```
Maryams–MacBook–Pro:~ maryamtaherzadeh$ ssh 19529tm@npu1.npu.edu
Password:
Password:
Last login: Wed Sep  4 17:01:07 2019 from
c-107-3-142-7.hsd1.ca.comcast.net
Dd3HaEkt[19529tm@npu1 ~]$ mysql -u Cs457_19529tm -p
Enter password:
ERROR 1045 (28000): Access denied for user 'Cs457_19529tm'@'localhost'
(using password: YES)
[19529tm@npu1 ~]$ mysql -u CS457_19529 -p
Enter password:
```
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 126
Server version: 10.4.7-MariaDB MariaDB Server

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input
statement.

```
MariaDB [(none)]> use npudb1
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A
```

Database changed

Query OK, 0 rows affected (0.144 sec)

```
MariaDB [npudb1]> CREATE TABLE STATION
    -> (ID INTEGER PRIMARY KEY,
    -> CITY CHAR(20),
    -> STATE CHAR(2),
    -> LAT_N REAL,
    -> LONG_W REAL);
```
Query OK, 0 rows affected (0.205 sec)

```
MariaDB [npudb1]> select * from STATION;
```
Empty set (0.001 sec)

```
MariaDB [npudb1]> insert into STATIONA values(13, 'Phoenix', 'AZ', 33,
112);
ERROR 1146 (42S02): Table 'npudb1.STATIONA' doesn't exist
MariaDB [npudb1]> insert into STATION values(13, 'Phoenix', 'AZ', 33,
112);
```
Query OK, 1 row affected (0.031 sec)

```
MariaDB [npudb1]> select * from STATION;
+----+---------+-------+-------+--------+
| ID | CITY    | STATE | LAT_N | LONG_W |
```

```
+----+---------+-------+-------+--------+
| 13 | Phoenix | AZ    |    33 |    112 |
+----+---------+-------+-------+--------+
1 row in set (0.000 sec)

MariaDB [npudb1]> insert into STATION values(44, 'Denver', 'CO', 40.5,
105.6);
Query OK, 1 row affected (0.038 sec)

MariaDB [npudb1]> select * from STATION;
+----+---------+-------+-------+--------+
| ID | CITY    | STATE | LAT_N | LONG_W |
+----+---------+-------+-------+--------+
| 13 | Phoenix | AZ    |    33 |    112 |
| 44 | Denver  | CO    |  40.5 |  105.6 |
+----+---------+-------+-------+--------+
2 rows in set (0.000 sec)

MariaDB [npudb1]> insert into STATION values((66, 'Caribou', 'ME', 47,
68);
ERROR 1064 (42000): You have an error in your SQL syntax; check the
manual that corresponds to your MariaDB server version for the right
syntax to use near '' at line 1
MariaDB [npudb1]> insert into STATION values(66, 'Caribou', 'ME', 47,
68);
Query OK, 1 row affected (0.044 sec)

MariaDB [npudb1]> select * from STATION;
+----+---------+-------+-------+--------+
| ID | CITY    | STATE | LAT_N | LONG_W |
+----+---------+-------+-------+--------+
| 13 | Phoenix | AZ    |    33 |    112 |
| 44 | Denver  | CO    |  40.5 |  105.6 |
| 66 | Caribou | ME    |    47 |     68 |
+----+---------+-------+-------+--------+
3 rows in set (0.000 sec)


MariaDB [npudb1]> create table w_stats
    -> (id integer references STATION(id),
    -> month integer check (month between 1 and 12),
    ->  max_temp_f real,
    -> min_temp_f real,
    -> average_temp_f real,
    -> max_rain_i real,
    -> min_rain_i real,
    -> average_rain_i real,
    ->  primary key(id, month));
Query OK, 0 rows affected (0.235 sec)
```

```
MariaDB [npudb1]> select *from w_stats;
Empty set (0.001 sec)

MariaDB [npudb1]> insert into w_stats values
(13,6,80.7,67.9,76,1.78,1.09,1.35);
Query OK, 1 row affected (0.052 sec)

MariaDB [npudb1]> select *from w_stats;
+----+-------+------------+------------+---------------+------------+------------+----------------+
| id | month | max_temp_f | min_temp_f | average_temp_f | max_rain_i | min_rain_i | average_rain_i |
+----+-------+------------+------------+---------------+------------+------------+----------------+
| 13 |     6 |       80.7 |       67.9 |            76 |       1.78 |       1.09 |           1.35 |
+----+-------+------------+------------+---------------+------------+------------+----------------+
1 row in set (0.000 sec)

MariaDB [npudb1]> insert into w_stats values
(44,7,83,68.7,75.8,1.08,0.39,1.095);
Query OK, 1 row affected (0.044 sec)

MariaDB [npudb1]> select *from w_stats;
+----+-------+------------+------------+---------------+------------+------------+----------------+
| id | month | max_temp_f | min_temp_f | average_temp_f | max_rain_i | min_rain_i | average_rain_i |
+----+-------+------------+------------+---------------+------------+------------+----------------+
| 13 |     6 |       80.7 |       67.9 |            76 |       1.78 |       1.09 |           1.35 |
| 44 |     7 |         83 |       68.7 |          75.8 |       1.08 |       0.39 |          1.095 |
+----+-------+------------+------------+---------------+------------+------------+----------------+
2 rows in set (0.000 sec)

MariaDB [npudb1]> insert into w_stats values
(66,8,79,72,75,1.25,0.65,0.925);
Query OK, 1 row affected (0.047 sec)

MariaDB [npudb1]> select *from w_stats;
+----+-------+------------+------------+---------------+------------+------------+----------------+
| id | month | max_temp_f | min_temp_f | average_temp_f | max_rain_i | min_rain_i | average_rain_i |
```

```
+----+-------+-----------+-----------+--------------+-----------
+-----------+----------------+
| 13 |     6 |      80.7 |      67.9 |           76 |      1.78 |
1.09 |           1.35 |
| 44 |     7 |        83 |      68.7 |         75.8 |      1.08 |
0.39 |          1.095 |
| 66 |     8 |        79 |        72 |           75 |      1.25 |
0.65 |          0.925 |
+----+-------+-----------+-----------+--------------+-----------
+-----------+----------------+
3 rows in set (0.000 sec)

MariaDB [npudb1]> select * from STATION, w_stats
    -> where STATION.id = w_stats.id;
+----+---------+-------+-------+--------+----+-------+-----------
+-----------+----------------+-----------+-----------
+----------------+
| ID | CITY    | STATE | LAT_N | LONG_W | id | month | max_temp_f |
min_temp_f | average_temp_f | max_rain_i | min_rain_i | average_rain_i
|
+----+---------+-------+-------+--------+----+-------+-----------
+-----------+----------------+-----------+-----------
+----------------+
| 13 | Phoenix | AZ    |    33 |    112 | 13 |     6 |      80.7 |
67.9 |             76 |      1.78 |      1.09 |           1.35 |
| 44 | Denver  | CO    |  40.5 |  105.6 | 44 |     7 |        83 |
68.7 |           75.8 |      1.08 |      0.39 |          1.095 |
| 66 | Caribou | ME    |    47 |     68 | 66 |     8 |        79 |
72 |             75 |      1.25 |      0.65 |          0.925 |
+----+---------+-------+-------+--------+----+-------+-----------
+-----------+----------------+-----------+-----------
+----------------+
3 rows in set (0.001 sec)
```

PROBLEM 2

_____

```
MariaDB [npudb1]> CREATE TABLE STATION3
    ->     (ID INTEGER PRIMARY KEY,
    ->      CITY CHAR(20),
    ->      STATE CHAR(2),
    -> COUNTRY CHAR(20),
```

```
  -> ZIP INTEGER,
  ->      LAT_N REAL,
  ->      LONG_W REAL);
Query OK, 0 rows affected (0.230 sec)


MariaDB [npudb1]> insert into STATION3 values(13,'Phoenix','AZ','USA',
85001,33, 112);


MariaDB [npudb1]> SELECT * FROM STATION3;
+----+---------+-------+---------+-------+-------+--------+
| ID | CITY    | STATE | COUNTRY | ZIP   | LAT_N | LONG_W |
+----+---------+-------+---------+-------+-------+--------+
| 13 | Phoenix | AZ    | USA     | 85001 |    33 |    112 |
+----+---------+-------+---------+-------+-------+--------+
1 row in set (0.000 sec)



MariaDB [npudb1]> insert into STATION3 values(14,'Yuma','AZ','USA',
85364,34, 132);
Query OK, 1 row affected (0.058 sec)

MariaDB [npudb1]> SELECT * FROM STATION3;
+----+---------+-------+---------+-------+-------+--------+
| ID | CITY    | STATE | COUNTRY | ZIP   | LAT_N | LONG_W |
+----+---------+-------+---------+-------+-------+--------+
| 13 | Phoenix | AZ    | USA     | 85001 |    33 |    112 |
| 14 | Yuma    | AZ    | USA     | 85364 |    34 |    132 |
+----+---------+-------+---------+-------+-------+--------+
2 rows in set (0.000 sec)

MariaDB [npudb1]> insert into STATION3
values(15,'Prescott','AZ','USA',86301,37, 133);
Query OK, 1 row affected (0.042 sec)

MariaDB [npudb1]> SELECT * FROM STATION3;
+----+----------+-------+---------+-------+-------+--------+
| ID | CITY     | STATE | COUNTRY | ZIP   | LAT_N | LONG_W |
+----+----------+-------+---------+-------+-------+--------+
| 13 | Phoenix  | AZ    | USA     | 85001 |    33 |    112 |
| 14 | Yuma     | AZ    | USA     | 85364 |    34 |    132 |
| 15 | Prescott | AZ    | USA     | 86301 |    37 |    133 |
+----+----------+-------+---------+-------+-------+--------+
3 rows in set (0.000 sec)

MariaDB [npudb1]> insert into STATION3 values(44,'Denver','CO','USA',
80014,40, 105);
```

Query OK, 1 row affected (0.052 sec)

MariaDB [npudb1]> SELECT * FROM STATION3;
```
+----+------------+-------+---------+-------+-------+--------+
| ID | CITY       | STATE | COUNTRY | ZIP   | LAT_N | LONG_W |
+----+------------+-------+---------+-------+-------+--------+
| 13 | Phoenix    | AZ    | USA     | 85001 |    33 |    112 |
| 14 | Yuma       | AZ    | USA     | 85364 |    34 |    132 |
| 15 | Prescott   | AZ    | USA     | 86301 |    37 |    133 |
| 44 | Denver     | CO    | USA     | 80014 |    40 |    105 |
+----+------------+-------+---------+-------+-------+--------+
```
4 rows in set (0.000 sec)

MariaDB [npudb1]> insert into STATION3 values(45, 'fort
collins','CO','USA', 80521,41,106);
Query OK, 1 row affected (0.037 sec)

MariaDB [npudb1]> SELECT * FROM STATION3;
```
+----+------------+-------+---------+-------+-------+--------+
| ID | CITY       | STATE | COUNTRY | ZIP   | LAT_N | LONG_W |
+----+------------+-------+---------+-------+-------+--------+
| 13 | Phoenix    | AZ    | USA     | 85001 |    33 |    112 |
| 14 | Yuma       | AZ    | USA     | 85364 |    34 |    132 |
| 15 | Prescott   | AZ    | USA     | 86301 |    37 |    133 |
| 44 | Denver     | CO    | USA     | 80014 |    40 |    105 |
| 45 | fort collins | CO  | USA     | 80521 |    41 |    106 |
+----+------------+-------+---------+-------+-------+--------+
```
5 rows in set (0.000 sec)

MariaDB [npudb1]> insert into STATION3 values(46, 'Pueblo','CO','USA',
80541,42,107);
Query OK, 1 row affected (0.057 sec)

MariaDB [npudb1]> SELECT * FROM STATION3;
```
+----+------------+-------+---------+-------+-------+--------+
| ID | CITY       | STATE | COUNTRY | ZIP   | LAT_N | LONG_W |
+----+------------+-------+---------+-------+-------+--------+
| 13 | Phoenix    | AZ    | USA     | 85001 |    33 |    112 |
| 14 | Yuma       | AZ    | USA     | 85364 |    34 |    132 |
| 15 | Prescott   | AZ    | USA     | 86301 |    37 |    133 |
| 44 | Denver     | CO    | USA     | 80014 |    40 |    105 |
| 45 | fort collins | CO  | USA     | 80521 |    41 |    106 |
| 46 | Pueblo     | CO    | USA     | 80541 |    42 |    107 |
+----+------------+-------+---------+-------+-------+--------+
```
6 rows in set (0.000 sec)

MariaDB [npudb1]> SELECT * FROM STATION3
    -> where LAT_N > 39.7;

```
+----+--------------+-------+---------+-------+-------+--------+
| ID | CITY         | STATE | COUNTRY | ZIP   | LAT_N | LONG_W |
+----+--------------+-------+---------+-------+-------+--------+
| 44 | Denver       | CO    | USA     | 80014 |    40 |    105 |
| 45 | fort collins | CO    | USA     | 80521 |    41 |    106 |
| 46 | Pueblo       | CO    | USA     | 80541 |    42 |    107 |
+----+--------------+-------+---------+-------+-------+--------+
```
3 rows in set (0.000 sec)

MariaDB [npudb1]> SELECT * FROM STATION3;
```
+----+--------------+-------+---------+-------+-------+--------+
| ID | CITY         | STATE | COUNTRY | ZIP   | LAT_N | LONG_W |
+----+--------------+-------+---------+-------+-------+--------+
| 13 | Phoenix      | AZ    | USA     | 85001 |    33 |    112 |
| 14 | Yuma         | AZ    | USA     | 85364 |    34 |    132 |
| 15 | Prescott     | AZ    | USA     | 86301 |    37 |    133 |
| 44 | Denver       | CO    | USA     | 80014 |    40 |    105 |
| 45 | fort collins | CO    | USA     | 80521 |    41 |    106 |
| 46 | Pueblo       | CO    | USA     | 80541 |    42 |    107 |
+----+--------------+-------+---------+-------+-------+--------+
```
6 rows in set (0.000 sec)

MariaDB [npudb1]> SELECT * FROM STATION3 where ZIP<= 85360;
```
+----+--------------+-------+---------+-------+-------+--------+
| ID | CITY         | STATE | COUNTRY | ZIP   | LAT_N | LONG_W |
+----+--------------+-------+---------+-------+-------+--------+
| 13 | Phoenix      | AZ    | USA     | 85001 |    33 |    112 |
| 44 | Denver       | CO    | USA     | 80014 |    40 |    105 |
| 45 | fort collins | CO    | USA     | 80521 |    41 |    106 |
| 46 | Pueblo       | CO    | USA     | 80541 |    42 |    107 |
+----+--------------+-------+---------+-------+-------+--------+
```
4 rows in set (0.000 sec)

MariaDB [npudb1]> SELECT ID, CITY, STATE FROM STATION;
```
+----+---------+-------+
| ID | CITY    | STATE |
+----+---------+-------+
| 13 | Phoenix | AZ    |
| 44 | Denver  | CO    |
| 66 | Caribou | ME    |
+----+---------+-------+
```
3 rows in set (0.000 sec)

MariaDB [npudb1]> SELECT * FROM STATION3;
```
+----+--------------+-------+---------+-------+-------+--------+
| ID | CITY         | STATE | COUNTRY | ZIP   | LAT_N | LONG_W |
+----+--------------+-------+---------+-------+-------+--------+
| 13 | Phoenix      | AZ    | USA     | 85001 |    33 |    112 |
| 14 | Yuma         | AZ    | USA     | 85364 |    34 |    132 |
```

```
| 15 | Prescott     | AZ    | USA     | 86301 |    37 |    133 |
| 44 | Denver       | CO    | USA     | 80014 |    40 |    105 |
| 45 | fort collins | CO    | USA     | 80521 |    41 |    106 |
| 46 | Pueblo       | CO    | USA     | 80541 |    42 |    107 |
+----+--------------+-------+---------+-------+-------+--------+
```
6 rows in set (0.000 sec)

MariaDB [npudb1]> SELECT ID, CITY,STATE,COUNTRY,ZIP,LAT_N,LONG_W FROM STATION3;
```
+----+--------------+-------+---------+-------+-------+--------+
| ID | CITY         | STATE | COUNTRY | ZIP   | LAT_N | LONG_W |
+----+--------------+-------+---------+-------+-------+--------+
| 13 | Phoenix      | AZ    | USA     | 85001 |    33 |    112 |
| 14 | Yuma         | AZ    | USA     | 85364 |    34 |    132 |
| 15 | Prescott     | AZ    | USA     | 86301 |    37 |    133 |
| 44 | Denver       | CO    | USA     | 80014 |    40 |    105 |
| 45 | fort collins | CO    | USA     | 80521 |    41 |    106 |
| 46 | Pueblo       | CO    | USA     | 80541 |    42 |    107 |
+----+--------------+-------+---------+-------+-------+--------+
```
6 rows in set (0.001 sec)

MariaDB [npudb1]> SELECT ID, CITY,STATE,COUNTRY,ZIP FROM STATION3;
```
+----+--------------+-------+---------+-------+
| ID | CITY         | STATE | COUNTRY | ZIP   |
+----+--------------+-------+---------+-------+
| 13 | Phoenix      | AZ    | USA     | 85001 |
| 14 | Yuma         | AZ    | USA     | 85364 |
| 15 | Prescott     | AZ    | USA     | 86301 |
| 44 | Denver       | CO    | USA     | 80014 |
| 45 | fort collins | CO    | USA     | 80521 |
| 46 | Pueblo       | CO    | USA     | 80541 |
+----+--------------+-------+---------+-------+
```
6 rows in set (0.000 sec)