

SHREYA PRADHAN

1.

```
CREATE TABLE Employee (  
  Emp_ID INT PRIMARY KEY NOT NULL,  
  Emp_Name VARCHAR(100),  
  Emp_No VARCHAR(20)  
);
```

```
mysql> desc employee;  
+-----+-----+-----+-----+-----+-----+  
| Field      | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| Emp_ID     | int           | NO   | PRI | NULL    |       |  
| Emp_Name   | varchar(100)  | YES  |     | NULL    |       |  
| Emp_No     | varchar(20)   | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.00 sec)
```

```
CREATE TABLE Employment (  
  Emp_ID INT PRIMARY KEY NOT NULL,  
  Emp_Profile VARCHAR(100),  
  Emp_Country VARCHAR(50),  
  Emp_Join_Date DATE  
);
```

```
mysql> desc employment;  
+-----+-----+-----+-----+-----+-----+  
| Field          | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| Emp_ID         | int           | NO   | PRI | NULL    |       |  
| Emp_Profile     | varchar(100)  | YES  |     | NULL    |       |  
| Emp_Country     | varchar(50)   | YES  |     | NULL    |       |  
| Emp_Join_Date  | date          | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
4 rows in set (0.00 sec)
```

```
INSERT INTO Employee (Emp_ID, Emp_Name, Emp_No)
```

VALUES

(101,'Ashish Kaktan','9450425345'),
(102,'Raj Choudhary','8462309621'),
(103,'Vivek Oberoi','7512309034'),
(104,'Shantanu Khandelwal','9020330023'),
(105,'Khanak Desai','8451004522');

```
mysql> select * from employee;
```

Emp_ID	Emp_Name	Emp_No
101	Ashish Kaktan	9450425345
102	Raj Choudhary	8462309621
103	Vivek Oberoi	7512309034
104	Shantanu Khandelwal	9020330023
105	Khanak Desai	8451004522

```
5 rows in set (0.00 sec)  
  
mysql> _
```

INSERT INTO Employment (Emp_ID, Emp_Profile, Emp_Country, Emp_Join_Date)

VALUES

(101,'Content Writer','Germany','2021-04-20'),
(104,'Data Analyst','India','2022-12-11'),
(105,'Software Engineer','India','2022-01-03'),
(108,'Development Executive','Europe','2023-02-15'),
(109,'Marketing Manager','Mexico','2020-05-23');

```
mysql> select * from employment;
```

Emp_ID	Emp_Profile	Emp_Country	Emp_Join_Date
101	Content Writer	Germany	2021-04-20
104	Data Analyst	India	2022-12-11
105	Software Engineer	India	2022-01-03
108	Development Executive	Europe	2023-02-15
109	Marketing Manager	Mexico	2020-05-23

```
5 rows in set (0.00 sec)  
  
mysql> _
```

Let's now perform LEFT JOIN on these two tables using a SELECT statement:

```
mysql> SELECT Employee.Emp_Name, Employee.Emp_No, Employment.Emp_Profile, Employment.Emp_Join_Date
-> FROM Employee LEFT JOIN Employment
-> ON Employee.Emp_ID=Employment.Emp_ID;
```

Emp_Name	Emp_No	Emp_Profile	Emp_Join_Date
Ashish Kaktan	9450425345	Content Writer	2021-04-20
Raj Choudhary	8462309621	NULL	NULL
Vivek Oberoi	7512309034	NULL	NULL
Shantanu Khandelwal	9020330023	Data Analyst	2022-12-11
Khanak Desai	8451004522	Software Engineer	2022-01-03

5 rows in set (0.00 sec)

```
mysql>
```

Let's now perform RIGHT JOIN on these two tables using a SELECT statement:

```
mysql> SELECT Employee.Emp_Name, Employee.Emp_No, Employment.Emp_Profile, Employment.Emp_Join_Date
-> FROM Employee RIGHT JOIN Employment
-> ON Employee.Emp_ID=Employment.Emp_ID;
```

Emp_Name	Emp_No	Emp_Profile	Emp_Join_Date
Ashish Kaktan	9450425345	Content Writer	2021-04-20
Shantanu Khandelwal	9020330023	Data Analyst	2022-12-11
Khanak Desai	8451004522	Software Engineer	2022-01-03
NULL	NULL	Development Executive	2023-02-15
NULL	NULL	Marketing Manager	2020-05-23

5 rows in set (0.00 sec)

```
mysql>
```

MySQL 8.0 Command Line Client

Query OK, 0 rows affected (0.01 sec)

```
mysql> CREATE TABLE Employment (  
->     Emp_ID INT PRIMARY KEY NOT NULL,  
->     Emp_Profile VARCHAR(100),  
->     Emp_Email VARCHAR(50) UNIQUE  
-> );
```

Query OK, 0 rows affected (0.03 sec)

```
mysql> INSERT INTO Employment (Emp_ID, Emp_Profile, Emp_Email)  
-> VALUES  
-> (101, 'Content Writer', 'ashish@scaler.com'),  
-> (104, 'Data Analyst', 'shantanu@scaler.com'),  
-> (105, 'Software Engineer', 'khanak@scaler.com'),  
-> (109, 'Development Executive', 'akshay@scaler.com'),  
-> (108, 'Marketing Manager', 'nikita@scaler.com');
```

Query OK, 5 rows affected (0.01 sec)

Records: 5 Duplicates: 0 Warnings: 0

```
mysql> select * from employment;
```

Emp_ID	Emp_Profile	Emp_Email
101	Content Writer	ashish@scaler.com
104	Data Analyst	shantanu@scaler.com
105	Software Engineer	khanak@scaler.com
108	Marketing Manager	nikita@scaler.com
109	Development Executive	akshay@scaler.com

5 rows in set (0.00 sec)

mysql>

MySQL 8.0 Command Line Client

```
-> ('Germany', 'ashish@scaler.com', '2021-04-20'),  
-> ('India', 'shantanu@scaler.com', '2022-12-11'),  
-> ('India', 'khanak@scaler.com', '2022-01-03'),  
-> ('Europe', 'akshay@scaler.com', '2023-02-15'),  
-> ('Mexico', 'nikita@scaler.com', '2020-05-23');
```

Query OK, 5 rows affected (0.01 sec)

Records: 5 Duplicates: 0 Warnings: 0

```
mysql> select * from emp_details;
```

Emp_Country	Emp_Email	Emp_JoinDate
Germany	ashish@scaler.com	2021-04-20
India	shantanu@scaler.com	2022-12-11
India	khanak@scaler.com	2022-01-03
Europe	akshay@scaler.com	2023-02-15
Mexico	nikita@scaler.com	2020-05-23

5 rows in set (0.00 sec)

mysql>

```
-> INNER at line 2  
mysql> SELECT Emp_Name, Emp_No, Emp_Profile, Emp_Country, Emp_JoinDate  
-> FROM Employee e  
-> INNER JOIN Employment m ON e.Emp_ID = m.Emp_ID  
-> INNER JOIN Emp_Details d ON d.Emp_Email = m.Emp_Email;
```

Emp_Name	Emp_No	Emp_Profile	Emp_Country	Emp_JoinDate
Ashish Kaktan	9450425345	Content Writer	Germany	2021-04-20
Shantanu Khandelwal	9020330023	Data Analyst	India	2022-12-11
Khanak Desai	8451004522	Software Engineer	India	2022-01-03

3 rows in set (0.00 sec)

mysql> _

MySQL 8.0 Command Line Client

```
mysql> INSERT INTO Employee (Emp_ID, Emp_Name, Emp_Profile, Emp_Country, ManagerId)
-> VALUES
-> (101, 'Ashish Kaktan', 'Content Writer', 'Germany', 104),
-> (104, 'Raj Choudhary', 'Data Analyst', 'India', 108),
-> (105, 'Vivek Oberoi', 'Software Engineer', 'India', 101),
-> (108, 'Shantanu Khandelwal', 'Development Executive', 'Europe', 101),
-> (109, 'Khanak Desai', 'Marketing Manager', 'Mexico', NULL);
```

Query OK, 5 rows affected (0.01 sec)

Records: 5 Duplicates: 0 Warnings: 0

```
mysql> select * from employee;
```

Emp_ID	Emp_Name	Emp_Profile	Emp_Country	ManagerId
101	Ashish Kaktan	Content Writer	Germany	104
104	Raj Choudhary	Data Analyst	India	108
105	Vivek Oberoi	Software Engineer	India	101
108	Shantanu Khandelwal	Development Executive	Europe	101
109	Khanak Desai	Marketing Manager	Mexico	NULL

5 rows in set (0.00 sec)

```
mysql> _
```

MySQL 8.0 Command Line Client

```
mysql> SELECT e.Emp_ID, e.Emp_Name, m.Emp_Name as ManagerName
-> FROM Employee e
-> JOIN Employee m ON e.ManagerId = m.Emp_ID;
```

Emp_ID	Emp_Name	ManagerName
101	Ashish Kaktan	Raj Choudhary
104	Raj Choudhary	Shantanu Khandelwal
105	Vivek Oberoi	Ashish Kaktan
108	Shantanu Khandelwal	Ashish Kaktan

4 rows in set (0.00 sec)

```
mysql>
```

```
mysql>
```

2. Create student table with the fields (roll no, sname, semail, saddress, gender) apply all possible constraints on the student table.

MySQL 8.0 Command Line Client

```
mysql> CREATE TABLE Student (  
-> Roll_No INT PRIMARY KEY NOT NULL,  
-> Student_Name VARCHAR(100) NOT NULL,  
-> Student_Email VARCHAR(25) UNIQUE,  
-> Address VARCHAR(100),  
-> Gender ENUM('Male', 'Female', 'Other') NOT NULL,  
-> CONSTRAINT chk_gender CHECK (Gender IN ('Male', 'Female', 'Other')),  
-> CONSTRAINT chk_roll_no CHECK (Roll_No > 0),  
-> CONSTRAINT chk_email_format CHECK (Student_Email LIKE '%@%.%'),  
-> CONSTRAINT chk_address_length CHECK (LENGTH(Address) <= 50),  
-> CONSTRAINT chk_name_length CHECK (LENGTH(Student_Name) <= 50),  
-> CONSTRAINT chk_unique_roll_email UNIQUE (Roll_No, Student_Email)  
-> );
```

Query OK, 0 rows affected (0.04 sec)

```
mysql> desc student;
```

Field	Type	Null	Key	Default	Extra
Roll_No	int	NO	PRI	NULL	
Student_Name	varchar(100)	NO		NULL	
Student_Email	varchar(25)	YES	UNI	NULL	
Address	varchar(100)	YES		NULL	
Gender	enum('Male','Female','Other')	NO		NULL	

5 rows in set (0.00 sec)

```
mysql>
```

```
mysql> INSERT INTO Student (Roll_No, Student_Name, Student_Email, Address, Gender)  
-> VALUES  
-> (1001, 'Anit Roy', 'anit123@gmail.com', '23/1,Bosepukur,Kolkata', 'Male'),  
-> (1002, 'Rima Dutta', 'dutta.rima2@gmail.com', '130/5,Tollygunge,Kolkata', 'Female'),  
-> (1003, 'Rohit Sharma', 'sharma257@gmail.com', '31/2,Thakurpukur,Kolkata', 'Male'),  
-> (1004, 'Kotha Das', 'kotha.das@gmail.com', '213/B/13, M.S.Road,Kolkata', 'Female'),  
-> (1005, 'Ramesh Pal', 'palramesh46@gmail.com', '45/1,Behala Chourasta,Kolkata', 'Male');
```

Query OK, 5 rows affected (0.01 sec)

Records: 5 Duplicates: 0 Warnings: 0

```
mysql>
```

```
mysql> select * from student;
```

Roll_No	Student_Name	Student_Email	Address	Gender
1001	Anit Roy	anit123@gmail.com	23/1,Bosepukur,Kolkata	Male
1002	Rima Dutta	dutta.rima2@gmail.com	130/5,Tollygunge,Kolkata	Female
1003	Rohit Sharma	sharma257@gmail.com	31/2,Thakurpukur,Kolkata	Male
1004	Kotha Das	kotha.das@gmail.com	213/B/13, M.S.Road,Kolkata	Female
1005	Ramesh Pal	palramesh46@gmail.com	45/1,Behala Chourasta,Kolkata	Male

5 rows in set (0.00 sec)

```
mysql>
```