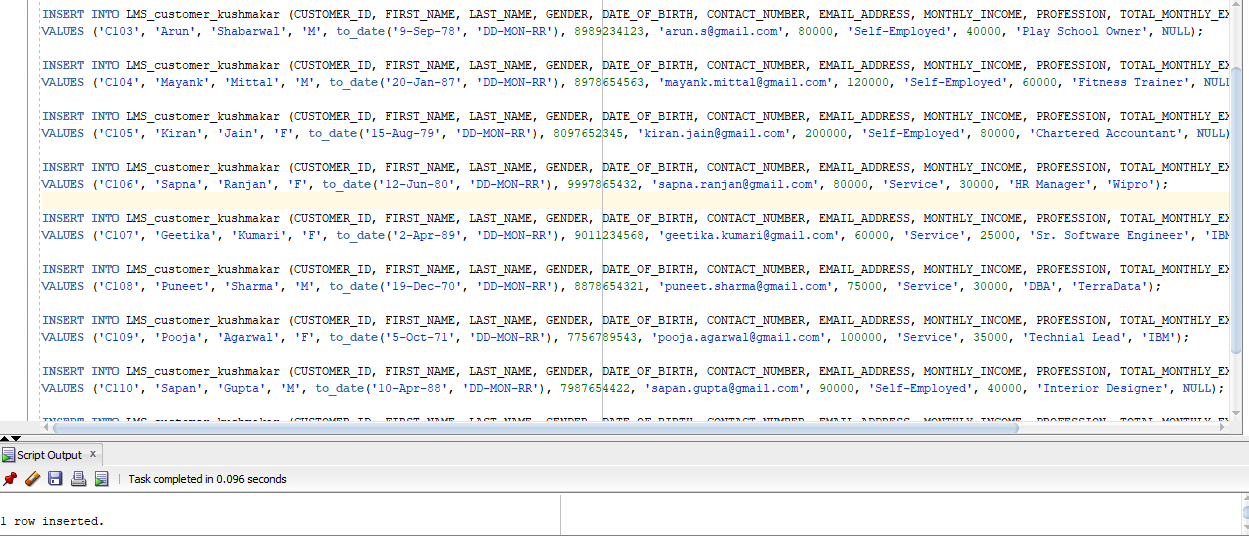
**--2. Populate the CUSTOMER table with the second row of sample data from the preceeding list. This time, list the columns explicitly in the INSERT clause**

**--3) Confirm your addition to the table.**

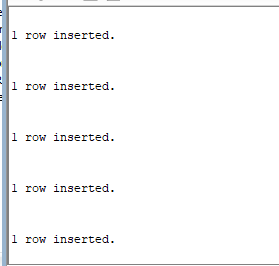
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**--4) Write an insert statement in a dynamic reusable script file named loadcust.sql to load rows into the CUSTOMER table. Save this script to a file named lab\_01\_04.sql.**

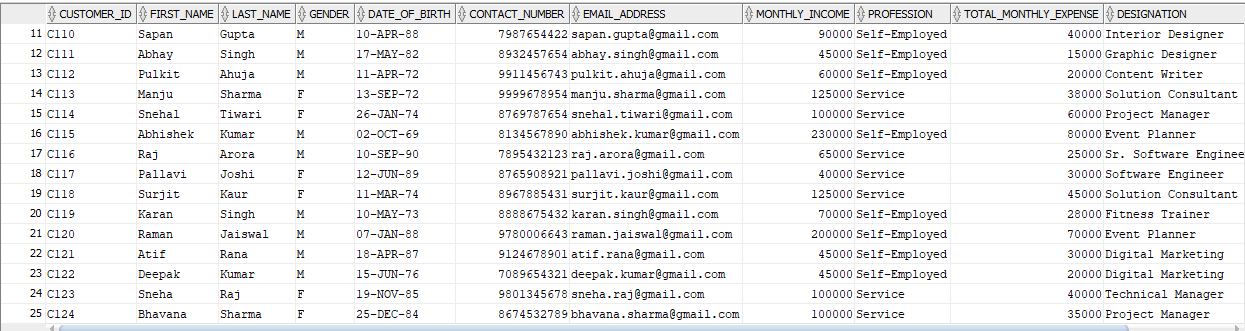
**5) Populate the table with the next 10 rows of sample data by running the insert statement in the script that you created in Step 4.**

****

**6) Populate the table with the remaining rows of sample data using the excel file.**



**7) Confirm your additions to the table.**

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**8. Make the data additions permanent.**

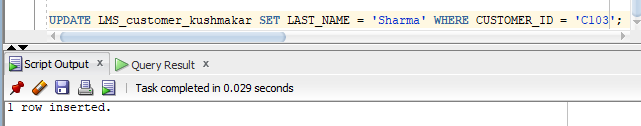
**Graphical user interface, text, application

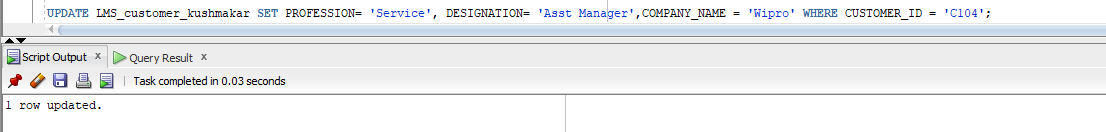
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**--9. In the same manner, insert the rows in the rest of the tables.**

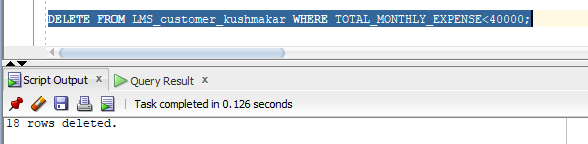
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**--10) Change the last name of the Customer 3 to ‘Sharma’.**

**11. Change the Profession, designation and Company Name of Customer 4 to ‘Service’ , ‘Asst Manager’ , ‘Wipro’ respectively. **

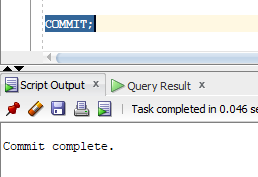
**12) Delete the customer whose monthly income is less than 40000.**

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13) Delete the Loans from LoanAgreement table whose disbursal date is before 2000.



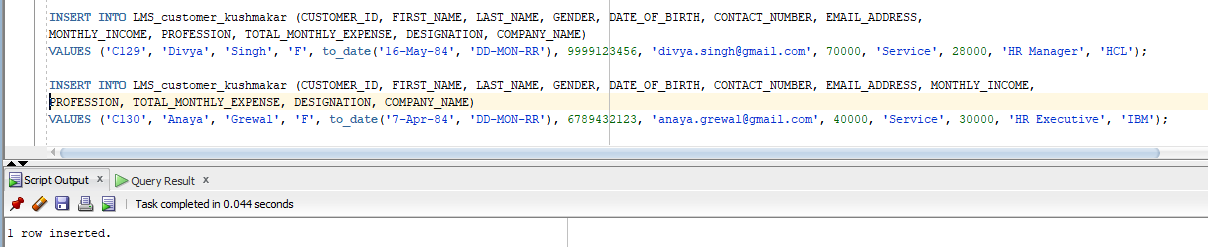
14) Commit all pending changes.



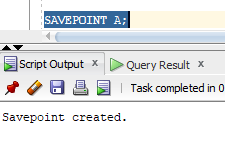
**Control Data Transactions:**

15. In the Customer table, insert two more rows from the sample data listed in Step by using the

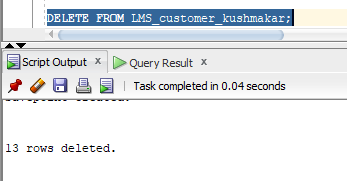
statements in the script that you created in Step. Run the statement in the script



16. Mark an intermediate point in the processing of the transaction



17. Empty the entire table



18. Confirm that the table is empty

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19. Discard the most recent DELETE without discarding the earlier INSERT operations.

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Graphical user interface, text, application

Description automatically generated20. Confirm that the new row is still intact

21. Make the data addition permanent

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