```
joe@db:~$ echo "Our main purpose for this class is to control access to a database. Not th
e creation, or manipulation of data; though, we will have to do a little of that in order
to control access"
Our main purpose for this class is to control access to a database. Not the creation, or m
anipulation of data; though, we will have to do a little of that in order to control acces
s
joe@db:~$ sudo mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 8.0.33-0ubuntu0.22.04.4 (Ubuntu)

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owners.

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

mysql>
```

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
4 rows in set (0.01 sec)

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

mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| hogwarts           |
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
5 rows in set (0.01 sec)

mysql>
```

```
mysql> use hogwarts;
Database changed
mysql> show tables;
Empty set (0.01 sec)

mysql> create table spells (x INT);
Query OK, 0 rows affected (0.07 sec)

mysql> show tables;
+--------------------+
| Tables_in_hogwarts |
+--------------------+
| spells             |
+--------------------+
1 row in set (0.00 sec)

mysql>
```

```
mysql> drop table spells;
Query OK, 0 rows affected (0.03 sec)

mysql> show tables;
Empty set (0.00 sec)

mysql> drop database hogwarts;
Query OK, 0 rows affected (0.12 sec)

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

mysql>
```

```
mysql> create database hogwarts;
Query OK, 1 row affected (0.02 sec)

mysql> create table spells (x INT);
ERROR 1046 (3D000): No database selected
mysql> use hogwarts;
Database changed
mysql> create table spells (x INT);
Query OK, 0 rows affected (0.06 sec)

mysql> show tables;
+-------------------+
| Tables_in_hogwarts |
+-------------------+
| spells            |
+-------------------+
1 row in set (0.00 sec)

mysql> select * from spells;
Empty set (0.02 sec)

mysql>
```

```
mysql> insert into spells values (44);
Query OK, 1 row affected (0.01 sec)

mysql> insert into spells values (55);
Query OK, 1 row affected (0.01 sec)

mysql> insert into spells values (33);
Query OK, 1 row affected (0.01 sec)

mysql> insert into spells values (2);
Query OK, 1 row affected (0.01 sec)

mysql> select * from spells;
+------+
| x    |
+------+
|   44 |
|   55 |
|   33 |
|    2 |
+------+
4 rows in set (0.00 sec)

mysql>
```

```
mysql> select * from spells;
+------+
| x    |
+------+
|   44 |
|   55 |
|   33 |
|    2 |
+------+
4 rows in set (0.00 sec)

mysql> delete from spells where x=33;
Query OK, 1 row affected (0.02 sec)

mysql> select * from spells;
+------+
| x    |
+------+
|   44 |
|   55 |
|    2 |
+------+
3 rows in set (0.00 sec)

mysql>
```

```
mysql> create user 'ron'@'localhost' identified by 'w3asley123?';
ERROR 1819 (HY000): Your password does not satisfy the current policy requirements
mysql> create user 'ron'@'localhost' identified by 'Weasley123?';
Query OK, 0 rows affected (0.02 sec)

mysql> 
```

```
mysql> use mysql;
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
mysql> select User,Host from user;
+------------------+-----------+
| User             | Host      |
+------------------+-----------+
| debian-sys-maint | localhost |
| mysql.infoschema | localhost |
| mysql.session    | localhost |
| mysql.sys        | localhost |
| ron              | localhost |
| root             | localhost |
+------------------+-----------+
6 rows in set (0.00 sec)

mysql>
```

```
mysql> select User,Host from user;
+------------------+-----------+
| User             | Host      |
+------------------+-----------+
| debian-sys-maint | localhost |
| mysql.infoschema | localhost |
| mysql.session    | localhost |
| mysql.sys        | localhost |
| ron              | localhost |
| root             | localhost |
| snape            | localhost |
+------------------+-----------+
7 rows in set (0.00 sec)

mysql> delete user 'snape';
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that correspond
s to your MySQL server version for the right syntax to use near ''snape'' at line 1
mysql> delete from user where User='snape';
Query OK, 1 row affected (0.02 sec)

mysql> select User,Host from user;
+------------------+-----------+
| User             | Host      |
+------------------+-----------+
| debian-sys-maint | localhost |
| mysql.infoschema | localhost |
| mysql.session    | localhost |
| mysql.sys        | localhost |
| ron              | localhost |
| root             | localhost |
+------------------+-----------+
6 rows in set (0.00 sec)


mysql>
```

```
mysql> create user 'snape'@'localhost' identified by 'Severus123?';
Query OK, 0 rows affected (0.02 sec)

mysql> select User,Host from user;
+-------------------+-----------+
| User              | Host      |
+-------------------+-----------+
| debian-sys-maint  | localhost |
| mysql.infoschema  | localhost |
| mysql.session     | localhost |
| mysql.sys         | localhost |
| ron               | localhost |
| root              | localhost |
| snape             | localhost |
+-------------------+-----------+
7 rows in set (0.00 sec)

mysql> drop user 'snape'@'localhost';
Query OK, 0 rows affected (0.01 sec)

mysql>
```

```
mysql> select User,Host from user;
+------------------+-----------+
| User             | Host      |
+------------------+-----------+
| debian-sys-maint | localhost |
| mysql.infoschema | localhost |
| mysql.session    | localhost |
| mysql.sys        | localhost |
| ron              | localhost |
| root             | localhost |
+------------------+-----------+
6 rows in set (0.00 sec)

mysql>
```

```
mysql> select User,Host from user;
+-------------------+-----------+
| User              | Host      |
+-------------------+-----------+
| debian-sys-maint  | localhost |
| mysql.infoschema  | localhost |
| mysql.session     | localhost |
| mysql.sys         | localhost |
| ron               | localhost |
| root              | localhost |
+-------------------+-----------+
6 rows in set (0.00 sec)

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

mysql>
```

```
mysql> grant all privileges on hogwarts.* to 'ron'@'localhost';
Query OK, 0 rows affected (0.01 sec)

mysql> select User,Host from user;
+-------------------+-----------+
| User              | Host      |
+-------------------+-----------+
| debian-sys-maint  | localhost |
| mysql.infoschema  | localhost |
| mysql.session     | localhost |
| mysql.sys         | localhost |
| ron               | localhost |
| root              | localhost |
+-------------------+-----------+
6 rows in set (0.00 sec)

mysql> select User,Host,Db from db;
+---------------+-----------+--------------------+
| User          | Host      | Db                 |
+---------------+-----------+--------------------+
| mysql.session | localhost | performance_schema |
| mysql.sys     | localhost | sys                |
| ron           | localhost | hogwarts           |
+---------------+-----------+--------------------+
3 rows in set (0.00 sec)

mysql>
```

```
mysql> revoke all privileges on hogwarts.* from ron@localhost;
Query OK, 0 rows affected (0.01 sec)

mysql> select User,Host,Db from db;
+---------------+-----------+--------------------+
| User          | Host      | Db                 |
+---------------+-----------+--------------------+
| mysql.session | localhost | performance_schema |
| mysql.sys     | localhost | sys                |
+---------------+-----------+--------------------+
2 rows in set (0.00 sec)

mysql>
```

```
mysql> we should create all users as follows
```

```
mysql> create user 'voldemort'@'localhost' identified with mysql_native_password by 'NotBe
Named123?';
Query OK, 0 rows affected (0.01 sec)

mysql>
```
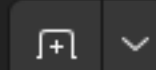
```
mysql> a few more user examples
```

```
mysql> create user 'tom'@'144.38.199.38' identified with mysql_native_password by 'Riddle1
23?';
Query OK, 0 rows affected (0.02 sec)

mysql> Allows access by the tom user from that ip address
```

```
mysql> select User,Host,Db from db;
+---------------+-----------+--------------------+
| User          | Host      | Db                 |
+---------------+-----------+--------------------+
| mysql.session | localhost | performance_schema |
| mysql.sys     | localhost | sys                |
+---------------+-----------+--------------------+
2 rows in set (0.01 sec)

mysql> select User,Host from user;
+------------------+---------------+
| User             | Host          |
+------------------+---------------+
| tom              | 144.38.199.38 |
| debian-sys-maint | localhost     |
| mysql.infoschema | localhost     |
| mysql.session    | localhost     |
| mysql.sys        | localhost     |
| ron              | localhost     |
| root             | localhost     |
| voldemort        | localhost     |
+------------------+---------------+
8 rows in set (0.00 sec)

mysql> tom was created but no privileges assigned
```

```
mysql> grant all privileges on hogwarts.* to 'tom'@'144.38.199.38';
Query OK, 0 rows affected (0.01 sec)

mysql> select User,Host,Db from db;
+---------------+---------------+--------------------+
| User          | Host          | Db                 |
+---------------+---------------+--------------------+
| mysql.session | localhost     | performance_schema |
| mysql.sys     | localhost     | sys                |
| tom           | 144.38.199.38 | hogwarts           |
+---------------+---------------+--------------------+
3 rows in set (0.00 sec)

mysql>
```

```
mysql> create user 'hermoine'@'144.38.199.32/255.255.255.240';
ERROR 1819 (HY000): Your password does not satisfy the current policy requirements
mysql> create user 'hermoine'@'144.38.199.32/255.255.255.240' identified with mysql_native
_password by 'Granger123?';
Query OK, 0 rows affected (0.01 sec)

mysql> allows access from that entire network range, make sure to calculate correctly
```

```
mysql> select User,Host,Db from db;
+---------------+---------------+--------------------+
| User          | Host          | Db                 |
+---------------+---------------+--------------------+
| mysql.session | localhost     | performance_schema |
| mysql.sys     | localhost     | sys                |
| tom           | 144.38.199.38 | hogwarts           |
+---------------+---------------+--------------------+
3 rows in set (0.00 sec)

mysql> grant all privileges on hogwarts.* to 'hermoine'@'144.38.199.32/255.255.255.240';
Query OK, 0 rows affected (0.01 sec)

mysql> select User,Host,Db from db;
+---------------+--------------------------------+--------------------+
| User          | Host                           | Db                 |
+---------------+--------------------------------+--------------------+
| hermoine      | 144.38.199.32/255.255.255.240  | hogwarts           |
| mysql.session | localhost                      | performance_schema |
| mysql.sys     | localhost                      | sys                |
| tom           | 144.38.199.38                  | hogwarts           |
+---------------+--------------------------------+--------------------+
4 rows in set (0.00 sec)

mysql>
```

```
mysql> flush privileges;
Query OK, 0 rows affected (0.00 sec)


mysql> exit;
Bye
joe@db:~$ echo "The flush privileges command causes mysql to immediately re-read the permi
ssions table. You can execute that command if you think you have your permissions correct,
 but it's not working"
The flush privileges command causes mysql to immediately re-read the permissions table. Yo
u can execute that command if you think you have your permissions correct, but it's not wo
rking
joe@db:~$
```