## MySQL

**\*\*\*NEVER RUN AS ROOT USER\*\*\***

1. Ensure your MySQL database is running
   1. service mysqld status
      1. Even If the service is running, run the following
         1. sudo mysql\_secure\_installation
            1. Enter password

If no password:

sudo service mysql stop

sudo dpkg-reconfigure mysql-server-5.5

sudo service mysql start

Return to step ‘a’

1. Check user based security
   1. Ensure all users have passwords
      1. SELECT User,Host,Password FROM mysql.user;
      2. For those who don't have passwords:
         1. UPDATE mysql.user SET Password=PASSWORD('newPassWord') WHERE User="demo-user";
      3. For those who have a “%’ in the host field
         1. UPDATE mysql.user SET Host='localhost' WHERE User="demo-user";
      4. If there is a blank username:
         1. DELETE FROM mysql.user WHERE User="";
   2. Check the privileges on each user
      1. See all grants: show grants for 'demo-user'@'localhost';
      2. Remove unnecessary grants: REVOKE UPDATE ON testDB.\* FROM 'demo-user'@'localhost';
   3. Ensure the root user has a username other than ‘root’
      1. rename user 'root'@'localhost' to 'newAdminUser'@'localhost';
   4. When you have completed all steps run the command: FLUSH PRIVILEGES
2. Check the config file
   1. sudo vi /etc/mysql/my.cnf
   2. Ensure your ‘bind-address’ is set to ‘127.0.0.1’ (Local machine only)
   3. Ensure ‘local-infile’ is set to ‘0’ (add this if not exist)
   4. Ensure youre using the proper log file:
      1. log=/var/log/mysql-logfile
3. Check the MySQL log file
   1. sudo ls -l /var/log/mysql\*
   2. Check the ‘.err’ and ‘.log’ files to make sure they aren’t world readable
4. Ensure MySQL is capable of running with firewall:
   1. [root@www ~]# firewall-cmd --add-service=mysql --permanent   
      [root@www ~]# firewall-cmd --reload

Source - <https://www.server-world.info/en/note?os=CentOS_7&p=mysql57>

Source - <https://www.linode.com/docs/databases/mysql/install-mysql-on-ubuntu-14-04>

Source - <https://dev.mysql.com/doc/refman/5.7/en/security-against-attack.html>

Source - <https://www.digitalocean.com/community/tutorials/how-to-secure-mysql-and-mariadb-databases-in-a-linux-vps>