Suman Paudel (33)

Assignment II

Lab 2:

Prepare Lab Sheet of MYSQL Statements for following.

1. Insert at least 5 tuples in each of the tables of the Yourname_Roll_COMPANY database in LAB-1.

SQL Script:
For Office Table:

```
INSERT INTO Office (Onumber, Oname, Country) VALUES (1, 'Suman_Office_33',
'Nepal');

INSERT INTO Office (Onumber, Oname, Country)
VALUES
  (2, 'Suman_Ncell_33', 'Nepal'),
  (3, 'Prabhat Ale', 'USA'),
  (4, 'Anish Thapaliya', 'India'),
  (5, 'Gaurav Pandey', 'Japan');
```

Output:

```
suman_33_company=# select * from office;
 onumber | oname | country
---------+-------+---------
(0 rows)

suman_33_company=# INSERT INTO Office (Onumber, Oname, Country) VALUES (1, 'Suman_Office_33', 'Nepal');
INSERT 0 1
suman_33_company=# INSERT INTO Office (Onumber, Oname, Country)
suman_33_company-# VALUES
suman_33_company-#   (2, 'Suman Paudel', 'Nepal'),
suman_33_company-#   (3, 'Prabhat Ale', 'USA'),
liya', 'suman_33_company-#   (4, 'Anish Thapaliya', 'India'),
suman_33_company-#   (5, 'Gaurav Pandey', 'Japan');
INSERT 0 4
suman_33_company=# select * from office;
 onumber |      oname      | country
---------+-----------------+---------
       1 | Suman_Office_33 | Nepal
       2 | Suman Paudel    | Nepal
       3 | Prabhat Ale     | USA
       4 | Anish Thapaliya | India
       5 | Gaurav Pandey   | Japan
(5 rows)

suman_33_company=#
```

For Employee Table:

```
INSERT INTO employee (SSN, Ename, Gender, Bdate, Address, SALARY, Ono,
Years of experience)
VALUES (33, 'Suman Paudel', 'M', '1997-10-22', 'Kathmanu, Nepal', 30000.00,
1, 3);

 INSERT INTO employee (SSN, Ename, Gender, Bdate, Address, SALARY, Ono,
Years of experience)
VALUES
  (1, 'Rekha Thapa', 'F', '1992-03-22', 'Kathmandu, Nepal', 55000.00, 2, 5),
  (2, 'KP Oli', 'M', '1978-11-08', 'Bhaktapur, Nepal', 72000.00, 3, 2),
  (3, 'Puspa Kamal Dahal Pracanda', 'M', '1990-09-01', 'Lalitpur, Nepal',
48000.00, 4, 3),
  (4, 'Rabi Lamichane', 'M', '1983-04-30', 'Chitwan, Nepal', 60000.00, 4, 7);
```

Output:

```
suman_33_company=# select * from employee;
 ssn | ename | gender | bdate | address | salary | ono | years_of_experience
-----+-------+--------+-------+---------+--------+-----+---------------------
(0 rows)

suman_33_company=#
suman_33_company=# INSERT INTO employee (SSN, Ename, Gender, Bdate, Address, SALARY, Ono, Years_of_experience)
suman_33_company-# VALUES (33, 'Suman Paudel', 'M', '1997-10-22', 'Kathmanu, Nepal', 30000.00, 1, 3);
INSERT 0 1
suman_33_company=#  INSERT INTO employee (SSN, Ename, Gender, Bdate, Address, SALARY, Ono, Years_of_experience)
suman_33_company-# VALUES
suman_33_company-#   (1, 'Rekha Thapa', 'F', '1992-03-22', 'Kathmandu, Nepal', 55000.00, 2, 5),
suman_33_company-#   (2, 'KP Oli', 'M', '1978-11-08', 'Bhaktapur, Nepal', 72000.00, 3, 12),
suman_33_company-#   (3, 'Puspa Kamal Dahal Pracanda', 'M', '1990-09-01', 'Lalitpur, Nepal', 48000.00, 4, 3),
suman_33_company-#   (4, 'Rabi Lamichane', 'M', '1983-04-30', 'Chitwan, Nepal', 60000.00, 4, 7);
INSERT 0 4
suman_33_company=# select * from employee;
 ssn |           ename            | gender |   bdate    |     address      |  salary  | ono | years_of_experience
-----+----------------------------+--------+------------+------------------+----------+-----+---------------------
  33 | Suman Paudel               | M      | 1997-10-22 | Kathmanu, Nepal  | 30000.00 |   1 |                   3
   1 | Rekha Thapa                | F      | 1992-03-22 | Kathmandu, Nepal | 55000.00 |   2 |                   5
   2 | KP Oli                     | M      | 1978-11-08 | Bhaktapur, Nepal | 72000.00 |   3 |                  12
   3 | Puspa Kamal Dahal Pracanda | M      | 1990-09-01 | Lalitpur, Nepal  | 48000.00 |   4 |                   3
   4 | Rabi Lamichane             | M      | 1983-04-30 | Chitwan, Nepal   | 60000.00 |   4 |                   7
(5 rows)

suman_33_company=#
```

For Project Table:

```
INSERT INTO Project (Pnumber, Pname, Plocation, Onumber)
VALUES (66, 'Suman_ProjMDS', 'Kathmandu', 1);

 INSERT INTO Project (Pnumber, Pname, Plocation, Onumber)
 VALUES
  (2, 'Project Kathmandu', 'Kathmandu', 2),
  (3, 'Project Butwal', 'Butwal', 3),
  (4, 'Project Chitwan', 'Chitwan', 4),
  (5, 'Project Dhangadi', 'Dhangadi', 5);
```

Output:

```
suman_33_company=# select * from project;
 pnumber | pname | plocation | onumber
---------+-------+-----------+---------
(0 rows)

suman_33_company=#
suman_33_company=#  INSERT INTO Project (Pnumber, Pname, Plocation, Onumber)
suman_33_company-# VALUES (66, 'Suman_ProjMDS', 'Kathmandu', 1);
INSERT 0 1
suman_33_company=#  INSERT INTO Project (Pnumber, Pname, Plocation, Onumber)
suman_33_company-#  VALUES
suman_33_company-#   (2, 'Project Kathmandu', 'Kathmandu', 2),
suman_33_company-#   (3, 'Project Butwal', 'Butwal', 3),
suman_33_company-#   (4, 'Project Chitwan', 'Chitwan', 4),
suman_33_company-#   (5, 'Project Dhangadi', 'Dhangadi', 5);
INSERT 0 4
suman_33_company=# select * from project;
 pnumber |       pname       | plocation | onumber
---------+-------------------+-----------+---------
      66 | Suman_ProjMDS     | Kathmandu |       1
       2 | Project Kathmandu | Kathmandu |       2
       3 | Project Butwal    | Butwal    |       3
       4 | Project Chitwan   | Chitwan   |       4
       5 | Project Dhangadi  | Dhangadi  |       5
(5 rows)

suman_33_company=#
```

For Works_on Table:

```sql
INSERT INTO Works_on (ESSN, Pno)
VALUES (33, 66);

 INSERT INTO Works_on (ESSN, Pno)
VALUES
  (1, 2),
  (2, 3),
  (3, 4),
  (4, 5);
```

Output:

```
suman_33_company=# select * from works_on;
 essn | pno
------+-----
(0 rows)

suman_33_company=#   INSERT INTO Works_on (ESSN, Pno)
suman_33_company-# VALUES (33, 66);
INSERT 0 1
suman_33_company=#  INSERT INTO Works_on (ESSN, Pno)
suman_33_company-# VALUES
suman_33_company-#   (1, 2),
suman_33_company-#   (2, 3),
suman_33_company-#   (3, 4),
suman_33_company-#   (4, 5);
INSERT 0 4
suman_33_company=# select * from works_on;
 essn | pno
------+-----
   33 |  66
    1 |   2
    2 |   3
    3 |   4
    4 |   5
(5 rows)

suman_33_company=#
```

For Employee Table:

```
INSERT INTO Dependents (Did, Dname, Dage, SSN, Drelation)
VALUES (1, 'Pushpa Panta Jaisi', 13, 33, 'Mother');

INSERT INTO Dependents (Did, Dname, Dage, SSN, Drelation)
VALUES (2, 'Krishna Prasad Jaishi', 13, 33, 'Father'),
    (3, 'Silu Poudel', 12, 33, 'Sister'),
    (4, 'Sujita Sharma', 9, 33, 'Cousin Sister'),
    (5, 'Prabin Adhikari', 14, 33, 'Cousin Brother');
```

Output:

```
suman_33_company=# select * from dependents;
 did | dname | dage | ssn | drelation
-----+-------+------+-----+-----------
(0 rows)

suman_33_company=# INSERT INTO Dependents (Did, Dname, Dage, SSN, Drelation)
suman_33_company-# VALUES (1, 'Pushpa Panta Jaisi', 13, 33, 'Mother');
INSERT 0 1
suman_33_company=#
suman_33_company=#
suman_33_company=# INSERT INTO Dependents (Did, Dname, Dage, SSN, Drelation)
suman_33_company-# VALUES (2, 'Krishna Prasad Jaishi', 13, 33, 'Father'),
suman_33_company-#     (3, 'Silu Poudel', 12, 33, 'Sister'),
suman_33_company-#     (4, 'Sujita Sharma', 9, 33, 'Cousin Sister'),
suman_33_company-#     (5, 'Prabin Adhikari', 14, 33, 'Cousin Brother');
INSERT 0 4
suman_33_company=# select * from dependents;
 did |         dname          | dage | ssn |   drelation
-----+------------------------+------+-----+---------------
   1 | Pushpa Panta Jaisi     |   13 |  33 | Mother
   2 | Krishna Prasad Jaishi  |   13 |  33 | Father
   3 | Silu Poudel            |   12 |  33 | Sister
   4 | Sujita Sharma          |    9 |  33 | Cousin Sister
   5 | Prabin Adhikari        |   14 |  33 | Cousin Brother
(5 rows)

suman_33_company=#
```

2. In the database Yourname_Roll_COMPANY in LAB-1, Create a table PF(PFID, SSN, PFCategoryName, Amount, Start_date, Remarks); where SSN is foreign key referencing Employee. The start date should be of date type.

SQL Script:

```sql
create table PF(
PFID int primary key,
SSN int,
PFCategoryName varchar(40),
Amount numeric,
Start_date date,
Remarks text,
constraint fk_pf foreign key(SSN) references Employee(SSN)
);
```

Output:

```
suman_33_company=# \dt
          List of relations
 Schema |    Name    | Type  |  Owner
--------+------------+-------+----------
 public | dependents | table | postgres
 public | employee   | table | postgres
 public | office     | table | postgres
 public | project    | table | postgres
 public | works_on   | table | postgres
(5 rows)

suman_33_company=# create table PF(
suman_33_company(# PFID int primary key,
SN intsuman_33_company(# SSN int,
suman_33_company(# PFCategoryName varchar(40),
suman_33_company(# Amount numeric,
suman_33_company(# Start_date date,
suman_33_company(# Remarks text,
suman_33_company(# constraint fk_pf foreign key(SSN) references Employee(SSN)
suman_33_company(#
suman_33_company(# );
CREATE TABLE
suman_33_company=# \dt
          List of relations
 Schema |    Name    | Type  |  Owner
--------+------------+-------+----------
 public | dependents | table | postgres
 public | employee   | table | postgres
 public | office     | table | postgres
 public | pf         | table | postgres
 public | project    | table | postgres
 public | works_on   | table | postgres
(6 rows)

suman_33_company=#
```

3. In the database Yourname_Roll_COMPANY in LAB-1, alter the table Employee and add an attribute Matrital_status of type varchar. Update the records in the table and set values of status to “Married”, “Single”, “Divorced”. At least three records should have status married.

SQL Script:

```
ALTER table employee  add column marital_status varchar(20);
```

Updating Part:

```
update employee set marital status = 'Single' WHERE ssn = 33;
update employee set marital status = 'Married' WHERE ssn = 1;
update employee set marital status = 'Married' WHERE ssn = 2;
update employee set marital status = 'Married' WHERE ssn = 3;
update employee set marital status = 'Divorced' WHERE ssn = 4;
```

Output:

Alter Part

```
suman_33_company=# \d employee;
                        Table "public.employee"
       Column        |          Type          | Collation | Nullable | Default
---------------------+------------------------+-----------+----------+---------
 ssn                 | integer                |           | not null |
 ename               | character varying(100) |           | not null |
 gender              | character(1)           |           |          |
 bdate               | date                   |           |          |
 address             | character varying(100) |           |          |
 salary              | numeric(10,2)          |           |          | 0.00
 ono                 | integer                |           |          |
 years_of_experience | integer                |           |          |
Indexes:
    "employee_pkey" PRIMARY KEY, btree (ssn)
Check constraints:
    "employee_gender_check" CHECK (gender = ANY (ARRAY['M'::bpchar, 'F'::bpchar]))
Foreign-key constraints:
    "employee_ono_fkey" FOREIGN KEY (ono) REFERENCES office(onumber)
Referenced by:
    TABLE "dependents" CONSTRAINT "dependents_ssn_fkey" FOREIGN KEY (ssn) REFERENCES employee(ssn) ON UPDATE SET NULL ON DELETE SET NULL
    TABLE "pf" CONSTRAINT "fk_pf" FOREIGN KEY (ssn) REFERENCES employee(ssn)
    TABLE "works_on" CONSTRAINT "works_on_essn_fkey" FOREIGN KEY (essn) REFERENCES employee(ssn) ON UPDATE CASCADE ON DELETE CASCADE

suman_33_company=# ALTER table employee  add column marital_status varchar(20) ;
ALTER TABLE
suman_33_company=# \d employee
                        Table "public.employee"
       Column        |          Type          | Collation | Nullable | Default
---------------------+------------------------+-----------+----------+---------
 ssn                 | integer                |           | not null |
 ename               | character varying(100) |           | not null |
 gender              | character(1)           |           |          |
 bdate               | date                   |           |          |
 address             | character varying(100) |           |          |
 salary              | numeric(10,2)          |           |          | 0.00
 ono                 | integer                |           |          |
 years_of_experience | integer                |           |          |
 marital_status      | character varying(20)  |           |          |
Indexes:
    "employee_pkey" PRIMARY KEY, btree (ssn)
Check constraints:
    "employee_gender_check" CHECK (gender = ANY (ARRAY['M'::bpchar, 'F'::bpchar]))
Foreign-key constraints:
    "employee_ono_fkey" FOREIGN KEY (ono) REFERENCES office(onumber)
Referenced by:
    TABLE "dependents" CONSTRAINT "dependents_ssn_fkey" FOREIGN KEY (ssn) REFERENCES employee(ssn) ON UPDATE SET NULL ON DELETE SET NULL
    TABLE "pf" CONSTRAINT "fk_pf" FOREIGN KEY (ssn) REFERENCES employee(ssn)
    TABLE "works_on" CONSTRAINT "works_on_essn_fkey" FOREIGN KEY (essn) REFERENCES employee(ssn) ON UPDATE CASCADE ON DELETE CASCADE

suman_33_company=#
```

Updating Part

```
suman_33_company=# select * from employee;
 ssn |           ename           | gender |   bdate    |     address      |  salary  | ono | years_of_experience | marital_status
-----+---------------------------+--------+------------+------------------+----------+-----+---------------------+----------------
  33 | Suman Paudel              | M      | 1997-10-22 | Kathmanu, Nepal  | 30000.00 |   1 |                   3 |
   1 | Rekha Thapa               | F      | 1992-03-22 | Kathmandu, Nepal | 55000.00 |   2 |                   5 |
   2 | KP Oli                    | M      | 1978-11-08 | Bhaktapur, Nepal | 72000.00 |   3 |                  12 |
   3 | Puspa Kamal Dahal Pracanda | M      | 1990-09-01 | Lalitpur, Nepal  | 48000.00 |   4 |                   3 |
   4 | Rabi Lamichane            | M      | 1983-04-30 | Chitwan, Nepal   | 60000.00 |   4 |                   7 |
(5 rows)

suman_33_company=# update employee set marital_status = 'Single' WHERE ssn = 33;
UPDATE 1
suman_33_company=# update employee set marital_status = 'Married' WHERE ssn = 1;
UPDATE 1
suman_33_company=# update employee set marital_status = 'Married' WHERE ssn = 2;
UPDATE 1
suman_33_company=# update employee set marital_status = 'Married' WHERE ssn = 3;
UPDATE 1
suman_33_company=# update employee set marital_status = 'Divorced' WHERE ssn = 4;
UPDATE 1
suman_33_company=# select * from employee;
 ssn |           ename           | gender |   bdate    |     address      |  salary  | ono | years_of_experience | marital_status
-----+---------------------------+--------+------------+------------------+----------+-----+---------------------+----------------
  33 | Suman Paudel              | M      | 1997-10-22 | Kathmanu, Nepal  | 30000.00 |   1 |                   3 | Single
   1 | Rekha Thapa               | F      | 1992-03-22 | Kathmandu, Nepal | 55000.00 |   2 |                   5 | Married
   2 | KP Oli                    | M      | 1978-11-08 | Bhaktapur, Nepal | 72000.00 |   3 |                  12 | Married
   3 | Puspa Kamal Dahal Pracanda | M      | 1990-09-01 | Lalitpur, Nepal  | 48000.00 |   4 |                   3 | Married
   4 | Rabi Lamichane            | M      | 1983-04-30 | Chitwan, Nepal   | 60000.00 |   4 |                   7 | Divorced
(5 rows)

suman_33_company=#
```

4. Insert ten records in the table PF, where at least two records have the Remarks field NULL.

SQL Script:

```
INSERT INTO pf (PFID, SSN, PFCategoryName, Amount, Start date, Remarks)
VALUES
(1, 33, 'Retirement', 5000.00, '2022-01-01', 'Regular contribution'),
(2, 1, 'Medical', 2000.00, '2022-02-15', 'Health insurance'),
(3, 2, 'Education', 3000.00, '2022-03-01', 'Child education fund'),
(4, 3, 'Retirement', 1600.00, '2022-04-01', 'Additional contribution'),
(5, 4, 'Housing', 4000.00, '2022-05-01', NULL),
(6, 33, 'Retirement', 550.00, '2022-06-01', 'Regular contribution'),
(7, 1, 'Medical', 2500.00, '2022-07-01', 'Dental insurance'),
(8, 2, 'Education', 3500.00, '2022-08-01', 'Child tuition'),
(9, 3, 'Retirement', 6500.00, '2022-09-01', 'Additional contribution'),
(10, 4, 'Housing', 4500.00, '2022-10-01', NULL);
```

SQL Script:

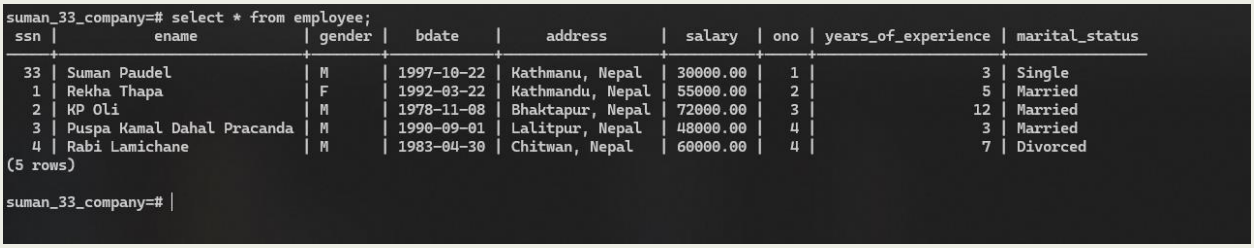
```
suman_33_company=# select * from pf;
 pfid | ssn | pfcategoryname | amount | start_date | remarks
------+-----+----------------+--------+------------+---------
(0 rows)

suman_33_company=# INSERT INTO pf (PFID, SSN, PFCategoryName, Amount, Start_date, Remarks) VALUES
suman_33_company-# (1, 33, 'Retirement', 500.00, '2022-01-01', 'Regular contribution'),
al', 200.00, '2022-02-15', 'Heasuman_33_company-# (2, 1, 'Medical', 200.00, '2022-02-15', 'Health insurance'),
suman_33_company-# (3, 2, 'Education', 300.00, '2022-03-01', 'Child education fund'),
suman_33_company-# (4, 3, 'Retirement', 600.00, '2022-04-01', 'Additional contribution'),
suman_33_company-# (5, 4, 'Housing', 400.00, '2022-05-01', NULL),
suman_33_company-# (6, 33, 'Retirement', 550.00, '2022-06-01', 'Regular contribution'),
suman_33_company-# (7, 1, 'Medical', 250.00, '2022-07-01', 'Dental insurance'),
suman_33_company-# (8, 2, 'Education', 350.00, '2022-08-01', 'Child tuition'),
suman_33_company-# (9, 3, 'Retirement', 650.00, '2022-09-01', 'Additional contribution'),
suman_33_company-# (10, 4, 'Housing', 450.00, '2022-10-01', NULL);
INSERT 0 10
suman_33_company=# select * from pf;
 pfid | ssn | pfcategoryname | amount | start_date |         remarks
------+-----+----------------+--------+------------+-------------------------
    1 |  33 | Retirement     | 500.00 | 2022-01-01 | Regular contribution
    2 |   1 | Medical        | 200.00 | 2022-02-15 | Health insurance
    3 |   2 | Education      | 300.00 | 2022-03-01 | Child education fund
    4 |   3 | Retirement     | 600.00 | 2022-04-01 | Additional contribution
    5 |   4 | Housing        | 400.00 | 2022-05-01 |
    6 |  33 | Retirement     | 550.00 | 2022-06-01 | Regular contribution
    7 |   1 | Medical        | 250.00 | 2022-07-01 | Dental insurance
    8 |   2 | Education      | 350.00 | 2022-08-01 | Child tuition
    9 |   3 | Retirement     | 650.00 | 2022-09-01 | Additional contribution
   10 |   4 | Housing        | 450.00 | 2022-10-01 |
(10 rows)

suman_33_company=#
```

5. Select all employees.

SQL Script:

```
SELECT * from employee ;
```

Output:



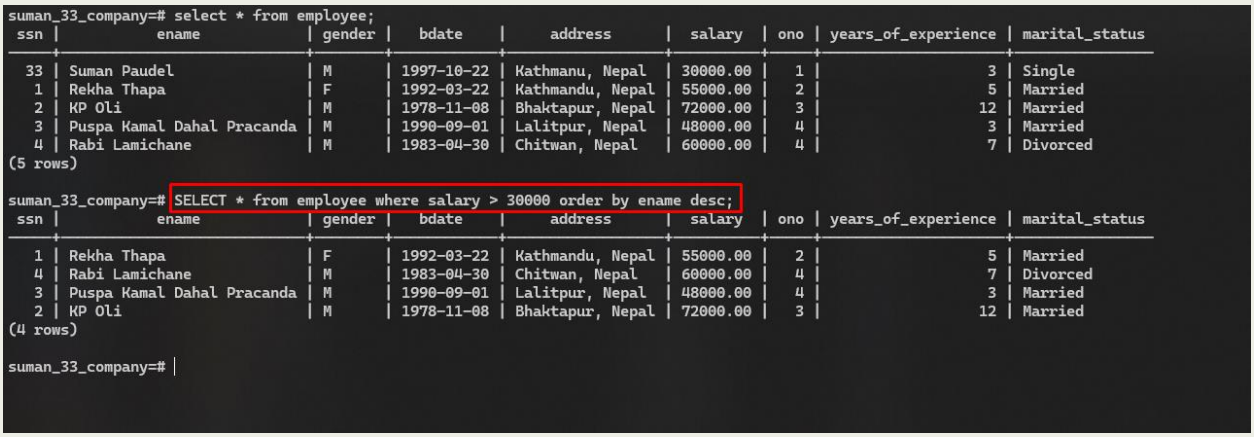
```
suman_33_company=# select * from employee;
 ssn |           ename            | gender |   bdate    |     address      |  salary  | ono | years_of_experience | marital_status
-----+----------------------------+--------+------------+------------------+----------+-----+---------------------+----------------
  33 | Suman Paudel               | M      | 1997-10-22 | Kathmanu, Nepal  | 30000.00 |   1 |                   3 | Single
   1 | Rekha Thapa                | F      | 1992-03-22 | Kathmandu, Nepal | 55000.00 |   2 |                   5 | Married
   2 | KP Oli                     | M      | 1978-11-08 | Bhaktapur, Nepal | 72000.00 |   3 |                  12 | Married
   3 | Puspa Kamal Dahal Pracanda | M      | 1990-09-01 | Lalitpur, Nepal  | 48000.00 |   4 |                   3 | Married
   4 | Rabi Lamichane             | M      | 1983-04-30 | Chitwan, Nepal   | 60000.00 |   4 |                   7 | Divorced
(5 rows)

suman_33_company=#
```

6. Select employees having salary greater than 30000 and list the results in descending order of Ename.

SQL Script:

```
SELECT * from employee where salary > 30000 order by ename desc;
```

Output:



```
suman_33_company=# select * from employee;
 ssn |           ename            | gender |   bdate    |     address      |  salary  | ono | years_of_experience | marital_status
-----+----------------------------+--------+------------+------------------+----------+-----+---------------------+----------------
  33 | Suman Paudel               | M      | 1997-10-22 | Kathmanu, Nepal  | 30000.00 |   1 |                   3 | Single
   1 | Rekha Thapa                | F      | 1992-03-22 | Kathmandu, Nepal | 55000.00 |   2 |                   5 | Married
   2 | KP Oli                     | M      | 1978-11-08 | Bhaktapur, Nepal | 72000.00 |   3 |                  12 | Married
   3 | Puspa Kamal Dahal Pracanda | M      | 1990-09-01 | Lalitpur, Nepal  | 48000.00 |   4 |                   3 | Married
   4 | Rabi Lamichane             | M      | 1983-04-30 | Chitwan, Nepal   | 60000.00 |   4 |                   7 | Divorced
(5 rows)

suman_33_company=# SELECT * from employee where salary > 30000 order by ename desc;
 ssn |           ename            | gender |   bdate    |     address      |  salary  | ono | years_of_experience | marital_status
-----+----------------------------+--------+------------+------------------+----------+-----+---------------------+----------------
   1 | Rekha Thapa                | F      | 1992-03-22 | Kathmandu, Nepal | 55000.00 |   2 |                   5 | Married
   4 | Rabi Lamichane             | M      | 1983-04-30 | Chitwan, Nepal   | 60000.00 |   4 |                   7 | Divorced
   3 | Puspa Kamal Dahal Pracanda | M      | 1990-09-01 | Lalitpur, Nepal  | 48000.00 |   4 |                   3 | Married
   2 | KP Oli                     | M      | 1978-11-08 | Bhaktapur, Nepal | 72000.00 |   3 |                  12 | Married
(4 rows)

suman_33_company=#
```

7. Retrieve the tuples from project table. Sort the tuples on the basis of Pname.

SQL Script:

```
SELECT * from project order by pname;
```

Output:

```
suman_33_company=# SELECT * from project order by pname;
 pnumber |        pname        | plocation | onumber
---------+---------------------+-----------+---------
       3 | Project Butwal      | Butwal    |       3
       4 | Project Chitwan     | Chitwan   |       4
       5 | Project Dhangadi    | Dhangadi  |       5
       2 | Project Kathmandu   | Kathmandu |       2
      66 | Suman_ProjMDS       | Kathmandu |       1
(5 rows)

suman_33_company=#
```

8. Select the employees having salary greater than 30000 and years of experience less than 3 years.

SQL Script:

```
SELECT * from employee WHERE salary > 30000 and years of experience < 3;
```

Output:

```
suman_33_company=# select * from employee;
 ssn |           ename            | gender |   bdate    |     address      |  salary  | ono | years_of_experience | marital_status
-----+----------------------------+--------+------------+------------------+----------+-----+---------------------+----------------
  33 | Suman Paudel               | M      | 1997-10-22 | Kathmanu, Nepal  | 30000.00 |   1 |                   3 | Single
   1 | Rekha Thapa                | F      | 1992-03-22 | Kathmandu, Nepal | 55000.00 |   2 |                   5 | Married
   2 | KP Oli                     | M      | 1978-11-08 | Bhaktapur, Nepal | 72000.00 |   3 |                   2 | Married
   3 | Puspa Kamal Dahal Pracanda | M      | 1990-09-01 | Lalitpur, Nepal  | 48000.00 |   4 |                   3 | Married
   4 | Rabi Lamichane             | M      | 1983-04-30 | Chitwan, Nepal   | 60000.00 |   4 |                   7 | Divorced
(5 rows)

suman_33_company=# SELECT * from employee WHERE salary > 30000 and years_of_experience < 3;
 ssn | ename  | gender |   bdate    |     address      |  salary  | ono | years_of_experience | marital_status
-----+--------+--------+------------+------------------+----------+-----+---------------------+----------------
   2 | KP Oli | M      | 1978-11-08 | Bhaktapur, Nepal | 72000.00 |   3 |                   2 | Married
(1 row)

suman_33_company=#
```

9. Select the name, address, and salary of employees having salary greater than 30000 or years of experience less than 3 years.

SQL Script:

```
SELECT ename, address, salary from employee WHERE salary > 30000 OR years of experience < 3;
```

Output:

```
suman_33_company=# select * from employee;
 ssn |          ename           | gender |   bdate    |     address      |  salary  | ono | years_of_experience | marital_status
-----+--------------------------+--------+------------+------------------+----------+-----+---------------------+----------------
  33 | Suman Paudel             | M      | 1997-10-22 | Kathmanu, Nepal  | 30000.00 |   1 |                   3 | Single
   1 | Rekha Thapa              | F      | 1992-03-22 | Kathmandu, Nepal | 55000.00 |   2 |                   5 | Married
   2 | KP Oli                   | M      | 1978-11-08 | Bhaktapur, Nepal | 72000.00 |   3 |                   2 | Married
   3 | Puspa Kamal Dahal Pracanda | M      | 1990-09-01 | Lalitpur, Nepal  | 48000.00 |   4 |                   3 | Married
   4 | Rabi Lamichane           | M      | 1983-04-30 | Chitwan, Nepal   | 60000.00 |   4 |                   7 | Divorced
(5 rows)

suman_33_company=# SELECT ename, address, salary from employee WHERE salary > 30000 OR  years_of_experience < 3;
          ename           |     address      |  salary
--------------------------+------------------+----------
 Rekha Thapa              | Kathmandu, Nepal | 55000.00
 KP Oli                   | Bhaktapur, Nepal | 72000.00
 Puspa Kamal Dahal Pracanda | Lalitpur, Nepal  | 48000.00
 Rabi Lamichane           | Chitwan, Nepal   | 60000.00
(4 rows)

suman_33_company=# H
```

10. Select the all dependents.

SQL Script:

```
select * from dependents;
```

Output:

```
suman_33_company=# select * from dependents;
 did |         dname          | dage | ssn |   drelation
-----+------------------------+------+-----+---------------
   1 | Pushpa Panta Jaisi     |   13 |     | Mother
   2 | Krishna Prasad Jaishi  |   13 |     | Father
   3 | Silu Poudel            |   12 |     | Sister
   4 | Sujita Sharma          |    9 |     | Cousin Sister
   5 | Prabin Adhikari        |   14 |     | Cousin Brother
(5 rows)

suman_33_company=# H
```

11. Select the name and age of the dependents having age between 5 to 60.

SQL Script:

```
select dname, dage from dependents where dage between 5 and 60;
```

Output:

```
suman_33_company=# select * from dependents;
 did |         dname          | dage | ssn |   drelation
-----+------------------------+------+-----+---------------
   1 | Pushpa Panta Jaisi     |   13 |     | Mother
   2 | Krishna Prasad Jaishi  |   13 |     | Father
   3 | Silu Poudel            |   12 |     | Sister
   4 | Sujita Sharma          |    9 |     | Cousin Sister
   5 | Prabin Adhikari        |   14 |     | Cousin Brother
(5 rows)

suman_33_company=# select dname, dage from dependents where dage between 5 and 60;
         dname          | dage
------------------------+------
 Pushpa Panta Jaisi     |   13
 Krishna Prasad Jaishi  |   13
 Silu Poudel            |   12
 Sujita Sharma          |    9
 Prabin Adhikari        |   14
(5 rows)

suman_33_company=#
```

12. Select the offices having office name like “%Nt%” as substring.

SQL Script:

```
select * from office WHERE oname like '%Nt%';
```

Output:

```
suman_33_company=# select * from office;
 onumber |      oname       | country
---------+------------------+---------
       1 | Suman_Office_33  | Nepal
       3 | Prabhat Ale      | USA
       4 | Anish Thapaliya  | India
       5 | Gaurav Pandey    | Japan
       2 | Ntc_Suman_33     | Nepal
(5 rows)

suman_33_company=# select oname from office WHERE oname like '%Nt%';
     oname
---------------
 Ntc_Suman_33
(1 row)

suman_33_company=#
```

13. Select the offices having office number in (1, 2, 3).

SQL Script:

```
select onumber from office where onumber in (1,2,3);
```

```
suman_33_company=# select * from office ;
 onumber |      oname      | country
---------+-----------------+---------
       1 | Suman_Office_33 | Nepal
       3 | Prabhat Ale     | USA
       4 | Anish Thapaliya | India
       5 | Gaurav Pandey   | Japan
       2 | Ntc_Suman_33    | Nepal
(5 rows)

suman_33_company=# select onumber from office where onumber in (1,2,3);
 onumber
---------
       1
       3
       2
(3 rows)

suman_33_company=#
```

14. Select the records from PF table where remarks is NULL.

SQL Script:

```
select * from pf WHERE remarks is null;
```

Output:

```
suman_33_company=# select * from pf WHERE remarks is null;
 pfid | ssn | pfcategoryname | amount  | start_date | remarks
------+-----+----------------+---------+------------+---------
    5 |   4 | Housing        | 4000.00 | 2022-05-01 |
   10 |   4 | Housing        | 4500.00 | 2022-10-01 |
(2 rows)


suman_33_company=#
```

15. Select PF category name, amount, start date and remarks from PF where remarks is not NULL.

SQL Script:

```
SELECT pfcategoryname, amount, start date, remarks from pf where remarks is not
null;
```

Output:

```
suman_33_company=# select * from pf;
 pfid | ssn | pfcategoryname | amount  | start_date |         remarks
------+-----+----------------+---------+------------+--------------------------
    1 |  33 | Retirement     | 5000.00 | 2022-01-01 | Regular contribution
    2 |   1 | Medical        | 2000.00 | 2022-02-15 | Health insurance
    3 |   2 | Education      | 3000.00 | 2022-03-01 | Child education fund
    4 |   3 | Retirement     | 1600.00 | 2022-04-01 | Additional contribution
    5 |   4 | Housing        | 4000.00 | 2022-05-01 |
    6 |  33 | Retirement     |  550.00 | 2022-06-01 | Regular contribution
    7 |   1 | Medical        | 2500.00 | 2022-07-01 | Dental insurance
    8 |   2 | Education      | 3500.00 | 2022-08-01 | Child tuition
    9 |   3 | Retirement     | 6500.00 | 2022-09-01 | Additional contribution
   10 |   4 | Housing        | 4500.00 | 2022-10-01 |
(10 rows)

suman_33_company=# SELECT pfcategoryname from pf where amount ≠ 3000;
 pfcategoryname
----------------
 Retirement
 Medical
 Retirement
 Housing
 Retirement
 Medical
 Education
 Retirement
 Housing
(9 rows)

suman_33_company=# SELECT pfcategoryname from pf where amount ≠ 3000;
```

16. Select the five records from PF table using LIMIT Clause.

SQL Script:

```
select * from pf limit 5;
```

Output:

```
suman_33_company=# select * from pf limit 5;
 pfid | ssn | pfcategoryname | amount | start_date |         remarks
------+-----+----------------+--------+------------+--------------------------
    1 |  33 | Retirement     | 500.00 | 2022-01-01 | Regular contribution
    2 |   1 | Medical        | 200.00 | 2022-02-15 | Health insurance
    3 |   2 | Education      | 300.00 | 2022-03-01 | Child education fund
    4 |   3 | Retirement     | 600.00 | 2022-04-01 | Additional contribution
    5 |   4 | Housing        | 400.00 | 2022-05-01 |
(5 rows)

suman_33_company=#
```

17. Select the category name of PF where amount is not equal to 3000.

SQL Script:

```
SELECT pfcategoryname from pf where amount != 3000;
```

Output:

```
suman_33_company=# select * from pf;
 pfid | ssn | pfcategoryname | amount  | start_date |          remarks
------+-----+----------------+---------+------------+---------------------------
    1 |  33 | Retirement     | 5000.00 | 2022-01-01 | Regular contribution
    2 |   1 | Medical        | 2000.00 | 2022-02-15 | Health insurance
    3 |   2 | Education      | 3000.00 | 2022-03-01 | Child education fund
    4 |   3 | Retirement     | 1600.00 | 2022-04-01 | Additional contribution
    5 |   4 | Housing        | 4000.00 | 2022-05-01 |
    6 |  33 | Retirement     |  550.00 | 2022-06-01 | Regular contribution
    7 |   1 | Medical        | 2500.00 | 2022-07-01 | Dental insurance
    8 |   2 | Education      | 3500.00 | 2022-08-01 | Child tuition
    9 |   3 | Retirement     | 6500.00 | 2022-09-01 | Additional contribution
   10 |   4 | Housing        | 4500.00 | 2022-10-01 |
(10 rows)

suman_33_company=# SELECT pfcategoryname from pf where amount ≠ 3000;
 pfcategoryname
----------------
 Retirement
 Medical
 Retirement
 Housing
 Retirement
 Medical
 Education
 Retirement
 Housing
(9 rows)

suman_33_company=# SELECT pfcategoryname from pf where amount ≠ 3000;
```

18. Select all employees who works on project no 2.

SQL Script:

```
select e.ename from employee e inner join works_on w on e.ssn = w.essn inner
JOIN project p on p.pnumber = w.pno where p.pnumber=2;
```

Output:

```
suman_33_company=# select * from employee;
 ssn |          ename          | gender |   bdate    |     address      |  salary  | ono | years_of_experience
-----+-------------------------+--------+------------+------------------+----------+-----+---------------------
  33 | Suman Paudel            | M      | 1997-10-22 | Kathmanu, Nepal  | 30000.00 |   1 |                   3
   1 | Rekha Thapa             | F      | 1992-03-22 | Kathmandu, Nepal | 55000.00 |   2 |                   5
   2 | KP Oli                  | M      | 1978-11-08 | Bhaktapur, Nepal | 72000.00 |   3 |                  12
   3 | Puspa Kamal Dahal Pracanda | M   | 1990-09-01 | Lalitpur, Nepal  | 48000.00 |   4 |                   3
   4 | Rabi Lamichane          | M      | 1983-04-30 | Chitwan, Nepal   | 60000.00 |   4 |                   7
(5 rows)

suman_33_company=# select * from works_on;
 essn | pno
------+-----
   33 |  66
    1 |   2
    2 |   3
    3 |   4
    4 |   5
(5 rows)

suman_33_company=# select * from project;
 pnumber |       pname       | plocation | onumber
---------+-------------------+-----------+---------
      66 | Suman_ProjMDS     | Kathmandu |       1
       2 | Project Kathmandu | Kathmandu |       2
       3 | Project Butwal    | Butwal    |       3
       4 | Project Chitwan   | Chitwan   |       4
       5 | Project Dhangadi  | Dhangadi  |       5
(5 rows)

suman_33_company=# select e.ename from employee e inner join works_on w on e.ssn = w.essn inner JOIN project p on p.pnumber = w.pno where p.pnumber=2;
    ename
-------------
 Rekha Thapa
(1 row)

suman_33_company=#
```