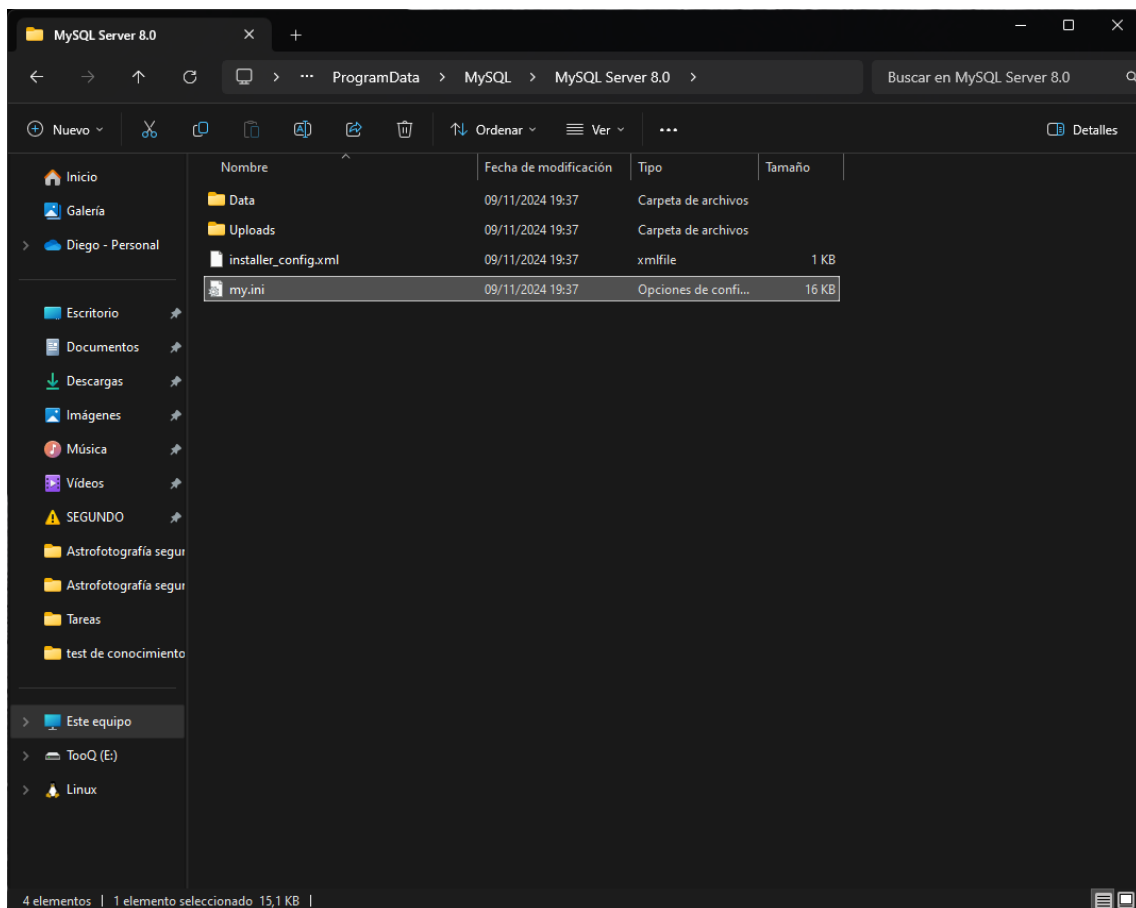
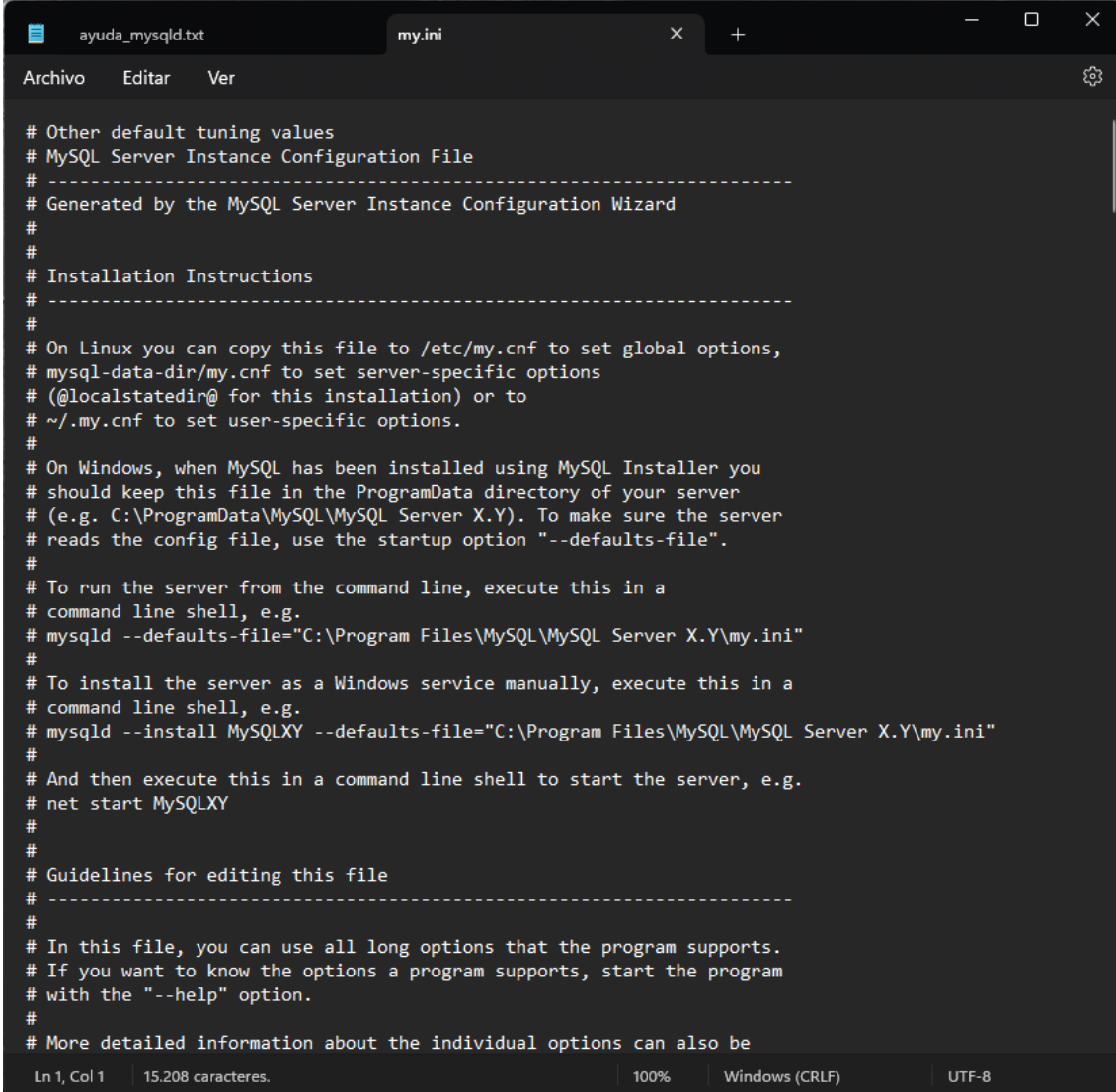


1. Vuelca en un fichero la ayuda del comando mysqld.



2. Dentro del fichero my.ini, ¿para qué sirven las secciones mysqld y mysql?



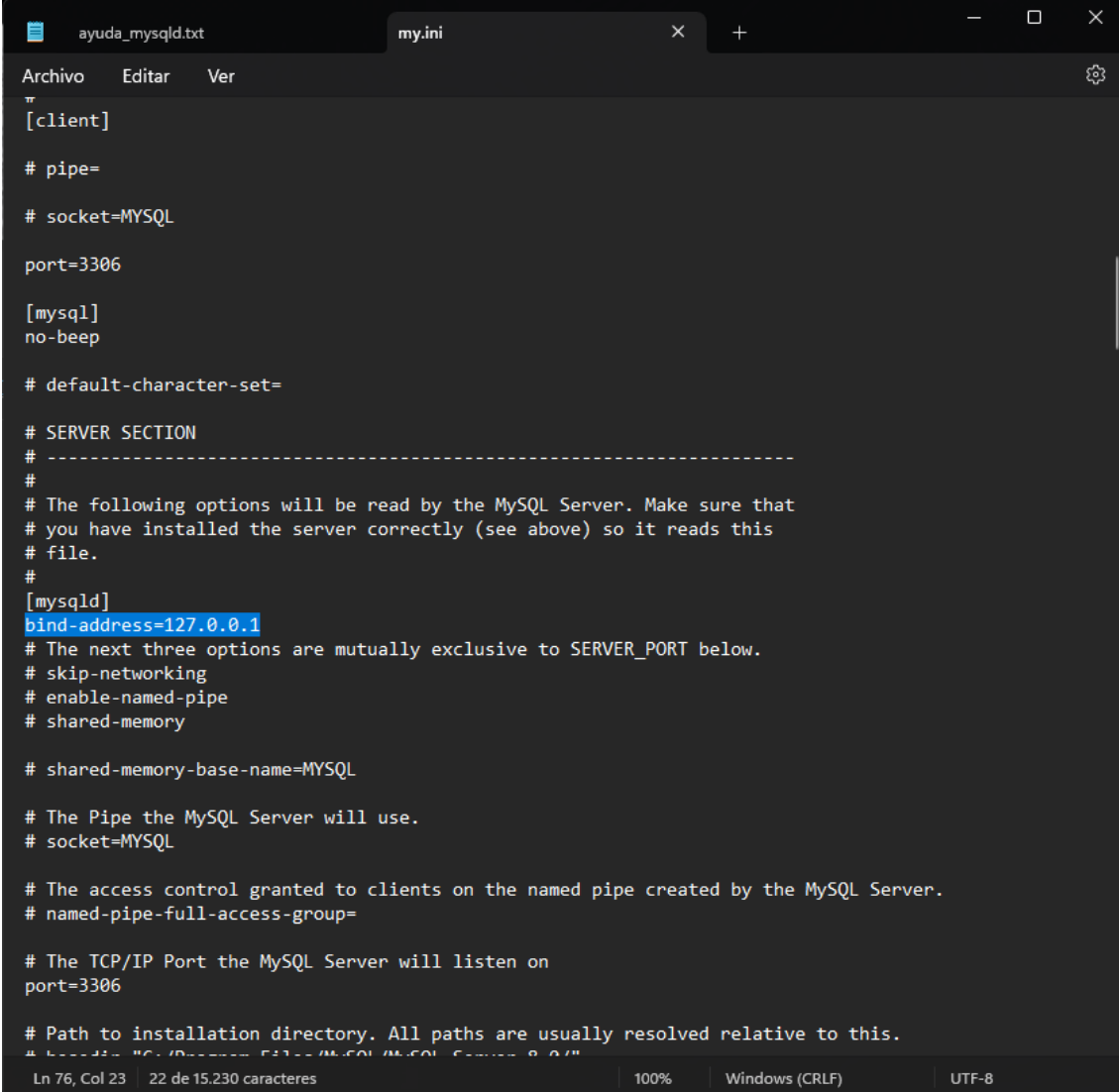


The image shows a text editor window with two tabs: 'ayuda_mysqlld.txt' and 'my.ini'. The 'my.ini' tab is active, displaying the content of the MySQL configuration file. The text is a standard template for a new installation, providing instructions for Linux and Windows, and details about editing the file. The editor has a dark theme and a status bar at the bottom showing 'Ln 1, Col 1', '15.208 caracteres.', '100%', 'Windows (CRLF)', and 'UTF-8'.

```
# Other default tuning values
# MySQL Server Instance Configuration File
# -----
# Generated by the MySQL Server Instance Configuration Wizard
#
#
# Installation Instructions
# -----
#
# On Linux you can copy this file to /etc/my.cnf to set global options,
# mysql-data-dir/my.cnf to set server-specific options
# (@localstatedir@ for this installation) or to
# ~/.my.cnf to set user-specific options.
#
# On Windows, when MySQL has been installed using MySQL Installer you
# should keep this file in the ProgramData directory of your server
# (e.g. C:\ProgramData\MySQL\MySQL Server X.Y). To make sure the server
# reads the config file, use the startup option "--defaults-file".
#
# To run the server from the command line, execute this in a
# command line shell, e.g.
# mysql --defaults-file="C:\Program Files\MySQL\MySQL Server X.Y\my.ini"
#
# To install the server as a Windows service manually, execute this in a
# command line shell, e.g.
# mysql --install MySQLXY --defaults-file="C:\Program Files\MySQL\MySQL Server X.Y\my.ini"
#
# And then execute this in a command line shell to start the server, e.g.
# net start MySQLXY
#
#
# Guidelines for editing this file
# -----
#
# In this file, you can use all long options that the program supports.
# If you want to know the options a program supports, start the program
# with the "--help" option.
#
# More detailed information about the individual options can also be
```

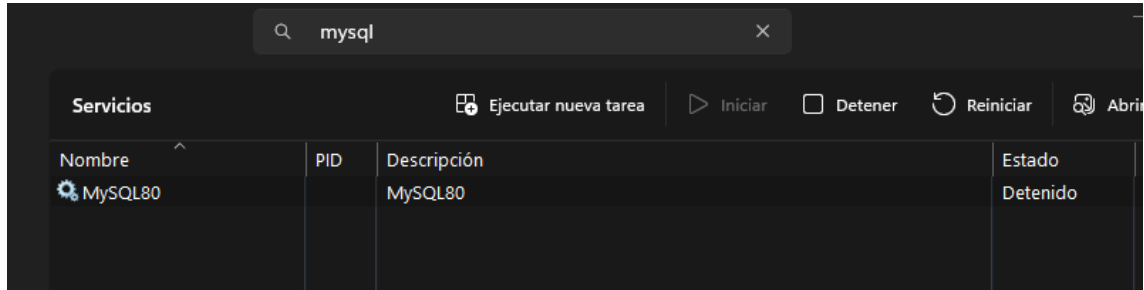
Ln 1, Col 1 | 15.208 caracteres. | 100% | Windows (CRLF) | UTF-8

3. ¿De qué manera piensas que podemos hacer que el servidor funcione sin que nadie pueda acceder a él de manera remota? ¿Y sin usar resolución de nombres de dominio?

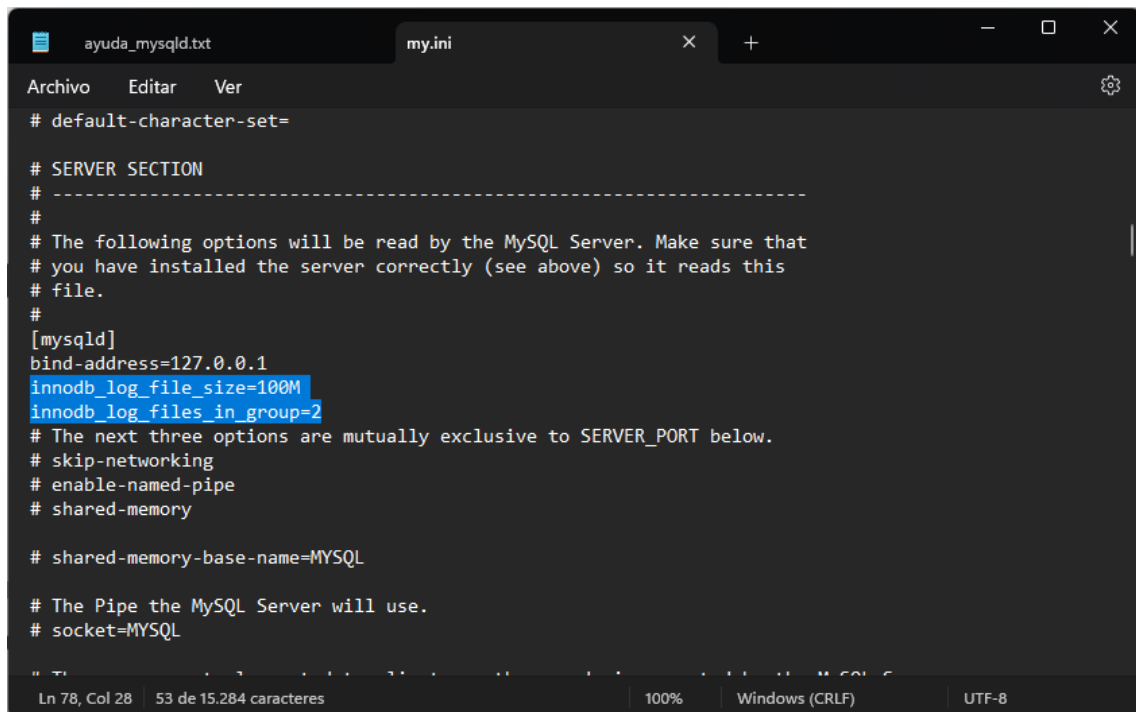


```
ayuda_mysqlid.txt my.ini
Archivo Editar Ver
[client]
# pipe=
# socket=MYSQL
port=3306
[mysql]
no-beep
# default-character-set=
# SERVER SECTION
# -----
#
# The following options will be read by the MySQL Server. Make sure that
# you have installed the server correctly (see above) so it reads this
# file.
#
[mysqld]
bind-address=127.0.0.1
# The next three options are mutually exclusive to SERVER_PORT below.
# skip-networking
# enable-named-pipe
# shared-memory
# shared-memory-base-name=MYSQL
# The Pipe the MySQL Server will use.
# socket=MYSQL
# The access control granted to clients on the named pipe created by the MySQL Server.
# named-pipe-full-access-group=
# The TCP/IP Port the MySQL Server will listen on
port=3306
# Path to installation directory. All paths are usually resolved relative to this.
# ----- "C:\Program Files\MySQL\MySQL Server 8.0\"
Ln 76, Col 23 | 22 de 15.230 caracteres | 100% | Windows (CRLF) | UTF-8
```

4. Configura los registros de errores binarios y comprueba qué ocurre en el registro de errores apagando e iniciando el servidor de manera incorrecta, por ejemplo, usando taskkill o apagándolo desde el administrador de tareas de Windows.



(Lo detenemos y aparentemente no pasa nada a simple vista)



5. Crea una tabla t1 en la base test con un campo numérico y de tipo InnoDB. Modifícala para que sea MyISAM. ¿Qué cambios observas en el sistema de ficheros en el directorio de datos de MySQL?

```
Símbolo del sistema - mysql - x + - □ ×
Microsoft Windows [Versión 10.0.22631.4391]
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\diego>mysql -u root -p
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 16
Server version: 5.5.5-10.4.32-MariaDB mariadb.org binary distribution

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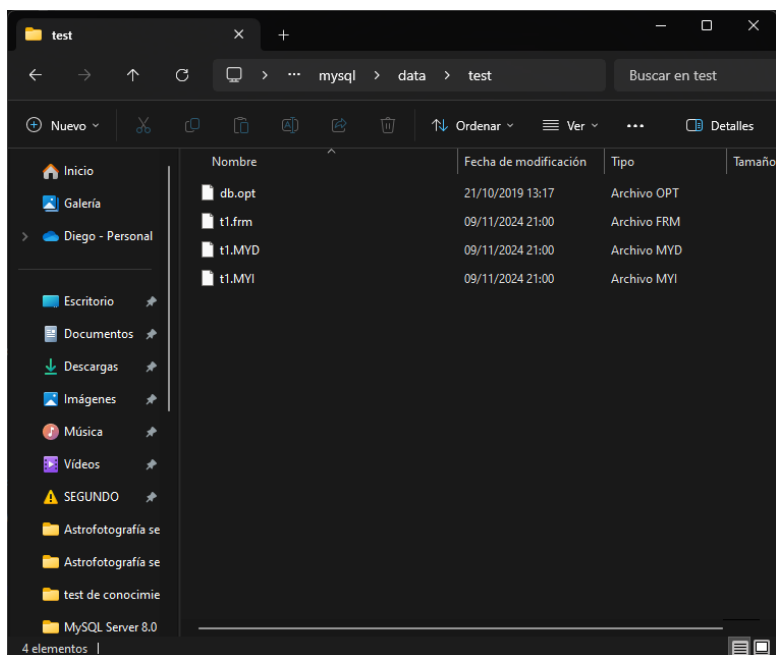
Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

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

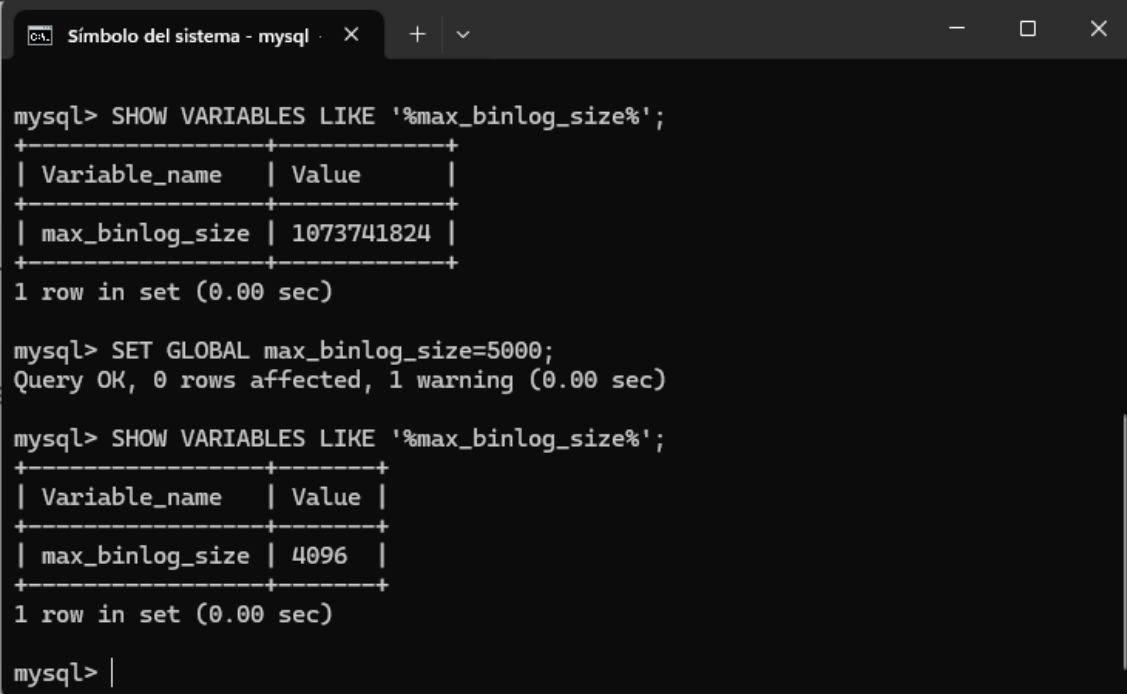
mysql> USE test;
Database changed
mysql> CREATE TABLE t1 (
  ->   id INT
  -> ) ENGINE=InnoDB;
Query OK, 0 rows affected (0.03 sec)

mysql> ALTER TABLE t1 ENGINE=MyISAM;
Query OK, 0 rows affected (0.07 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql>
```



6. Averigua el tamaño máximo de los archivos de registro binario y en qué variable se configura. Configura dicha variable para un tamaño máximo de 5 KB y comprueba su funcionamiento después de algunas inserciones en la tabla test.t1



```
mysql> SHOW VARIABLES LIKE '%max_binlog_size%';
+-----+-----+
| Variable_name | Value      |
+-----+-----+
| max_binlog_size | 1073741824 |
+-----+-----+
1 row in set (0.00 sec)

mysql> SET GLOBAL max_binlog_size=5000;
Query OK, 0 rows affected, 1 warning (0.00 sec)

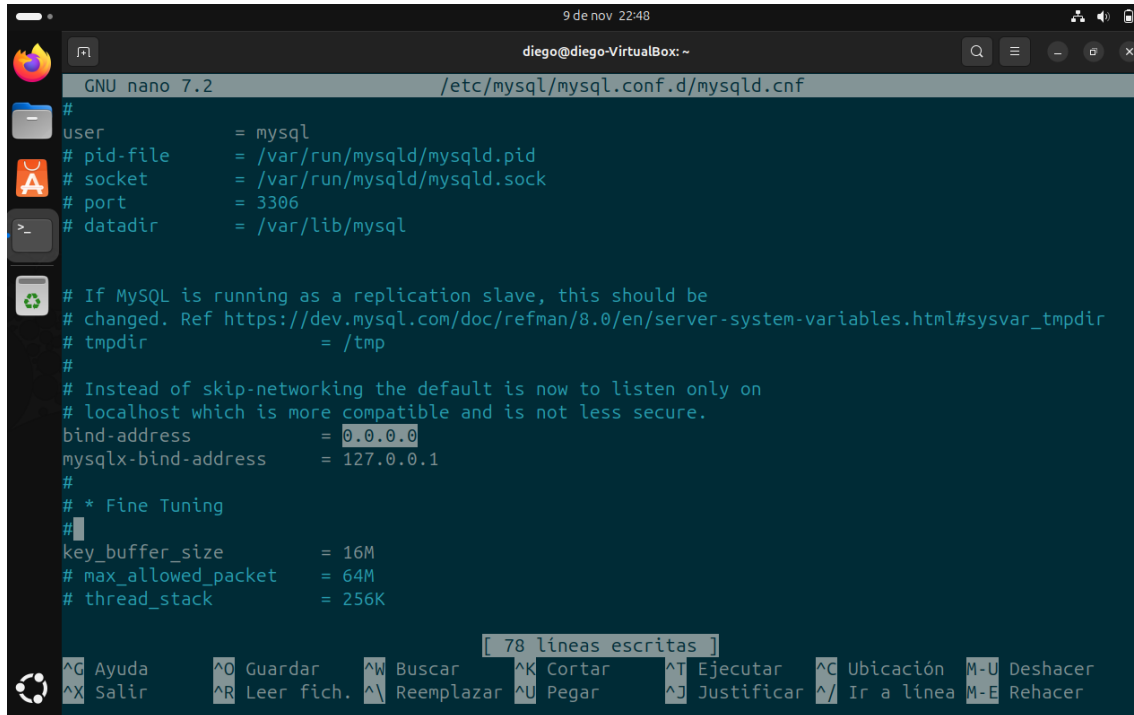
mysql> SHOW VARIABLES LIKE '%max_binlog_size%';
+-----+-----+
| Variable_name | Value      |
+-----+-----+
| max_binlog_size | 4096       |
+-----+-----+
1 row in set (0.00 sec)

mysql> |
```

Vemos el tamaño, lo cambiamos y lo comprobamos.

7. ¿Qué dos aspectos debemos tener en cuenta en el servidor para permitir el acceso remoto? Haz que uno o más compañeros se conecten a tu servidor. Indica el comando para visualizarlas usando el programa mysqladmin.

```
diego@diego-VirtualBox:~$ sudo nano /etc/mysql/mysql.conf.d/mysql.cnf
```



```

GNU nano 7.2 /etc/mysql/mysql.conf.d/mysql.cnf
#
# user = mysql
# pid-file = /var/run/mysqld/mysqld.pid
# socket = /var/run/mysqld/mysqld.sock
# port = 3306
# datadir = /var/lib/mysql

# If MySQL is running as a replication slave, this should be
# changed. Ref https://dev.mysql.com/doc/refman/8.0/en/server-system-variables.html#sysvar_tmpdir
# tmpdir = /tmp
#
# Instead of skip-networking the default is now to listen only on
# localhost which is more compatible and is not less secure.
bind-address = 0.0.0.0
mysqlx-bind-address = 127.0.0.1
#
# * Fine Tuning
#
key_buffer_size = 16M
# max_allowed_packet = 64M
# thread_stack = 256K

[ 78 líneas escritas ]
^G Ayuda ^O Guardar ^W Buscar ^K Cortar ^T Ejecutar ^C Ubicación M-U Deshacer
^X Salir ^R Leer fich. ^\ Reemplazar ^U Pegar ^J Justificar ^/_ Ir a línea M-E Rehacer

```

```
diego@diego-VirtualBox:~$ sudo systemctl restart mysql
diego@diego-VirtualBox:~$
```

```

diego@diego-VirtualBox:~$ sudo mysql
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.39-0ubuntu0.24.04.2 (Ubuntu)

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owners.

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

mysql>

```

```
mysql> CREATE USER 'pym'@ip_servidor_remoto IDENTIFIED BY 'password';
```

Así se crearía el usuario, posteriormente tendríamos que asignarle los permisos y habilitar el puerto, además de verificar la conexión remota.

9. Averigua el significado del concepto de replicación en el contexto de bases de datos. ¿Qué relación crees que tiene la replicación con los registros binarios?

Lo que hace es copiar en tiempo real las las consultas de actualización de una base principal a la secundaria, para mantenerlas sincronizadas. En cuanto a los registros binarios, el servidor principal los usa para enviar los cambios a las bases secundarias.