```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| alightdb           |
| information_schema |
| mydatabase         |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
6 rows in set (0.02 sec)

mysql> use alightdb;
Database changed
mysql> CREATE TABLE emp (
    ->    EMPNO INT NOT NULL AUTO_INCREMENT,
    ->    ENAME VARCHAR(50),
    ->    JOB VARCHAR(50),
    ->    HIREDATE DATE,
    ->    SAL DECIMAL(10, 2),
    ->    COMM DECIMAL(10, 2),
    ->    DEPTNO INT,
    ->    MGR INT,
```

```
mysql> CREATE TABLE dept (
    ->      DEPTNO INT NOT NULL,
    ->      DNAME VARCHAR(50),
    ->      LOCATION VARCHAR(50),
    ->      PRIMARY KEY (DEPTNO)
    -> );
Query OK, 0 rows affected (0.03 sec)

mysql>
```

```
mysql> CREATE TABLE stud_master (
    ->      REG_NO INT NOT NULL,
    ->      S_NAME VARCHAR(50),
    ->      BRANCH VARCHAR(50),
    ->      PRIMARY KEY (REG_NO)
    -> );
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> CREATE TABLE stud_detail (
    ->      REG_NO INT NOT NULL,
    ->      COURSE_CODE VARCHAR(20),
    ->      COURSE_NAME VARCHAR(100),
    ->      MARKS INT,
    ->      SEM VARCHAR(10),
    ->      PRIMARY KEY (REG_NO, COURSE_CODE)
    -> );
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> INSERT INTO emp (empno, ename, job, mgr, hiredate, sal, comm, deptno)
    -> VALUES
    -> (7369, 'KHAN', 'CLERK', 7902, '1980-12-17', 800, NULL, 20),
    -> (7499, 'ALI', 'SALESMAN', 7698, '1981-02-20', 1600, 300, 30),
    -> (7521, 'VERMA', 'SALESMAN', 7698, '1981-02-22', 1250, 500, 30),
    -> (7566, 'PATEL', 'MANAGER', 7839, '1981-04-02', 2975, NULL, 20),
    -> (7698, 'SHARMA', 'MANAGER', 7839, '1981-05-01', 2850, NULL, 30),
    -> (7782, 'SINGH', 'MANAGER', 7839, '1981-06-09', 2450, NULL, 10);
Query OK, 6 rows affected (0.02 sec)
```

```
mysql> INSERT INTO dept (deptno, dname, location)
    -> VALUES
    -> (10, 'ACCOUNTING', 'MUMBAI'),
    -> (20, 'RESEARCH', 'BANGALORE'),
    -> (30, 'SALES', 'DELHI'),
    -> (40, 'OPERATIONS', 'CHENNAI');
Query OK, 4 rows affected (0.00 sec)
```

```
mysql> INSERT INTO stud_master (REG_NO, S_NAME, BRANCH)
    -> VALUES
    -> (1, 'Aamir Khan', 'Computer Engineering'),
    -> (2, 'Ayesha Begum', 'Electrical Engineering'),
    -> (3, 'Rahul Verma', 'Mechanical Engineering'),
    -> (4, 'Sara Ali', 'Computer Engineering');
Query OK, 4 rows affected (0.01 sec)
```

```
mysql> INSERT INTO stud_detail (REG_NO, COURSE_CODE, COURSE_NAME, MARKS, SEM
    -> VALUES
    -> (1, 'CS101', 'Data Structures', 85, 'Sem1'),
    -> (2, 'EE101', 'Circuit Analysis', 90, 'Sem1'),
    -> (3, 'ME101', 'Thermodynamics', 78, 'Sem1'),
    -> (4, 'CS102', 'Algorithms', 88, 'Sem1');
Query OK, 4 rows affected (0.01 sec)
Records: 4  Duplicates: 0  Warnings: 0
```

```
mysql> SELECT * FROM emp;
+-------+--------+----------+------------+---------+--------+--------+
| EMPNO | ENAME  | JOB      | HIREDATE   | SAL     | COMM   | DEPTNO |
+-------+--------+----------+------------+---------+--------+--------+
|  7369 | KHAN   | CLERK    | 1980-12-17 |  800.00 |   NULL |     20 |
|  7499 | ALI    | SALESMAN | 1981-02-20 | 1600.00 | 300.00 |     30 |
|  7521 | VERMA  | SALESMAN | 1981-02-22 | 1250.00 | 500.00 |     30 |
|  7566 | PATEL  | MANAGER  | 1981-04-02 | 2975.00 |   NULL |     20 |
|  7698 | SHARMA | MANAGER  | 1981-05-01 | 2850.00 |   NULL |     30 |
|  7782 | SINGH  | MANAGER  | 1981-06-09 | 2450.00 |   NULL |     10 |
+-------+--------+----------+------------+---------+--------+--------+
6 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM emp
    -> WHERE sal BETWEEN 1000 AND 2000;
+-------+-------+----------+------------+---------+--------+--------+
| EMPNO | ENAME | JOB      | HIREDATE   | SAL     | COMM   | DEPTNO |
+-------+-------+----------+------------+---------+--------+--------+
|  7499 | ALI   | SALESMAN | 1981-02-20 | 1600.00 | 300.00 |     30 |
|  7521 | VERMA | SALESMAN | 1981-02-22 | 1250.00 | 500.00 |     30 |
+-------+-------+----------+------------+---------+--------+--------+
2 rows in set (0.00 sec)
```

```
mysql> SELECT ename, job FROM emp
    -> WHERE job = 'CLERK' AND deptno = 20;
+-------+-------+
| ename | job   |
+-------+-------+
| KHAN  | CLERK |
+-------+-------+
1 row in set (0.00 sec)
```

```
mysql> SELECT DISTINCT job FROM emp;
+----------+
| job      |
+----------+
| CLERK    |
| SALESMAN |
| MANAGER  |
+----------+
3 rows in set (0.00 sec)
```

```
mysql> SELECT deptno, dname FROM dept
    -> ORDER BY dname;
+--------+------------+
| deptno | dname      |
+--------+------------+
|     10 | ACCOUNTING |
|     40 | OPERATIONS |
|     20 | RESEARCH   |
|     30 | SALES      |
+--------+------------+
4 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM stud_master;
+--------+---------------+------------------------+
| REG_NO | S_NAME        | BRANCH                 |
+--------+---------------+------------------------+
|      1 | Aamir Khan    | Computer Engineering   |
|      2 | Ayesha Begum  | Electrical Engineering |
|      3 | Rahul Verma   | Mechanical Engineering |
|      4 | Sara Ali      | Computer Engineering   |
+--------+---------------+------------------------+
4 rows in set (0.00 sec)

mysql> SELECT stud_detail.REG_NO, stud_master.S_NAME
    -> FROM stud_detail
    -> JOIN stud_master ON stud_detail.REG_NO = stud_master.REG_NO
    -> WHERE stud_master.BRANCH = 'Computer Engineering';
+--------+------------+
| REG_NO | S_NAME     |
+--------+------------+
|      1 | Aamir Khan |
|      4 | Sara Ali   |
+--------+------------+
2 rows in set (0.00 sec)
```

EMPNO	ENAME	JOB	HIREDATE	SAL	COMM	DEPTNO	MGR	SPOUSE
101	MOHAMMED	MANAGER	2020-05-05	10000		10		
102	NOUMAN	TRAINEE	2020-05-05	10000		10		
103	RAZI	TRAINEE	2020-05-05	10000		10		
104	AHMED	MANAGER	2020-05-05	10000		10		

EMPNO	ENAME	JOB	HIREDATE	SAL	COMM	DEPTNO	MGR	SPOUSE
101	MOHAMMED	MANAGER	2020-05-05	10000		10		
102	NOUMAN	PROGRAMMER	2020-05-05	10000		10		
103	RAZI	PROGRAMMER	2020-05-05	10000		10		
104	AHMED	MANAGER	2020-05-05	10000		10		

deptno	deptname	location
20	HR	Surat

EMPNO	ENAME	JOB	HIREDATE	SAL	COMM	DEPTNO	MGR	SPOUSE
101	MOHAMMED	MANAGER	2020-05-05	10000		10		
104	AHMED	MANAGER	2020-05-05	10000		10		

EMPNO	ENAME	JOB	HIREDATE	SAL	COMM	DEPTNO	MGR	SPOUSE
101	MOHAMMED	MANAGER	2020-05-05	10000		10		
104	AHMED	MANAGER	2020-05-05	10000		10		
102	NOUMAN	PROGRAMMER	2020-05-05	10000		20		

EMPNO	ENAME	DEPTNO	DEPTNAME
101	MOHAMMED	10	THERAPIST
103	RAZI	10	THERAPIST
104	AHMED	10	THERAPIST

```
+----------------+----------------+------------------+
| employee_id | employee_name| department_name  |
+----------------+----------------+------------------+
|             3 | Charlie      | HR               |
|             4 | David        | HR               |
|             1 | Alice        | Sales            |
|             2 | Bob          | Sales            |
|             5 | Eve          | IT               |
|             6 | Frank        | IT               |
+----------------+----------------+------------------+
```

```
+-------------+----------------+---------------+--------+--------------+-------------+-------
| employee_id | employee_name| department_id | salary | job_title    | manager_id | city
+-------------+----------------+---------------+--------+--------------+-------------+-------
|           1 | Alice        |             1 | 12000  | Manager      | NULL       | Baroda
|           3 | Charlie      |             2 | 11000  | HR Executive | 4          | Baroda
|           5 | Eve          |             3 | 13000  | IT Manager   | NULL       | Baroda
|           6 | Frank        |             3 | 9500   | Developer    | 5          | Baroda
+-------------+----------------+---------------+--------+--------------+-------------+-------
```

employee_name	salary	department_id
Alice	12000	1
Charlie	11000	2
Eve	13000	3

employee_name	job_title	salary	department_name
Eve	IT Manager	13000	IT
Alice	Manager	12000	Sales
Charlie	HR Executive	11000	HR
Frank	Developer	9500	IT
Bob	Salesman	9000	Sales

employee_id	employee_name	manager_id	manager_name
1	Alice	NULL	NULL
2	Bob	1	Alice
3	Charlie	4	David
4	David	5	Eve
5	Eve	NULL	NULL
6	Frank	5	Eve

employee_name	salary	manager_name	manager_salary
Bob	9000	Alice	12000
David	8000	Eve	13000
Frank	9500	Eve	13000