EXERCISE 1:

DATABASE:

DBMS or Database Management System is a software application used to access, create, and manage databases. With the help of DBMS, you can easily create, retrieve and update data in databases. A DBMS consists of a group of commands to manipulate the database and acts as an interface between the end-users and the database.

SQL:

SQL (Structured Query Language) is a standardized query language used by relational database management systems (RDBMSs). It provides a consistent, English keyword-oriented set of facilities for query, data definition, data manipulation, and data control. SQL statements include data manipulation language statements such as SELECT, INSERT, UPDATE, and DELETE, data definition language statements such as CREATE and DROP statements for tables and indexes, and statements that control data consistency and grant and revoke authority. SQL statements are called "dynamic" when they are not completely specified until the program is executed.

DDL:

Data Definition Language (DDL) is a computer language used to create and modify the structure of database objects such as tables, indices, views, schemas, and users in a database.

PROGRAM:

Enter password: ********
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 5.5.62 MySQL Community Server (GPL)

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

```
mysql> create database first;
ERROR 1007 (HY000): Can't create database 'first'; database exists
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| dbfirst            |
| first              |
| mysql              |
| performance_schema |
| test               |
+--------------------+
6 rows in set (0.00 sec)

mysql> use first;
Database changed
mysql>  create table student(s_id int,s_name varchar(10),s_degree varchar(10));
Query OK, 0 rows affected (0.01 sec)

mysql> desc student;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
```

```
+----------+-------------+------+-----+---------+-------+
| s_id     | int(11)     | YES  |     | NULL    |       |
| s_name   | varchar(10) | YES  |     | NULL    |       |
| s_degree | varchar(10) | YES  |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql> drop table student;
Query OK, 0 rows affected (0.00 sec)

mysql> desc student;
ERROR 1146 (42S02): Table 'first.student' doesn't exist
mysql> create table learner(id int,name varchar(10),subject varchar(10));
ERROR 1050 (42S01): Table 'learner' already exists
mysql> create table subject(s_no int,subname varchar(10));
Query OK, 0 rows affected (0.00 sec)

mysql> desc subject;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| s_no    | int(11)     | YES  |     | NULL    |       |
| subname | varchar(10) | YES  |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
2 rows in set (0.00 sec)

mysql> alter table subject add(trainer varchar(20));
Query OK, 0 rows affected (0.01 sec)
```

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc subject;
```
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| s_no    | int(11)     | YES  |     | NULL    |       |
| subname | varchar(10) | YES  |     | NULL    |       |
| trainer | varchar(20) | YES  |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
```
3 rows in set (0.00 sec)

mysql> alter table subject drop column subname;
Query OK, 0 rows affected (0.01 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc subject;
```
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| s_no    | int(11)     | YES  |     | NULL    |       |
| trainer | varchar(20) | YES  |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
```
2 rows in set (0.00 sec)

mysql> select * from subject;
Empty set (0.00 sec)

```
mysql> ALTER TABLE table_name
    -> /c
    -> \c
mysql> alter table subject rename to sub;
Query OK, 0 rows affected (0.05 sec)

mysql> desc sub;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| s_no    | int(11)     | YES  |     | NULL    |       |
| trainer | varchar(20) | YES  |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
2 rows in set (0.02 sec)

mysql> truncate table sub;
Query OK, 0 rows affected (0.00 sec)

mysql> desc sub;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| s_no    | int(11)     | YES  |     | NULL    |       |
| trainer | varchar(20) | YES  |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
2 rows in set (0.00 sec)

mysql> select * from sub;
```

```
Empty set (0.00 sec)

mysql>
```