CREATING EMPLOYEE TABLE:

```
postgres=#  create table employee(emp_no int primary key,name varchar(20),manager_id int,
foreign key(manager_id) references employee(emp_no),hired_date date,salary
float,department_name varchar(20) check( department_name
in('BANKING','INSURANCE','SERVICES')));
CREATE TABLE
```

INSERTING VALUES:

```
postgres=# insert into employee (emp_no,name,hired_date,salary,department_name) values
(2,'ALLEN','1981-02-20',1600.00,'INSURANCE'),(3,'WARD','1981-02-22',1250.00,'BANKING');

postgres=# insert into employee (emp_no,name,hired_date,salary,department_name) values
postgres-# (4,'JONES','1981-04-02',2975.00,'INSURANCE'),
postgres-# (5,'MARTIN','1981-09-28',1250.00,'INSURANCE'),
postgres-# (6,'BLAKE','1981-05-01',2850.00,'SERVICES'),
postgres-# (7,'CLARK','1981-06-09',2450.00,'SERVICES'),
postgres-# (8,'SCOTT','1982-12-09',3000.00,'INSURANCE'),
postgres-# (9,'KING','1981-11-17',5000.00,'BANKING'),
postgres-# (10,'TURNER','1981-09-08',1500.00,'INSURANCE'),
postgres-# (11,'ADAMS','1983-01-12',1100.00,'BANKING'),
postgres-# (12,'JAMES','1981-12-03',950.00,'SERVICES'),
postgres-# (13,'FORD','1981-12-03',3000.00,'INSURANCE'),
postgres-# (14,'MILLER','1982-01-23',1300.00,'INSURANCE');

INSERT 0 11
```

EMPLOYEE TABLE:

```
postgres=# select*from employee;
 emp_no |  name  | manager_id | hired_date | salary | department_name
--------+--------+------------+------------+--------+-----------------
      3 | WARD   |            | 1981-02-22 |   1250 | BANKING
      4 | JONES  |            | 1981-04-02 |   2975 | INSURANCE
      7 | CLARK  |            | 1981-06-09 |   2450 | SERVICES
      1 | SMITH  |          3 | 1980-12-17 |    800 | BANKING
      2 | ALLEN  |          4 | 1981-02-20 |   1600 | INSURANCE
      5 | MARTIN |          4 | 1981-09-28 |   1250 | INSURANCE
      6 | BLAKE  |          7 | 1981-05-01 |   2850 | SERVICES
      8 | SCOTT  |          4 | 1982-12-09 |   3000 | INSURANCE
      9 | KING   |          3 | 1981-11-17 |   5000 | BANKING
     10 | TURNER |          4 | 1981-09-08 |   1500 | INSURANCE
     11 | ADAMS  |          3 | 1983-01-12 |   1100 | BANKING
     12 | JAMES  |          7 | 1981-12-03 |    950 | SERVICES
     13 | FORD   |          4 | 1981-12-03 |   3000 | INSURANCE
     14 | MILLER |          4 | 1982-01-23 |   1300 | INSURANCE
(14 rows)
```

CREATING REIMBURSEMENT TABLE:

```
postgres=# create table reimbursement(emp_no int, foreign key(emp_no) references
employee(emp_no),amount float,reimbursed_on timestamp);
CREATE TABLE
```

INSERTING VALUES:

```
postgres=# insert into reimbursement values(1,'600.00','1982-03-12 16:30:02');
INSERT 0 1
postgres=# insert into reimbursement values(2,'800.00','1982-04-15 18:25:30'),(3,'940.00','1982-02-
01 12:02:30'),(4,'1500.00','1982-06-12 10:20:30'),(5,'500.00','1982-08-22 09:28:37');
INSERT 0 4
postgres=# insert into reimbursement values(6,'1600.00','1982-08-20 19:45:30'),(7,'1500.00','1982-
09-15 16:20:23');
INSERT 0 2
postgres=# select*from reimbursement;
 emp_no | amount |     reimbursed_on
--------+--------+---------------------
      1 |    600 | 1982-03-12 16:30:02
      2 |    800 | 1982-04-15 18:25:30
      3 |    940 | 1982-02-01 12:02:30
      4 |   1500 | 1982-06-12 10:20:30
      5 |    500 | 1982-08-22 09:28:37
      6 |   1600 | 1982-08-20 19:45:30
      7 |   1500 | 1982-09-15 16:20:23
(7 rows)
```

1.Display unique Department names from Employee table

```
postgres=# select distinct department_name from employee;
 department_name
-----------------
 INSURANCE
 SERVICES
 BANKING
(3 rows)
```

2.List the details of the employees in ascending order of their salaries

```
postgres=# select*from employee order by salary asc;
 emp_no |  name  | manager_id | hired_date | salary | department_name
--------+--------+------------+------------+--------+-----------------
      1 | SMITH  |          3 | 1980-12-17 |    800 | BANKING
     12 | JAMES  |          7 | 1981-12-03 |    950 | SERVICES
     11 | ADAMS  |          3 | 1983-01-12 |   1100 | BANKING
      5 | MARTIN |          4 | 1981-09-28 |   1250 | INSURANCE
      3 | WARD   |            | 1981-02-22 |   1250 | BANKING
```

```
    14 | MILLER |         4 | 1982-01-23 |   1300 | INSURANCE
    10 | TURNER |         4 | 1981-09-08 |   1500 | INSURANCE
     2 | ALLEN  |         4 | 1981-02-20 |   1600 | INSURANCE
     7 | CLARK  |           | 1981-06-09 |   2450 | SERVICES
     6 | BLAKE  |         7 | 1981-05-01 |   2850 | SERVICES
     4 | JONES  |           | 1981-04-02 |   2975 | INSURANCE
     8 | SCOTT  |         4 | 1982-12-09 |   3000 | INSURANCE
    13 | FORD   |         4 | 1981-12-03 |   3000 | INSURANCE
     9 | KING   |         3 | 1981-11-17 |   5000 | BANKING
(14 rows)
```

3.List the employees who joined before 1981

```
postgres=# select*from employee where hired_date< '1981-01-01';
 emp_no | name  | manager_id | hired_date | salary | department_name
--------+-------+------------+------------+--------+-----------------
      1 | SMITH |          3 | 1980-12-17 |    800 | BANKING
(1 row)
```

4.List the Empno, Ename, Sal, Daily Sal of all Employees in the ASC order of AnnSal. Derive Daily Sal as "Salary/30" and AnnSal as salary * 12

```
postgres=# select emp_no,name,salary,salary/30 as daily_sal,salary*12 as
annual_sal from employee order by annual_sal asc;

 emp_no |  name  | salary |    daily_sal     | annual_sal
--------+--------+--------+------------------+------------
      1 | SMITH  |    800 | 26.6666666666667 |       9600
     12 | JAMES  |    950 | 31.6666666666667 |      11400
     11 | ADAMS  |   1100 | 36.6666666666667 |      13200
      5 | MARTIN |   1250 | 41.6666666666667 |      15000
      3 | WARD   |   1250 | 41.6666666666667 |      15000
     14 | MILLER |   1300 | 43.3333333333333 |      15600
     10 | TURNER |   1500 |               50 |      18000
      2 | ALLEN  |   1600 | 53.3333333333333 |      19200
      7 | CLARK  |   2450 | 81.6666666666667 |      29400
      6 | BLAKE  |   2850 |               95 |      34200
      4 | JONES  |   2975 | 99.1666666666667 |      35700
      8 | SCOTT  |   3000 |              100 |      36000
     13 | FORD   |   3000 |              100 |      36000
      9 | KING   |   5000 | 166.666666666667 |      60000
(14 rows)
```

5.List the employees who are working for the department name BANKING or INSURANCE

```
postgres=# select*from employee where department_name in
('BANKING','INSURANCE');
 emp_no |  name  | manager_id | hired_date | salary | department_name
--------+--------+------------+------------+--------+-----------------
      3 | WARD   |            | 1981-02-22 |   1250 | BANKING
      4 | JONES  |            | 1981-04-02 |   2975 | INSURANCE
      1 | SMITH  |          3 | 1980-12-17 |    800 | BANKING
      2 | ALLEN  |          4 | 1981-02-20 |   1600 | INSURANCE
      5 | MARTIN |          4 | 1981-09-28 |   1250 | INSURANCE
      8 | SCOTT  |          4 | 1982-12-09 |   3000 | INSURANCE
      9 | KING   |          3 | 1981-11-17 |   5000 | BANKING
     10 | TURNER |          4 | 1981-09-08 |   1500 | INSURANCE
     11 | ADAMS  |          3 | 1983-01-12 |   1100 | BANKING
     13 | FORD   |          4 | 1981-12-03 |   3000 | INSURANCE
     14 | MILLER |          4 | 1982-01-23 |   1300 | INSURANCE
(11 rows)
```

6.List the employees who are joined in the year 1981

```
postgres=# select*from employee where hired_date between '1981-01-01' and
'1981-12-31';
                                (or )

postgres=# select*from employee where hired_date> '1981-01-01' and
hired_date< '1981-12-31';

 emp_no |  name  | manager_id | hired_date | salary | department_name
--------+--------+------------+------------+--------+-----------------
      3 | WARD   |            | 1981-02-22 |   1250 | BANKING
      4 | JONES  |            | 1981-04-02 |   2975 | INSURANCE
      7 | CLARK  |            | 1981-06-09 |   2450 | SERVICES
      2 | ALLEN  |          4 | 1981-02-20 |   1600 | INSURANCE
      5 | MARTIN |          4 | 1981-09-28 |   1250 | INSURANCE
      6 | BLAKE  |          7 | 1981-05-01 |   2850 | SERVICES
      9 | KING   |          3 | 1981-11-17 |   5000 | BANKING
     10 | TURNER |          4 | 1981-09-08 |   1500 | INSURANCE
     12 | JAMES  |          7 | 1981-12-03 |    950 | SERVICES
     13 | FORD   |          4 | 1981-12-03 |   3000 | INSURANCE
(10 rows)
```

7.List the employees who does not belong to department name INSURANCE

```
postgres=# select*from employee where department_name !='INSURANCE';
 emp_no | name  | manager_id | hired_date | salary | department_name
--------+-------+------------+------------+--------+-----------------
      3 | WARD  |            | 1981-02-22 |   1250 | BANKING
      7 | CLARK |            | 1981-06-09 |   2450 | SERVICES
      1 | SMITH |          3 | 1980-12-17 |    800 | BANKING
      6 | BLAKE |          7 | 1981-05-01 |   2850 | SERVICES
      9 | KING  |          3 | 1981-11-17 |   5000 | BANKING
     11 | ADAMS |          3 | 1983-01-12 |   1100 | BANKING
```

```
    12 | JAMES |         7 | 1981-12-03 |    950 | SERVICES
(7 rows)
```

8.Select employee details from employee table if data exists in Reimbursement table ?

```
postgres=# select*from employee inner join  reimbursement on
employee.emp_no=reimbursement.emp_no;
 emp_no |  name  | manager_id | hired_date | salary | department_name |
emp_no | amount |    reimbursed_on
--------+--------+------------+------------+--------+-----------------+--------+--------
+---------------------
     1 | SMITH  |         3 | 1980-12-17 |    800 | BANKING         |      1 |    600 |
1982-03-12 16:30:02
     2 | ALLEN  |         4 | 1981-02-20 |   1600 | INSURANCE       |      2 |    800 |
1982-04-15 18:25:30
     3 | WARD   |           | 1981-02-22 |   1250 | BANKING         |      3 |    940 |
1982-02-01 12:02:30
     4 | JONES  |           | 1981-04-02 |   2975 | INSURANCE       |      4 |   1500 |
1982-06-12 10:20:30
     5 | MARTIN |         4 | 1981-09-28 |   1250 | INSURANCE       |      5 |    500 |
1982-08-22 09:28:37
     6 | BLAKE  |         7 | 1981-05-01 |   2850 | SERVICES        |      6 |   1600 |
1982-08-20 19:45:30
     7 | CLARK  |           | 1981-06-09 |   2450 | SERVICES        |      7 |   1500 |
1982-09-15 16:20:23
(7 rows)
```

9.Get Employee ID’s of those employees who didn’t receive Reimbursements

```
postgres=# select emp_no from employee except select emp_no from
reimbursement;
 emp_no
--------
     10
     13
     11
      9
     12
     14
      8
(7 rows)
```

10.print the number of employees per department in the organization

```
postgres=# select count(*),department_name from employee group by
department_name;
 count | department_name
-------+-----------------
     7 | INSURANCE
     3 | SERVICES
```

```
     4 | BANKING
(3 rows)
```

11.Find all employees and their manager names

```
postgres=# select e.name,b.name manager_name from employee e inner join
employee b on e.emp_no=b.manager_id ;
 name  | manager_name
-------+--------------
 WARD  | SMITH
 JONES | ALLEN
 JONES | MARTIN
 CLARK | BLAKE
 JONES | SCOTT
 WARD  | KING
 JONES | TURNER
 WARD  | ADAMS
 CLARK | JAMES
 JONES | FORD
 JONES | MILLER
(11 rows)
```

12.Find the employee who got maximum Reimbursements

```
postgres=# select e.name,b.amount from employee e inner join
reimbursement b on e.emp_no=b.emp_no and b.amount=(select max(amount)
from reimbursement);
 name  | amount
-------+--------
 BLAKE |   1600
(1 row)
```

13.Find the Department with highest number of employees

```
postgres=# select count(department_name),department_name from employee
group by department_name limit 1;
 count | department_name
-------+-----------------
     7 | INSURANCE
(1 row)
```

14.Find the employees hired in last 3 months

```
postgres=# select name,hired_date from employee where hired_date between
'1982-11-01' and '1983-01-31' ;
 name  | hired_date
-------+------------
 SCOTT | 1982-12-09
 ADAMS | 1983-01-12
(2 rows)
```

15.Get all reimbursement details along the corresponding employee details

```
postgres=# select*from reimbursement inner join employee on
reimbursement.emp_no=employee.emp_no;
 emp_no | amount |    reimbursed_on    | emp_no |  name  | manager_id |
hired_date | salary | department_name
--------+--------+---------------------+--------+--------+------------+------------+--------
+-----------------
      1 |    600 | 1982-03-12 16:30:02 |      1 | SMITH  |          3 | 1980-12-17 |
800 | BANKING
      2 |    800 | 1982-04-15 18:25:30 |      2 | ALLEN  |          4 | 1981-02-20 |
1600 | INSURANCE
      3 |    940 | 1982-02-01 12:02:30 |      3 | WARD   |            | 1981-02-22 |
1250 | BANKING
      4 |   1500 | 1982-06-12 10:20:30 |      4 | JONES  |            | 1981-04-02 |
2975 | INSURANCE
      5 |    500 | 1982-08-22 09:28:37 |      5 | MARTIN |          4 | 1981-09-28 |
1250 | INSURANCE
      6 |   1600 | 1982-08-20 19:45:30 |      6 | BLAKE  |          7 | 1981-05-01 |
2850 | SERVICES
      7 |   1500 | 1982-09-15 16:20:23 |      7 | CLARK  |            | 1981-06-09 |
2450 | SERVICES
(7 rows)
```