

QUESTION 1;

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

MariaDB [(none)]> use employee
Database changed
MariaDB [employee]> SELECT employees.name, departments.department_name FROM
employees JOIN departments ON employees.id=departments.id;
+-----+-----+
| name   | department_name |
+-----+-----+
| Alice   | HR
| Bob     | Engineering
| Charlie | Marketing
| David   | Finance
| Emma    | Sales
| Frank   | IT
| Grace   | Customer Support
+-----+-----+
7 rows in set (0.018 sec)

MariaDB [employee]> |
```

UPDATED

```
MariaDB [employee]> SELECT employees.name, departments.department_name FROM employees LEFT JOIN departments;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '' at line 1
MariaDB [employee]> SELECT employees.name, departments.department_name FROM employees LEFT JOIN departments ON employees.id=departments.id;
+-----+-----+
| name | department_name |
+-----+-----+
| Alice | HR
| Bob | Engineering
| Charlie | Marketing
| David | Finance
| Emma | Sales
| Frank | IT
| Grace | Customer Support
| Hank | NULL
| Ivy | NULL
| Jack | NULL
| Karen | NULL
| Laura | NULL
| Mike | NULL
| Nina | NULL
| Olivia | NULL
| Paul | NULL
| Quincy | NULL
| Rachel | NULL
| Steve | NULL
| Tracy | NULL
| Uma | NULL
| Victor | NULL
| Wendy | NULL
| Xander | NULL
| Yvonne | NULL
| Zach | NULL
+-----+-----+
26 rows in set (0.005 sec)

MariaDB [employee]>
```

QUESTION 2;

```
7 rows in set (0.001 sec)

MariaDB [employee]> SELECT employees.name, departments.department_name FROM
employees LEFT JOIN departments ON employees.id=departments.id;
+-----+-----+
| name   | department_name |
+-----+-----+
| Alice   | HR
| Bob     | Engineering
| Charlie | Marketing
| David   | Finance
| Emma    | Sales
| Frank   | IT
| Grace   | Customer Support
| Hank   | NULL
| Ivy    | NULL
| Jack   | NULL
| Karen  | NULL
| Laura  | NULL
| Mike   | NULL
| Nina   | NULL
| Olivia | NULL
| Paul   | NULL
| Quincy | NULL
| Rachel | NULL
| Steve  | NULL
| Tracy  | NULL
| Uma   | NULL
| Victor | NULL
| Wendy  | NULL
| Xander | NULL
| Yvonne | NULL
| Zach   | NULL
+-----+-----+
26 rows in set (0.001 sec)

MariaDB [employee]> |
```

QUESTION 3;

```
26 rows in set (0.001 sec)

MariaDB [employee]> SELECT employees.name, departments.department_name FROM
employees RIGHT JOIN departments ON employees.id=departments.id;
+-----+
| name      | department_name |
+-----+
| Alice     | HR             |
| Bob       | Engineering   |
| Charlie   | Marketing     |
| David     | Finance        |
| Emma      | Sales           |
| Frank     | IT             |
| Grace     | Customer Support|
+-----+
7 rows in set (0.001 sec)

MariaDB [employee]> SELECT departments.department_name, employees.name FROM
departments LEFT JOIN employees ON departments.id=employees.id;
+-----+
| department_name | name      |
+-----+
| HR             | Alice     |
| Engineering   | Bob       |
| Marketing     | Charlie   |
| Finance        | David     |
| Sales           | Emma     |
| IT             | Frank     |
| Customer Support| Grace    |
+-----+
7 rows in set (0.001 sec)

MariaDB [employee]> |
```

UPDATED USING ALIAS

```
MariaDB [employee]> SELECT departments.department_name AS department, employ
ees.name AS employee FROM departments LEFT JOIN employees ON departments.id=
employees.id;
+-----+
| department      | employee |
+-----+
| HR             | Alice     |
| Engineering   | Bob       |
| Marketing     | Charlie   |
| Finance        | David     |
| Sales           | Emma     |
| IT             | Frank     |
| Customer Support| Grace    |
+-----+
7 rows in set (0.002 sec)

MariaDB [employee]> |
```

QUESTION 4;

```
26 rows in set (0.011 sec)

MariaDB [employee]> SELECT employee.name, manager.name FROM employees AS employee JOIN employees AS manager ON employee.manager_id=manager.id;
+-----+-----+
| name | name |
+-----+-----+
| Alice | Jack  |
| Bob   | Jack  |
| David | Emma  |
| Frank | Charlie |
| Ivy   | Hank  |
| Karen | Laura |
| Mike  | Nina  |
| Olivia| Grace |
| Paul  | Charlie |
| Quincy| Jack  |
| Rachel| Emma  |
| Steve | Hank  |
| Tracy | Laura |
| Uma   | Nina  |
| Victor| Grace |
| Wendy | Charlie |
| Xander| Jack  |
| Yvonne| Emma  |
| Zach  | Hank  |
+-----+-----+
19 rows in set (0.003 sec)

MariaDB [employee]> |
```

Use alias in select statement for tables retry later.

QUESTION 5;

```
MariaDB [(none)]> use employee
Database changed
MariaDB [employee]> SELECT employees.name, departments.department_name FROM
employees JOIN departments ON employees.id=departments.id;
+-----+-----+
| name      | department_name |
+-----+-----+
| Alice     | HR           |
| Bob       | Engineering |
| Charlie   | Marketing    |
| David     | Finance      |
| Emma      | Sales         |
| Frank     | IT           |
| Grace     | Customer Support |
+-----+-----+
7 rows in set (0.018 sec)
```

UPDATED WITH ALIASES

```
MariaDB [employee]> SELECT employees.name AS employee, departments.department_name AS department FROM employees JOIN departments ON employees.id=departments.id;
+-----+-----+
| employee | department |
+-----+-----+
| Alice     | HR           |
| Bob       | Engineering |
| Charlie   | Marketing    |
| David     | Finance      |
| Emma      | Sales         |
| Frank     | IT           |
| Grace     | Customer Support |
+-----+-----+
7 rows in set (0.002 sec)

MariaDB [employee]> |
```

QUESTION 6-7;

```

1 row in set (0.003 sec)

MariaDB [employee]> SELECT employees.name, MAX(salary) FROM employees;
+-----+
| name | MAX(salary) |
+-----+
| Alice | 90000.00 |
+-----+
1 row in set (0.001 sec)

MariaDB [employee]> SELECT employees.name, departments.department_name, MAX(
salary) FROM employees JOIN departments;
+-----+-----+-----+
| name | department_name | MAX(salary) |
+-----+-----+-----+
| Alice | HR | 90000.00 |
+-----+-----+
1 row in set (0.001 sec)

MariaDB [employee]> |

```

UPDATED USING ORDER INSTEAD OF MAX FUNCTION TO GET ACCURATE ROW

```

ERROR 1111 (HY000): Invalid use of group function
MariaDB [employee]> SELECT name, salary FROM employees ORDER BY salary DESC
LIMIT 1;
+-----+
| name | salary |
+-----+
| Emma | 90000.00 |
+-----+
1 row in set (0.012 sec)

MariaDB [employee]>

```

Frank	Engineering	47000.00
Frank	Marketing	47000.00
Frank	Finance	47000.00
Frank	Sales	47000.00
Frank	IT	47000.00
Frank	HR	47000.00

182 rows in set (0.009 sec)

```

MariaDB [employee]> SELECT employees.name, departments.department_name, empl
oyees.salary FROM employees JOIN departments ORDER BY salary DESC LIMIT 1;
+-----+-----+-----+
| name | department_name | salary |
+-----+-----+-----+
| Emma | Finance | 90000.00 |
+-----+-----+
1 row in set (0.001 sec)

MariaDB [employee]> |

```

