This is my 3rd phase of project, my project is hospital management system. I have all together 13 tables. I have taken snapshot of all the table I have created and inserted the 3 data entities in each table.

```
pramod.kc=> \d
              List of relations
 Schema |     Name     | Type  |    Owner
--------+--------------+-------+-------------
 public | doctor       | table | pramod.kc
 public | employee     | table | pramod.kc
 public | guide        | table | pramod.kc
 public | medicine     | table | pramod.kc
 public | nurse        | table | pramod.kc
 public | patient      | table | pramod.kc
 public | pays_for     | table | pramod.kc
 public | receptnist   | table | pramod.kc
 public | record       | table | pramod.kc
 public | room         | table | pramod.kc
 public | room_class   | table | pramod.kc
 public | take_care    | table | pramod.kc
 public | treatment    | table | pramod.kc
(13 rows)
```

```
pramod.kc=> select * from doctor;
  intern   |    guest     | parmanent | id_number
-----------+--------------+-----------+-----------
 Dr.Raffel |              |           |  E7
           | DR.Jenesse   |           |  E21
           |              | DR.KC     |  EF41
(3 rows)

pramod.kc=> select * from guide;
  id   | room_number
-------+-------------
 2345  | N1
 2346  | N2
 2307  | N3
(3 rows)

pramod.kc=> select * from medicine;
    name      | time_to_take |  type
--------------+--------------+---------
 Paravitamin  | 9 am         | Energy
 Gulcose      | 12 pm        | Energy
 Paracetamol  | 8 pm         | fever
(3 rows)
```

```
pramod.kc=> select *from  nurse;
 intern | guest | parmanent | id_number
--------+-------+-----------+-----------
 ronny  |       |           |  N1
        | Bunny |           | N2
        |       | Honney    | N3
(3 rows)

pramod.kc=> Select * from patient;
        name         | patient_id_number |    address     | phone_number |    sex     | admitted_date | discharged_date | age
---------------------+-------------------+----------------+--------------+------------+---------------+-----------------+-----
 Janny               | p3                | NYC Joe        |    879564356 | male       | Feb 3         | Feb 26          |  21
 Rabi                | p1                | NYC Jonsebor   |    879544356 | male       | Jan 3         | Jan 26          |  29
 James               | p21               | NYC Wallstreet |    879504356 | male       | Jan 31        | Feb 30          |  79
(3 rows)

pramod.kc=> Select * from pays-for;
ERROR:  syntax error at or near "-"
LINE 1: Select * from pays-for;
                         ^
pramod.kc=> Select * from pays_for;
    name     | patient_id_number
-------------+-------------------
 Paravitamin | p1
 Gulcose     | p2
 Paracetamol | p3
(3 rows)
```

```
pramod.kc=> select * from record;
 record_no |                  appointment_with
-----------+-----------------------------------------------------
 E7        | DR.Raffel
 E8        | DR.Janesses
 E9        | DR.KC
(3 rows)

pramod.kc=> select * from room;
 room_number
-------------
 9756
 9654
 9346
(3 rows)

pramod.kc=> select * from room_class;
 general | first_class | second_class | room_number
---------+-------------+--------------+-------------
(0 rows)
```

```
pramod.kc=> select * from take_care;
 record_no | id_number
-----------+-----------
 E7        | E21
 E8        | E7
 E9        | EF41
(3 rows)

pramod.kc=> Select * from treatment;
 id_number | patient_id_number
-----------+-------------------
 E7        | p1
 E21       | p3
 EF41      | p2
(3 rows)
```

1.Find all the Employees' names.


```
pramod.kc=> select * from employee;
        name         | id_number |       address        |    sex     | office_hours | specialization_field | salary  | phone_number
---------------------+-----------+----------------------+------------+--------------+----------------------+---------+--------------
 Peter               | 56784     | d Street             |  Male      |            9 |  Cardeologist        |   40000 |      8704237
 Rambo               | 56794     | ad Street            |  Male      |           10 | Phesotheraphist      | 5000000 |      1704237
 Adil                | 16794     | ADCD Street          |  Female    |           10 | Phesotheraphist      |  500000 |      2704237
 Dr.KC               | EF41      | Walking loads Street |  Male      |            3 | Dentist              |  700000 |      4704237
 Dr.Raffel           | E7        | Walking Street       |  Female    |           10 | Physothirapist       |  800000 |      5704237
 Dr.Jenesse          | E21       | Walking dead Street  |  Male      |            5 | Cardiologist         |  600000 |      3704237
(6 rows)

pramod.kc=>
```

2.Find salary of peter.

```
pramod.kc=> select salary from employee where name = 'Peter';
 salary
--------
  40000
(1 row)
```

3. Find all the Employee who are dentist.

```
pramod.kc=> select name from employee where specialization_field = 'Dentist';
        name
----------------------
 Dr.KC
(1 row)

pramod.kc=>
```

4. Find the employee who lives in d street.

```
pramod.kc=> select name from employee where address = 'd Street';
        name
----------------------
 Peter
(1 row)

pramod.kc=>
```

5. **Find all the Employee who are Phesotheraphist**

```
pramod.kc=> select name from employee where specialization_field = 'Phesotheraphist';
        name
---------------------
Rambo
Adil
(2 rows)

pramod.kc=>
```

6. **6.Find all the Employee whose office hours is less than 10. 6.Find all the Employee whose**

office hours is less than 10.

```
pramod.kc=> select name from employee where office_hours < 10;
         name
----------------------
 Peter
 Dr.KC
 Dr.Jenesse
(3 rows)

pramod.kc=>
```

7. Find all the Employee whose salary is less than 100000.

```
pramod.kc=> select name from employee where salary < 100000;
         name
----------------------
 Peter
(1 row)
```

8. **Find the Employee whose id is EF41 and is Dentist.**

```
pramod.kc=> select name from employee where id_number = 'EF41'and specialization_field = 'Dentist';
         name
----------------------
 Dr.KC
(1 row)

pramod.kc=>
```

9. Find the Employee whose salary is above 50,000 and office hour is greater than 3.

```
pramod.kc=> select name from employee where salary > 500000 and office_hours > 3;
        name
---------------------
 Rambo
 Dr.Raffel
 Dr.Jenesse
(3 rows)

pramod.kc=>
```

10. Find the addresses, and names for those who are dentist.

```
pramod.kc=> select name, address from employee where specialization_field = 'Dentist';
        name         |       address
---------------------+---------------------
 Dr.KC               | Walking loads Street
(1 row)
```

11.Find the address of the doctor who gives treatment to the patient_id_number p1

```
pramod.kc=> select address from treatment, employee where patient_id_number = 'p1' and treatment.id_number = employee.id_number;
   address
--------------
 Walking Street
(1 row)

pramod.kc=>
```

.

12. Find the office_hour of the doctor who gives treatment to the patient_id_number

p2.

```
pramod.kc=> select office_hours from treatment, employee where patient_id_number = 'p2' and treatment.id_number = employee.id_number;
 office_hours
--------------
            3
(1 row)
```

13.Find the name,office hour of the doctor who gives treatment to the patient_id_number p3.

```
pramod.kc=> select office_hours,name from employee,treatment where patient_id_number = 'p3' and treatment.id_number = employee.id_number;
 office_hours |        name
--------------+--------------------
            5 | Dr.Jenesse
(1 row)
```

14.Find the name, office hour and Specialization of the doctor who gives treatment to the patient_id_number p2 who is the patient of cardio. Is the doctor chosen for this operation is good to take treatment?

```
pramod.kc=> select office_hours,name,specialization_field from employee,treatment where patient_id_number = 'p2' and treatment.id_number = employee.id_number;
 office_hours |       name       | specialization_field
--------------+------------------+----------------------
            3 | Dr.KC            | Dentist
(1 row)
```

No the doctor is not good to do operation since he is dentist and the patient is having problem about cardio.

15. Find Name and address of those employee, whose salary is more than the average salary with the help of subquery ALL.

```
pramod.kc=> Select name, address from employee where salary >= ALL (select avg(salary) from employee);
        name         |  address
---------------------+-----------
 Rambo               | ad Street
(1 row)
```

16 Select name of the employee who are not guide with the use of NOT EXISTS subquery.

```
pramod.kc=> Select name from employee where not EXISTS ( select id from guide where id = id_number);
        name
--------------------
 Peter
 Rambo
 Adil
 Dr.KC
 Dr.Raffel
 Dr.Jenesse
(6 rows)

pramod.kc=>
```

17.Select all the employee data except for those employees who have minimum salary?

```
pramod.kc=> SELECT * from employee where salary > any (select salary from employee);
       name        | id_number |      address       |   sex    | office_hours | specialization_field | salary  | phone_number
-------------------+-----------+--------------------+----------+--------------+----------------------+---------+-------------
 Rambo             | 56794     | ad Street          | Male     |           10 | Phesotheraphist      | 5000000 |     1704237
 Adil              | 16794     | ADCD Street        | Female   |           10 | Phesotheraphist      |  500000 |     2704237
 Dr.KC             | EF41      | Walking loads Street | Male     |            3 | Dentist              |  700000 |     4704237
 Dr.Raffel         | E7        | Walking Street     | Female   |           10 | Physothirapist       |  800000 |     5704237
 Dr.Jenesse        | E21       | Walking dead Street | Male     |            5 | Cardiologist         |  600000 |     3704237
(5 rows)
```

18. Find ID , office_hours and Salary of those employee who are involved in treatments with the help of IN subquery.

```
pramod.kc=> Select name, office_hours, Salary from employee where id_number IN(Select treatment.id_number from treatment where employee.id_number=treatment.id_number);
       name        | office_hours | salary
-------------------+--------------+--------
 Dr.KC             |            3 | 700000
 Dr.Raffel         |           10 | 800000
 Dr.Jenesse        |            5 | 600000
(3 rows)

pramod.kc=>
```

19. Find the name of the medicines which are EXISTS in pays for with the use of EXIST subquery.

```
pramod.kc=> Select medicine.name from medicine where exists (select name from pays_for where pays_for.name = medicine.name);
    name
------------
 Paravitamin
 Gulcose
 Paracetamol
(3 rows)

pramod.kc=>
```

20.Find hospital rooms which are not used in guiding purpose with the help of NOT IN subquery.

```
pramod.kc=> Select id from guide where ID not IN(select room_number from room where room.room_number =guide.room_number);
  id
------
 2345
 2346
 2307
(3 rows)

pramod.kc=>
```

21.Find all the IDS of the employees (with reputation allows) who are also taking care of patients with the help of UNION ALL Subquery.

```
pramod.kc=> Select id_number from employee UNION all select id_number from take_care;
 id_number
-----------
 56784
 56794
 16794
 EF41
 E7
 E21
 E21
 E7
 EF41
(9 rows)
```

22. Find the id of the Employees that are not taking care of patients with the help of EXCEPT sub Query.

```
pramod.kc=> Select id_number from employee except select id_number from take_care;
 id_number
-----------
 16794
 56794
 56784
(3 rows)
```

23. Find the common ids which are in Employee as well as taking care of person

list.

```
pramod.kc=> Select id_number from employee intersect select id_number from take_care;
 id_number
-----------
 E7
 E21
 EF41
(3 rows)

pramod.kc=>
```

24, Select all medicines names which are in medicines as well as in pays for with the use of UNION (without repetition of medicine name)

```
pramod.kc=> select name from pays_for UNION select name from medicine;
    name
-------------
 Paravitamin
 Paracetamol
 Gulcose
(3 rows)

pramod.kc=>
```

25. Find name of the all medicines since which are in medicines but not in pays for with the help of EXCEPT subquery.

```
pramod.kc=> select name from pays_for except select name from medicine;
 name
------
(0 rows)

pramod.kc=>
```

Using CROSS JOIN, NATURAL JOIN, THETA JOIN (INNER JOIN)

26.Find the name and the record number of the employee using Inner Join.

ANSWER:

```
SELECT Employee.Name, Take_care.Record_No, Employee.Address
FROM Employee
Inner Join Take care
ON Employee.Id_Number = Take_care.Id_Number;
```

```
pramod.kc=> select * from take_care;
 record_no | id_number
-----------+-----------
 E7        | E21
 E8        | E7
 E9        | EF41
(3 rows)

pramod.kc=> select * from employee;
        name         | id_number |       address        |    sex     | office_hours | specialization_field | salary  | phone_number
---------------------+-----------+----------------------+------------+--------------+----------------------+---------+--------------
 Peter               | 56784     | d Street             |  Male      |            9 |  Cardeologist        |   40000 |      8704237
 Rambo               | 56794     | ad Street            |  Male      |           10 | Phesotheraphist      | 5000000 |      1704237
 Adil                | 16794     | ADCD Street          |  Female    |           10 | Phesotheraphist      |  500000 |      2704237
 Dr.KC               | EF41      | Walking loads Street |  Male      |            3 | Dentist              |  700000 |      4704237
 Dr.Raffel           | E7        | Walking Street       |  Female    |           10 | Physothirapist       |  800000 |      5704237
 Dr.Jenesse          | E21       | Walking dead Street  |  Male      |            5 | Cardiologist         |  600000 |      3704237
(6 rows)

pramod.kc=> select employee.name, take_care.record_no,employee.address
from employee
Inner join take_care
ON employee.id_number = take_care.id_number;
        name         | record_no |       address
---------------------+-----------+----------------------
 Dr.Jenesse          | E7        | Walking dead Street
 Dr.Raffel           | E8        | Walking Street
 Dr.KC               | E9        | Walking loads Street
(3 rows)
```

27. Find the name,record_no,address, and the specialization_field of the doctors using Inner Join.

ANSWER:

```
SELECT Employee.Name, Take_care.Record_No,
Employee.Address,Employee.specialization_field
FROM Employee
Inner Join Take care
ON Employee.Id_Number = Take_care.Id_Number;
```

```
pramod.kc=> select employee.name, take_care.record_no,employee.address,employee.specialization_field
from employee
Inner join take_care
ON employee.id_number = take_care.id_number;
        name         | record_no |       address        | specialization_field
---------------------+-----------+----------------------+----------------------
 Dr.Jenesse          | E7        | Walking dead Street  | Cardiologist
 Dr.Raffel           | E8        | Walking Street       | Physothirapist
 Dr.KC               | E9        | Walking loads Street | Dentist
(3 rows)
```

28. Find the patient_ID_Number who is treated by the doctor with certain using Inner Join.

ANSWER:

```
SELECT Treatment.Patient_ID_Number,Patient.Name
FROM Patient
Inner Join Treatment
ON Treatment.patient_Id_Nuumber = Patient.patient_ID_Number;
```

```
pramod.kc=> select treatment.patient_id_number,patient.name
from patient
Inner join treatment
ON treatment.patient_id_number = patient.patient_id_number;
 patient_id_number |         name
-------------------+----------------------
 p1                | Rabi
 p3                | Janny
(2 rows)

pramod.kc=>
```

29. Find the patient Discharge date who was assign to take the certain medicine using Inner Join.

ANSWER:

```
SELECT Patient.patient_ID_Number, pays_for.Name,
Patient.Dischargedd_date
FROM Patient
INNER JOIN Pays_for
ON Pays_for.Patient_ID_Number = Patient.patient_ID_Nmber;
```

```
pramod.kc=> select patient.patient_id_number,pays_for.name, patient.discharged_date
from patient
Inner join pays_for
On pays_for.patient_id_number = patient.patient_id_number;
 patient_id_number |    name     | discharged_date
-------------------+-------------+-----------------
 p1                | Paravitamin | Jan 26
 p3                | Paracetamol | Feb 26
(2 rows)

pramod.kc=>
```

30. Find the age, name and id number of patient who is treated by the doctor with certain doctor Id number using Inner Join.

ANSWER:

```
SELECT
patient.name,patient.patient_ID_Number,patient.age,treatment.id_Number
FROM Patient
INNER JOIN Treatment
ON Treatment.patient_ID_Number = Patient.patient_id_Number
```

```
pramod.kc=> select patient.name, patient.patient_id_number,patient.age,treatment.id_Number
from patient
Inner join treatment
On treatment.patient_id_number = patient.patient_id_number;
        name         | patient_id_number | age | id_number
---------------------+-------------------+-----+-----------
 Rabi                | p1                |  29 | E7
 Janny               | p3                |  21 | E21
(2 rows)
```

Se

31. List all the doctor who are employee using upper Join.

Answer:

SELECT Employee.Name, Doctor.Id_Number
FROM Employee
LEFT JOIN Doctor
ON Employee.ID_Number = Doctor.ID_Number
Order BY Employee.ID_Number;

```
pramod.kc=> SELECT Employee.name,Doctor.id_number
FROM Employee
LEFT Join Doctor
ON Employee.id_number = Doctor.id_number
Order BY Employee.id_number;
        name         | id_number
---------------------+-----------
 Adil                |
 Peter               |
 Rambo               |
 Dr.Jenesse          |
 Dr.Raffel           |
 Dr.KC               |
(6 rows)

pramod.kc=>
```

32. Find the name of the patient and the name of the medicine they are taking using right join.

ANSWER:

SELECT pays_for.name,patient.name

FROM pays_for
RIGHT JOIN patient
ON Pays_For.patient_Id_Number = Patient.patient_ID_Number
Order by patient.name;

```
pramod.kc=> Select pays_for.name,patient.name
FROM Pays_for
RIGHT Join patient
ON pays_for.patient_id_number = patient.patient_id_Number
Order by patient.name;
    name     |          name
-------------+-----------------------
             | James
 Paracetamol | Janny
 Paravitamin | Rabi
(3 rows)

pramod.kc=>
```

33. SELECT all Doctor and all patients who has taken treatments from the doctors using Outer Join.

ANSWER:

SELECT Doctor.parmanent,Treatment.Patient_ID_Number
FROM Doctor
FULL OUTER JOIN Treatment
ON Doctor.Id_Number = Treatment.id_Number
ORDER BY Doctor.parmanent;

```
pramod.kc=> SELECT doctor.parmanent, treatment.patient_id_number
FROM doctor
Full Outer Join treatment
On doctor.id_number = treatment.id_number
Order By doctor.parmanent;
 parmanent | patient_id_number
-----------+-------------------
           |
           |
 DR.KC     |
           | p1
           | p3
           | p2
(6 rows)

pramod.kc=>
```

34. Find the id_number and the Recod_number using Outer Join.

ANSWER:

SELECT Take_Care.Id_Number,Record_No
FROM Take_Care
Full Outer Join Record
On Take_Care.Record_No = Record.Record_No;

```
pramod.kc=> SELECT take_care.id_number, record.record_no
pramod.kc-> FROM take_care
pramod.kc-> FULL Outer Join Record
pramod.kc-> On take_care.record_no = record.Record_no
pramod.kc-> ;
 id_number | record_no
-----------+-----------
 E21       | E7
 E7        | E8
 EF41      | E9
(3 rows)

pramod.kc=>
```

35. Find the maximum salary by the each sex using having, group by and aggregate function.

ANSWER:

SELECT Sex, MAX (Salary)
FROM Employee
Group By Sex MAX(office_hours) = 10;

```
pramod.kc=> SELECT Sex, max (Salary)
FROM Employee
Group By Sex having max(office_hours) =  10;
    sex     |   max
------------+---------
  Female    |  800000
  Male      | 5000000
(2 rows)
```

36. Find the MIN salary and the Sex whose office hours is equal to 10.

Answer:

SELECT Sex, MIN (Salary)
FROM Employee
Group by Sex
Having MIN(Office Hours) = 10;

```
pramod.kc=> SELECT Sex, min (Salary)
FROM Employee
Group By Sex having min(office_hours) =  10;
    sex      |   min
-------------+--------
  Female     | 500000
(1 row)
```

37. Grouping by SEX, Find the total working hours of all male and female along with their total sum of salary.

ANSWER:

SELECT SEX , SUM(Office_Hours) AS perday, SUM(Salary) AS Total_Gender_salary
FROM Employee
GROUP BY Sex having MIN(Office_Hours) >1;

```
pramod.kc=> SELECT Sex,sum(office_hours) as  perDay, SUM (Salary) as Total_Gender_salary
FROM Employee
Group By Sex having min(office_hours) > 1;
    sex     | perday | total_gender_salary
------------+--------+---------------------
  Female    |     20 |             1300000
  Male      |     27 |             6340000
(2 rows)

pramod.kc=>
```

38. Find the average salary of the sex who has minimum working hours equal to 10.

ANSWER:

```
SELECT SEX, AVG(Salary)
FROM Employee
GROUP BY Sex having MIN(Office_Hours) = 10;
```

```
pramod.kc=> SELECT Sex, AVG (Salary)
FROM Employee
Group By Sex having min(office_hours) =  10;
    sex      |          avg
-------------+-----------------------
  Female     | 650000.000000000000
(1 row)

pramod.kc=>
```

39. Find the Number of employee group by sex having Minimum office hours equal to 10

ANSWER:

```
SELECT Sex, Count(Salary)
FROM Employee
Group By Sex having MIN(Office_Hours) =10;
```

```
pramod.kc=> SELECT Sex, Count (Salary)
FROM Employee
Group By Sex having min(office_hours) =  10;
    sex      | count
-------------+-------
  Female     |     2
(1 row)

pramod.kc=>
```

40. Insert a value into the table Employee.

Answer:

Insert Into
Employee(name,id_number,address,Sex,office_hours,specialization_field,Salary,Phone_number)

Values('Randy','54328','DangoRando Street','male','17','physicyan','10000000','8702106');

```
pramod.kc=> Select * from Employee;
        name         | id_number |       address        |    sex     | office_hours | specialization_field | salary  | phone_number
---------------------+-----------+----------------------+------------+--------------+----------------------+---------+--------------
 Peter               | 56784     | d Street             |  Male      |            9 |  Cardeologist        |   40000 |      8704237
 Rambo               | 56794     | ad Street            |  Male      |           10 | Phesotheraphist      | 5000000 |      1704237
 Adil                | 16794     | ADCD Street          |  Female    |           10 | Phesotheraphist      |  500000 |      2704237
 Dr.KC               | EF41      | Walking loads Street |  Male      |            3 | Dentist              |  700000 |      4704237
 Dr.Raffel           | E7        | Walking Street       |  Female    |           10 | Physothirapist       |  800000 |      5704237
 Dr.Jenesse          | E21       | Walking dead Street  |  Male      |            5 | Cardiologist         |  600000 |      3704237
(6 rows)
```

```
pramod.kc=> Insert Into Employee(name,id_number,address,sex,office_hours,specialization_field,salary,phone_number)
Values('Randy','54328','DangoRando Street','male','17','Physicyan','100000000','8702106');
INSERT 0 1
```

```
pramod.kc=> select * from Employee;
        name         | id_number |       address        |    sex     | office_hours | specialization_field |  salary   | phone_number
---------------------+-----------+----------------------+------------+--------------+----------------------+-----------+--------------
 Peter               | 56784     | d Street             |  Male      |            9 |  Cardeologist        |     40000 |      8704237
 Rambo               | 56794     | ad Street            |  Male      |           10 | Phesotheraphist      |   5000000 |      1704237
 Adil                | 16794     | ADCD Street          |  Female    |           10 | Phesotheraphist      |    500000 |      2704237
 Dr.KC               | EF41      | Walking loads Street |  Male      |            3 | Dentist              |    700000 |      4704237
 Dr.Raffel           | E7        | Walking Street       |  Female    |           10 | Physothirapist       |    800000 |      5704237
 Dr.Jenesse          | E21       | Walking dead Street  |  Male      |            5 | Cardiologist         |    600000 |      3704237
 Randy               | 54328     | DangoRando Street    | male       |           17 | Physicyan            | 100000000 |      8702106
(7 rows)

pramod.kc=>
```

41.Insert into a table from subquery

```
pramod.kc=> select * from treatment;
 id_number | patient_id_number
-----------+-------------------
 E7        | p1
 E21       | p3
 EF41      | p2
(3 rows)

pramod.kc=> select * from patient;
        name         | patient_id_number |    address     | phone_number |    sex     | admitted_date | discharged_date | age
---------------------+-------------------+----------------+--------------+------------+---------------+-----------------+-----
 Janny               | p3                | NYC Joe        |    879564356 | male       | Feb 3         | Feb 26          |  21
 Rabi                | p1                | NYC Jonsebor   |    879544356 | male       | Jan 3         | Jan 26          |  29
 James               | p21               | NYC Wallstreet |    879504356 | male       | Jan 31        | Feb 30          |  79
(3 rows)

pramod.kc=> insert into treatment(id_number, patient_id_number)
pramod.kc-> VALUES('E18',(SELECT patient_id_number FROM patient WHERE name = 'Janny'));
INSERT 0 1
pramod.kc=> select * from treatment;
 id_number | patient_id_number
-----------+-------------------
 E7        | p1
 E21       | p3
 EF41      | p2
 E18       | p3
(4 rows)

pramod.kc=>
```

42. DELETE PRAMOD

```
pramod.kc=> select * from employee;
        name         | id_number |       address        |    sex     | office_hours | specialization_field |  salary   | phone_number
---------------------+-----------+----------------------+------------+--------------+----------------------+-----------+--------------
 Peter               | 56784     | d Street             |  Male      |            9 |  Cardeologist        |     40000 |      8704237
 Rambo               | 56794     | ad Street            |  Male      |           10 | Phesotheraphist      |   5000000 |      1704237
 Adil                | 16794     | ADCD Street          |  Female    |           10 | Phesotheraphist      |    500000 |      2704237
 Dr.KC               | EF41      | Walking loads Street |  Male      |            3 | Dentist              |    700000 |      4704237
 Dr.Raffel           | E7        | Walking Street       |  Female    |           10 | Physothirapist       |    800000 |      5704237
 Dr.Jenesse          | E21       | Walking dead Street  |  Male      |            5 | Cardiologist         |    600000 |      3704237
 Randy               | 54328     | DangoRando Street    | male       |           17 | Physicyan            | 100000000 |      8702106
(7 rows)

pramod.kc=> DELETE FROM Employee
pramod.kc-> WHERE id_number = 'EF41';
DELETE 1
pramod.kc=> select * from employee;
        name         | id_number |       address        |    sex     | office_hours | specialization_field |  salary   | phone_number
---------------------+-----------+----------------------+------------+--------------+----------------------+-----------+--------------
 Peter               | 56784     | d Street             |  Male      |            9 |  Cardeologist        |     40000 |      8704237
 Rambo               | 56794     | ad Street            |  Male      |           10 | Phesotheraphist      |   5000000 |      1704237
 Adil                | 16794     | ADCD Street          |  Female    |           10 | Phesotheraphist      |    500000 |      2704237
 Dr.Raffel           | E7        | Walking Street       |  Female    |           10 | Physothirapist       |    800000 |      5704237
 Dr.Jenesse          | E21       | Walking dead Street  |  Male      |            5 | Cardiologist         |    600000 |      3704237
 Randy               | 54328     | DangoRando Street    | male       |           17 | Physicyan            | 100000000 |      8702106
(6 rows)

pramod.kc=>
```

43. DELETE

```
pramod.kc=> select * from employee;
        name         | id_number |       address       |    sex     | office_hours | specialization_field |  salary   | phone_number
---------------------+-----------+---------------------+------------+--------------+----------------------+-----------+--------------
 Peter               | 56784     | d Street            |  Male      |            9 |  Cardeologist        |     40000 |      8704237
 Rambo               | 56794     | ad Street           |  Male      |           10 | Phesotheraphist      |   5000000 |      1704237
 Adil                | 16794     | ADCD Street         |  Female    |           10 | Phesotheraphist      |    500000 |      2704237
 Dr.Raffel           | E7        | Walking Street      |  Female    |           10 | Physothirapist       |    800000 |      5704237
 Dr.Jenesse          | E21       | Walking dead Street |  Male      |            5 | Cardiologist         |    600000 |      3704237
 Randy               | 54328     | DangoRando Street   | male       |           17 | Physicyan            | 100000000 |      8702106
(6 rows)

pramod.kc=> DELETE FROM Employee
WHERE Address = 'd Street';
DELETE 1
pramod.kc=> select * from employee;
        name         | id_number |       address       |    sex     | office_hours | specialization_field |  salary   | phone_number
---------------------+-----------+---------------------+------------+--------------+----------------------+-----------+--------------
 Rambo               | 56794     | ad Street           |  Male      |           10 | Phesotheraphist      |   5000000 |      1704237
 Adil                | 16794     | ADCD Street         |  Female    |           10 | Phesotheraphist      |    500000 |      2704237
 Dr.Raffel           | E7        | Walking Street      |  Female    |           10 | Physothirapist       |    800000 |      5704237
 Dr.Jenesse          | E21       | Walking dead Street |  Male      |            5 | Cardiologist         |    600000 |      3704237
 Randy               | 54328     | DangoRando Street   | male       |           17 | Physicyan            | 100000000 |      8702106
(5 rows)
```

44. UPDATE1

```
pramod.kc=> select * from employee;
        name         | id_number |       address       |    sex     | office_hours | specialization_field |  salary   | phone_number
---------------------+-----------+---------------------+------------+--------------+----------------------+-----------+--------------
 Rambo               | 56794     | ad Street           |  Male      |           10 | Phesotheraphist      |   5000000 |      1704237
 Adil                | 16794     | ADCD Street         |  Female    |           10 | Phesotheraphist      |    500000 |      2704237
 Dr.Raffel           | E7        | Walking Street      |  Female    |           10 | Physothirapist       |    800000 |      5704237
 Dr.Jenesse          | E21       | Walking dead Street |  Male      |            5 | Cardiologist         |    600000 |      3704237
 Randy               | 54328     | DangoRando Street   | male       |           17 | Physicyan            | 100000000 |      8702106
(5 rows)

pramod.kc=> UPDATE Employee SET name = 'Jeff' where name = 'Adil';
UPDATE 1
pramod.kc=> select * from employee ;
        name         | id_number |       address       |    sex     | office_hours | specialization_field |  salary   | phone_number
---------------------+-----------+---------------------+------------+--------------+----------------------+-----------+--------------
 Rambo               | 56794     | ad Street           |  Male      |           10 | Phesotheraphist      |   5000000 |      1704237
 Dr.Raffel           | E7        | Walking Street      |  Female    |           10 | Physothirapist       |    800000 |      5704237
 Dr.Jenesse          | E21       | Walking dead Street |  Male      |            5 | Cardiologist         |    600000 |      3704237
 Randy               | 54328     | DangoRando Street   | male       |           17 | Physicyan            | 100000000 |      8702106
 Jeff                | 16794     | ADCD Street         |  Female    |           10 | Phesotheraphist      |    500000 |      2704237
(5 rows)

pramod.kc=>
```

45. VIEW

```
pramod.kc=> select * from employee ;
       name        | id_number |      address       |    sex    | office_hours | specialization_field |  salary   | phone_number
-------------------+-----------+--------------------+-----------+--------------+----------------------+-----------+--------------
 Rambo             | 56794     | ad Street          | Male      |           10 | Phesotheraphist      |   5000000 |      1704237
 Dr.Raffel         | E7        | Walking Street     | Female    |           10 | Physothirapist       |    800000 |      5704237
 Dr.Jenesse        | E21       | Walking dead Street| Male      |            5 | Cardiologist         |    600000 |      3704237
 Randy             | 54328     | DangoRando Street  | male      |           17 | Physicyan            | 100000000 |      8702106
 Jeff              | 16794     | ADCD Street        | Female    |           10 | Phesotheraphist      |    500000 |      2704237
(5 rows)
```

```
pramod.kc=> CREATE View show_Employee AS SELECT name, address, office_hours, specialization_field, phone_number
FROM Employee;
CREATE VIEW
pramod.kc=> select * from show_employee;
       name        |       address       | office_hours | specialization_field | phone_number
-------------------+---------------------+--------------+----------------------+--------------
 Rambo             | ad Street           |           10 | Phesotheraphist      |      1704237
 Dr.Raffel         | Walking Street      |           10 | Physothirapist       |      5704237
 Dr.Jenesse        | Walking dead Street |            5 | Cardiologist         |      3704237
 Randy             | DangoRando Street   |           17 | Physicyan            |      8702106
 Jeff              | ADCD Street         |           10 | Phesotheraphist      |      2704237
(5 rows)

pramod.kc=>
```

46. Trigger;

CREATE TABLE Employee(First_Name varchar(20), Last_Name Varchar(20),ID_Number Number);
CREATE TABLE Employee_Duplicate(First_Name varchar(20), Last_Name Varchar(20),ID_Number number);

CREATE or REPLACE TRIGGER asty AFTER INSERT ON Employee
FOR EACH ROW
DECLARE
BEGIN
INSERT INTO Employee_Duplicate VALUES(:NEW.First_Name, :NEW.Last_Name,:NEW.ID_Number);
END;

INSERT INTO Employee_Duplicate VALUES(:new.First_Name, :new.Last_Name,:new.ID_Number);

CREATE or REPLACE TRIGGER staff_after_insert_trigger AFTER INSERT ON Employee
FOR EACH ROW
DECLARE

```
BEGIN
INSERT INTO staff_backup VALUES (:NEW.First_Name, :NEW.Last_Name, :NEW.ID_Number);
END;

SELECT * from Employee;
```

INSERT INTO EMPLOYEE VALUES('PRAMOD','KC', 870);

```
SQL> SELECT * FROM EMPLOYEE;

no rows selected
70)
```

```
QL> CREATE or REPLACE TRIGGER asty AFTER INSERT ON Employee
QL> ACH ROW
QL> RE
QL>
QL>   3    4    5  INSERT INTO Employee_Duplicate VALUES(:NEW.First_Name, :NEW.Last_Name,:NEW.ID_Number);
QL>  6
QL> .
QL> run
QL> CREATE or REPLACE TRIGGER asty AFTER INSERT ON Employee
QL> FOR EACH ROW
QL> DECLARE
QL> BEGIN
QL> INSERT INTO Employee_Duplicate VALUES(:NEW.First_Name, :NEW.Last_Name,:NEW.ID_Number);
QL> END;
QL>
QL> er created.
QL>
QL> INSERT INTO EMPLOYEE VALUES ('PRAMOD', 'KC',870);
QL> T INTO EMPLOYEE VALUES ('PRAMOD', 'KC'
QL>
QL> INSERT INTO EMPLOYEE VALUES ('PrINSERT ..." - rest of line ignored.
QL> 734: unknown command beginning "
QL>
```

```
SQL> INSERT INTO EMPLOYEE VALUES('PRAMOD','KC', 870);

1 row created.

SQL> Select * from Employee;

FIRST_NAME           LAST_NAME              ID_NUMBER
-------------------- -------------------- ----------
PRAMOD               KC                          870

SQL> Select * from Employee_Duplicate;
Select * from Employee_Duplicate
              *
ERROR at line 1:
ORA-00911: invalid character


SQL> Select * from Employee_Duplicate;

FIRST_NAME           LAST_NAME              ID_NUMBER
-------------------- -------------------- ----------
PRAMOD               KC                          870

SQL>
```

47. Psm

CREATE OR REPLACE PROCEDURE insert_Employee(a IN Varchar, b IN varchar, c IN Number)

AS

BEGIN

INSERT INTO Employee VALUES(a,b,c);

dbms_output.put_line('Yahooooo Data added.');

END;

/

execute insert_Employee('PRAMOD', 'KC', 870);

```
SQL> CREATE OR REPLACE PROCEDURE insert_Employee(a IN Varchar, b IN varchar, c IN Number)
AS
BEGIN
  2    3    4  INSERT INTO Employee VALUES(a,b,c);
  5  dbms_output.put_line('Yahooooo Data added.');
EN  6  D;
  7  /

Procedure created.

SQL> execute insert_Employee('PRAMOD', 'KC', 870);

PL/SQL procedure successfully completed.

SQL> Select * from Employee;

FIRST_NAME           LAST_NAME             ID_NUMBER
-------------------- -------------------- ----------
PRAMOD               KC                          870
PRAMOD               KC                          870

SQL>
```

48. Primary key.

```
pramod.kc=> \d employee1;
           Table "public.employee1"
  Column   |          Type          | Modifiers
-----------+------------------------+-----------
 firstname | character varying(20) |
 lastname  | character varying(30) |
 id        | integer               | not null
Indexes:
    "employee1_pkey" PRIMARY KEY, btree (id)

pramod.kc=>
```

49. Foreign key

```
pramod.kc=> CREATE table Employee2(FirstName Varchar(20), LastName Varchar(30),EYP2_ID Int,Foreign Key (Eyp2_id) references Employee1(id));
CREATE TABLE
pramod.kc=> \employee2;
Invalid command \employee2;. Try \? for help.
pramod.kc=> \d employee2;
          Table "public.employee2"
  Column   |         Type          | Modifiers
-----------+-----------------------+-----------
 firstname | character varying(20) |
 lastname  | character varying(30) |
 eyp2_id   | integer               |
Foreign-key constraints:
    "employee2_eyp2_id_fkey" FOREIGN KEY (eyp2_id) REFERENCES employee1(id)

pramod.kc=>
```

50. Check

```
pramod.kc=> \d employee3;
          Table "public.employee3"
  Column   |          Type          | Modifiers
-----------+------------------------+-----------
 firstname | character varying(20) |
 lastname  | character varying(30) |
 id        | integer               |
 phone     | character varying(20) |
Check constraints:
    "employee3_phone_check" CHECK (phone::text ~~ '977%'::text)

pramod.kc=>
```

51. Constraints

```
pramod.kc=> \d employee3;
          Table "public.employee3"
  Column   |          Type          | Modifiers
-----------+------------------------+-----------
 firstname | character varying(20) |
 lastname  | character varying(30) |
 id        | integer               |
 phone     | character varying(20) |
Check constraints:
    "employee3_phone_check" CHECK (phone::text ~~ '977%'::text)
    "id" CHECK (id > 0)

pramod.kc=>
```