

# SQL Exercise 1

1. Create the table SEMP with the following structure:-

EMPNO	CHAR(4)
EMPNAME	CHAR(20)
BASIC	FLOAT
DEPTNO	CHAR(2)
DEPTHEAD	CHAR(4)

2. Create the table SDEPT with the following structure:-

DEPTNO	CHAR(2)
DEPTNAME	CHAR(15)

3. Insert into the SDEPT table the following values:-

10, Development  
20, Training

4. Insert into the SEMP table the following values:-

0001, SUNIL, 6000, 10  
0002, HIREN, 8000, 20  
0003, ALI, 4000, 10, 0001  
0004, GEORGE, 6000, 0002

Create S, P, J, SPJ tables as specified below and insert a few rows in each table:-

SUPPLIER	-	S
(S#, Sname, Status, City)		
PARTS	-	P
(P#, Pname, Color, Weight, City)		
PROJECTS	-	J
(J#, Jname, City)		
SUPPLIER-PARTS-PROJECT	-	SPJ
(S#, P#, J#, Qty)		

Sample data for S# column:- 'S1', 'S2', 'S3', etc.

Sample data for P# column:- 'P1', 'P2', 'P3', etc.

Sample data for J# column:- 'J1', 'J2', 'J3', etc.

Sample data for Status column:- 10, 20, 30, etc.

Write the SELECT queries to do the following:-

5. Display all the data from the S table.
6. Display only the S# and SNAME fields from the S table.
7. Display the PNAME and COLOR from the P table for the CITY="London".
8. Display all the Suppliers from London.
9. Display all the Suppliers from Paris or Athens.
10. Display all the Projects in Athens.
11. Display all the Partnames with the weight between 12 and 14 (inclusive of both).
12. Display all the Suppliers with a Status greater than or equal to 20.
13. Display all the Suppliers except the Suppliers from London.
14. Display only the Cities from where the Suppliers come from.
15. Assuming that the Part Weight is in GRAMS, display the same in MILLIGRAMS and KILOGRAMS.

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MySQL 9.0 Command Line CL  x  +  v

mysql> use pgdac
Database changed
mysql> create table SEMP(Empno char(4),Empname char(20),Basic float,
-> Deptno char(2),Depthead char(4));
Query OK, 0 rows affected (0.15 sec)

mysql> drop table SEMP;
Query OK, 0 rows affected (0.08 sec)

mysql> create table SEMP(Empno char(4) Primary Key,Empname char(20),Basic Float,Deptno char(2),Depthead char(4));
Query OK, 0 rows affected (0.04 sec)

mysql> create table SDEPT(Deptno char(2) primary key,Deptname char(15));
Query OK, 0 rows affected (0.04 sec)

mysql> insert into SDEPT values (10,'Development');
Query OK, 1 row affected (0.03 sec)

mysql> insert into SDEPT values (20,'Training');
Query OK, 1 row affected (0.01 sec)

mysql> insert into SEMP values (0001,'Sunil',6000,10);
ERROR 1136 (21S01): Column count doesn't match value count at row 1
mysql> insert into SEMP values ('0001','Sunil',6000,'10');
ERROR 1136 (21S01): Column count doesn't match value count at row 1
mysql> insert into SEMP values INSERT INTO SEMP (EMPNO, EMPNAME, BASIC, DEPTNO, DEPTHED)
-> VALUES ('0001', 'SUNIL', 6000, '10', NULL);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'I
NSERT INTO SEMP (EMPNO, EMPNAME, BASIC, DEPTNO, DEPTHED)
VALUES ('0001', 'SUNI' at line 1
mysql>
mysql> INSERT INTO SEMP (EMPNO, EMPNAME, BASIC, DEPTNO, DEPTHED)
-> VALUES ('0002', 'HIREN', 8000, '20', NULL);
Query OK, 1 row affected (0.01 sec)

mysql>
mysql> INSERT INTO SEMP (EMPNO, EMPNAME, BASIC, DEPTNO, DEPTHED)
-> VALUES ('0003', 'ALI', 4000, '10', '0001');
Query OK, 1 row affected (0.01 sec)

mysql>
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MySQL 9.0 Command Line CL  x  +  v

mysql>
mysql> INSERT INTO SEMP (EMPNO, EMPNAME, BASIC, DEPTNO, DEPTHED)
-> VALUES ('0004', 'GEORGE', 6000, '20', '0002');
Query OK, 1 row affected (0.01 sec)

mysql> select * from SEMP;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 's
elct * from SEMP' at line 1
mysql> select * from SEMP;
+-----+-----+-----+-----+-----+
| Empno | Empname | Basic | Deptno | Depthead |
+-----+-----+-----+-----+-----+
| 0002 | HIREN   | 8000  | 20     | NULL     |
| 0003 | ALI     | 4000  | 10     | 0001     |
| 0004 | GEORGE  | 6000  | 20     | 0002     |
+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)

mysql> insert into SEMP VALUES ('0001', 'SUNIL', 6000, '10', NULL);
Query OK, 1 row affected (0.00 sec)

mysql> select * from SEMP;
+-----+-----+-----+-----+-----+
| Empno | Empname | Basic | Deptno | Depthead |
+-----+-----+-----+-----+-----+
| 0001 | SUNIL   | 6000  | 10     | NULL     |
| 0002 | HIREN   | 8000  | 20     | NULL     |
| 0003 | ALI     | 4000  | 10     | 0001     |
| 0004 | GEORGE  | 6000  | 20     | 0002     |
+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> create table S(S# varchar(5) Primary key,Sname varchar(50),Status Int,City varchar(50));
-> ^C
mysql> create table S(S# varchar(5) Primary key,Sname varchar(50),Status Int,City varchar(50));
-> create table S(S# varchar(5) Primary key,Sname varchar(50),Status Int,City varchar(50));
-> ^C
mysql> create table S(S# varchar(5) Primary key,Sname varchar(50),Status Int,City varchar(50));
-> create table S(S# varchar(5) Primary key,Sname varchar(50),Status int,City varchar(50));
-> ^C
mysql> create table S(S# varchar(5) Primary key,Sname varchar(50),Status int,City varchar(50));
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MySQL 9.0 Command Line Cl x + v
mysql> show tables;
+-----+
| Tables_in_pgdac |
+-----+
| emp              |
| sdept            |
| semp             |
+-----+
3 rows in set (0.01 sec)

mysql> create table S(S# varchar(5) primary key,Sname varchar(50),Status int,city varchar(50));
-> ^C
mysql> create table S(Sno varchar(5) primary key,Sname varchar(50),Status int,city varchar(50));
Query OK, 0 rows affected (0.05 sec)

mysql> Insert into S values('S1','Nidhi',40,'Solapur');
Query OK, 1 row affected (0.02 sec)

mysql> Insert into S values('S2','Namrata',50,'Indore');
Query OK, 1 row affected (0.01 sec)

mysql> Insert into S values('S3','Nayan',70,'Karjat');
Query OK, 1 row affected (0.01 sec)

mysql> Insert into S values('S4','Nikhil',60,'Faltan');
Query OK, 1 row affected (0.01 sec)

mysql> Insert into S values('S5','Nikhil',80,'Baramati');
Query OK, 1 row affected (0.01 sec)

mysql> create table P(Pno varchar(5) primary key,Pname varchar(50),Color varchar(20),Weight float,City varchar(50));
Query OK, 0 rows affected (0.07 sec)

mysql> ^C
mysql> ('P1', 'Nut', 'Red', 12.0, 'London'),
-> ('P2', 'Bolt', 'Green', 17.0, 'Paris'),
-> ('P3', 'Screw', 'Blue', 17.0, 'Rome'),
-> ('P4', 'Screw', 'Red', 14.0, 'London'),
-> ('P5', 'Cam', 'Blue', 12.0, 'Paris'),
-> ('P6', 'Cog', 'Red', 19.0, 'London');
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near ''

MySQL 9.0 Command Line Cl x + v
-> ('P6', 'Cog', 'Red', 19.0, 'London');
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near ''
P1', 'Nut', 'Red', 12.0, 'London'),
('P2', 'Bolt', 'Green', 17.0, 'Paris'),
('P' at line 1
mysql> Insert into S values('P1', 'Nut', 'Red', 12.0, 'London'),
-> ('P2', 'Bolt', 'Green', 17.0, 'Paris'),
-> ('P3', 'Screw', 'Blue', 17.0, 'Rome'),
-> ('P4', 'Screw', 'Red', 14.0, 'London'),
-> ('P5', 'Cam', 'Blue', 12.0, 'Paris'),
-> ('P6', 'Cog', 'Red', 19.0, 'London');
ERROR 1136 (21S01): Column count doesn't match value count at row 1
mysql> Insert into P values('P1', 'Nut', 'Red', 12.0, 'London'),
-> ('P2', 'Bolt', 'Green', 17.0, 'Paris'),
-> ('P3', 'Screw', 'Blue', 17.0, 'Rome'),
-> ('P4', 'Screw', 'Red', 14.0, 'London'),
-> ('P5', 'Cam', 'Blue', 12.0, 'Paris'),
-> ('P6', 'Cog', 'Red', 19.0, 'London');
Query OK, 6 rows affected (0.01 sec)
Records: 6 Duplicates: 0 Warnings: 0

mysql> create table J(Jno varchar(5) primary key,Jname varchar(50),City varchar(50));
Query OK, 0 rows affected (0.04 sec)

mysql> Insert into J values('J1', 'Sorter', 'Paris'),
-> ('J2', 'Punch', 'Rome'),
-> ('J3', 'Reader', 'Athens'),
-> ('J4', 'Console', 'Athens'),
-> ('J5', 'Collator', 'London'),
-> ('J6', 'Terminal', 'Oslo'),
-> ('J7', 'Tape', 'London');
Query OK, 7 rows affected (0.01 sec)
Records: 7 Duplicates: 0 Warnings: 0

mysql> create table SPJ(sno varchar(5),Pno varchar(5),Jno varchar(5),Qty int,primary key (Sno,Pno,Jno),foreign key (Sno) References S(Sno),foreign key (Pno)
References P(Pno),foreign key (Jno) References J(Jno));
Query OK, 0 rows affected (0.08 sec)

mysql> INSERT INTO SPJ VALUES
-> ('S1', 'P1', 'J1', 200),
-> ('S1', 'P1', 'J4', 700),
Show desktop
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MySQL 9.0 Command Line Cl...
Query OK, 0 rows affected (0.08 sec)

mysql> INSERT INTO SPJ VALUES
-> ('S1', 'P1', 'J1', 200),
-> ('S1', 'P1', 'J4', 700),
-> ('S2', 'P3', 'J1', 400),
-> ('S2', 'P3', 'J2', 200),
-> ('S2', 'P3', 'J3', 200),
-> ('S2', 'P3', 'J4', 500),
-> ('S2', 'P3', 'J5', 600),
-> ('S2', 'P3', 'J6', 400),
-> ('S2', 'P3', 'J7', 800),
-> ('S3', 'P2', 'J2', 200),
-> ('S4', 'P4', 'J3', 500),
-> ('S4', 'P4', 'J7', 600),
-> ('S5', 'P5', 'J4', 100);
Query OK, 13 rows affected (0.01 sec)
Records: 13 Duplicates: 0 Warnings: 0

mysql> select * from S;
+-----+-----+-----+-----+
| Sno | Sname | Status | city |
+-----+-----+-----+-----+
| S1 | Nidhi | 40 | Solaput |
| S2 | Namrata | 50 | Indore |
| S3 | Nayan | 70 | Karjat |
| S4 | Nikhil | 60 | Faltan |
| S5 | Nikhil | 80 | Baramati |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> select * from S where Sno ,Sname;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near ', Sname' at line 1
mysql> select Sno ,Sname from S;
+-----+-----+
| Sno | Sname |
+-----+-----+
| S1 | Nidhi |
| S2 | Namrata |
| S3 | Nayan |
+-----+-----+
```

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MySQL 9.0 Command Line Cl...
+-----+-----+
| Sno | Sname |
+-----+-----+
| S1 | Nidhi |
| S2 | Namrata |
| S3 | Nayan |
| S4 | Nikhil |
| S5 | Nikhil |
+-----+-----+
5 rows in set (0.00 sec)

mysql> select Pname ,color from P where City='London';
+-----+-----+
| Pname | color |
+-----+-----+
| Nut | Red |
| Screw | Red |
| Cog | Red |
+-----+-----+
3 rows in set (0.01 sec)

mysql> select * from P;
+-----+-----+-----+-----+-----+
| Pno | Pname | Color | Weight | City |
+-----+-----+-----+-----+-----+
| P1 | Nut | Red | 12 | London |
| P2 | Bolt | Green | 17 | Paris |
| P3 | Screw | Blue | 17 | Rome |
| P4 | Screw | Red | 14 | London |
| P5 | Cam | Blue | 12 | Paris |
| P6 | Cog | Red | 19 | London |
+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)

mysql> select * from S;
+-----+-----+-----+-----+
| Sno | Sname | Status | city |
+-----+-----+-----+-----+
| S1 | Nidhi | 40 | Solaput |
| S2 | Namrata | 50 | Indore |
| S3 | Nayan | 70 | Karjat |
| S4 | Nikhil | 60 | Faltan |
+-----+-----+-----+-----+
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MySQL 9.0 Command Line Cl  x  +  v

mysql> select * from S where city='London';
Empty set (0.00 sec)

mysql> insert into S values(S6,'Vishal',64,'London');
ERROR 1054 (42S22): Unknown column 'S6' in 'field list'
mysql> insert into S values('S6','Vishal',64,'London');
Query OK, 1 row affected (0.01 sec)

mysql> select * from s;
+-----+
| Sno | Sname | Status | city |
+-----+
| S1 | Nidhi | 40 | Solaput |
| S2 | Namrata | 50 | Indore |
| S3 | Nayan | 70 | Karjat |
| S4 | Nikhil | 60 | Faltan |
| S5 | Nikhil | 80 | Baramati |
| S6 | Vishal | 64 | London |
+-----+
6 rows in set (0.00 sec)

mysql> select * from S where City='London';
+-----+
| Sno | Sname | Status | city |
+-----+
| S6 | Vishal | 64 | London |
+-----+
1 row in set (0.00 sec)

mysql> insert into S values('S7','Pooja',44,'Paris');
Query OK, 1 row affected (0.01 sec)

mysql> insert into S values('S8','Kirti',54,'Athens');
Query OK, 1 row affected (0.01 sec)

mysql> select * from s;
+-----+
| Sno | Sname | Status | city |
+-----+
| S1 | Nidhi | 40 | Solaput |
| S2 | Namrata | 50 | Indore |
+-----+
```

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MySQL 9.0 Command Line Cl  x  +  v

+-----+
| Sno | Sname | Status | city |
+-----+
| S7 | Pooja | 44 | Paris |
| S8 | Kirti | 54 | Athens |
+-----+
2 rows in set (0.00 sec)

mysql> select * from P;
+-----+
| Pno | Pname | Color | Weight | City |
+-----+
| P1 | Nut | Red | 12 | London |
| P2 | Bolt | Green | 17 | Paris |
| P3 | Screw | Blue | 17 | Rome |
| P4 | Screw | Red | 14 | London |
| P5 | Cam | Blue | 12 | Paris |
| P6 | Cog | Red | 19 | London |
+-----+
6 rows in set (0.00 sec)

mysql> select * from J where city='Athens';
+-----+
| Jno | Jname | City |
+-----+
| J3 | Reader | Athens |
| J4 | Console | Athens |
+-----+
2 rows in set (0.01 sec)

mysql> select Pname from p where between 12 And 14;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'b
etween 12 And 14' at line 1
mysql> select Pname from P where Between 12 And 14;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'B
etween 12 And 14' at line 1
mysql> select Pname from P where Between 12 AND 14;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'B
etween 12 AND 14' at line 1
mysql> select Pname from P where weight Between 12 AND 14;
+-----+
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MySQL 9.0 Command Line Cl  x  +  v
mysql> select Pname from P where weight Between 12 AND 14;
+-----+
| Pname |
+-----+
| Nut   |
| Screw|
| Cam   |
+-----+
3 rows in set (0.01 sec)

mysql> select * from S where Status >=20;
+-----+
| Sno | Sname | Status | city |
+-----+
| S1  | Nidhi | 40     | Solaput |
| S2  | Namrata | 50    | Indore |
| S3  | Nayan | 70     | Karjat |
| S4  | Nikhil | 60     | Faltan |
| S5  | Nikhil | 80     | Baramati |
| S6  | Vishal | 64     | London |
| S7  | Pooja | 44     | Paris |
| S8  | Kirti | 54     | Athens |
+-----+
8 rows in set (0.00 sec)

mysql> select * from S where City !='London';
+-----+
| Sno | Sname | Status | city |
+-----+
| S1  | Nidhi | 40     | Solaput |
| S2  | Namrata | 50    | Indore |
| S3  | Nayan | 70     | Karjat |
| S4  | Nikhil | 60     | Faltan |
| S5  | Nikhil | 80     | Baramati |
| S7  | Pooja | 44     | Paris |
| S8  | Kirti | 54     | Athens |
+-----+
7 rows in set (0.00 sec)

mysql> select Distinct City from S;
+-----+
| City |
+-----+
| Solaput |
| Indore |
| Karjat |
| Faltan |
| Baramati |
| London |
| Paris |
| Athens |
+-----+
8 rows in set (0.01 sec)

mysql> Select Pname,Weight as grams,weight * 1000 As milligrams,weight/1000 As kilogram from P;
+-----+
| Pname | grams | milligrams | kilogram |
+-----+
| Nut   | 12    | 12000      | 0.012    |
| Bolt  | 17    | 17000      | 0.017    |
| Screw | 17    | 17000      | 0.017    |
| Screw | 14    | 14000      | 0.014    |
| Cam   | 12    | 12000      | 0.012    |
| Cog   | 19    | 19000      | 0.019    |
+-----+
6 rows in set (0.01 sec)

mysql>
```

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