MySQL Remote Access Configura6on for XPerience Server

MySQL Changes

To allow the XPerience Server to connect to the MySQL database running on Ubuntu VM from the host machine, follow these steps:

Step 1: Run the MySQL Configura6on Script

Execute the event.sql file to set up the database, create the required table, and grant remote access.

To execute this script, run the following command in Ubuntu VM.

“mysql -u root -p < event.sql”

Step 2: Allow Remote Connec6ons in MySQL Configura6on Edit

the MySQL configuraKon file.

Run

“sudo nano /etc/mysql/mysql.conf.d/mysqld.cnf” Find

this line:

“bind-address = 127.0.0.1” and change to “bind-address = 0.0.0.0”

This allows MySQL to accept connecKons from any IP address. Save the file and exit.

Step 3: Restart MySQL Service

AVer making changes, restart MySQL to apply them by running the below command. Run

“sudo systemctl restart mysql”

Now, MySQL should be ready to accept connecKons from external machines.

Step 4: Ensure MySQL is Listening for Remote Connec6ons

Run the following command to check if MySQL is listening on port 3306:

“sudo ss -tlnp | grep mysql”

The expected output should be something similar to the below.

LISTEN 0 151 0.0.0.0:3306 0.0.0.0:* users:(("mysqld",pid=2416,fd=23))

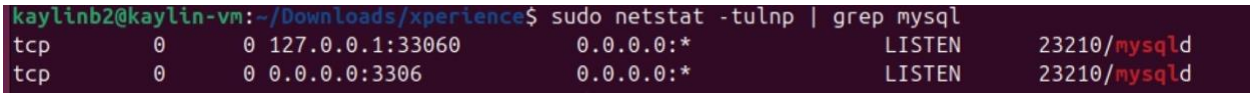
LISTEN 0 70 127.0.0.1:33060 0.0.0.0:* users:(("mysqld",pid=2416,fd=21)) This

confirms that MySQL is listening on all IP addresses (0.0.0.0) on port 3306.

2. MySQL Sockets Screenshot

Below is a screenshot showing the output of the command:

“sudo netstat -tulnp | grep mysql”



Database Setup Updates

- Change the database name to your last name instead of "XPerienceDB".
- Ensure the `Event` table is **dropped first** before creation to prevent duplication issues.
- Use **restrictive MySQL data types** for `date` and `time`:

```
sql
CREATE TABLE IF NOT EXISTS Event (
    name VARCHAR(255) PRIMARY KEY,
    date DATE,          -- Stores only valid dates
    time TIME,          -- Stores only valid time values
    description TEXT
);
```

- Grant privileges correctly without using `IDENTIFIED BY` inside `GRANT`.

Maven Configuration Updates

1. Update `pom.xml` to ensure it builds the following JAR files:
   - `DonaBase.jar`
   - `XPS.jar` (XPerienceServer)
   - `XPSDB.jar` (XPerienceServerDB)
2. Ensure **MySQL Connector JAR** is properly set up:
   - Download the **MySQL Connector JAR** (`mysql-connector-java-8.0.xx.jar`).
   - Rename it to **`MySQLJDBC.jar`**.
   - Place it in the correct directory referenced in `pom.xml`

Steps to Apply the Setup

1. **Apply the database setup** by running:

```
sh
mysql -u root -p < setup.sql
```

2. **Compile and package the server** using Maven:

```
sh
mvn clean package
```

3. **Run the database-backed server**:

```
sh
java -cp "target/xperience-server-db-jar-with-
dependencies.jar:DonaBase.jar:MySQLJDBC.jar" xperience.XPerienceServerDB
8081
```

4. **Test with the client**:

```
sh
java -jar target/xperience-test-client-jar-with-dependencies.jar
localhost 8081
```