Debugs of mysql server for mac.

- https://gist.github.com/zubaer-ahammed/c81c9a0e37adc1cb9a6cdc61c4190f52
- https://stackoverflow.com/questions/6474775/setting-the-mysql-root-user-password-on-os-x
- https://stackoverflow.com/questions/7927854/start-mysql-server-from-command-line-on-mac-os-lion
- https://linuxize.com/post/how-to-check-mysql-version/
- https://stackoverflow.com/questions/22009582/error-1064-42000-you-have-an-error-in-your-sql-syntax-check-the-manual-that/22009889
- https://www.tutorialspoint.com/resolve-usage-of-quotes-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
- https://dev.mysql.com/doc/refman/8.0/en/resetting-permissions.html

Create Database

We can create databases using the (create database <databasename>) command.

```
mysql> create database TTN;
Query OK, 1 row affected (0.01 sec)

mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| sys                |
| TTN                |
+--------------------+
5 rows in set (0.00 sec)
```

Create tables and show designed schema

Keeping in mind the future use of the whole database we have created 3 table with the following schema.

1. Table for storing customer data

```
mysql> use TTN
Database changed
mysql> create table cust_data(cust_id int auto_increment primary key, cust_name
varchar(10), cust_contact int);
Query OK, 0 rows affected (0.01 sec)

mysql> desc cust_data;
+--------------+-------------+------+-----+---------+----------------+
| Field        | Type        | Null | Key | Default | Extra          |
+--------------+-------------+------+-----+---------+----------------+
| cust_id      | int         | NO   | PRI | NULL    | auto_increment |
| cust_name    | varchar(10) | YES  |     | NULL    |                |
| cust_contact | int         | YES  |     | NULL    |                |
+--------------+-------------+------+-----+---------+----------------+
3 rows in set (0.00 sec)
```

2. Table for storing data for salesperson

```
mysql> create table salesperson(sp_id int auto_increment primary key, vendor_nam
e varchar(10), vendor_contact int);
Query OK, 0 rows affected (0.01 sec)

mysql> desc salesperson
    -> ;
+----------------+-------------+------+-----+---------+----------------+
| Field          | Type        | Null | Key | Default | Extra          |
+----------------+-------------+------+-----+---------+----------------+
| sp_id          | int         | NO   | PRI | NULL    | auto_increment |
| vendor_name    | varchar(10) | YES  |     | NULL    |                |
| vendor_contact | int         | YES  |     | NULL    |                |
+----------------+-------------+------+-----+---------+----------------+
3 rows in set (0.00 sec)
```

3. Table for storing the data for the orders

```
mysql> create table order_info(order_id int auto_increment primary key, vendor_i
d int, cust_id int);
Query OK, 0 rows affected (0.01 sec)

mysql> desc order_info;
+-----------+------+------+-----+---------+----------------+
| Field     | Type | Null | Key | Default | Extra          |
+-----------+------+------+-----+---------+----------------+
| order_id  | int  | NO   | PRI | NULL    | auto_increment |
| vendor_id | int  | YES  |     | NULL    |                |
| cust_id   | int  | YES  |     | NULL    |                |
+-----------+------+------+-----+---------+----------------+
3 rows in set (0.00 sec)
```

Insert sample data

Inserting data in all of the tables

1. Customer data

```
mysql> insert into cust_data(cust_id, cust_name, cust_contact) values (101, 'Ale
x', 01485131), (102, 'John', 01498352), (103, 'Nancy', 08493157), (104, 'Billy',
 08795234), (105, 'Jane', 87492353);
Query OK, 5 rows affected (0.01 sec)
Records: 5  Duplicates: 0  Warnings: 0

mysql> select * from cust_data;
+---------+-----------+--------------+
| cust_id | cust_name | cust_contact |
+---------+-----------+--------------+
|     101 | Alex      |      1485131 |
|     102 | John      |      1498352 |
|     103 | Nancy     |      8493157 |
|     104 | Billy     |      8795234 |
|     105 | Jane      |     87492353 |
+---------+-----------+--------------+
5 rows in set (0.00 sec)
```

2. Salesperson data

```
mysql> insert into salesperson(sp_id, vendor_name, vendor_contact) values (1, 'A
nnu', 01485131), (2, 'Anna', 01498352), (3, 'Amma', 08493157), (4, 'Appa', 08795
234), (5, 'Akka', 87492353);
Query OK, 5 rows affected (0.01 sec)
Records: 5  Duplicates: 0  Warnings: 0

mysql> select * from salesperson;
+-------+-------------+----------------+
| sp_id | vendor_name | vendor_contact |
+-------+-------------+----------------+
|     1 | Annu        |        1485131 |
|     2 | Anna        |        1498352 |
|     3 | Amma        |        8493157 |
|     4 | Appa        |        8795234 |
|     5 | Akka        |       87492353 |
+-------+-------------+----------------+
5 rows in set (0.00 sec)
```

3. Order data

```
mysql> insert into order_info(order_id, vendor_id, cust_id)
    -> values
    -> (589, 3, 101),
    -> (784, 1, 103),
    -> (121, 3, 104),
    -> (546, 4, 102),
    -> (580, 5, 105),
    -> (213, 2, 101);
Query OK, 6 rows affected (0.01 sec)
Records: 6  Duplicates: 0  Warnings: 0

mysql> select * from order_info;
+----------+-----------+---------+
| order_id | vendor_id | cust_id |
+----------+-----------+---------+
|      121 |         3 |     104 |
|      213 |         2 |     101 |
|      546 |         4 |     102 |
|      580 |         5 |     105 |
|      589 |         3 |     101 |
|      784 |         1 |     103 |
+----------+-----------+---------+
6 rows in set (0.00 sec)
```

Find the sales person who has multiple orders.

For this task we first created a relation between the tables by binding their primary id's with a foreign key relationship.

```
mysql> alter table order_info add foreign key (vendor_id) references salesperson
(sp_id);
Query OK, 6 rows affected (0.02 sec)
Records: 6  Duplicates: 0  Warnings: 0

mysql> alter table order_info add foreign key (cust_id) references cust_data(cus
t_id);
Query OK, 6 rows affected (0.03 sec)
Records: 6  Duplicates: 0  Warnings: 0

mysql> select salesperson.vendor_name from salesperson inner join order_info on
salesperson.sp_id=order_info.vendor_id group by vendor_name having count(vendor_
name)>1;
+-------------+
| vendor_name |
+-------------+
| Amma        |
+-------------+
1 row in set (0.00 sec)
```

Find the all sales person details along with order details

There are 2 different ways to do it as follows:

```
mysql> select salesperson.sp_id, salesperson.vendor_name, salesperson.vendor_con
tact, order_info.order_id from salesperson,order_info where order_info.vendor_id
=salesperson.sp_id;
+-------+-------------+----------------+----------+
| sp_id | vendor_name | vendor_contact | order_id |
+-------+-------------+----------------+----------+
|     1 | Annu        |        1485131 |      784 |
|     2 | Anna        |        1498352 |      213 |
|     3 | Amma        |        8493157 |      121 |
|     3 | Amma        |        8493157 |      589 |
|     4 | Appa        |        8795234 |      546 |
|     5 | Akka        |       87492353 |      580 |
+-------+-------------+----------------+----------+
6 rows in set (0.00 sec)

mysql> select salesperson.sp_id, salesperson.vendor_name, salesperson.vendor_con
tact, order_info.order_id from salesperson left join order_info on order_info.ve
ndor_id=salesperson.sp_id;
+-------+-------------+----------------+----------+
| sp_id | vendor_name | vendor_contact | order_id |
+-------+-------------+----------------+----------+
|     1 | Annu        |        1485131 |      784 |
|     2 | Anna        |        1498352 |      213 |
|     3 | Amma        |        8493157 |      121 |
|     3 | Amma        |        8493157 |      589 |
|     4 | Appa        |        8795234 |      546 |
|     5 | Akka        |       87492353 |      580 |
+-------+-------------+----------------+----------+
6 rows in set (0.00 sec)
```

Create index

```
mysql> create index idx_c_name on cust_data(cust_name)
    -> ;
Query OK, 0 rows affected (0.02 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

How to show index on a table

```
mysql> show index from cust_data \G;
*************************** 1. row ***************************
        Table: cust_data
   Non_unique: 0
     Key_name: PRIMARY
  Seq_in_index: 1
  Column_name: cust_id
    Collation: A
  Cardinality: 5
     Sub_part: NULL
       Packed: NULL
         Null:
   Index_type: BTREE
      Comment:
Index_comment:
      Visible: YES
   Expression: NULL
*************************** 2. row ***************************
        Table: cust_data
   Non_unique: 1
     Key_name: idx_c_name
  Seq_in_index: 1
  Column_name: cust_name
    Collation: A
  Cardinality: 5
     Sub_part: NULL
       Packed: NULL
         Null: YES
   Index_type: BTREE
      Comment:
Index_comment:
      Visible: YES
   Expression: NULL
2 rows in set (0.00 sec)

ERROR:
No query specified

mysql>
```

Find the order number, salesperson name, along with the customer to whom that order belongs to