

Creating MySQL users

While the MySQL root user is allowed complete control over the databases on the MySQL Server, it is obviously inadvisable to allow other users such freedom for best security of the databases. The root user can therefore create users with specific “privileges” controlling what actions they may perform on the MySQL Server.

The root user can create a user in the MySQL Command Line Client by issuing a clause to identify a unique user, like this:

```
CREATE USER IF NOT EXISTS 'username'@'hostname'  
IDENTIFIED WITH mysql_native_password BY 'password' ;
```

The root user can then issue a clause to specify privileges allowed for a particular database to a particular user, like this:

```
GRANT privileges ON database.* TO 'username'@'hostname' ;
```

The privileges are specified as a comma-separated list of keywords which that user may use when accessing the specified database. For instance, basic privileges to **SELECT**, **INSERT**, and **UPDATE**.

- 1 Log into the MySQL Command Line Client as the root user, then precisely issue this clause to create a user **CREATE USER IF NOT EXISTS 'mike'@'localhost' IDENTIFIED WITH mysql_native_password BY 'easysteps' ;**
- 2 Next, allow privileges to access the “site_db” database **GRANT SELECT, INSERT, UPDATE ON site_db.* TO 'mike'@'localhost' ;**
- 3 Now, issue a clause to confirm this user’s privileges **SHOW GRANTS FOR 'mike'@'localhost' ;**

```
mysql> CREATE USER IF NOT EXISTS 'mike'@'localhost' IDENTIFIED WITH mysql_native_password BY 'easysteps';  
Query OK, 0 rows affected (0.12 sec)  
  
mysql> GRANT SELECT, INSERT, UPDATE ON site_db.* TO 'mike'@'localhost';  
Query OK, 0 rows affected (0.56 sec)  
  
mysql> SHOW GRANTS FOR 'mike'@'localhost';  
+-----+  
| Grants for mike@localhost |  
+-----+  
| GRANT USAGE ON *.* TO `mike`@`localhost` |  
| GRANT SELECT, INSERT, UPDATE ON `site_db`.* TO `mike`@`localhost` |  
+-----+  
2 rows in set (0.00 sec)  
  
mysql> _
```



MySQL is case-sensitive and requires precise syntax – you must be sure to use correct spacing and letter case as it appears listed. For example, do not leave spaces around the @ character that defines the user name and host.



MySQL 8 introduces **cached_sha2_password** authentication, but the **mysql_native_password** earlier authentication can still be used to specify unencrypted passwords.