Problem statement :

Create a bank databse with following tables:
Branch master(branch_id,branch_name)

Employee master(emp_no,emp_name,branch_id,salary,Dept,manager_id) (manager_id & branch_id is foreign key)

Conatct details(emp_id,email_id,phone_no) (Apply on delete set null constraint & foreign key on emp_id)

EmpAddress details(emp_id,street,city,state) (Apply on delete set cascade constraint & foreign key on emp_id)

Branch address(branch_id,city,state)(branch_id is foreign key)

1. Insert 5 records in each table.

select * from Branchmaster;

```
+-----------+--------------+
| branch_id | branch_name  |
+-----------+--------------+
|         1 | Vadgaon      |
|         2 | Park street  |
|         3 | Panvel       |
|         4 | Pimpri       |
|         5 | Model colony |
+-----------+--------------+
5 rows in set (0.00 sec)
```

select * from Empmaster;

```
+--------+----------+-----------+--------+-----------+------------+
| emp_id | emp_name | branch_id | salary | dept      | manager_id |
+--------+----------+-----------+--------+-----------+------------+
|     10 | Aryan    |         2 |  40000 | Manager   |       NULL |
|     11 | Kiran    |         4 |   5000 | Admin     |         10 |
|     12 | Carol    |         1 |  60000 | Assistant |         10 |
|     13 | Peter    |         3 | 120000 | Senior    |         10 |
|     14 | Bob      |         5 | 110000 | HR        |         10 |
+--------+----------+-----------+--------+-----------+------------+
5 rows in set (0.00 sec)
```

select * from contactdetails;

```
+--------+-----------------+------------+
| emp_id | email_id        | phone_no   |
+--------+-----------------+------------+
|     11 | kiran@gmail.com | 9890154761 |
|     10 | aryan@gmail.com | 8806058754 |
|     13 | peter@hotmail.c | 9373203456 |
+--------+-----------------+------------+
3 rows in set (0.00 sec)
```

select * from Branchaddress;

```
+-----------+-----------+-------------+
```

```
| branch_id | city      | state       |
+-----------+-----------+-------------+
|         1 | Pune      | Maharashtra |
|         2 | Kolkata   | West Bengal |
|         3 | Mumbai    | Maharashtra |
|         4 | Bangalore | Karnataka   |
|         5 | Cuttack   | Orissa      |
+-----------+-----------+-------------+
5 rows in set (0.00 sec)

 select * from Empaddressdetails;
+--------+------------+-----------+-------------+
| emp_id | street     | city      | state       |
+--------+------------+-----------+-------------+
|     10 | vadgaon    | Pune      | Maharashtra |
|     11 | Link Road  | Mumbai    | Maharashtra |
|     12 | Park stree | Kolkata   | West Bengal |
|     13 | Roha       | Bangalore | Karnataka   |
|     14 | Street roa | Cuttack   | Orissa      |
+--------+------------+-----------+-------------+
5 rows in set (0.00 sec)
```

2. **List the employee details along with branch name using the inner join and in the order of emp_no.**

```
select emp_id,emp_name,branch_name from Empmaster e inner join Branchmaster b on e.branch_id=b.branch_id order by emp_id;
+--------+----------+--------------+
| emp_id | emp_name | branch_name  |
+--------+----------+--------------+
|     10 | Aryan    | Park street  |
|     11 | Kiran    | Pimpri       |
|     12 | Carol    | Vadgaon      |
|     13 | Peter    | Panvel       |
|     14 | Bob      | Model colony |
+--------+----------+--------------+
5 rows in set (0.02 sec)
```

3. **List the details of employee who belong to admin department along with the branch name to which they belong.**

```
select emp_name,dept,branch_name from Branchmaster b,Empmaster e where b.branch_id=e.branch_id and dept="Admin";
+----------+-------+-------------+
| emp_name | dept  | branch_name |
+----------+-------+-------------+
| Kiran    | Admin | Pimpri      |
+----------+-------+-------------+
1 row in set (0.00 sec)
```

4. **List the employee name along with the phone no and city using inner join.**

```
select emp_name,phone_no,city from Empmaster e inner join Empaddressdetails a on e.emp_id=a.emp_id inner join contactdetails c on e.emp_id=c.emp_id;
+----------+------------+-----------+
| emp_name | phone_no   | city      |
```

```
+----------+------------+-----------+
| Aryan    | 8806058754 | Pune      |
| Kiran    | 9890154761 | Mumbai    |
| Peter    | 9373203456 | Bangalore |
+----------+------------+-----------+
3 rows in set (0.00 sec)
```

5. **List the employee name with the contact details (if any).**

```
select emp_name,email_id,phone_no from Empmaster e left join contactdetails c on
e.emp_id=c.emp_id;
+----------+-----------------+------------+
| emp_name | email_id        | phone_no   |
+----------+-----------------+------------+
| Aryan    | aryan@gmail.com | 8806058754 |
| Kiran    | kiran@gmail.com | 9890154761 |
| Bob      | NULL            |       NULL |
+----------+-----------------+------------+
3 rows in set (0.00 sec)
```

6. **List the employee contact details irrespective of whether they are working or have left.**

```
delete from Empmaster where emp_id=12;
Query OK, 1 row affected (0.04 sec)

mysql> delete from Empmaster where emp_id=13;
Query OK, 1 row affected (0.03 sec)

mysql> select * from Empmaster;
+--------+----------+-----------+--------+---------+------------+
| emp_id | emp_name | branch_id | salary | dept    | manager_id |
+--------+----------+-----------+--------+---------+------------+
|     10 | Aryan    |         2 |  40000 | Manager |       NULL |
|     11 | Kiran    |         1 |   20000 | Admin   |         10 |
|     14 | Bob      |         5 | 110000 | HR      |         10 |
+--------+----------+-----------+--------+---------+------------+
3 rows in set (0.00 sec)

select emp_name,email_id,phone_no from Empmaster e right join contactdetails c on
e.emp_id=c.emp_id;
+----------+-----------------+------------+
| emp_name | email_id        | phone_no   |
+----------+-----------------+------------+
| Kiran    | kiran@gmail.com | 9890154761 |
| Aryan    | aryan@gmail.com | 8806058754 |
| NULL     | peter@hotmail.c | 9373203456 |
+----------+-----------------+------------+
3 rows in set (0.00 sec)
```

7. **Retrieve the employee name and their respective manager name.**

```
select e1.emp_name,e2.emp_name as Manager from Empmaster e1,Empmaster e2 where
e1.manager_id=e2.emp_id;
+----------+---------+
| emp_name | Manager |
+----------+---------+
| Kiran    | Aryan   |
```

| Bob | Aryan |
+----------+---------+
2 rows in set (0.00 sec)

8. **List the employee details along with branch name using natural join.**

select emp_name,dept,branch_name,salary from Branchmaster b natural join Empmaster e;

+----------+---------+-------------+--------+
| emp_name | dept | branch_name | salary |
+----------+---------+-------------+--------+
Aryan	Manager	Park street	40000
Kiran	Admin	Pimpri	20000
Bob	HR	Model colony	110000
+----------+---------+-------------+--------+
3 rows in set (0.00 sec)

9. **List the employee names who work at the vadgaon branch along with the city of that employee.**

select e.emp_id,emp_name,city from Empmaster e,Branchmaster b,Empaddressdetails a where b.branch_name="Vadgaon" and b.branch_id=e.branch_id and e.emp_id=a.emp_id;

+--------+----------+--------+
| emp_id | emp_name | city |
+--------+----------+--------+
| 11 | Kiran | Mumbai |
+--------+----------+--------+
1 row in set (0.00 sec)

10. **Find the employee who works at the vadgaon branch with salary>10000 and list the employee names with streets and city they live in.**

select emp_name,street,city,salary from Empmaster e,Empaddressdetails a where e.emp_id=a.emp_id and e.emp_id in(select emp_id from Branchmaster b,Empmaster c where branch_name="Vadgaon" and salary>10000 and b.branch_id=c.branch_id);

+----------+-----------+--------+--------+
| emp_name | street | city | salary |
+----------+-----------+--------+--------+
| Kiran | Link Road | Mumbai | 20000 |
+----------+-----------+--------+--------+
1 row in set (0.00 sec)

11. **Find the employees who live and work in same city.**

select emp_name from Empmaster e,Branchmaster b,Empaddressdetails a,Branchaddress c where e.emp_id=a.emp_id and b.branch_id=e.branch_id and c.branch_id=b.branch_id and c.city=a.city;

+----------+
| emp_name |
+----------+
| Bob |
+----------+
1 row in set (0.00 sec)

12. **Find the employees whose salaries are more than everybody who works at branch vadgaon.**

select emp_name from Empmaster where salary>all(select salary from Empmaster e,Branchmaster b where e.branch_id=b.branch_id and branch_name="Vadgaon");

+----------+
| emp_name |
+----------+
| Aryan |

```
| Bob      |
+----------+
2 rows in set (0.00 sec)
```

13. Create a view which will contain total employees at each branch.

```
create view TotEmp as select branch_name,count(emp_id) as TotalEmployees from Empmaster e,Branchmaster b where e.branch_id=b.branch_id group by e.branch_id;
Query OK, 0 rows affected (0.04 sec)

mysql> select * from TotEmp;
+--------------+----------------+
| branch_name  | TotalEmployees |
+--------------+----------------+
| Vadgaon      |              1 |
| Park street  |              1 |
| Panvel       |              1 |
| Pimpri       |              3 |
| Model colony |              1 |
+--------------+----------------+
5 rows in set (0.00 sec)
```

14. List the branch names where employee have a salary>100000.

```
select branch_name from Empmaster e,Branchmaster b where e.branch_id=b.branch_id and salary>100000;
+--------------+
| branch_name  |
+--------------+
| Model colony |
+--------------+
1 row in set (0.00 sec)
```

15. Create a view which will show the avg salary and the total salary at each branch.

```
create view Emp as select branch_name,avg(salary),sum(salary) from Empmaster e,Branchmaster b where e.branch_id=b.branch_id group by e.branch_id;
Query OK, 0 rows affected (0.05 sec)

mysql> select * from Emp;
+--------------+-------------+-------------+
| branch_name  | avg(salary) | sum(salary) |
+--------------+-------------+-------------+
| Vadgaon      |  20000.0000 |       20000 |
| Park street  |  40000.0000 |       40000 |
| Panvel       |  12000.0000 |       12000 |
| Pimpri       |  14000.0000 |       42000 |
| Model colony | 110000.0000 |      110000 |
+--------------+-------------+-------------+
5 rows in set (0.03 sec)
```

16. Find the employee who do not have a job at vadgaon branch.

```
select emp_name from Empmaster e,Branchmaster b where e.branch_id=b.branch_id and e.branch_id not in(select branch_id from Branchmaster where branch_name="vadgaon");
17. +----------+
18. | emp_name |
19. +----------+
```

20. | Aryan |
21. | Nil |
22. | Yog |
23. | Yog |
24. | Yog |
25. | Bob |
26. +----------+
27. 6 rows in set (0.00 sec)