☑ Final Solution & Output for Task 4

1. MySQL Database Connection

Steps Followed:

- Downloaded **MySQL Connector/J** (e.g., mysql-connector-java-8.0.30.jar)

- Added the .jar file to **Libraries** in NetBeans.

- Created a Java class: DatabaseConnection.java

    CODE

```java
import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;


public class DatabaseConnection {

    private static final String URL = "jdbc:mysql://localhost:3306/your_database_name";

    private static final String USER = "your_mysql_username";

    private static final String PASSWORD = "your_mysql_password";


    public static Connection getConnection() {

        Connection connection = null;

        try {

            Class.forName("com.mysql.cj.jdbc.Driver"); // Load driver

            connection = DriverManager.getConnection(URL, USER, PASSWORD); // Establish connection

            System.out.println("Connected to MySQL database!");

        } catch (ClassNotFoundException | SQLException e) {

            System.err.println("Connection error: " + e.getMessage());

        }

        return connection;

    }
```

```
// Test the connection

public static void main(String[] args) {

    getConnection();

  }

}
```

Output: When run, it prints:

☑ *"Connected to MySQL database!"*

2. Designing the Homepage (GUI)

Tool Used: NetBeans Swing GUI Builder (JFrame Form)

Steps Followed:

- Created new JFrame Form named Homepage.java
- Added UI Components:
    - Title: JLabel – *"Welcome to the Homepage"* (Font: Arial Bold 20px, Center)
    - User Greeting: JLabel – *"Hello, User!"*
    - Navigation Buttons:
        - JButton – *View Profile* (viewProfileButton)
        - JButton – *Settings* (settingsButton)
        - JButton – *Logout* (logoutButton)
- Used GroupLayout for vertical alignment and proper padding.
- Set all buttons to a uniform width (150px)

3. **Logout Button Functionality**

Action Listener Code for logoutButton:

```
private void logoutButtonActionPerformed(java.awt.event.ActionEvent evt) {

    this.dispose(); // Close homepage

    new LoginForm().setVisible(true); // Open login form (assuming LoginForm.java exists)

}
```

✅ **Final Output:**

- Database connection successfully established and tested.

- Homepage GUI displays:

    - A title ("Welcome to the Homepage")

    - Greeting ("Hello, User!")

    - Three functional buttons (View Profile, Settings, Logout)

- Proper layout and alignment using GroupLayout.

- Logout button closes the window and opens login form.