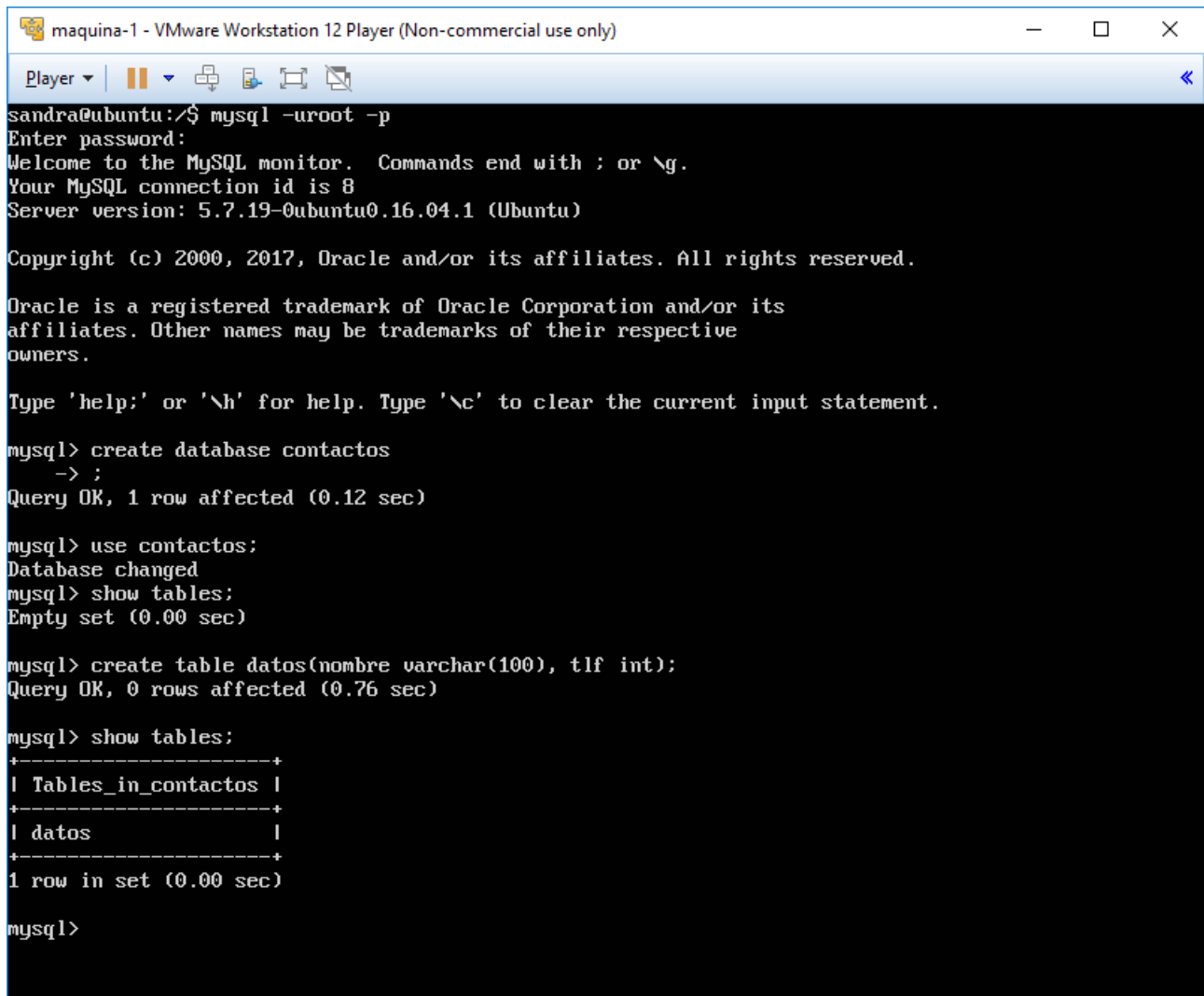


Práctica 5

En primer lugar accedemos a la interfaz de mysql con:

```
mysql -uroot -p
```

luego creamos una nueva base de datos, accedemos a ella y creamos una tabla en la que insertaremos algunos datos:



```
maquina-1 - VMware Workstation 12 Player (Non-commercial use only)
Player
sandra@ubuntu:/$ mysql -uroot -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 5.7.19-0ubuntu0.16.04.1 (Ubuntu)

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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> create database contactos
-> ;
Query OK, 1 row affected (0.12 sec)

mysql> use contactos;
Database changed
mysql> show tables;
Empty set (0.00 sec)

mysql> create table datos(nombre varchar(100), tlf int);
Query OK, 0 rows affected (0.76 sec)

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

mysql>
```

```
maquina-1 - VMware Workstation 12 Player (Non-commercial use only)
Player
Bye
sandra@ubuntu:/$ mysql -uroot -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 5.7.19-0ubuntu0.16.04.1 (Ubuntu)

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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> select * from datos;
ERROR 1046 (3D000): No database selected
mysql> use contactos'
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your
MySQL server version for the right syntax to use near '' at line 1
mysql> use contactos;
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 * from datos;
+-----+-----+
| nombre | tlf   |
+-----+-----+
| pepe   | 95834987 |
| pepe   | 95834987 |
+-----+-----+
2 rows in set (0.00 sec)

mysql> clear
mysql> clear;
mysql> _
```

Para evitar que la BD se esté actualizand al realizar la copia hacemos lo siguiente:

```
maquina-1 - VMware Workstation 12 Player (Non-commercial use only)
Player
sandra@ubuntu:/$ mysql -uroot -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 11
Server version: 5.7.19-0ubuntu0.16.04.1 (Ubuntu)

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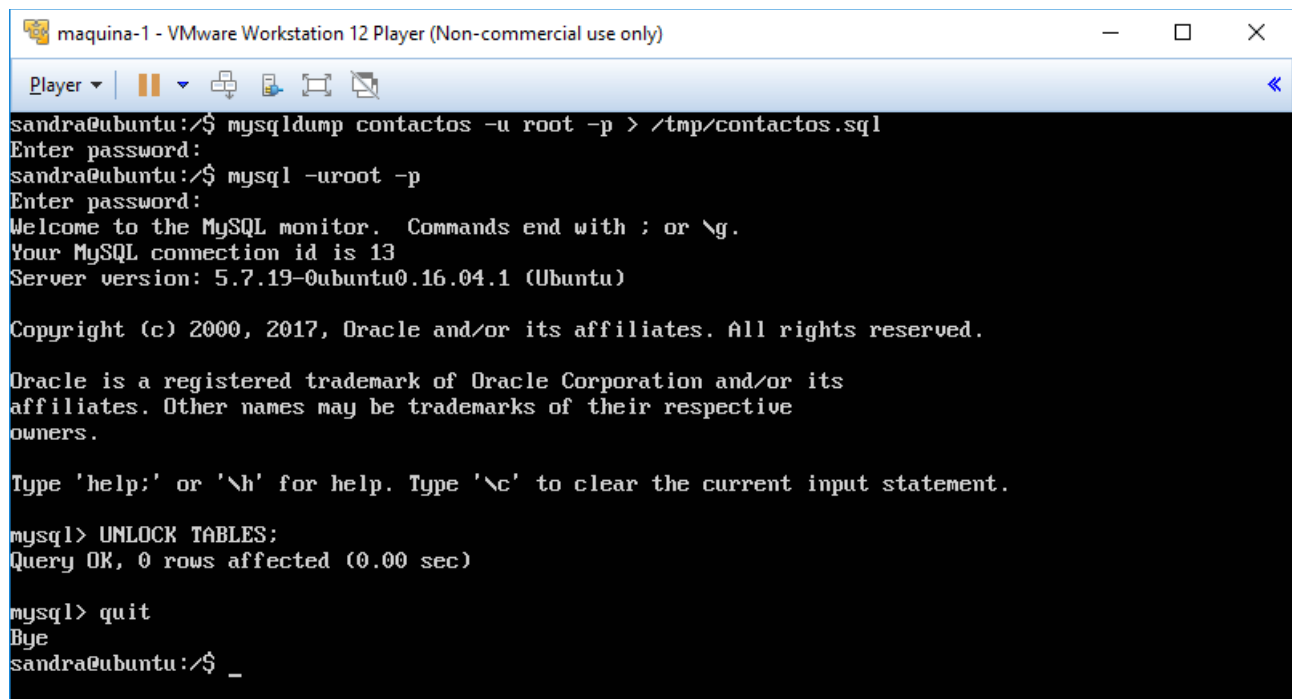
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affiliates. Other names may be trademarks of their respective
owners.

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

mysql> FLUSH TABLES WITH READ LOCK;
Query OK, 0 rows affected (0.50 sec)

mysql> quit
Bye
sandra@ubuntu:/$
```

Y ahora con mysqldump guardamos los datos en la máquina principal y luego desbloqueamos las tablas:



```
maquina-1 - VMware Workstation 12 Player (Non-commercial use only)
Player ▾ | [Icons]
sandra@ubuntu:/$ mysqldump contactos -u root -p > /tmp/contactos.sql
Enter password:
sandra@ubuntu:/$ mysql -uroot -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 13
Server version: 5.7.19-0ubuntu0.16.04.1 (Ubuntu)

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owners.

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

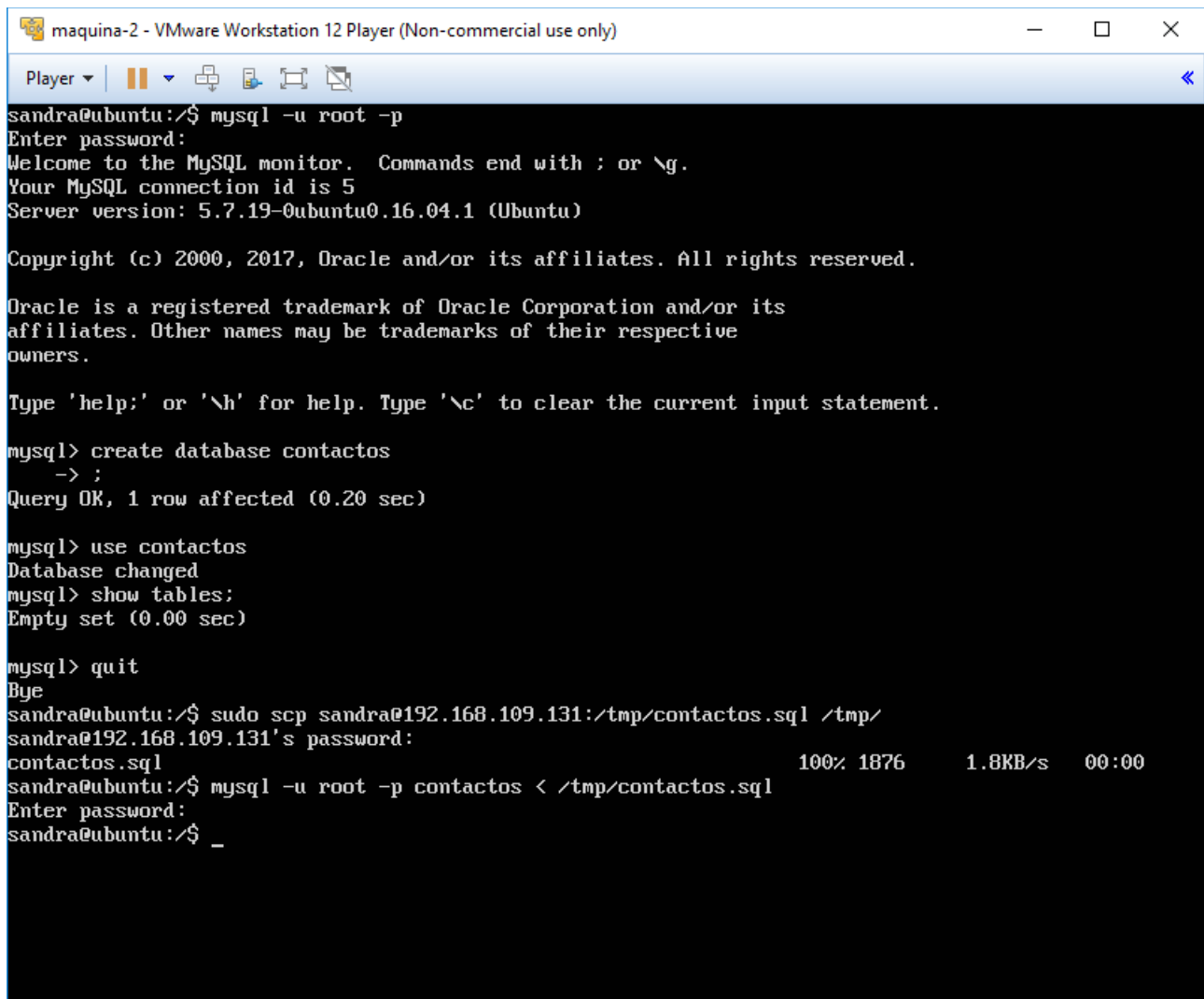
mysql> UNLOCK TABLES;
Query OK, 0 rows affected (0.00 sec)

mysql> quit
Bye
sandra@ubuntu:/$ _
```

Ahora vamos a la máquina 2 (esclavo) y copiamos el archivo sql con:

```
scp 192.168.109.131:/tmp/contactos.sql /tmp/
```

y para importar la base de datos, primero creamos la base de datos y luego restauramos los datos:



```
maquina-2 - VMware Workstation 12 Player (Non-commercial use only)
Player
sandra@ubuntu:/$ mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 5
Server version: 5.7.19-0ubuntu0.16.04.1 (Ubuntu)

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owners.

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

mysql> create database contactos
-> ;
Query OK, 1 row affected (0.20 sec)

mysql> use contactos
Database changed
mysql> show tables;
Empty set (0.00 sec)

mysql> quit
Bye
sandra@ubuntu:/$ sudo scp sandra@192.168.109.131:/tmp/contactos.sql /tmp/
sandra@192.168.109.131's password:
contactos.sql                                100% 1876      1.8KB/s   00:00
sandra@ubuntu:/$ mysql -u root -p contactos < /tmp/contactos.sql
Enter password:
sandra@ubuntu:/$ _
```

Configuramos mysql del maestro (máquina 1) tal y como se nos indica en el guión y reiniciamos el servicio.

Luego configuramos de manera similar mysql en el esclavo (máquina 2) y reiniciamos el servicio.

Una vez hecho esto volvemos al maestro y ejecutamos las siguientes sentencias en mysql:

```
maquina-1 - VMware Workstation 12 Player (Non-commercial use only)

Player ▾ | [Icons]

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owners.

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

mysql> GRANT REPLICATION SLAVE ON ** TO 'esclavo'@'%' IDENTIFIED BY 'esclavo';
ERROR 1046 (3D000): No database selected
mysql> use contactos;
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> GRANT REPLICATION SLAVE ON *.* TO 'esclavo'@'%' IDENTIFIED BY 'esclavo';
Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)

mysql> FLUSH TABLES;
Query OK, 0 rows affected (0.00 sec)

mysql> FLUSH TABLES WITH READ LOCK;
Query OK, 0 rows affected (0.00 sec)

mysql> SHOW MASTER STATUS;
+-----+-----+-----+-----+-----+
| File           | Position | Binlog_Do_DB | Binlog_Ignore_DB | Executed_Gtid_Set |
+-----+-----+-----+-----+-----+
| bin.000001     |      759 |              |                  |                  |
+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> _
```

Ahora vamos al esclavo y hacemos lo siguiente:

```
maquina-2 - VMware Workstation 12 Player (Non-commercial use only)

Player ▾ | [Icons]

Your MySQL connection id is 4
Server version: 5.7.19-0ubuntu0.16.04.1-log (Ubuntu)

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owners.

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

mysql> CHANGE MASTER TO MASTER_HOST='192.168.109.131', MASTER_USER='esclavo', MASTER_PASSWORD='esclavo', MASTER_LOG_FILE='bin.000001', MASTER_LOG_POS=154, MASTER_PORT=3306;
Query OK, 0 rows affected, 2 warnings (0.05 sec)
```

Después de esto iniciamos el esclavo con:

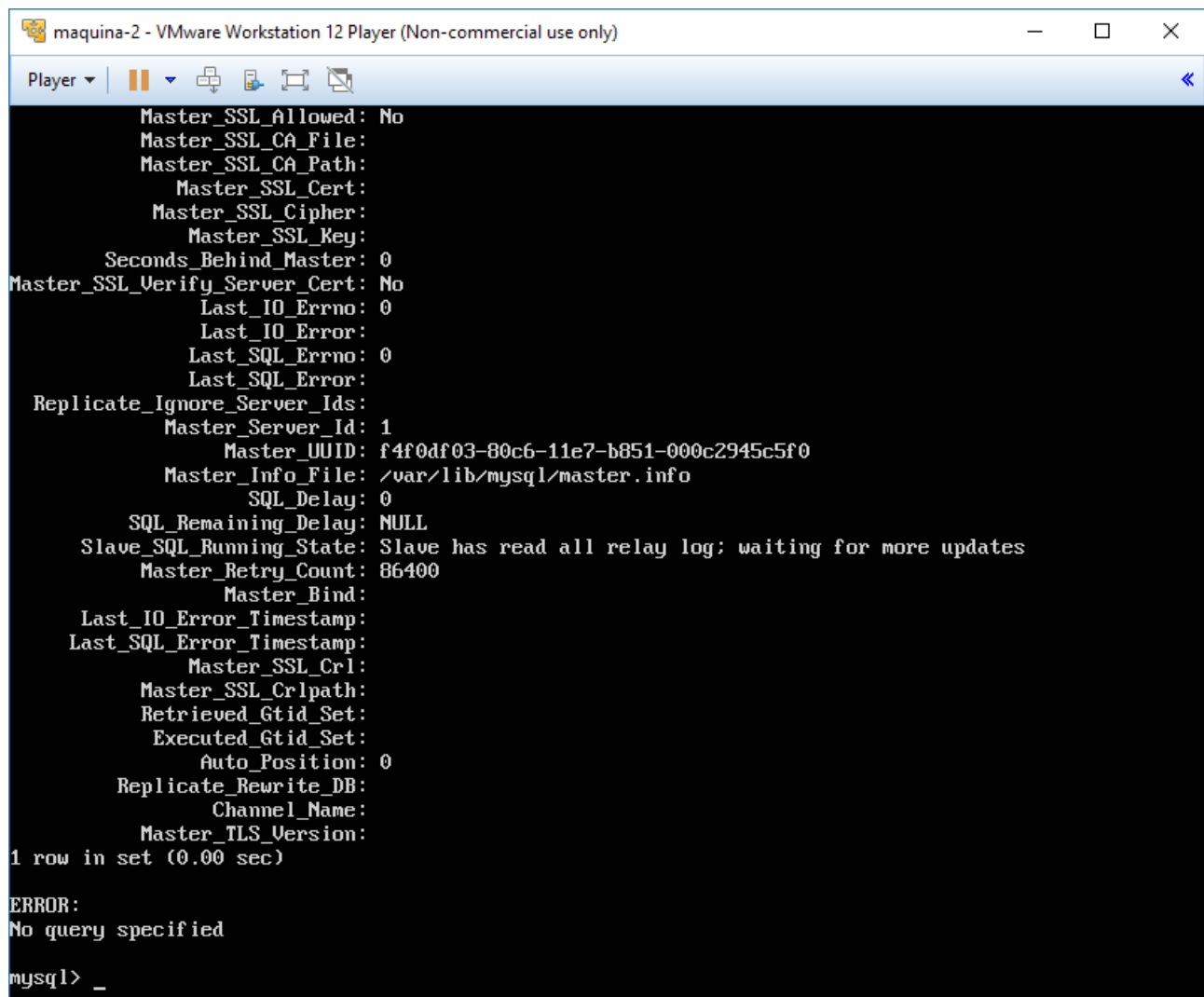
```
MYSQL> START SLAVE;
```

y volvemos al maestro para desbloquear las tablas con:

```
MYSQL> UNLOCK TABLES;
```

Ahora, para comprobar que todo funciona perfectamente vamos al esclavo y ejecutamos la siguiente sentencia:

```
MYSQL> SHOW SLAVE STATUS\G;
```



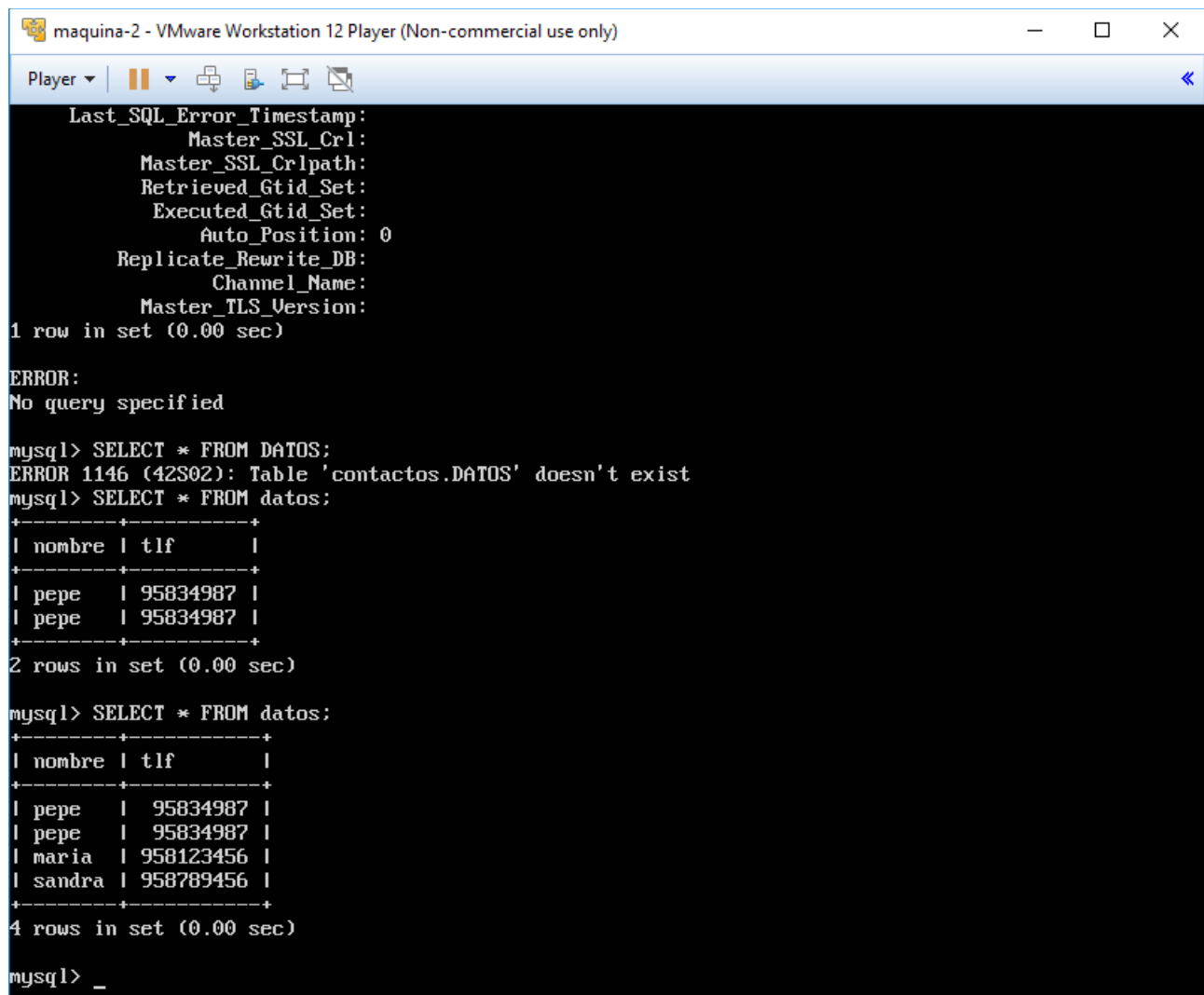
```
Master_SSL_Allowed: No
Master_SSL_CA_File:
Master_SSL_CA_Path:
Master_SSL_Cert:
Master_SSL_Cipher:
Master_SSL_Key:
Seconds_Behind_Master: 0
Master_SSL_Verify_Server_Cert: No
Last_IO_Errno: 0
Last_IO_Error:
Last_SQL_Errno: 0
Last_SQL_Error:
Replicate_Ignore_Server_Ids:
Master_Server_Id: 1
Master_UUID: f4f0df03-80c6-11e7-b851-000c2945c5f0
Master_Info_File: /var/lib/mysql/master.info
SQL_Delay: 0
SQL_Remaining_Delay: NULL
Slave_SQL_Running_State: Slave has read all relay log; waiting for more updates
Master_Retry_Count: 86400
Master_Bind:
Last_IO_Error_Timestamp:
Last_SQL_Error_Timestamp:
Master_SSL_Crl:
Master_SSL_Crlpath:
Retrieved_Gtid_Set:
Executed_Gtid_Set:
Auto_Position: 0
Replicate_Rewrite_DB:
Channel_Name:
Master_TLS_Version:
1 row in set (0.00 sec)

ERROR:
No query specified

mysql> _
```

Todo está funcionando correctamente ya que el valor de “Seconds_Behind_Master” no es null.

Ahora introducimos nuevos datos en la tabla desde el maestro y vamos al esclavo para comprobar que aparecen:



```
maquina-2 - VMware Workstation 12 Player (Non-commercial use only)
Player ▾ | [Icons]
Last_SQL_Error_Timestamp:
Master_SSL_Crl:
Master_SSL_Crlpath:
Retrieved_Gtid_Set:
Executed_Gtid_Set:
Auto_Position: 0
Replicate_Rewrite_DB:
Channel_Name:
Master_TLS_Version:
1 row in set (0.00 sec)

ERROR:
No query specified

mysql> SELECT * FROM DATOS;
ERROR 1146 (42S02): Table 'contactos.DATOS' doesn't exist
mysql> SELECT * FROM datos;
+-----+-----+
| nombre | tlf      |
+-----+-----+
| pepe   | 95834987 |
| pepe   | 95834987 |
+-----+-----+
2 rows in set (0.00 sec)

mysql> SELECT * FROM datos;
+-----+-----+
| nombre | tlf      |
+-----+-----+
| pepe   | 95834987 |
| pepe   | 95834987 |
| maria  | 958123456 |
| sandra | 958789456 |
+-----+-----+
4 rows in set (0.00 sec)

mysql> _
```