Exercise 1

```
mysql>
mysql> show tables;
+---------------------+
| Tables_in_exercise  |
+---------------------+
| semp                |
+---------------------+
1 row in set (0.00 sec)

mysql> create table sdept(DEPTNO char(2), DEPTNAME char(15));
Query OK, 0 rows affected (0.01 sec)

mysql> insert into sdept values(10,'Development');
Query OK, 1 row affected (0.00 sec)

mysql> insert into sdept values(20,'Training');
Query OK, 1 row affected (0.00 sec)

mysql> select * from sdept;
+--------+-------------+
| DEPTNO | DEPTNAME    |
+--------+-------------+
| 10     | Development |
| 20     | Training    |
+--------+-------------+
2 rows in set (0.00 sec)

mysql> select * from semp;
Empty set (0.00 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',5.1,6000,10);
ERROR 1406 (22001): Data too long for column 'DEPTNO' at row 1
mysql> insert into semp values(0001,'SUNIL',6000,10,NULL);
Query OK, 1 row affected (0.00 sec)

mysql> insert into semp values(0002,'HIREN'8000,20,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 '8000,20,NULL)' at line 1
mysql> insert into semp values(0002,'HIREN',8000,20,NULL);
Query OK, 1 row affected (0.00 sec)
```

```
ERROR 1406 (22001): Data too long for column 'DEPTNO' at row 1
mysql> insert into semp values(0001,'SUNIL',6000,10,NULL);
Query OK, 1 row affected (0.00 sec)

mysql> insert into semp values(0002,'HIREN'8000,20,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 '8000,20,NULL)' at line 1
mysql> insert into semp values(0002,'HIREN',8000,20,NULL);
Query OK, 1 row affected (0.00 sec)

mysql> insert into semp values(0003,'ALI',4000,10,0001);
Query OK, 1 row affected (0.00 sec)

mysql> insert into semp values(0004,'GEORGE',6000,0002,NULL);
Query OK, 1 row affected (0.00 sec)

mysql> select * from semp;
+-------+---------+-------+--------+----------+
| EMPNO | EMPNAME | BASIC | DEPTNO | DEPTHEAD |
+-------+---------+-------+--------+----------+
| 1     | SUNIL   | 6000  | 10     | NULL     |
| 2     | HIREN   | 8000  | 20     | NULL     |
| 3     | ALI     | 4000  | 10     | 1        |
| 4     | GEORGE  | 6000  | 2      | NULL     |
+-------+---------+-------+--------+----------+
4 rows in set (0.00 sec)

mysql> create table S(S# char(2), Sname varchar(20), Status int, City varchar(20));
    ->
    -> ;
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 '' at line 1
mysql> create table S (S# char(2), Sname varchar(20),Status int, City varchar(20));
    -> ;
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 '' at line 1
mysql> CREATE TABLE S (
    ->     S# CHAR(2),
    ->     Sname VARCHAR(20),
    ->     Status INT,
    ->     City VARCHAR(20)
    -> );
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 '' at line 1
mysql> create table S (`S#` char(2), Sname varchar(20), Status int, City varchar(20));
Query OK, 0 rows affected (0.01 sec)

mysql> create table P (`P#` char(2), Pname varchar(20), Color varchar(10), Weight float, City varchar(20));
Query OK, 0 rows affected (0.01 sec)

mysql> create table J (`J#` char(2), Jname varchar(20), City varchar(20));
Query OK, 0 rows affected (0.01 sec)

mysql> create table SPJ (`S#` char(2), `P#` char(2), `J#` char(2), Qty int);
Query OK, 0 rows affected (0.01 sec)

mysql> insert into S values('S1','Vaishnavi',20,'Nanded');
Query OK, 1 row affected (0.00 sec)

mysql> insert into S values('S2','Pallavi',30,'Pune');
Query OK, 1 row affected (0.00 sec)

mysql> insert into S values('S3','Malhari',10,'Mumbai');
Query OK, 1 row affected (0.00 sec)

mysql> select * from S;
+------+-----------+--------+--------+
| S#   | Sname     | Status | City   |
+------+-----------+--------+--------+
| S1   | Vaishnavi |     20 | Nanded |
| S2   | Pallavi   |     30 | Pune   |
| S3   | Malhari   |     10 | Mumbai |
+------+-----------+--------+--------+
3 rows in set (0.00 sec)

mysql> insert into P values('P1','Pen','Blue',5.2,'Nanded');
Query OK, 1 row affected (0.00 sec)

mysql> insert into P values('P2','Pensil','Black',8.1,'Pune');
Query OK, 1 row affected (0.00 sec)

mysql> insert into P values('P3','Book','Pink',12.3,'Nashik');
Query OK, 1 row affected (0.00 sec)

mysql> select * from P;
+------+--------+--------+--------+--------+
```

```
Query OK, 1 row affected (0.00 sec)

mysql> select * from P;
+------+--------+--------+--------+--------+
| P#   | Pname  | Color  | Weight | City   |
+------+--------+--------+--------+--------+
| P1   | Pen    | Blue   |    5.2 | Nanded |
| P2   | Pensil | Black  |    8.1 | Pune   |
| P3   | Book   | Pink   |   12.3 | Nashik |
+------+--------+--------+--------+--------+
3 rows in set (0.00 sec)

mysql> insert into J values('J1','Alpha','Mumbai');
Query OK, 1 row affected (0.00 sec)

mysql> insert into J values('J2','Beta','Nagpur');
Query OK, 1 row affected (0.00 sec)

mysql> insert into J values('J3','Gamma','Pune');
Query OK, 1 row affected (0.00 sec)

mysql> select * from J;
+------+-------+--------+
| J#   | Jname | City   |
+------+-------+--------+
| J1   | Alpha | Mumbai |
| J2   | Beta  | Nagpur |
| J3   | Gamma | Pune   |
+------+-------+--------+
3 rows in set (0.00 sec)

mysql> insert into SPJ values('S1','P1','J1',300);
Query OK, 1 row affected (0.00 sec)

mysql> insert into SPJ values('S1','P2','J2',200);
Query OK, 1 row affected (0.00 sec)

mysql> insert into SPJ values('S2','P1','J1',100);
Query OK, 1 row affected (0.00 sec)

mysql> insert into SPJ values('S3','P3','J3',150);
Query OK, 1 row affected (0.00 sec)
```

```
mysql> insert into SPJ values('S2','P1','J1',100);
Query OK, 1 row affected (0.00 sec)

mysql> insert into SPJ values('S3','P3','J3',150);
Query OK, 1 row affected (0.00 sec)

mysql> select * from SPJ;
+------+------+------+------+
| S#   | P#   | J#   | Qty  |
+------+------+------+------+
| S1   | P1   | J1   |  300 |
| S1   | P2   | J2   |  200 |
| S2   | P1   | J1   |  100 |
| S3   | P3   | J3   |  150 |
+------+------+------+------+
4 rows in set (0.00 sec)

mysql> select * from S where City = 'Nanded';
+------+-----------+--------+--------+
| S#   | Sname     | Status | City   |
+------+-----------+--------+--------+
| S1   | Vaishnavi |     20 | Nanded |
+------+-----------+--------+--------+
1 row in set (0.00 sec)

mysql> select * from P where Color = 'Pink';
+------+-------+-------+--------+--------+
| P#   | Pname | Color | Weight | City   |
+------+-------+-------+--------+--------+
| P3   | Book  | Pink  |   12.3 | Nashik |
+------+-------+-------+--------+--------+
1 row in set (0.00 sec)

mysql> select * from J where City = 'Nagpur';
+------+-------+--------+
| J#   | Jname | City   |
+------+-------+--------+
| J2   | Beta  | Nagpur |
+------+-------+--------+
1 row in set (0.00 sec)

mysql> select distinct S.* from S join SPJ on S.`S#` = SPJ.`S#` where SPJ.`p#` = 'P1';
```

```
+------+-------+--------+--------+
1 row in set (0.00 sec)

mysql> select distinct S.* from S join SPJ on S.`S#` = SPJ.`S#` where SPJ.`p#` = 'P1';
+------+-----------+--------+--------+
| S#   | Sname     | Status | City   |
+------+-----------+--------+--------+
| S1   | Vaishnavi |     20 | Nanded |
| S2   | Pallavi   |     30 | Pune   |
+------+-----------+--------+--------+
2 rows in set (0.00 sec)

mysql> select SPJ.`S#`, SUM(Qty) as Total_Qty from SPJ group by SPJ.`S#`;
+------+-----------+
| S#   | Total_Qty |
+------+-----------+
| S1   |       500 |
| S2   |       100 |
| S3   |       150 |
+------+-----------+
3 rows in set (0.00 sec)

mysql> select distinct S.Sname, J.Jname, S.City from S join J on S.City = J.City;
+---------+-------+--------+
| Sname   | Jname | City   |
+---------+-------+--------+
| Malhari | Alpha | Mumbai |
| Pallavi | Gamma | Pune   |
+---------+-------+--------+
2 rows in set (0.00 sec)

mysql> select `S#`, Sname from S;
+------+-----------+
| S#   | Sname     |
+------+-----------+
| S1   | Vaishnavi |
| S2   | Pallavi   |
| S3   | Malhari   |
+------+-----------+
3 rows in set (0.00 sec)

mysql> select 'Pname', 'Color' from P where City = 'Pune';
+-------+-------+
```

```
3 rows in set (0.00 sec)

mysql> select 'Pname', 'Color' from P where City = 'Pune';
+-------+-------+
| Pname | Color |
+-------+-------+
| Pname | Color |
+-------+-------+
1 row in set (0.00 sec)

mysql> select Pname, Color from P where City = 'Pune';
+-------+-------+
| Pname | Color |
+-------+-------+
| Pensil | Black |
+-------+-------+
1 row in set (0.00 sec)

mysql> select * from S where City = 'Mumbai';
+------+---------+--------+--------+
| S#   | Sname   | Status | City   |
+------+---------+--------+--------+
| S3   | Malhari |     10 | Mumbai |
+------+---------+--------+--------+
1 row in set (0.00 sec)

mysql> select * from S where City in('Pune','Nashik');
+------+---------+--------+------+
| S#   | Sname   | Status | City |
+------+---------+--------+------+
| S2   | Pallavi |     30 | Pune |
+------+---------+--------+------+
1 row in set (0.00 sec)

mysql> select * from J where City = 'Parbhani';
Empty set (0.00 sec)

mysql> select * from J where City = 'Pune';
+------+-------+------+
| J#   | Jname | City |
+------+-------+------+
| J3   | Gamma | Pune |
+------+-------+------+
```

```
+------+-------+------+
| J#   | Jname | City |
+------+-------+------+
| J3   | Gamma | Pune |
+------+-------+------+
1 row in set (0.00 sec)

mysql> select Pname from P where weight between 12 and 14;
+-------+
| Pname |
+-------+
| Book  |
+-------+
1 row in set (0.00 sec)

mysql> select * from S where Status >= 20;
+------+-----------+--------+--------+
| S#   | Sname     | Status | City   |
+------+-----------+--------+--------+
| S1   | Vaishnavi |     20 | Nanded |
| S2   | Pallavi   |     30 | Pune   |
+------+-----------+--------+--------+
2 rows in set (0.00 sec)

mysql> select * from S where City <> 'Pune';
+------+-----------+--------+--------+
| S#   | Sname     | Status | City   |
+------+-----------+--------+--------+
| S1   | Vaishnavi |     20 | Nanded |
| S3   | Malhari   |     10 | Mumbai |
+------+-----------+--------+--------+
2 rows in set (0.00 sec)

mysql> select distinct City from S;
+--------+
| City   |
+--------+
| Nanded |
| Pune   |
| Mumbai |
+--------+
3 rows in set (0.00 sec)

mysql> select Pname, Weight as Grams, Weight * 1000 as Milligrams, Weight / 1000 as Kilograms from P;
```

```
1 row in set (0.00 sec)

mysql> select * from S where Status >= 20;
+------+-----------+--------+--------+
| S#   | Sname     | Status | City   |
+------+-----------+--------+--------+
| S1   | Vaishnavi |     20 | Nanded |
| S2   | Pallavi   |     30 | Pune   |
+------+-----------+--------+--------+
2 rows in set (0.00 sec)

mysql> select * from S where City <> 'Pune';
+------+-----------+--------+--------+
| S#   | Sname     | Status | City   |
+------+-----------+--------+--------+
| S1   | Vaishnavi |     20 | Nanded |
| S3   | Malhari   |     10 | Mumbai |
+------+-----------+--------+--------+
2 rows in set (0.00 sec)

mysql> select distinct City from S;
+--------+
| City   |
+--------+
| Nanded |
| Pune   |
| Mumbai |
+--------+
3 rows in set (0.00 sec)

mysql> select Pname, Weight as Grams, Weight * 1000 as Milligrams, Weight / 1000 as Kilograms from P;
+--------+-------+-------------------+----------------------+
| Pname  | Grams | Milligrams        | Kilograms            |
+--------+-------+-------------------+----------------------+
| Pen    |   5.2 |  5199.999809265137 | 0.005199999809265137 |
| Pensil |   8.1 |  8100.000381469727 | 0.008100000381469727 |
| Book   |  12.3 | 12300.000190734863 | 0.012300000190734864 |
+--------+-------+-------------------+----------------------+
3 rows in set (0.00 sec)

mysql>
```