Employee Table

employee_i d	first_name	last_name	department_id	salary
1	John	Doe	1	50000.00
2	Jane	Smith	2	60000.00
3	Alice	Johnson	3	70000.00
4	Bob	Williams	1	55000.00
5	Sarah	Lee	4	62000.00
6	Michael	Brown	3	72000.00
7	Lisa	Taylor	2	65000.00
8	Kevin	Clark	1	58000.00
9	Amanda	Martinez	4	60000.00
10	Eric	Anderson	3	75000.00
11	Emily	Wilson	2	58000.00
12	Ryan	Garcia	3	67000.00
13	Samantha	Martinez	1	56000.00
14	David	Lee	4	64000.00
15	Jessica	Brown	3	69000.00
16	Andrew	Johnson	2	62000.00
17	Lauren	White	1	57000.00
18	Christopher	Lopez	4	61000.00
19	Kimberly	Young	3	73000.00
20	Matthew	Hall	2	64000.00

Department Table

department_i d	department_name
1	HR
2	Finance
3	IT
4	Marketing
5	Operations
6	Sales
7	Research
8	Engineering
9	Customer Service
10	Administration
11	Logistics
12	Quality Control
13	Production
14	Distribution
15	Legal
16	Purchasing
17	Public Relations
18	Advertising
19	Human Resources
20	Information Technology

```
Setting environment for using XAMPP for Windows.
MITS@DESKTOP-NU9RV22 e:\xampp
# mysql -u root
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 16
Server version: 10.4.32-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
```

1. Create a new database named S2MCA.

```
MariaDB [(none)]> CREATE DATABASE S2MCA;
Query OK, 1 row affected (0.002 sec)
```

2. Select a specific database to do operations within.

```
MariaDB [(none)]> USE S2MCA;
Database changed
```

3. Create a table to store department information with a primary key.

```
MariaDB [S2MCA]> CREATE TABLE Department (
    -> department_id int primary key,
    -> department_name varchar(50)
    -> );
Query OK, 0 rows affected (0.013 sec)
```

4. Insert data into Department table.

```
MariaDB [S2MCA]> INSERT INTO Department VALUES
    -> ('1','HR'),('2','Finance'),
    -> ('3','IT'),('4','Marketing'),
    -> ('5','Operations'),('6','Sales'),
    -> ('7','Research'),('8','Engineering'),
    -> ('9','Customer Service'),('10','Administration'),
    -> ('11','Logistics'),('12','Quality Control'),
    -> ('13','Production'),('14','Distribution'),
    -> ('15','Legal'),('16','Purchasing'),
    -> ('17','Public Relation'),('18','Advertising'),
    -> ('19','Human Resources'),('20','Information Technology');
Query OK, 20 rows affected (0.006 sec)
Records: 20  Duplicates: 0  Warnings: 0
```

```
MariaDB [S2MCA]> SELECT * FROM Department;
+---------------+------------------------+
| department_id | department_name        |
+---------------+------------------------+
|             1 | HR                     |
|             2 | Finance                |
|             3 | IT                     |
|             4 | Marketing              |
|             5 | Operations             |
|             6 | Sales                  |
|             7 | Research               |
|             8 | Engineering            |
|             9 | Customer Service       |
|            10 | Administration         |
|            11 | Logistics              |
|            12 | Quality Control        |
|            13 | Production             |
|            14 | Distribution           |
|            15 | Legal                  |
|            16 | Purchasing             |
|            17 | Public Relation        |
|            18 | Advertising            |
|            19 | Human Resources        |
|            20 | Information Technology |
+---------------+------------------------+
20 rows in set (0.004 sec)
```

5. Create a table to store Employee information with primary key and foreign key constraints.

```
MariaDB [S2MCA]> CREATE TABLE Employee (
    -> employee_id int primary key,
    -> first_name varchar(50),
    -> last_name varchar(50),
    -> department_id int,
    -> salary varchar(20),
    ->foreign key (department_id) references Department (department_id)
    -> );
Query OK, 0 rows affected (0.011 sec)
```

6. Insert data into Employee table.

```
MariaDB[S2MCA]>INSERT INTO Employee
(employee_id,first_name,last_name,department_id,salary) VALUES
    ->      ('1','John','Doe','1','50000.00'),
    ->      ('2','Jane','Smith','2','60000.00'),
    ->      ('3','Alice','Johnson','3','70000.00'),
    ->      ('4','Bob','Williams','1','55000.00'),
    ->      ('5','Sarah','Lee','4','62000.00'),
    ->      ('6','Micheal','Brown','3','72000.00'),
    ->      ('7','Lisa','Taylor','2','65000.00'),
    ->      ('8','Kevin','Clark','1','58000.00'),
    ->      ('9','Amanda','Martinez','4','60000.00'),
```

```
    ->      ('10','Eric','Anderson','3','75000.00'),
    ->      ('11','Emily','Wilson','2','58000.00'),
    ->      ('12','Ryan','Garcia','3','67000.00'),
    ->      ('13','Samantha','Martinez','1','56000.00'),
    ->      ('14','David','Lee','4','64000.00'),
    ->      ('15','Jessica','Brown','3','69000.00'),
    ->      ('16','Andrew','Johnson','2','50000.00'),
    ->      ('17','Park','Xiao','1','57000.00'),
    ->      ('18','Christopher','Lopez','4','61000.00'),
    ->      ('19','Kimberly','Young','3','73000.00'),
    ->      ('20','Matthew','Hall','2','64000.00');
Query OK, 20 rows affected (0.007 sec)
Records: 20  Duplicates: 0  Warnings: 0

MariaDB [S2MCA]> SELECT * FROM Employee;
+-------------+-------------+-----------+---------------+----------+
| employee_id | first_name  | last_name | department_id | salary   |
+-------------+-------------+-----------+---------------+----------+
|           1 | John        | Doe       |             1 | 50000.00 |
|           2 | Jane        | Smith     |             2 | 60000.00 |
|           3 | Alice       | Johnson   |             3 | 70000.00 |
|           4 | Bob         | Williams  |             1 | 55000.00 |
|           5 | Sarah       | Lee       |             4 | 62000.00 |
|           6 | Micheal     | Brown     |             3 | 72000.00 |
|           7 | Lisa        | Taylor    |             2 | 65000.00 |
|           8 | Kevin       | Clark     |             1 | 58000.00 |
|           9 | Amanda      | Martinez  |             4 | 60000.00 |
|          10 | Eric        | Anderson  |             3 | 75000.00 |
|          11 | Emily       | Wilson    |             2 | 58000.00 |
|          12 | Ryan        | Garcia    |             3 | 67000.00 |
|          13 | Samantha    | Martinez  |             1 | 56000.00 |
|          14 | David       | Lee       |             4 | 64000.00 |
|          15 | Jessica     | Brown     |             3 | 69000.00 |
|          16 | Andrew      | Johnson   |             2 | 50000.00 |
|          17 | Park        | Xiao      |             1 | 57000.00 |
|          18 | Christopher | Lopez     |             4 | 61000.00 |
|          19 | Kimberly    | Young     |             3 | 73000.00 |
|          20 | Matthew     | Hall      |             2 | 64000.00 |
+-------------+-------------+-----------+---------------+----------+
20 rows in set (0.001 sec)
```

7. Use DISTINCT to select unique department names.

```
MariaDB [S2MCA]> SELECT DISTINCT department_name FROM Department;
+-----------------------+
| department_name       |
+-----------------------+
| HR                    |
| Finance               |
| IT                    |
| Marketing             |
| Operations            |
| Sales                 |
| Research              |
```

```
| Engineering            |
| Customer Service       |
| Administration         |
| Logistics              |
| Quality Control        |
| Production             |
| Distribution           |
| Legal                  |
| Purchasing             |
| Public Relation        |
| Advertising            |
| Human Resources        |
| Information Technology |
+------------------------+
20 rows in set (0.004 sec)
```

8. Select all columns from the employee table.

```
MariaDB [S2MCA]> SELECT * FROM Employee;
+-------------+-------------+-----------+---------------+----------+
| employee_id | first_name  | last_name | department_id | salary   |
+-------------+-------------+-----------+---------------+----------+
|           1 | John        | Doe       |             1 | 50000.00 |
|           2 | Jane        | Smith     |             2 | 60000.00 |
|           3 | Alice       | Johnson   |             3 | 70000.00 |
|           4 | Bob         | Williams  |             1 | 55000.00 |
|           5 | Sarah       | Lee       |             4 | 62000.00 |
|           6 | Micheal     | Brown     |             3 | 72000.00 |
|           7 | Lisa        | Taylor    |             2 | 65000.00 |
|           8 | Kevin       | Clark     |             1 | 58000.00 |
|           9 | Amanda      | Martinez  |             4 | 60000.00 |
|          10 | Eric        | Anderson  |             3 | 75000.00 |
|          11 | Emily       | Wilson    |             2 | 58000.00 |
|          12 | Ryan        | Garcia    |             3 | 67000.00 |
|          13 | Samantha    | Martinez  |             1 | 56000.00 |
|          14 | David       | Lee       |             4 | 64000.00 |
|          15 | Jessica     | Brown     |             3 | 69000.00 |
|          16 | Andrew      | Johnson   |             2 | 50000.00 |
|          17 | Park        | Xiao      |             1 | 57000.00 |
|          18 | Christopher | Lopez     |             4 | 61000.00 |
|          19 | Kimberly    | Young     |             3 | 73000.00 |
|          20 | Matthew     | Hall      |             2 | 64000.00 |
+-------------+-------------+-----------+---------------+----------+
20 rows in set (0.001 sec)
```

9. Select specific columns (first_name, last_name) from the Employee table.

```
MariaDB [S2MCA]> SELECT first_name, last_name FROM Employee;
+-------------+-----------+
| first_name  | last_name |
+-------------+-----------+
| John        | Doe       |
| Jane        | Smith     |
```

```
| Alice       | Johnson   |
| Bob         | Williams  |
| Sarah       | Lee       |
| Micheal     | Brown     |
| Lisa        | Taylor    |
| Kevin       | Clark     |
| Amanda      | Martinez  |
| Eric        | Anderson  |
| Emily       | Wilson    |
| Ryan        | Garcia    |
| Samantha    | Martinez  |
| David       | Lee       |
| Jessica     | Brown     |
| Andrew      | Johnson   |
| Park        | Xiao      |
| Christopher | Lopez     |
| Kimberly    | Young     |
| Matthew     | Hall      |
+-------------+-----------+
20 rows in set (0.001 sec)
```

10. Select employees earning more than $60,000.

```
MariaDB [S2MCA]> SELECT * FROM Employee WHERE salary > 60000.00;
+-------------+-------------+-----------+---------------+----------+
| employee_id | first_name  | last_name | department_id | salary   |
+-------------+-------------+-----------+---------------+----------+
|           3 | Alice       | Johnson   |             3 | 70000.00 |
|           5 | Sarah       | Lee       |             4 | 62000.00 |
|           6 | Micheal     | Brown     |             3 | 72000.00 |
|           7 | Lisa        | Taylor    |             2 | 65000.00 |
|          10 | Eric        | Anderson  |             3 | 75000.00 |
|          12 | Ryan        | Garcia    |             3 | 67000.00 |
|          14 | David       | Lee       |             4 | 64000.00 |
|          15 | Jessica     | Brown     |             3 | 69000.00 |
|          18 | Christopher | Lopez     |             4 | 61000.00 |
|          19 | Kimberly    | Young     |             3 | 73000.00 |
|          20 | Matthew     | Hall      |             2 | 64000.00 |
+-------------+-------------+-----------+---------------+----------+
11 rows in set (0.005 sec)
```

11. Select employees in the HR Department (dept_id=1).

```
MariaDB [S2MCA]> SELECT * FROM Employee WHERE department_id = 1;
+-------------+------------+-----------+---------------+----------+
| employee_id | first_name | last_name | department_id | salary   |
+-------------+------------+-----------+---------------+----------+
|           1 | John       | Doe       |             1 | 50000.00 |
|           4 | Bob        | Williams  |             1 | 55000.00 |
|           8 | Kevin      | Clark     |             1 | 58000.00 |
|          13 | Samantha   | Martinez  |             1 | 56000.00 |
|          17 | Park       | Xiao      |             1 | 57000.00 |
```

```
+-------------+------------+----------+---------------+----------+
5 rows in set (0.006 sec)
```

12. Add a new column (hired) to the employee table and insert values.

```
MariaDB [S2MCA]> ALTER TABLE Employee ADD hired_date date;
Query OK, 0 rows affected (0.008 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [S2MCA]> UPDATE Employee SET hired_date = '2022-05-20' WHERE salary
>= 70000.00 AND salary < 80000.00;
Query OK, 4 rows affected (0.002 sec)
Rows matched: 4  Changed: 4  Warnings: 0

MariaDB [S2MCA]> UPDATE Employee SET hired_date = '2022-10-5' WHERE salary >=
60000.00 AND salary < 70000.00;
Query OK, 9 rows affected (0.003 sec)
Rows matched: 9  Changed: 9  Warnings: 0

MariaDB [S2MCA]> UPDATE Employee SET hired_date = '2023-05-14' WHERE salary
>= 50000.00 AND salary < 60000.00;
Query OK, 7 rows affected (0.006 sec)
Rows matched: 7  Changed: 7  Warnings: 0

MariaDB [S2MCA]> UPDATE Employee SET hired_date = '2023-09-30' WHERE salary <
50000.00;
Query OK, 0 rows affected (0.000 sec)
Rows matched: 0  Changed: 0  Warnings: 0

MariaDB [S2MCA]> SELECT * FROM Employee;
+-------------+-------------+-----------+---------------+----------+------------+
| employee_id | first_name  | last_name | department_id | salary   | hired_date |
+-------------+-------------+-----------+---------------+----------+------------+
|           1 | John        | Doe       |             1 | 50000.00 | 2023-05-14 |
|           2 | Jane        | Smith     |             2 | 60000.00 | 2022-10-05 |
|           3 | Alice       | Johnson   |             3 | 70000.00 | 2022-05-20 |
|           4 | Bob         | Williams  |             1 | 55000.00 | 2023-05-14 |
|           5 | Sarah       | Lee       |             4 | 62000.00 | 2022-10-05 |
|           6 | Micheal     | Brown     |             3 | 72000.00 | 2022-05-20 |
|           7 | Lisa        | Taylor    |             2 | 65000.00 | 2022-10-05 |
|           8 | Kevin       | Clark     |             1 | 58000.00 | 2023-05-14 |
|           9 | Amanda      | Martinez  |             4 | 60000.00 | 2022-10-05 |
|          10 | Eric        | Anderson  |             3 | 75000.00 | 2022-05-20 |
|          11 | Emily       | Wilson    |             2 | 58000.00 | 2023-05-14 |
|          12 | Ryan        | Garcia    |             3 | 67000.00 | 2022-10-05 |
|          13 | Samantha    | Martinez  |             1 | 56000.00 | 2023-05-14 |
|          14 | David       | Lee       |             4 | 64000.00 | 2022-10-05 |
|          15 | Jessica     | Brown     |             3 | 69000.00 | 2022-10-05 |
|          16 | Andrew      | Johnson   |             2 | 50000.00 | 2023-05-14 |
|          17 | Park        | Xiao      |             1 | 57000.00 | 2023-05-14 |
|          18 | Christopher | Lopez     |             4 | 61000.00 | 2022-10-05 |
|          19 | Kimberly    | Young     |             3 | 73000.00 | 2022-05-20 |
|          20 | Matthew     | Hall      |             2 | 64000.00 | 2022-10-05 |
+-------------+-------------+-----------+---------------+----------+------------+
20 rows in set (0.000 sec)
```

13. Select employees hired after 1 January 2023.

```
MariaDB [S2MCA]> SELECT * FROM Employee WHERE hired_date > '2023-01-01';
+-------------+------------+-----------+---------------+----------+------------+
| employee_id | first_name | last_name | department_id | salary   | hired_date |
+-------------+------------+-----------+---------------+----------+------------+
|           1 | John       | Doe       |             1 | 50000.00 | 2023-05-14 |
|           4 | Bob        | Williams  |             1 | 55000.00 | 2023-05-14 |
|           8 | Kevin      | Clark     |             1 | 58000.00 | 2023-05-14 |
|          11 | Emily      | Wilson    |             2 | 58000.00 | 2023-05-14 |
|          13 | Samantha   | Martinez  |             1 | 56000.00 | 2023-05-14 |
|          16 | Andrew     | Johnson   |             2 | 50000.00 | 2023-05-14 |
|          17 | Park       | Xiao      |             1 | 57000.00 | 2023-05-14 |
+-------------+------------+-----------+---------------+----------+------------+
7 rows in set (0.000 sec)
```

14. Write a query to retrieve all employees with a greater salary than $50,000.

```
MariaDB [S2MCA]> SELECT * from Employee where salary > 50000;
+-------------+-------------+-----------+---------------+----------+------------+
| employee_id | first_name  | last_name | department_id | salary   | hired_date |
+-------------+-------------+-----------+---------------+----------+------------+
|           2 | Jane        | Smith     |             2 | 60000.00 | 2022-10-05 |
|           3 | Alice       | Johnson   |             3 | 70000.00 | 2022-05-20 |
|           4 | Bob         | Williams  |             1 | 55000.00 | 2023-05-14 |
|           5 | Sarah       | Lee       |             4 | 62000.00 | 2022-10-05 |
|           6 | Micheal     | Brown     |             3 | 72000.00 | 2022-05-20 |
|           7 | Lisa        | Taylor    |             2 | 65000.00 | 2022-10-05 |
|           8 | Kevin       | Clark     |             1 | 58000.00 | 2023-05-14 |
|           9 | Amanda      | Martinez  |             4 | 60000.00 | 2022-10-05 |
|          10 | Eric        | Anderson  |             3 | 75000.00 | 2022-05-20 |
|          11 | Emily       | Wilson    |             2 | 58000.00 | 2023-05-14 |
|          12 | Ryan        | Garcia    |             3 | 67000.00 | 2022-10-05 |
|          13 | Samantha    | Martinez  |             1 | 56000.00 | 2023-05-14 |
|          14 | David       | Lee       |             4 | 64000.00 | 2022-10-05 |
|          15 | Jessica     | Brown     |             3 | 69000.00 | 2022-10-05 |
|          17 | Park        | Xiao      |             1 | 57000.00 | 2023-05-14 |
|          18 | Christopher | Lopez     |             4 | 61000.00 | 2022-10-05 |
|          19 | Kimberly    | Young     |             3 | 73000.00 | 2022-05-20 |
|          20 | Matthew     | Hall      |             2 | 64000.00 | 2022-10-05 |
+-------------+-------------+-----------+---------------+----------+------------+
18 rows in set (0.002 sec)
```

15. Find all employees whose department id is not equal to 3.

```
MariaDB [S2MCA]> SELECT * FROM Employee WHERE department_id != 3;
+-------------+-------------+-----------+---------------+----------+------------+
| employee_id | first_name  | last_name | department_id | salary   | hired_date |
+-------------+-------------+-----------+---------------+----------+------------+
|           1 | John        | Doe       |             1 | 50000.00 | 2023-05-14 |
|           2 | Jane        | Smith     |             2 | 60000.00 | 2022-10-05 |
|           4 | Bob         | Williams  |             1 | 55000.00 | 2023-05-14 |
|           5 | Sarah       | Lee       |             4 | 62000.00 | 2022-10-05 |
|           7 | Lisa        | Taylor    |             2 | 65000.00 | 2022-10-05 |
|           8 | Kevin       | Clark     |             1 | 58000.00 | 2023-05-14 |
|           9 | Amanda      | Martinez  |             4 | 60000.00 | 2022-10-05 |
|          11 | Emily       | Wilson    |             2 | 58000.00 | 2023-05-14 |
```

```
|          13 | Samantha    | Martinez  |             1 | 56000.00 | 2023-05-14 |
|          14 | David       | Lee       |             4 | 64000.00 | 2022-10-05 |
|          16 | Andrew      | Johnson   |             2 | 50000.00 | 2023-05-14 |
|          17 | Park        | Xiao      |             1 | 57000.00 | 2023-05-14 |
|          18 | Christopher | Lopez     |             4 | 61000.00 | 2022-10-05 |
|          20 | Matthew     | Hall      |             2 | 64000.00 | 2022-10-05 |
+-------------+-------------+-----------+---------------+----------+------------+
14 rows in set (0.002 sec)
```

16. Retrieve employees with salary greater than $50,000 and with department id 2.

```
MariaDB [S2MCA]> SELECT * FROM Employee WHERE salary > 50000 AND department_id
= 2;
+-------------+------------+-----------+---------------+----------+------------+
| employee_id | first_name | last_name | department_id | salary   | hired_date |
+-------------+------------+-----------+---------------+----------+------------+
|           2 | Jane       | Smith     |             2 | 60000.00 | 2022-10-05 |
|           7 | Lisa       | Taylor    |             2 | 65000.00 | 2022-10-05 |
|          11 | Emily      | Wilson    |             2 | 58000.00 | 2023-05-14 |
|          20 | Matthew    | Hall      |             2 | 64000.00 | 2022-10-05 |
+-------------+------------+-----------+---------------+----------+------------+
4 rows in set(0.002 sec)
```

17. Select all employees who belong to department id 1 and 2.

```
MariaDB [S2MCA]> SELECT * FROM Employee WHERE department_id IN (1, 2);
+-------------+------------+-----------+---------------+----------+------------+
| employee_id | first_name | last_name | department_id | salary   | hired_date |
+-------------+------------+-----------+---------------+----------+------------+
|           1 | John       | Doe       |             1 | 50000.00 | 2023-05-14 |
|           2 | Jane       | Smith     |             2 | 60000.00 | 2022-10-05 |
|           4 | Bob        | Williams  |             1 | 55000.00 | 2023-05-14 |
|           7 | Lisa       | Taylor    |             2 | 65000.00 | 2022-10-05 |
|           8 | Kevin      | Clark     |             1 | 58000.00 | 2023-05-14 |
|          11 | Emily      | Wilson    |             2 | 58000.00 | 2023-05-14 |
|          13 | Samantha   | Martinez  |             1 | 56000.00 | 2023-05-14 |
|          16 | Andrew     | Johnson   |             2 | 50000.00 | 2023-05-14 |
|          17 | Park       | Xiao      |             1 | 57000.00 | 2023-05-14 |
|          20 | Matthew    | Hall      |             2 | 64000.00 | 2022-10-05 |
+-------------+------------+-----------+---------------+----------+------------+
10 ows in set (0.001 sec)
```

18. Write a query to fetch the first name, last name, and department name of employees from the ‘employees’ and ‘departments’ tables, joining them based on the department id.

```
MariaDB [S2MCA]> SELECT e.first_name, e.last_name, d.department_name FROM
Employee e INNER JOIN Department d ON e.department_id = d.department_id;
+-------------+-----------+-----------------+
| first_name  | last_name | department_name |
+-------------+-----------+-----------------+
| John        | Doe       | HR              |
| Jane        | Smith     | Finance         |
| Alice       | Johnson   | IT              |
```

```
| Bob         | Williams  | HR              |
| Sarah       | Lee       | Marketing       |
| Micheal     | Brown     | IT              |
| Lisa        | Taylor    | Finance         |
| Kevin       | Clark     | HR              |
| Amanda      | Martinez  | Marketing       |
| Eric        | Anderson  | IT              |
| Emily       | Wilson    | Finance         |
| Ryan        | Garcia    | IT              |
| Samantha    | Martinez  | HR              |
| David       | Lee       | Marketing       |
| Jessica     | Brown     | IT              |
| Andrew      | Johnson   | Finance         |
| Park        | Xiao      | HR              |
| Christopher | Lopez     | Marketing       |
| Kimberly    | Young     | IT              |
| Matthew     | Hall      | Finance         |
+-------------+-----------+-----------------+
20 rows in set (0.001 sec)
```

19. Write a query to retrieve the first name, last name, and department name of all employees who belong to the 'IT' department.

```
MariaDB [S2MCA]> SELECT e.first_name, e.last_name, d.department_name FROM
Employee e INNER JOIN Department d ON e.department_id = d.department_id WHERE
d.department_name = 'IT';
+------------+-----------+-----------------+
| first_name | last_name | department_name |
+------------+-----------+-----------------+
| Alice      | Johnson   | IT              |
| Micheal    | Brown     | IT              |
| Eric       | Anderson  | IT              |
| Ryan       | Garcia    | IT              |
| Jessica    | Brown     | IT              |
| Kimberly   | Young     | IT              |
+------------+-----------+-----------------+
6 rows in set (0.002 sec)
```

20. Find employees who have the same salary.

```
MariaDB [S2MCA]> SELECT e1.first_name, e1.last_name, e1.salary FROM Employee
e1 INNER JOIN Employee e2 ON e1.salary = e2.salary WHERE e1.employee_id <>
e2.employee_id ORDER BY e1.salary;
+------------+-----------+----------+
| first_name | last_name | salary   |
+------------+-----------+----------+
| Andrew     | Johnson   | 50000.00 |
| John       | Doe       | 50000.00 |
| Kevin      | Clark     | 58000.00 |
| Emily      | Wilson    | 58000.00 |
| Amanda     | Martinez  | 60000.00 |
```

```
| Jane       | Smith     | 60000.00 |
| David      | Lee       | 64000.00 |
| Matthew    | Hall      | 64000.00 |
+------------+-----------+----------+
8 rows in set (0.004 sec)
```

21. Drop the salary column from the employee table.

```
MariaDB [S2MCA]> ALTER TABLE Employee DROP COLUMN salary;
Query OK, 0 rows affected (0.012 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [S2MCA]> SELECT * FROM Employee;
+-------------+-------------+-----------+---------------+------------+
| employee_id | first_name  | last_name | department_id | hired_date |
+-------------+-------------+-----------+---------------+------------+
|           1 | John        | Doe       |             1 | 2023-05-14 |
|           2 | Jane        | Smith     |             2 | 2022-10-05 |
|           3 | Alice       | Johnson   |             3 | 2022-05-20 |
|           4 | Bob         | Williams  |             1 | 2023-05-14 |
|           5 | Sarah       | Lee       |             4 | 2022-10-05 |
|           6 | Micheal     | Brown     |             3 | 2022-05-20 |
|           7 | Lisa        | Taylor    |             2 | 2022-10-05 |
|           8 | Kevin       | Clark     |             1 | 2023-05-14 |
|           9 | Amanda      | Martinez  |             4 | 2022-10-05 |
|          10 | Eric        | Anderson  |             3 | 2022-05-20 |
|          11 | Emily       | Wilson    |             2 | 2023-05-14 |
|          12 | Ryan        | Garcia    |             3 | 2022-10-05 |
|          13 | Samantha    | Martinez  |             1 | 2023-05-14 |
|          14 | David       | Lee       |             4 | 2022-10-05 |
|          15 | Jessica     | Brown     |             3 | 2022-10-05 |
|          16 | Andrew      | Johnson   |             2 | 2023-05-14 |
|          17 | Park        | Xiao      |             1 | 2023-05-14 |
|          18 | Christopher | Lopez     |             4 | 2022-10-05 |
|          19 | Kimberly    | Young     |             3 | 2022-05-20 |
|          20 | Matthew     | Hall      |             2 | 2022-10-05 |
+-------------+-------------+-----------+---------------+------------+
20 rows in set (0.001 sec)
```

22. Delete a row from Employee where Department id = 5.

```
MariaDB [S2MCA]> DELETE FROM Employee WHERE department_id = 5;
Query OK, 0 rows affected (0.002 sec)

MariaDB [S2MCA]> SELECT * FROM Employee;
+-------------+-------------+-----------+---------------+------------+
| employee_id | first_name  | last_name | department_id | hired_date |
+-------------+-------------+-----------+---------------+------------+
|           1 | John        | Doe       |             1 | 2023-05-14 |
|           2 | Jane        | Smith     |             2 | 2022-10-05 |
|           3 | Alice       | Johnson   |             3 | 2022-05-20 |
|           4 | Bob         | Williams  |             1 | 2023-05-14 |
|           5 | Sarah       | Lee       |             4 | 2022-10-05 |
|           6 | Micheal     | Brown     |             3 | 2022-05-20 |
```

```
|           7 | Lisa        | Taylor    |             2 | 2022-10-05 |
|           8 | Kevin       | Clark     |             1 | 2023-05-14 |
|           9 | Amanda      | Martinez  |             4 | 2022-10-05 |
|          10 | Eric        | Anderson  |             3 | 2022-05-20 |
|          11 | Emily       | Wilson    |             2 | 2023-05-14 |
|          12 | Ryan        | Garcia    |             3 | 2022-10-05 |
|          13 | Samantha    | Martinez  |             1 | 2023-05-14 |
|          14 | David       | Lee       |             4 | 2022-10-05 |
|          15 | Jessica     | Brown     |             3 | 2022-10-05 |
|          16 | Andrew      | Johnson   |             2 | 2023-05-14 |
|          17 | Park        | Xiao      |             1 | 2023-05-14 |
|          18 | Christopher | Lopez     |             4 | 2022-10-05 |
|          19 | Kimberly    | Young     |             3 | 2022-05-20 |
|          20 | Matthew     | Hall      |             2 | 2022-10-05 |
+-------------+-------------+-----------+---------------+------------+
20 rows in set (0.000 sec)
```

23. Delete Employee table from Database.

```
MariaDB [S2MCA]> DROP TABLE Employee;
Query OK, 0 rows affected (0.008 sec)

MariaDB [S2MCA]> SELECT * FROM Employee;
ERROR 1146 (42S02): Table 's2mca.employee' doesn't exist
MariaDB [S2MCA]> SHOW TABLES;
+-----------------+
| Tables_in_s2mca |
+-----------------+
| department      |
+-----------------+
1 row in set (0.004 sec)
```

24. Delete an existing database(S2MCA).

```
MariaDB [S2MCA]> DROP DATABASE S2MCA;
Query OK, 1 row affected (0.009 sec)
```