

SMARTBRIDGE EXTERNSHIP

Modern Application Development Java Spring Boot

Assignment 3

JDBC CONNECTION

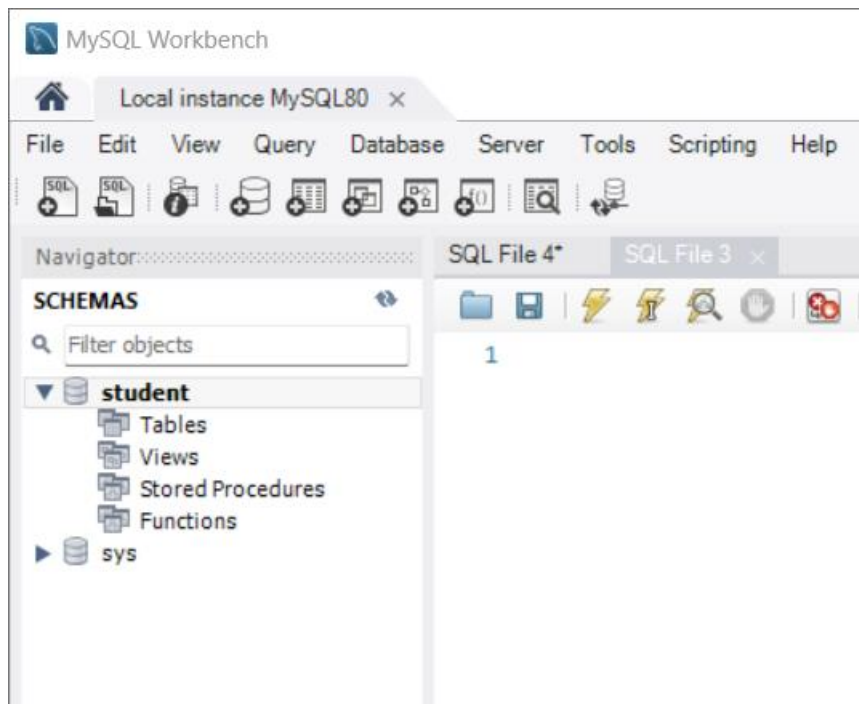
NAME: ARAVINDKRISHNA R

REG. No.: 20BCE0074

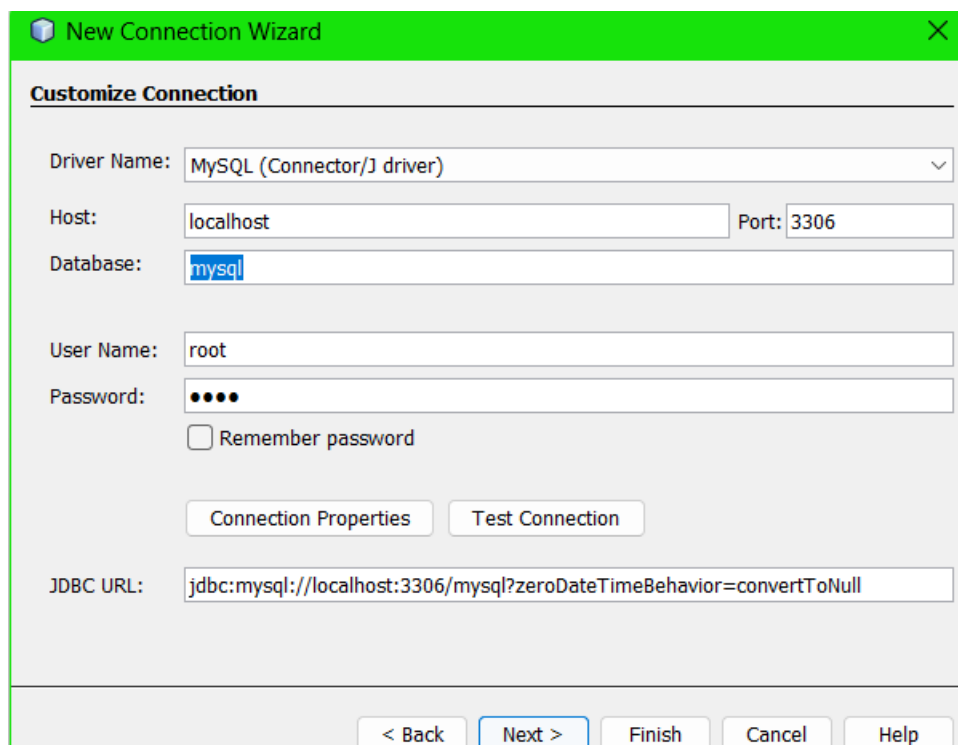
DATE: 04-06-2023

Implement java assignment for java JDBC using java

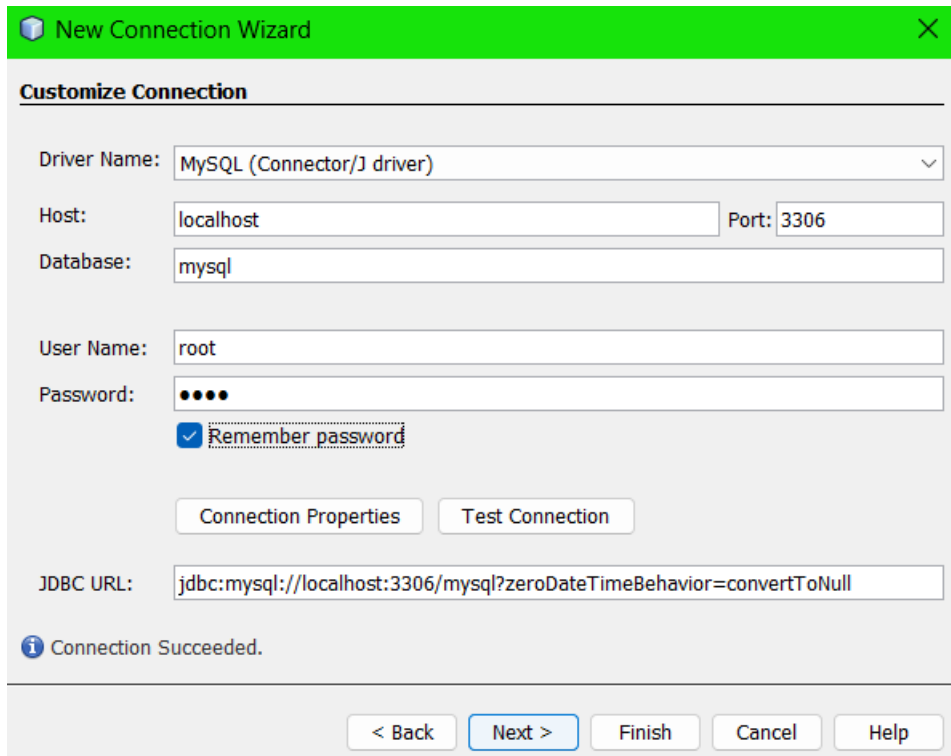
Creating database in sql



Creating jdbc connection,



Connection status



The image shows a 'New Connection Wizard' dialog box with a green title bar. The 'Customize Connection' tab is active. The 'Driver Name' is set to 'MySQL (Connector/J driver)'. The 'Host' is 'localhost' and the 'Port' is '3306'. The 'Database' is 'mysql'. The 'User Name' is 'root' and the 'Password' is masked with dots. The 'Remember password' checkbox is checked. There are buttons for 'Connection Properties' and 'Test Connection'. The 'JDBC URL' is 'jdbc:mysql://localhost:3306/mysql?zeroDateTimeBehavior=convertToNull'. A status message at the bottom says 'Connection Succeeded.' and there are navigation buttons: '< Back', 'Next >', 'Finish', 'Cancel', and 'Help'.

New Connection Wizard

Customize Connection

Driver Name: MySQL (Connector/J driver)

Host: localhost Port: 3306

Database: mysql

User Name: root

Password: ●●●●

☒ Remember password

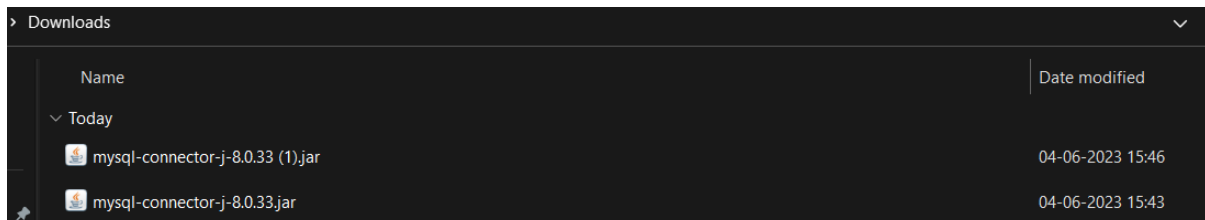
Connection Properties Test Connection

JDBC URL: jdbc:mysql://localhost:3306/mysql?zeroDateTimeBehavior=convertToNull

Connection Succeeded.

< Back Next > Finish Cancel Help

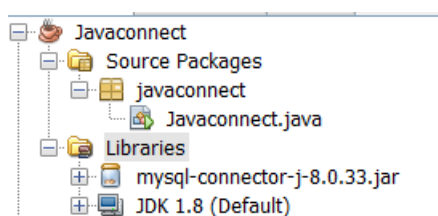
Downloading the jar file,



The image shows a 'Downloads' folder view with a table of files. The table has two columns: 'Name' and 'Date modified'. There are two files listed, both named 'mysql-connector-j-8.0.33.jar', with modification dates of '04-06-2023 15:46' and '04-06-2023 15:43'.

Name	Date modified
mysql-connector-j-8.0.33 (1).jar	04-06-2023 15:46
mysql-connector-j-8.0.33.jar	04-06-2023 15:43

Adding the jar file in library,



Creating a table,

Code

```
package javaconnect;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.Statement;

public class Javaconnect {

    public static void main(String[] args) {

        try{

            Class.forName("com.mysql.jdbc.Driver");

            String url = "jdbc:mysql://localhost:3306/student";

            String username = "root";

            String password = "root";

            Connection connection = DriverManager.getConnection(url, username, password);

            Statement statement = connection.createStatement();

            String createTableQuery = "CREATE TABLE example_table (" +

                "id INT PRIMARY KEY," +

                "name VARCHAR(50)," +

                "age INT" +

                ")";

            statement.executeUpdate(createTableQuery);

            System.out.println("Table created successfully.");

            statement.close();

            connection.close();

        } catch (Exception e) {

            e.printStackTrace();

        }

    }

}
```

Ouput

```
run:
[Loading class 'com.mysql.jdbc.Driver'. This is deprecated. The new driver class is 'com.mysql.cj.jdbc.Driver'. The driver is automatically registered via the SPI and manual loading of
the driver class is generally unnecessary.
Table created successfully.
BUILD SUCCESSFUL (total time: 1 second)]
```

Code to insert

```
package javaconnect;

public static void main(String[] args) {

    try{

        Class.forName("com.mysql.jdbc.Driver");

        String url = "jdbc:mysql://localhost:3306/student";

        String username = "root";

        String password = "root";

        Connection connection = DriverManager.getConnection(url, username, password);

        Statement statement = connection.createStatement();

        String insertQuery = "INSERT INTO example_table (id, name, age) VALUES " +
            "(1, 'Aravind', 25)," +
            "(2, 'Krishna', 30)," +
            "(3, 'Ram', 35)";

        int rowsAffected = statement.executeUpdate(insertQuery);

        System.out.println(rowsAffected + " row(s) inserted successfully.");

        // Step 5: Close the statement and connection
        statement.close();
        connection.close();
    } catch (Exception e) {
```

```

        e.printStackTrace();
    }
}

}

```

```

String insertQuery = "INSERT INTO example_table (id, name, age) VALUES " +
    "(1, 'Aravind', 25)," +
    "(2, 'Krishna', 30)," +
    "(3, 'Ram', 35)";

int rowsAffected = statement.executeUpdate(insertQuery);

System.out.println(rowsAffected + " row(s) inserted successfully.");

```

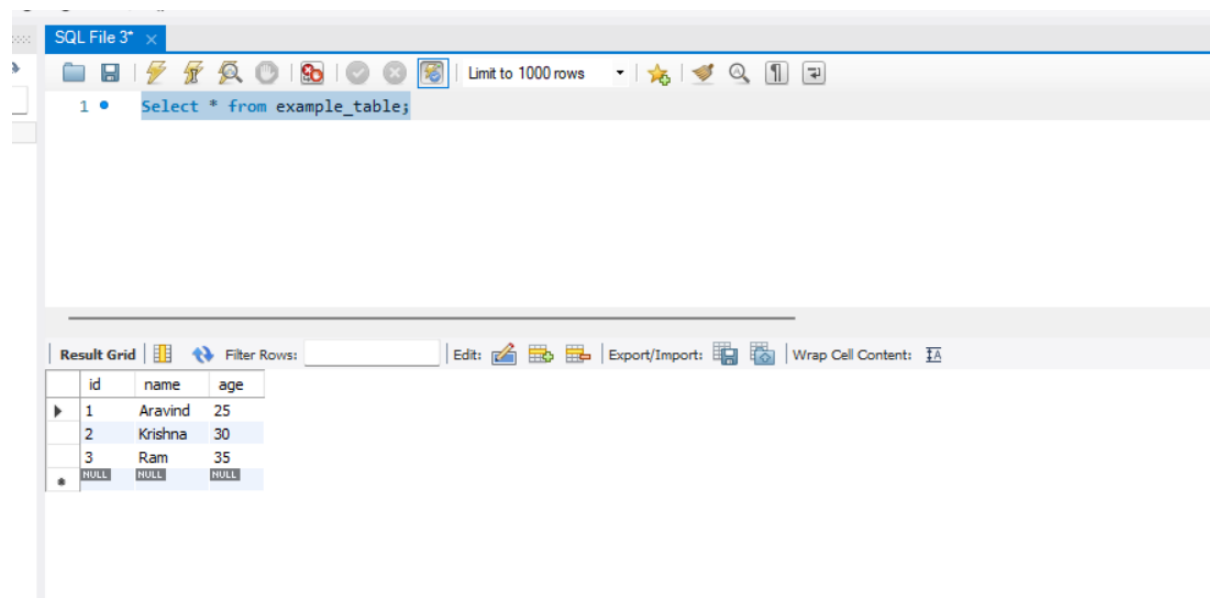
Output

```

run:
[Loading class 'com.mysql.jdbc.Driver'. This is deprecated. The
 the driver class is generally unnecessary.
3 row(s) inserted successfully.
BUILD SUCCESSFUL (total time: 1 second)

```

Output in sql



The screenshot shows an SQL IDE interface. At the top, there's a toolbar with various icons. Below it, a text area contains the query: `Select * from example_table;`. The bottom part of the interface displays the 'Result Grid' with a table of data. The table has three columns: 'id', 'name', and 'age'. It contains three rows of data: (1, Aravind, 25), (2, Krishna, 30), and (3, Ram, 35). There is also a row with three 'NULL' values. The interface includes a 'Filter Rows' field and buttons for 'Edit', 'Export/Import', and 'Wrap Cell Content'.

	id	name	age
1	1	Aravind	25
2	2	Krishna	30
3	3	Ram	35
4	NULL	NULL	NULL

Code to print results from select statement,

```
package javaconnect;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;

public class Javaconnect {

    public static void main(String[] args) {

        try{

            Class.forName("com.mysql.jdbc.Driver");

            String url = "jdbc:mysql://localhost:3306/student";

            String username = "root";

            String password = "root";

            Connection connection = DriverManager.getConnection(url, username, password);

            Statement statement = connection.createStatement();

            String selectQuery = "SELECT * FROM example_table";

            ResultSet resultSet = statement.executeQuery(selectQuery);

            while (resultSet.next()) {

                int id = resultSet.getInt("id");

                String name = resultSet.getString("name");

                int age = resultSet.getInt("age");

                System.out.println("ID: " + id + ", Name: " + name + ", Age: " + age);

            }

            statement.close();

            connection.close();

        } catch (Exception e) {
```

```
        e.printStackTrace();
    }
}

}
```

Output

```
[Loading class `com.mysql.jdbc.Driver'. This is
registered via the SPI and manual loading of th
ID: 1, Name: Aravind, Age: 25
ID: 2, Name: Krishna, Age: 30
ID: 3, Name: Ram, Age: 35
BUILD SUCCESSFUL (total time: 1 second)
```

Code for inserting using prepared statements

```
package javaconnect;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.Statement;

public class Javaconnect {

    public static void main(String[] args) {

        try{

            Class.forName("com.mysql.jdbc.Driver");

            String url = "jdbc:mysql://localhost:3306/student";

            String username = "root";

            String password = "root";

            Connection connection = DriverManager.getConnection(url, username, password);
```



```

String insertQuery = "INSERT INTO example_table (id, name, age) VALUES (?, ?, ?)";
PreparedStatement preparedStatement = connection.prepareStatement(insertQuery);
preparedStatement.setInt(1, 4);
preparedStatement.setString(2, "Alice Johnson");
preparedStatement.setInt(3, 28);
int rowsAffected = preparedStatement.executeUpdate();

System.out.println(rowsAffected + " row(s) inserted successfully.");
preparedStatement.close();
connection.close();

} catch (Exception e) {
    e.printStackTrace();
}
}
}

```

```

String insertQuery = "INSERT INTO example_table (id, name, age) VALUES (?, ?, ?)";
PreparedStatement preparedStatement = connection.prepareStatement(insertQuery);

preparedStatement.setInt(1, 4);
preparedStatement.setString(2, "Alice Johnson");
preparedStatement.setInt(3, 28);

int rowsAffected = preparedStatement.executeUpdate();

System.out.println(rowsAffected + " row(s) inserted successfully.");

preparedStatement.close();
connection.close();

```

Output

```
run:
[Loading class `com.mysql.jdbc.Driver'. This is
gistered via the SPI and manual loading of the
1 row(s) inserted successfully.
BUILD SUCCESSFUL (total time: 1 second)
```

Output in sql

The screenshot shows a SQL IDE interface. On the left is a 'Navigator' pane with a 'SCHEMAS' tree. The 'student' schema is expanded, showing 'Tables', 'Views', 'Stored Procedures', and 'Functions'. Below these is the 'sys' schema. The main area is titled 'SQL File 3*' and contains a single query: 'Select * from example_table;'. Below the query is a 'Result Grid' showing the output of the query. The grid has four columns: 'id', 'name', and 'age'. It contains four rows of data: (1, Aravind, 25), (2, Krishna, 30), (3, Ram, 35), and (4, Alice Johnson, 28). A fifth row shows 'NULL' values for all three columns. The interface also includes a 'Filter Rows' field and an 'Edit' button.

	id	name	age
▶	1	Aravind	25
	2	Krishna	30
	3	Ram	35
	4	Alice Johnson	28
*	NULL	NULL	NULL