

PES UNIVERSITY

DBMS LAB

WEEK 5

SQL DML- Insert (using select) Update and delete,
Transactions commit rollback and savepoint.

Name : Suhan B Revankar

SRN : PES2UG19CS412

Section : G

Problem Statement:

1. SQL DML

5*3-15 marks

Create a temporary table that has the employee last name, project name, and hours per week for each employee working on a project. Insert the values into the table using insert into with select command.

Update the location and controlling department number of project number 10 to 'Bellaire' and 5, respectively.

Give all employees in the 'Research' department a 10% raise in salary. Delete employee record whose lname ='Brown'

Delete all the records of the employee who doesn't have dependent. (use sub query).

```
company=# create table temp
company=# ( elname Varchar(15),
company=#   ePname Varchar(15),
company=#   Hpw Decimal(3,1));
CREATE TABLE
company=# insert into temp(elname)
company=# Select Lname from Employee;
INSERT 0 8
company=# insert into temp(ePname)
company=# Select Pname from PROJECT;
INSERT 0 6
company=# insert into temp(Hpw)
company=# Select Hours from WORKS_ON;
INSERT 0 15
company=#
```

```
C:\Program Files\PostgreSQL\13\bin>psql -U postgres -f C:\Users\Swetha\OneDrive\Desktop\companyddl.sql
Password for user postgres:
DROP DATABASE
CREATE DATABASE
You are now connected to database "company" as user "postgres".
CREATE TABLE
CREATE TABLE
CREATE TABLE
CREATE TABLE
CREATE TABLE
CREATE TABLE
ALTER TABLE
C:\Program Files\PostgreSQL\13\bin>
```



```
C:\Windows\System32\cmd.exe - psql -U postgres

postgres=# \l

          List of databases
   Name   | Owner   | Encoding | Collate  | Ctype    | Access privileges
-----+-----+-----+-----+-----+-----
company   | postgres | UTF8      | English_India.1252 | English_India.1252 |
office    | postgres | UTF8      | English_India.1252 | English_India.1252 |
postgres  | postgres | UTF8      | English_India.1252 | English_India.1252 | =Tc/postgres +
           |          |           |           |           | postgres=CTc/postgres+
           |          |           |           |           | user3=c/postgres
school    | postgres | UTF8      | English_India.1252 | English_India.1252 |
template0 | postgres | UTF8      | English_India.1252 | English_India.1252 | =c/postgres +
           |          |           |           |           | postgres=CTc/postgres
template1 | postgres | UTF8      | English_India.1252 | English_India.1252 | =c/postgres +
           |          |           |           |           | postgres=CTc/postgres
user1     | postgres | UTF8      | English_India.1252 | English_India.1252 |
user2     | postgres | UTF8      | English_India.1252 | English_India.1252 |
(8 rows)

postgres=#
```

```
C:\Windows\System32\cmd.exe - psql -U postgres

c/postgres +
postgres=CTc/postgres
user1 | postgres | UTF8 | English_India.1252 | English_India.1252 |
user2 | postgres | UTF8 | English_India.1252 | English_India.1252 |
(8 rows)

postgres=# \c company
You are now connected to database "company" as user "postgres".
company=# \d

          List of relations
 Schema |      Name      | Type  | Owner
-----+-----+-----+-----
 public | department     | table | postgres
 public | dependent      | table | postgres
 public | dept_locations | table | postgres
 public | employee       | table | postgres
 public | project        | table | postgres
 public | works_on       | table | postgres
(6 rows)

company=#
```

2. Transactions

3*5 -15marks

Create a transaction using begin and end commands consisting of the following sql statements.

Create a transaction consisting of a create table and multiple insert statements. After End transaction the changes should be committed and can be checked using select statement.

For the above transaction introduce a roll back after inserting 2 records. The create and insert should not be reflected in the database.

For the first transaction introduce a save point after inserting 2 records and insert 2 more records and rollback to savepoint . They database should reflect only first 2 insert.

```
company=# Update PROJECT
company-# Set Plocation = 'Bellarie'
company-# WHERE Pnumber = 10;
UPDATE 1
company=# Update PROJECT
company-# Set Dnum = 5
company-# WHERE Pnumber = 10;
UPDATE 1
company=# Select * From PROJECT;
      pname      | pnumber | plocation | dnum
-----+-----+-----+-----
ProductX         |        1 | Bellaire  |     5
ProductY         |        2 | Sugarland |     5
ProductZ         |        3 | Houston   |     5
Reorganization   |       20 | Houston   |     1
Newbenefits      |       30 | Stafford  |     4
Computerization  |       10 | Bellarie  |     5
(6 rows)

company=#
```


C:\Windows\System32\cmd.exe - psql -U postgres

company=# Update EMPLOYEE

company-# Set Salary = Salary*1.1

company-# WHERE Dno IN (Select Dnumber

company-# From DEPARTMENT

company-# WHERE Dname = 'Research');

UPDATE 4

company=# Select * From EMPLOYEE;

fname	minit	lname	ssn	bdate	address	gender	salary	super_ssn	dno
James	E	Borg	888665555	1937-11-10	450 Stone, Houston,TX	M	55000.00		1
Alicia	J	Zelaya	999887777	1968-01-19	3321 Castle, Spring, Tx	F	25000.00	333445555	4
Jennifer	S	Wallace	987654321	1941-06-20	291 Berry, Bellaire, Tx	F	43000.00	333445555	4
Ahmed	V	Jabbar	987987987	1969-03-29	980 Dallas, Houston, TX	M	25000.00	987654321	4
John	B	Smith	123456789	1965-01-09	731 Fondren, Houston, TX	M	33000.00	888665555	5
Franklin	T	Wong	333445555	1955-12-08	638 voss, Houston, TX	M	44000.00	888665555	5
Ramesh	K	Narayan	666884444	1962-09-15	975 Fire Oak, Humble, TX	M	41800.00	333445555	5
Joyce	A	English	453453453	1972-07-31	5631 Rice, Houston, TX	F	27500.00	333445555	5

(8 rows)

company=#

company=# Delete From EMPLOYEE

company-# WHERE Lname = 'Brown';

DELETE 0

company=#

company=# ALTER Table EMPLOYEE

company-# disable trigger all;

ALTER TABLE

company=# Delete From EMPLOYEE e

company-# Where e.ssn not in (Select essn From DEPENDENT);

DELETE 5

company=# Select * From Employee;

fname	minit	lname	ssn	bdate	address	gender	salary	super_ssn	dno
Jennifer	S	Wallace	987654321	1941-06-20	291 Berry, Bellaire, Tx	F	43000.00	333445555	4
John	B	Smith	123456789	1965-01-09	731 Fondren, Houston, TX	M	33000.00	888665555	5
Franklin	T	Wong	333445555	1955-12-08	638 voss, Houston, TX	M	44000.00	888665555	5

(3 rows)

company=#

```
company=# begin;
BEGIN
company=*# Create Table Emp(name Varchar(20),Id int);
CREATE TABLE
company=*# insert into Emp Values('ABC',101),('DEF',102);
INSERT 0 2
company=*# commit;
COMMIT
company=# Select * From Emp;
 name | id
-----+-----
  ABC  | 101
  DEF  | 102
(2 rows)

company=#
```

```
C:\Windows\System32\cmd.exe - psql -U postgres
company=# begin;
BEGIN
company=*# insert into Emp Values('FGH',103),('JKL',104);
INSERT 0 2
company=*# Select * FROM Emp;
 name | id
-----+-----
  ABC  | 101
  DEF  | 102
  FGH  | 103
  JKL  | 104
(4 rows)

company=*# rollback;
ROLLBACK
company=# Select * From Emp;
 name | id
-----+-----
  ABC  | 101
  DEF  | 102
(2 rows)
```

```
C:\Windows\System32\cmd.exe - psql -U postgres
company=# begin;
BEGIN
company=*# insert into Emp Values('XYZ',105),('GHI',106);
INSERT 0 2
company=*# Savepoint s;
SAVEPOINT
company=*# insert into Emp Values('LMN',107),('IJK',108);
INSERT 0 2
company=*# Select * From Emp;
 name | id
-----+-----
 ABC  | 101
 DEF  | 102
 XYZ  | 105
 GHI  | 106
 LMN  | 107
 IJK  | 108
(6 rows)

company=*# rollback to s;
ROLLBACK
company=*# Select * From Emp;
 name | id
-----+-----
 ABC  | 101
 DEF  | 102
 XYZ  | 105
 GHI  | 106
(4 rows)

company=*#
```
