

# MySQL Assignment

Q. Create two tables: Employee Details and Employee Salary.

Columns for Employee Details: EmpId FullName ManagerId DateOfJoining City &&  
Columns for EmployeeSalary: : EmpId Project Salary Variable.

```
mysql> create table employeedetails(  
-> EmpId INT AUTO_INCREMENT PRIMARY KEY,  
-> FullName VARCHAR(255),  
-> ManagerId INT,  
-> DateOfJoining DATE,  
-> City VARCHAR(255)  
-> );
```

Query OK, 0 rows affected (0.04 sec)

```
mysql> desc employeedetails;
```

Field	Type	Null	Key	Default	Extra
EmpId	int	NO	PRI	NULL	auto_increment
FullName	varchar(255)	YES		NULL	
ManagerId	int	YES		NULL	
DateOfJoining	date	YES		NULL	
City	varchar(255)	YES		NULL	

5 rows in set (0.02 sec)

Employee Details Table

```
mysql> create table employeesalary(
-> EmpId INT,
-> Project VARCHAR(255),
-> Salary DECIMAL(10, 2),
-> Variable DECIMAL(10, 2),
-> FOREIGN KEY (EmpId) REFERENCES EmployeeDetails(EmpId)
-> );
Query OK, 0 rows affected (0.05 sec)

mysql> desc employeesalary;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| EmpId | int | YES | MUL | NULL | |
| Project | varchar(255) | YES | | NULL | |
| Salary | decimal(10,2) | YES | | NULL | |
| Variable | decimal(10,2) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

Employee Salary Table

```
mysql> insert into employeeDetails(FullName, ManagerId, DateOfJoining, City)values ('John Doe', NULL, '2022-01-15', 'New York'),
-> ('Jane Smith', 1, '2021-07-10', 'Los Angeles'),
-> ('Bob Johnson', 1, '2021-11-20', 'Chicago'),
-> ('Alice Brown', 2, '2020-03-05', 'San Francisco'),
-> ('Eva Wilson', 3, '2022-05-30', 'Houston');
Query OK, 5 rows affected (0.03 sec)
Records: 5 Duplicates: 0 Warnings: 0

mysql> INSERT INTO EmployeeSalary (EmpId, Project, Salary, Variable)
-> VALUES
-> (1, 'Project A', 60000.00, 5000.00),
-> (2, 'Project B', 70000.00, 6000.00),
-> (3, 'Project A', 65000.00, 5500.00),
-> (4, 'Project C', 75000.00, 7000.00),
-> (5, 'Project B', 68000.00, 5600.00);
Query OK, 5 rows affected (0.02 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

Command from inserting values in the tables

```
mysql> select * from employeeedetails;
```

EmpId	FullName	ManagerId	DateOfJoining	City
1	John Doe	NULL	2022-01-15	New York
2	Jane Smith	1	2021-07-10	Los Angeles
3	Bob Johnson	1	2021-11-20	Chicago
4	Alice Brown	2	2020-03-05	San Francisco
5	Eva Wilson	3	2022-05-30	Houston

```
5 rows in set (0.00 sec)
```

  

```
mysql> select * from employeesalary;
```

EmpId	Project	Salary	Variable
1	Project A	60000.00	5000.00
2	Project B	70000.00	6000.00
3	Project A	65000.00	5500.00
4	Project C	75000.00	7000.00
5	Project B	68000.00	5600.00

```
5 rows in set (0.00 sec)
```

Values of the following tables

Q. SQL Query to fetch records that are present in one table but not in another table.

```
mysql> select employeeedetails.*
-> from employeeedetails
-> left join employeesalary on employeeedetails.EmpId= employeesalary.EmpId
-> where employeesalary.EmpId is null;
Empty set (0.00 sec)
```

Q. SQL query to fetch all the employees who are not working on any project.

```
mysql> select employeeedetails.*
-> from employeeedetails
-> left join employeesalary on employeeedetails.EmpId= employeesalary.EmpId
-> where employeesalary.project is null;
Empty set (0.00 sec)
```

Q. SQL query to fetch all the Employees from EmployeeDetails who joined in the Year 2020.

```
mysql> select * from employeeDetails
      -> where year(DateOfJoining)=2020;
```

EmpId	FullName	ManagerId	DateOfJoining	City
4	Alice Brown	2	2020-03-05	San Francisco

1 row in set (0.00 sec)

Q. Fetch all employees from EmployeeDetails who have a salary record in EmployeeSalary.

```
mysql> select employeeDetails.*
      -> from employeeDetails
      -> inner join employeesalary on employeeDetails.EmpId=employeesalary.EmpId;
```

EmpId	FullName	ManagerId	DateOfJoining	City
1	John Doe	NULL	2022-01-15	New York
2	Jane Smith	1	2021-07-10	Los Angeles
3	Bob Johnson	1	2021-11-20	Chicago
4	Alice Brown	2	2020-03-05	San Francisco
5	Eva Wilson	3	2022-05-30	Houston

5 rows in set (0.00 sec)

Q. Write an SQL query to fetch a project-wise count of employees.

```
mysql> select Project, Count(distinct EmpId) as employeecount
      -> from employeesalary
      -> group by Project;
```

Project	employeecount
Project A	2
Project B	2
Project C	1

3 rows in set (0.02 sec)

Q. Fetch employee names and salaries even if the salary value is not present for the employee.

```
mysql> SELECT EmployeeDetails.FullName, IFNULL(EmployeeSalary.Salary, 'Salary not available') AS Salary
-> FROM EmployeeDetails
-> LEFT JOIN EmployeeSalary ON EmployeeDetails.EmpId = EmployeeSalary.EmpId;
+-----+-----+
| FullName | Salary |
+-----+-----+
| John Doe | 60000.00 |
| Jane Smith | 70000.00 |
| Bob Johnson | 65000.00 |
| Alice Brown | 75000.00 |
| Eva Wilson | 68000.00 |
+-----+-----+
5 rows in set (0.00 sec)
```

Q. Write an SQL query to fetch all the Employees who are also managers.

```
mysql> SELECT DISTINCT E1.*
-> FROM EmployeeDetails E1
-> WHERE E1.EmpId IN (SELECT DISTINCT ManagerId FROM EmployeeDetails WHERE ManagerId IS NOT NULL);
+-----+-----+-----+-----+-----+
| EmpId | FullName | ManagerId | DateOfJoining | City |
+-----+-----+-----+-----+-----+
| 1 | John Doe | NULL | 2022-01-15 | New York |
| 2 | Jane Smith | 1 | 2021-07-10 | Los Angeles |
| 3 | Bob Johnson | 1 | 2021-11-20 | Chicago |
+-----+-----+-----+-----+-----+
3 rows in set (0.02 sec)
```

Q. Write an SQL query to fetch duplicate records from EmployeeDetails.

```
mysql> SELECT EmpId, FullName, ManagerId, DateOfJoining, City, COUNT(*) AS DuplicateCount
-> FROM EmployeeDetails
-> GROUP BY EmpId, FullName, ManagerId, DateOfJoining, City
-> HAVING COUNT(*) > 1;
Empty set (0.03 sec)
```

Q. Write an SQL query to fetch only odd rows from the table.

```
mysql> SELECT *
-> FROM (
-> SELECT *, ROW_NUMBER() OVER (ORDER BY EmpId) AS RowNum
-> FROM EmployeeDetails
-> ) AS NumberedRows
-> WHERE RowNum % 2 = 1;
+-----+-----+-----+-----+-----+-----+
| EmpId | FullName | ManagerId | DateOfJoining | City | RowNum |
+-----+-----+-----+-----+-----+-----+
| 1 | John Doe | NULL | 2022-01-15 | New York | 1 |
| 3 | Bob Johnson | 1 | 2021-11-20 | Chicago | 3 |
| 5 | Eva Wilson | 3 | 2022-05-30 | Houston | 5 |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.03 sec)
```

Q. Write a query to find the 3rd highest salary from a table without top or limit keyword.

```
mysql> SELECT DISTINCT Salary
-> FROM EmployeeSalary e1
-> WHERE 3 = (
->     SELECT COUNT(DISTINCT Salary)
->     FROM EmployeeSalary e2
->     WHERE e2.Salary >= e1.Salary
-> );
```

```
+-----+
| Salary |
+-----+
| 68000.00 |
+-----+
```

```
1 row in set (0.02 sec)
```