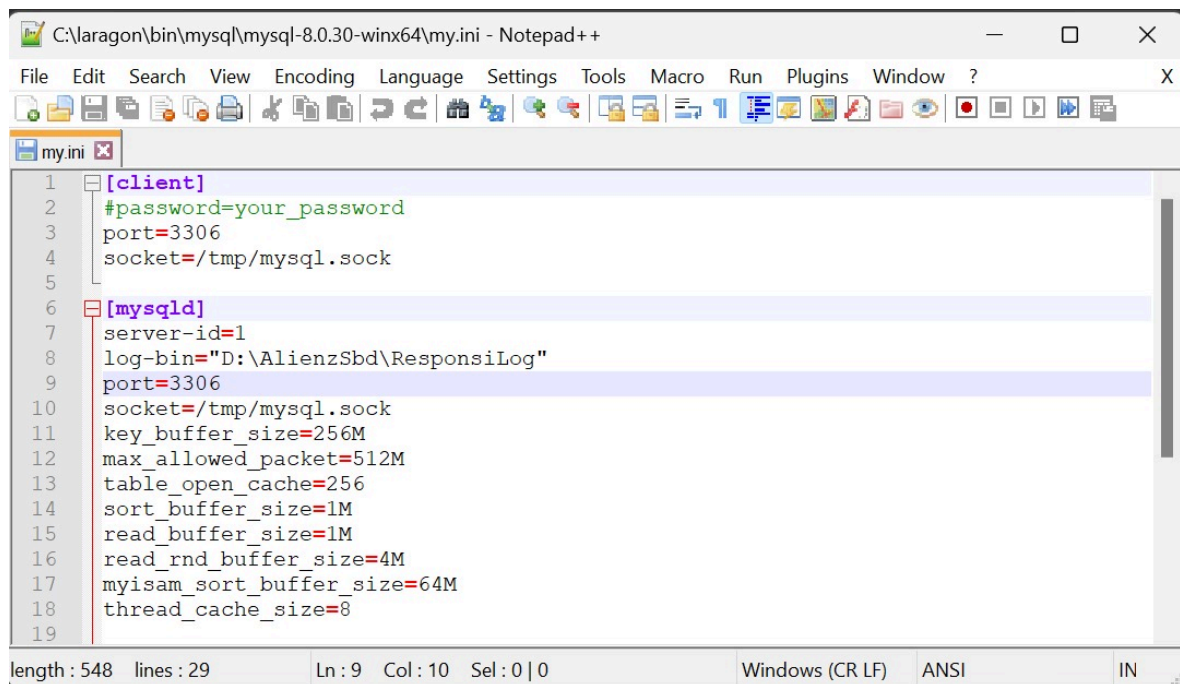


Worksheet Responsi Sistem Basis Data

| | | |
|--------|--------------------------|------------|
| Master | Taufan Ali | 2215016135 |
| Slave | Muhammad Zauro Asshowabi | 2215016134 |

Master Part (Taufan_2215016135)

Langkah edit my.ini pc master



The screenshot shows a Notepad++ window titled "C:\laragon\bin\mysql\mysql-8.0.30-winx64\my.ini - Notepad++". The file content is as follows:

```

1 [client]
2 #password=your_password
3 port=3306
4 socket=/tmp/mysql.sock
5
6 [mysqld]
7 server-id=1
8 log-bin="D:\AlienzSbd\ResponsiLog"
9 port=3306
10 socket=/tmp/mysql.sock
11 key_buffer_size=256M
12 max_allowed_packet=512M
13 table_open_cache=256
14 sort_buffer_size=1M
15 read_buffer_size=1M
16 read_rnd_buffer_size=4M
17 myisam_sort_buffer_size=64M
18 thread_cache_size=8
19

```

The status bar at the bottom indicates: length : 548 lines : 29 Ln : 9 Col : 10 Sel : 0 | 0 Windows (CR LF) ANSI IN

Untuk replikasi master-slave MySQL di PC master, edit file my.ini dengan menambahkan pengaturan server-id unik, log-bin untuk lokasi file log biner, dan replikasi untuk parameter replikasi.

Langkah pembuatan akun dan set privileges untuk user slave

```

MySQL [(none)]> create user 'zauro134'@'192.168.234.215' identified by 'lupa';
Query OK, 0 rows affected (0.019 sec)

MySQL [(none)]> grant replication slave on *.* to 'zauro134'@'192.168.234.215';
Query OK, 0 rows affected (0.010 sec)

MySQL [(none)]> flush privileges
→ ;
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 'privileges' at line 1
MySQL [(none)]> flush privileges
→ ;
Query OK, 0 rows affected (0.004 sec)

```

buat user/password replikasi aman, file log biner master dapat diakses slave

Langkah binary log

```
MySQL [(none)]> show binary logs;
+-----+-----+-----+
| Log_name          | File_size | Encrypted |
+-----+-----+-----+
| ResponsiLog.000001 |      863 | No        |
+-----+-----+-----+
1 row in set (0.000 sec)

MySQL [(none)]> show master status;
+-----+-----+-----+-----+-----+
| File              | Position | Binlog_Do_DB | Binlog_Ignore_DB | Executed_Gtid_Set |
+-----+-----+-----+-----+-----+
| ResponsiLog.000001 |      863 |              |                  |                   |
+-----+-----+-----+-----+-----+
1 row in set (0.000 sec)

MySQL [(none)]>
```

Binary log mencatat semua perubahan yang dilakukan pada database, seperti INSERT, UPDATE, dan DELETE. Catatan ini disimpan dalam file biner, yang dapat digunakan untuk replikasi data, pemulihan database, dan audit.

Langkah check master status

```
MySQL [(none)]> show binary logs;
+-----+-----+-----+
| Log_name          | File_size | Encrypted |
+-----+-----+-----+
| ResponsiLog.000001 |      863 | No        |
+-----+-----+-----+
1 row in set (0.000 sec)

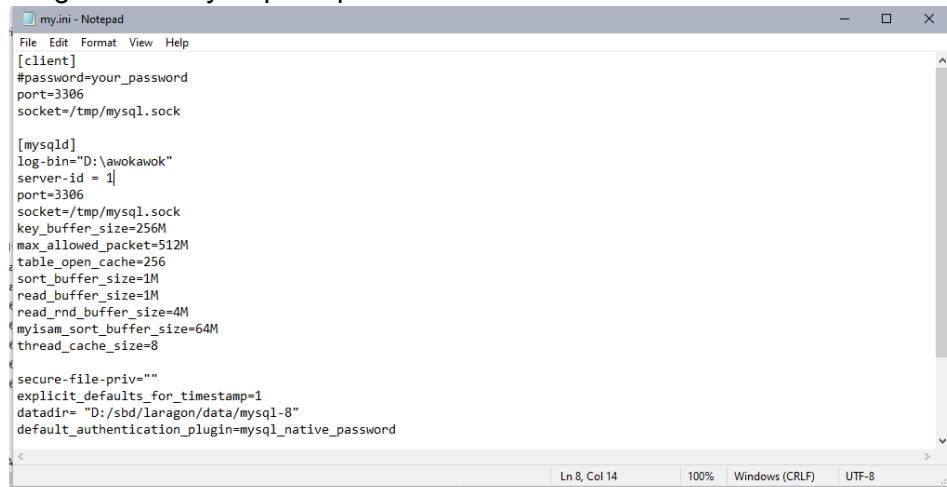
MySQL [(none)]> show master status;
+-----+-----+-----+-----+-----+
| File              | Position | Binlog_Do_DB | Binlog_Ignore_DB | Executed_Gtid_Set |
+-----+-----+-----+-----+-----+
| ResponsiLog.000001 |      863 |              |                  |                   |
+-----+-----+-----+-----+-----+
1 row in set (0.000 sec)

MySQL [(none)]>
```

Menampilkan informasi tentang status replikasi master server.

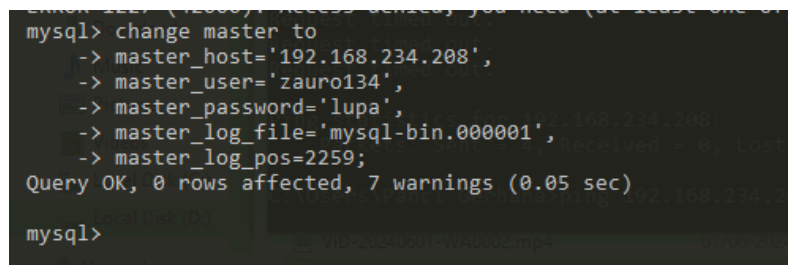
Slave Part (Zauro_2215016134)

Langkah edit my.ini pada pc slave



Intinya edit my.ini di PC slave fungsinya kasih instruksi gimana cara ngehubung ke master dan mulai replikasi.

Langkah change master to



Perintah ini dijalankan di slave MySQL untuk ubah setting replikasi ke master baru.

Langkah start slave dan slave status

```

mysql> show slave status \g;
+-----+
| Slave_IO_State | Master_Host | Master_User | Master_Port | Connect_Retry | Master_Log_File | Read_Master_Log_Pos | Relay_Log_File | Relay_Log_Pos | Relay_Master_Log_File | Slave_IO_Running | Slave_SQL_Running | Replicate_Do_DB | Replicate_Ignore_Table | Replicate_Wild_Do_Table | Replicate_Wild_Ignore_Table | Last_Error | Skip_Counter | Exec_Master_Log_Pos | Relay_Log_Space | Until_Condition | Until_Log_File | Until_Log_Pos | Master_SSL_Allowed | Master_SSL_CA_File | Master_SSL_CA_Path | Master_SSL_Cert | Master_SSL_Cipher | Master_SSL_Key | Seconds_Behind_Master | Master_SSL_Verif |
+-----+
| y_Server_Cert | Last_IO_Errno | Last_IO_Error | Last_SQL_Errno | Last_SQL_Error | Replicate_Ignore_Server_Ids | Master_Server_Id | Master_UUID | Master_Info_File | SQL_Delay | SQL_L_Running | Slave_SQL_Running_State | Master_Retry_Count | Master_Bind | Last_IO_Error_Timestamp | Last_SQL_Error_Timestamp | Master_SSL_Crlpath | Retrieved_Gtid_Set | Executed_Gtid_Set | Auto_Position | Replicate_Rewrite_DB | Channel_Name | Master_TLS_Version | Master_public_key |
+-----+
| Connecting to source | 192.168.234.208 | zaur134 | 3306 | 60 | mysql-bin.000001 | 2259 | AlienzWindows-relay-bin.000001 | 4 | mysql-bin.000001 | Connecting | Yes | 0 | 2259 | 157 | None | NULL | No | 0 | No | 1130 | error connecting to master 'zaur134@192.168.234.208:3306' - retry-time: 60 retries: 13 message: Host 'AlienzWindows' is not allowed to connect to this MySQL server | 0 | 86400 | 240705 | 10:47:36 | NULL | Replica has read all relay log; waiting for more updates | 0 |
+-----+

```

slave server terhubung ke master server dengan benar dan replikasi sedang berjalan.

Testing Replication Part (jelasin sebisanya)

Jelaskan dan buktikan replikasi data base dengan konsep master & slave telah berhasil berjalan.

```
mysql> create view listPost as
-> select p.post_id, p.title, p.content, u.username, p.created_at
-> from posts p
-> join users u on p.user_id = u.user_id;
Query OK, 0 rows affected (0.05 sec)

mysql> |
```

Disini slave membuat view listPost

```
mysql> use responsi_sbd
Database changed
mysql> select * from listPost;
+-----+-----+-----+-----+-----+
| post_id | title      | content                                     | username | created_at |
+-----+-----+-----+-----+-----+
| 1       | First Post | This is the content of the first post.    | john_doe | 2024-06-30 16:44:18 |
| 2       | Second Post | Another post by Jane. sudah dilakukan buat kesm | jane_smith | 2024-06-30 16:44:18 |
| 3       | Third Post | Mike's first post.                         | mike_jones | 2024-06-30 16:44:18 |
+-----+-----+-----+-----+-----+
3 rows in set (0.02 sec)
```

Saat cek di master, list sudah masuk.

Dari semua langkah yang sudah dilakukan, buat kesimpulan terkait replikasi master & slave!

Replikasi slave MySQL memungkinkan slave mengikuti perubahan data di master, meningkatkan keamanan dan skalabilitas data.

Dump Part (Master)

Dump database yang sudah disediakan di s.uad.id/responsi-sbd-2024 (responsi_sbd.sql)

```

Windows PowerShell
Lenovo Ideapad@AlienzWindows D: > Get-Content responsi_sbd.sql | mysql -u root responsi_sbd
Lenovo Ideapad@AlienzWindows D: > mysql -u root
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MySQL connection id is 92
Server version: 8.0.30 MySQL Community Server - GPL

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

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

MySQL [(none)]> use responsi_sbd;
Database changed
MySQL [responsi_sbd]> show tables;
+-----+
| Tables_in_responsi_sbd |
+-----+
| categories              |
| comments                |
| posts                   |
| users                   |
+-----+
4 rows in set (0.002 sec)

MySQL [responsi_sbd]> select * from posts;
+-----+-----+-----+-----+-----+
| post_id | title          | content                                     | user_id | created_at |
+-----+-----+-----+-----+-----+
| 1       | First Post    | This is the content of the first post.    | 1       | 2024-06-30 16:44:18 |
| 2       | Second Post   | Another post by Jane.                     | 2       | 2024-06-30 16:44:18 |
| 3       | Third Post    | Mike's first post.                        | 3       | 2024-06-30 16:44:18 |
+-----+-----+-----+-----+-----+

```

perintah mysqldump untuk dump database responsi_sbd.

View Part (Slave)

Buat view list post dengan informasi user yang menampilkan data dari tabel **posts** dan **users**. Kolom yang ditampilkan adalah kolom **post_id**, **title**, **content**, **username**, **created_at**. Lampirkan querynya!

```

mysql> create view listPost as
-> select p.post_id, p.title, p.content, u.username, p.created_at
-> from posts p
-> join users u on p.user_id = u.user_id;
Query OK, 0 rows affected (0.05 sec)

mysql>

```

view di slave MySQL dapat digunakan untuk membuat tampilan data yang disesuaikan dengan kebutuhan, tanpa perlu mengubah struktur tabel asli.