

PES UNIVERSITY, RR CAMPUS

DBMS LAB – WEEK 5

POSTGRESQL

ANANYA UPPAL

PES1UG19CS058

SECTION: A

1. Create Database and run companyddl and company_insert files to create tables for Question1.

```
postgres-# \i 'C:/Users/anany/Desktop/3rd Year College/DBMS Lab/Week5/companyddl.sql'
psql:C:/Users/anany/Desktop/3rd Year College/DBMS Lab/Week5/companyddl.sql:1: ERROR: database "company" does not exist
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
company-#
```

[illegible]

```
psql:C:\Users\anany\Desktop\3rd Year College\DBMS Lab\Week5\company_insert.sql:46: ERROR: null value in column "hours" of relation "works_on" violates not-null constraint
DETAIL: Failing row contains (888665555, 20, null).
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
ALTER TABLE
```

2. Question 1a

```
CREATE TEMP TABLE TEMP_TABLE_0058 (
    Lname VARCHAR(15) NOT NULL,
    Pname VARCHAR(15) NOT NULL,
    Hours DECIMAL(3,1) NOT NULL
);
\d TEMP_TABLE_0058;

INSERT INTO TEMP_TABLE_0058 (Lname, Pname, Hours)
SELECT E.Lname, P.Pname, W.Hours from Employee E, PROJECT P, WORKS_ON W
WHERE E.Ssn = W.Essn AND P.Pnumber = W.Pno;

SELECT * FROM TEMP_TABLE_0058;
```

company-# \i 'C:/Users/anany/Desktop/3rd Year College/DBMS Lab/Week5/week5.sql'

```
CREATE TABLE
```

Column	Type	Collation	Nullable	Default
lname	character varying(15)		not null	
pname	character varying(15)		not null	
hours	numeric(3,1)		not null	

INSERT 0 15

lname	pname	hours
Smith	ProductX	32.5
Smith	ProductY	7.5
Narayan	ProductZ	40.0
English	ProductX	20.0
English	ProductY	20.0
Wong	ProductY	10.0
Wong	ProductZ	10.0
Wong	Computerization	10.0
Wong	Reorganization	10.0
Zelaya	Newbenefits	30.0
Zelaya	Computerization	10.0
Jabbar	Computerization	35.0
Jabbar	Newbenefits	5.0
Wallace	Newbenefits	20.0
Wallace	Reorganization	15.0

(15 rows)

3. Question 1b

```
-- Before
SELECT * FROM Project WHERE Pnumber=10;

UPDATE PROJECT SET Plocation='Bellaire', Dnum=5 WHERE Pnumber=10;

-- After
SELECT * FROM Project WHERE Pnumber=10;
```

pname	pnumber	plocation	dnum
Computerization	10	Stafford	4

(1 row)

UPDATE 1

pname	pnumber	plocation	dnum
Computerization	10	Bellaire	5

(1 row)

4. Question 1c

```

SELECT *
FROM Employee, Department
WHERE Employee.Dno = Department.Dnumber AND Department.Dname = 'Research';

UPDATE Employee
SET Salary = Salary + (0.10 * Employee.Salary)
FROM Department
WHERE Dno = Department.Dnumber AND Department.Dname='Research';

SELECT *
FROM Employee, Department
WHERE Employee.Dno = Department.Dnumber AND Department.Dname = 'Research';

```

fname	minit	lname	ssn	bdate	address	gender	salary	super_ssn	dno	dname	dnumber	mgr_ssn	mgr_start_date
John	B	Smith	123456789	1965-01-09	731 Fondren,Houston,TX	M	30000.00	888665555	5	Research	5	333445555	1988-05-22
Franklin	T	Wong	333445555	1955-12-08	638 voss,Houston,TX	M	40000.00	888665555	5	Research	5	333445555	1988-05-22
Ramesh	K	Narayan	666884444	1962-09-15	975 Fire Oak, Humble, TX	M	38000.00	333445555	5	Research	5	333445555	1988-05-22
Joyce	A	English	453453453	1972-07-31	5631 Rice,Houston,TX	F	25000.00	333445555	5	Research	5	333445555	1988-05-22

(4 rows)

UPDATE 4

fname	minit	lname	ssn	bdate	address	gender	salary	super_ssn	dno	dname	dnumber	mgr_ssn	mgr_start_date
John	B	Smith	123456789	1965-01-09	731 Fondren,Houston,TX	M	33000.00	888665555	5	Research	5	333445555	1988-05-22
Franklin	T	Wong	333445555	1955-12-08	638 voss,Houston,TX	M	44000.00	888665555	5	Research	5	333445555	1988-05-22
Ramesh	K	Narayan	666884444	1962-09-15	975 Fire Oak, Humble, TX	M	41800.00	333445555	5	Research	5	333445555	1988-05-22
Joyce	A	English	453453453	1972-07-31	5631 Rice,Houston,TX	F	27500.00	333445555	5	Research	5	333445555	1988-05-22

(4 rows)

5. Question 1d

```

SELECT *
FROM Employee
WHERE Lname='Brown';

DELETE FROM Employee
WHERE Lname='Brown';

SELECT *
FROM Employee
WHERE Lname='Brown';

```

```

  fname | minit | lname | ssn | bdate | address | gender | salary | super_ssn | dno
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----
(0 rows)

DELETE 0
  fname | minit | lname | ssn | bdate | address | gender | salary | super_ssn | dno
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----
(0 rows)

```

6. Question 1e

```

ALTER TABLE employee DROP CONSTRAINT employee_super_ssn_fkey;
ALTER TABLE department DROP CONSTRAINT department_mgr_ssn_fkey;
ALTER TABLE works_on DROP CONSTRAINT works_on_essn_fkey;
DELETE FROM Employee WHERE Ssn NOT IN ( SELECT D.Essn FROM Dependent D);
SELECT * FROM Employee;

```

```

ALTER TABLE
ALTER TABLE
ALTER TABLE
DELETE 5
  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)

```

7. Question 2a

```

BEGIN;
  CREATE TABLE TBNAME_0058 (
    A INT,
    B INT
  );

  INSERT INTO TBNAME_0058(A, B) VALUES(1, 2),(3,4);
  INSERT INTO TBNAME_0058(A, B) VALUES(5, 6);
END TRANSACTION;

\d TBNAME_0058;
SELECT * FROM TBNAME_0058;

```

```

BEGIN
CREATE TABLE
INSERT 0 2
INSERT 0 1
COMMIT

```

Column	Type	Collation	Nullable	Default
a	integer			
b	integer			

a	b
1	2
3	4
5	6

(3 rows)

8. Question 2b

```

BEGIN;
CREATE TABLE TBNAME1_0058(
    A INT,
    B INT
);

INSERT INTO TBNAME1_0058(A, B) VALUES(7, 8);
INSERT INTO TBNAME1_0058(A, B) VALUES(9, 10);

\d TBNAME1_0058;

SELECT * FROM TBNAME1_0058;
ROLLBACK;

\d TBNAME1_0058;

```

```

BEGIN
CREATE TABLE
INSERT 0 1
INSERT 0 1

```

Column	Type	Collation	Nullable	Default
a	integer			
b	integer			

a	b
7	8
9	10

(2 rows)


```

ROLLBACK
psql:C:/Users/anany/Desktop/3rd Year College/DBMS Lab/Week5/week5.sql:95: error: Did not find any relation named "TBNAME1_0058".

```

9. Question 2c

```
BEGIN;
  CREATE TABLE TBNAME2_0058(
    A INT,
    B INT
  );

  INSERT INTO TBNAME2_0058(A, B) VALUES(9, 10);
  INSERT INTO TBNAME2_0058(A, B) VALUES(11, 12);

  SAVEPOINT HELLO;

  INSERT INTO TBNAME2_0058(A, B) VALUES(13, 14);
  INSERT INTO TBNAME2_0058(A, B) VALUES(15, 16);

  \d TBNAME2_0058;
  SELECT * FROM TBNAME2_0058;

  ROLLBACK TO HELLO;
END TRANSACTION;

SELECT * FROM TBNAME2_0058;
```

```
BEGIN
CREATE TABLE
INSERT 0 1
INSERT 0 1
SAVEPOINT
INSERT 0 1
INSERT 0 1
Table "public.tbname2_0058"
 Column | Type   | Collation | Nullable | Default
-----+-----+-----+-----+-----
 a      | integer |           |          |
 b      | integer |           |          |

 a | b
---+---
 9 | 10
11 | 12
13 | 14
15 | 16
(4 rows)

ROLLBACK
COMMIT
 a | b
---+---
 9 | 10
11 | 12
(2 rows)
```