REM Author : Henry
REM Date : 2024.06.12
REM Objective :
REM Environment : Ubuntu Server 22.04 LTS, MySQL Workbench 8.0 CE, MySQL Community Server 8.0.37-0ubuntu0.22.04.3 (ubuntu)

REM **Before** you **begin**
1. **All** commands **are** executed inside the MySQL shell **as** root **or** administrative **user.**
2. The minimum **privileges** required **to create user** accounts **and** define their **privileges is CREATE USER and GRANT.**
3. **To access** the MySQL shell **type** the following command **and** enter your MySQL root **user** password **when** prompted**:**
    $ mysql -u root -p

REM **Create** a **new** MySQL **User** Account
1. A **user** account **in** MySQL consists **of** two parts**: user** name **and host** name**.**
2. **To create** a **new** MySQL **user** account**,** run the following command**:**
    mysql>**CREATE USER** 'newuser'@'localhost' **IDENTIFIED BY** 'user_password'**;**

3. **To grant access from** another **host,** change the hostname part **with** the remote machine IP **.**
    -For example**, to grant access from** a machine **with** IP 10.8.0.5 you would run**:**
    mysql>**CREATE USER** 'newuser'@'10.8.0.5' **IDENTIFIED BY** 'user_password'**;**

4. **To create** a **user** that can **connect from any host, use** the '%' wildcard **as** a **host** part**:**
    mysql>**CREATE USER** 'newuser'@'%' **IDENTIFIED BY** 'user_password'**;**

REM **Grant Privileges to** a MySQL **User** Account
1. There **are** multiple types **of privileges** that can be granted **to** a **user** account**.**
2. The most commonly used privilege **are:**
    1)**ALL PRIVILEGES** – Grants **all privileges to** a **user** account**.**
    2)**CREATE** – The **user** account **is** allowed **to create** databases **and** tables**.**
    3)**DROP** - The **user** account **is** allowed **to drop** databases **and** tables**.**
    4)**DELETE** - The **user** account **is** allowed **to delete rows from** a **specific table.**
    5)**INSERT** - The **user** account **is** allowed **to insert rows into** a **specific table.**
    6)**SELECT** – The **user** account **is** allowed **to read** a **database.**
    7)**UPDATE** - The **user** account **is** allowed **to update table rows.**
3. **To grant specific privileges to** a **user** account**, use** the following syntax**:**
    mysql>**GRANT** permission1**,** permission2 **ON** database_name.table_name **TO** 'database_user'@'localhost'**;**
4. Examples**:**
    1)Grand **all privileges to** a **user** account **over** a **specific database:**
        mysql>**GRANT ALL PRIVILEGES ON** database_name**.* TO** 'database_user'@'localhost'**;**

    2)Grand **all privileges to** a **user** account **on all** databases**:**
        mysql>**GRANT ALL PRIVILEGES ON *.* TO** 'database_user'@'localhost'**;**

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3)Grand **all privileges to** a **user** account **over** a **specific table from** a **database:**
   mysql>**GRANT ALL PRIVILEGES ON** database_name.table_name **TO** 'database_user'@
   'localhost'**;**

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4)**Grant** multiple **privileges to** a **user** account **over** a **specific database:**
   mysql>**GRANT SELECT, INSERT, DELETE ON** database_name**.* TO** database_user@
   'localhost'**;**

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REM Display MySQL **User** Account **Privileges**
-**To** find the privilege**(**s**)** granted **to** a **specific** MySQL **user** account**, use** the SHOW GRANTS
statement:
   mysql>SHOW GRANTS **FOR** 'database_user'@'localhost'**;**

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REVOKE

REM **Revoke Privileges from** a MySQL **User** Account
-**To revoke all privileges from** a **user** account **over** a **specific database,** run the following
command**:**
   mysql>**REVOKE ALL PRIVILEGES ON** database_name**.* FROM** 'database_user'@'localhost'**;**
   REVOKE   ON DB .   FROM   @   ;

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REM Remove an Existing MySQL **User** Account
-**To delete** a MySQL **user** account **use** the **DROP USER statement:**
   mysql>**DROP USER** 'user'@'localhost'

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REM **ALTER USER**

   ALTER USER   .

1. The **ALTER USER statement modifies** MySQL accounts**.**
2. Syntax
   ALTER USER [IF EXISTS] **user IDENTIFIED BY** 'password_string'**;**

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REM **User Check**
   mysql>**SELECT host, user,** plugin**,** authentication_string**,** password_last_changed **FROM**
   mysql**.user;**

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REM Saving Your Changes

   FLUSH PRIVILEGES;   y

```
DB                      : mysqldump
-> mysql        /bin/       mysqldump.exe            .

Usage: mysqldump [OPTIONS] database [tables]
R   mysqldump [OPTIONS] --databases [OPTIONS] DB1 [DB2 DB3...]
R   mysqldump [OPTIONS] --all-databases [OPTIONS]
```

```
mysqldump -u root -p DB            : root              "DB" "     "  dump        .
> ./patient,sql :            patient.sql                              .
                          patient.sql
     DB                                                   . =>

mysqldump -u root -p world > ./world.sql :
DB               DB                  .

mysqldump -u root -p --all-databases > ./all.sql :
DB        --all-databases              DB        .
```