

## 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 t
hat corresponds to your MariaDB server version for the right syntax to use n
ear '' 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 emp  
loyee 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.departmen
t_name AS department FROM employees JOIN departments ON employees.id=departm
ents.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]> |

```

