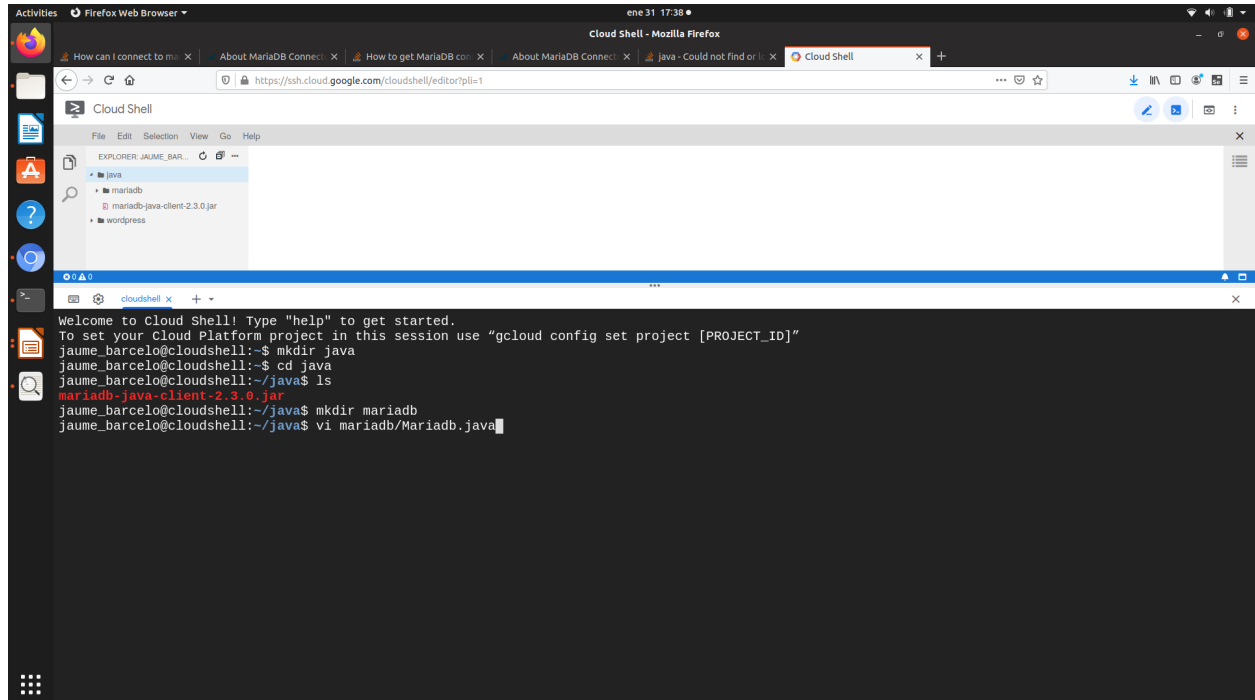


Course: Database management
Unit: Advanced SQL 1
Material: SQL statements in a java application

The following steps show you how to create a java program that connects to MariaDB.



You can obtain the jar file running the following command
wget

<https://downloads.mariadb.com/Connectors/java/connector-java-2.3.0/mariadb-java-client-2.3.0.jar>

The following is example code to connect to the database

//STEP 1. Import required packages

package mariadb;

import java.sql.*;

public class Mariadb {

 // JDBC driver name and database URL

 static final String JDBC_DRIVER = "org.mariadb.jdbc.Driver";

 static final String DB_URL = "jdbc:mariadb://172.18.0.2/mydb";

 // Database credentials

 static final String USER = "root";

 static final String PASS = "root";

```

public static void main(String[] args) {
    Connection conn = null;
    Statement stmt = null;
    try {
        //STEP 2: Register JDBC driver
        Class.forName("org.mariadb.jdbc.Driver");

        //STEP 3: Open a connection
        System.out.println("Connecting to a selected database...");
        conn = DriverManager.getConnection(
            "jdbc:mariadb://172.18.0.2/mydb", "root", "secret");
        System.out.println("Connected database successfully...");

        //STEP 4: Execute a query
        System.out.println("Creating table in given database...");
        stmt = conn.createStatement();

        String sql = "CREATE TABLE REGISTRATION "
            + "(id INTEGER not NULL, "
            + " first VARCHAR(255), "
            + " last VARCHAR(255), "
            + " age INTEGER, "
            + " PRIMARY KEY ( id ))";

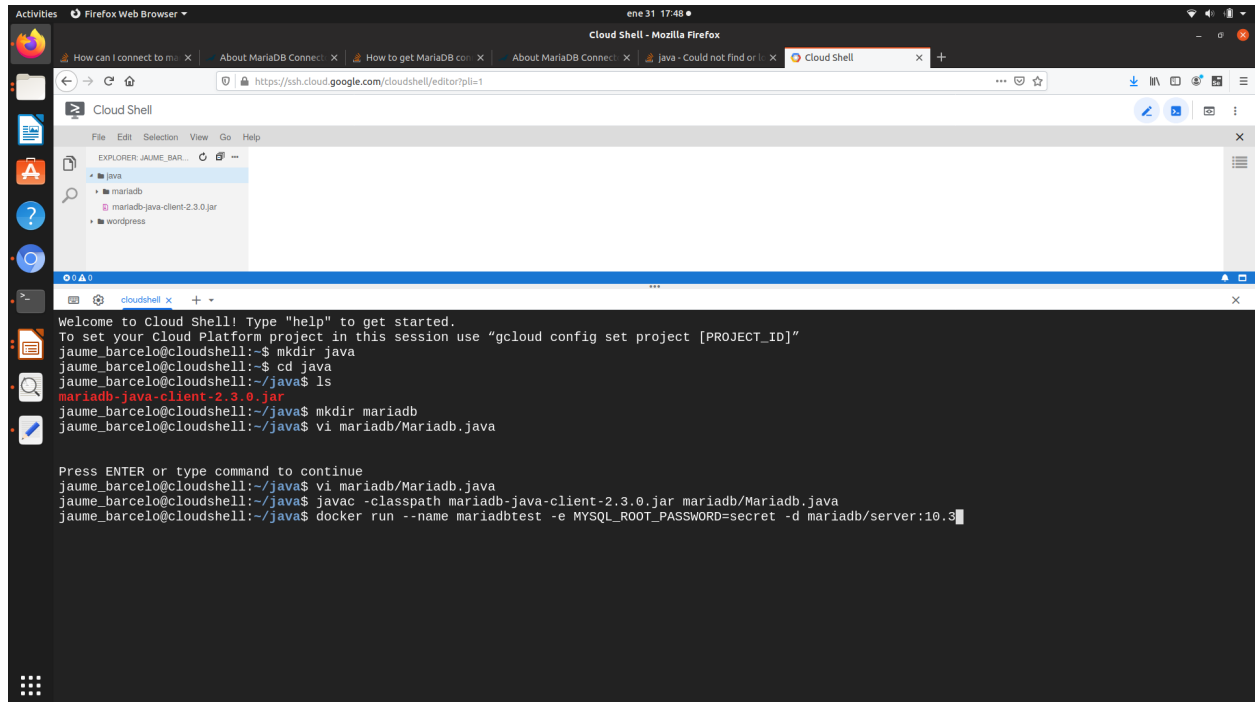
        stmt.executeUpdate(sql);
        System.out.println("Created table in given database...");
    } catch (SQLException se) {
        //Handle errors for JDBC
        se.printStackTrace();
    } catch (Exception e) {
        //Handle errors for Class.forName
        e.printStackTrace();
    } finally {
        //finally block used to close resources
        try {
            if (stmt != null) {
                conn.close();
            }
        } catch (SQLException se) {
            //do nothing
        }
        try {
            if (conn != null) {

```

```

        conn.close();
    }
} catch (SQLException se) {
    se.printStackTrace();
} //end finally try
} //end try
System.out.println("Goodbye!");
} //end main
} //end JDBCExample

```



```
Activities Firefox Web Browser ene 31 17:52 Cloud Shell - Mozilla Firefox
https://ssh.cloud.google.com/cloudshell/editor?pli=1
Cloud Shell
File Edit Selection View Go Help
EXPLORER JAUME_BAR...
java
mariadb
mariadb-java-client-2.3.0.jar
wordpress
cloudshell x cloudshell +
jaume_barcelo@cloudshell:~/java$ vi mariadb/Mariadb.java
Press ENTER or type command to continue
jaume_barcelo@cloudshell:~/java$ vi mariadb/Mariadb.java
jaume_barcelo@cloudshell:~/java$ javac -classpath mariadb-java-client-2.3.0.jar mariadb/Mariadb.java
jaume_barcelo@cloudshell:~/java$ docker run --name mariadbtest -e MYSQL_ROOT_PASSWORD=secret -d mariadb/server:10.3
Unable to find image 'mariadb/server:10.3' locally
10.3: Pulling from mariadb/server
5c939e3a4d10: Pull complete
c63719cdbe7a: Pull complete
19a861ea6baf: Pull complete
651c9d2d6c4f: Pull complete
3ce4db0adb02: Pull complete
4f3b069c312c: Pull complete
a32aa4e87c74: Pull complete
acaf0a2f5335: Pull complete
7416a8b5e793: Pull complete
31542ad9526e: Pull complete
592a5a9e0522: Pull complete
62e4ca8f7d44: Pull complete
e0b374c05fa2: Pull complete
7ab02280dbdb: Pull complete
Digest: sha256:759dd4aa51e4e0de10304c9f26f18019ad47c1594a5287ea2f401d0e4188470d
Status: Downloaded newer image for mariadb/server:10.3
80ba501f3bf8e459299aa964f8ddd912d678c9e0233f4e250a371c5a2650f892
jaume_barcelo@cloudshell:~/java$ mysql -u root -p -h 172.18.0.2
```

```
Activities Firefox Web Browser ene 31 17:53 Cloud Shell - Mozilla Firefox
https://ssh.cloud.google.com/cloudshell/editor?pli=1
Cloud Shell
File Edit Selection View Go Help
EXPLORER JAUME_BAR...
java
mariadb
mariadb-java-client-2.3.0.jar
wordpress
cloudshell x cloudshell +
31542ad9526e: Pull complete
592a5a9e0522: Pull complete
62e4ca8f7d44: Pull complete
e0b374c05fa2: Pull complete
7ab02280dbdb: Pull complete
Digest: sha256:759dd4aa51e4e0de10304c9f26f18019ad47c1594a5287ea2f401d0e4188470d
Status: Downloaded newer image for mariadb/server:10.3
80ba501f3bf8e459299aa964f8ddd912d678c9e0233f4e250a371c5a2650f892
jaume_barcelo@cloudshell:~/java$ mysql -u root -p -h 172.18.0.2
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 5.5.5-10.3.22-MariaDB-1:10.3.22+maria-bionic mariadb.org binary distribution

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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 mydb
-> ;
Query OK, 1 row affected (0.00 sec)

mysql>
```

Activities Firefox Web Browser ene 31 17:54

Cloud Shell - Mozilla Firefox

How can I connect to mariadb... About MariaDB Connect... How to get MariaDB con... About MariaDB Connect... java - Could not find or... Cloud Shell

Cloud Shell

File Edit Selection View Go Help

EXPLORER JAUME_BAR...
• java
• mariadb
• mariadb-java-client-2.3.0.jar
• wordpress

cloudshell x cloudshell +

```
62e4ca8f7d44: Pull complete
e0b374c05fa2: Pull complete
7ab0228dbdb: Pull complete
Digest: sha256:759dd4aa51e4e0de10304c9f26f18019ad47c1594a5287ea2f401d0e4188470d
Status: Downloaded newer image for mariadb/server:10.3
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jaume_barcelo@cloudshell:~/java$ mysql -u root -p -h 172.18.0.2
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owners.

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

mysql> create database mydb
-> ;
Query OK, 1 row affected (0.00 sec)

mysql> exit;
Bye
jaume_barcelo@cloudshell:~/java$ java -classpath .:mariadb-java-client-2.3.0.jar mariadb.Mariadb
```

Activities Firefox Web Browser ene 31 17:55

Cloud Shell - Mozilla Firefox

How can I connect to mariadb... About MariaDB Connect... How to get MariaDB con... About MariaDB Connect... java - Could not find or... Cloud Shell

Cloud Shell

File Edit Selection View Go Help

EXPLORER JAUME_BAR...
• java
• mariadb
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• wordpress

cloudshell x cloudshell +

```
jaume_barcelo@cloudshell:~/java$ mysql -u root -p -h 172.18.0.2
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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database mydb
-> ;
Query OK, 1 row affected (0.00 sec)

mysql> exit;
Bye
jaume_barcelo@cloudshell:~/java$ java -classpath .:mariadb-java-client-2.3.0.jar mariadb.Mariadb
Connecting to a selected database...
Connected database successfully...
Creating table in given database...
Created table in given database...
Goodbye!
jaume_barcelo@cloudshell:~/java$
```