STUDENTDB MANAGER REPORT by 49098 [Raja Muhammad Bilal]

QUESTION:

Implement a desktop application named StudentDB Manager using Java Swing, JDBC, and MySQL.

The software must:

• Provide text fields for First Name, Last Name, Age, Email

• Include buttons for Add Student, View Students, Search Student by ID

• Display student records in a JTable

• Show status messages in a text area

• Connect to MySQL using JDBC

• Use threads or SwingWorker for long-running database operations

• Perform Add, View, and Search operations with proper exception handling

• Keep the UI responsive during database access

CODE BELOW :

```
public class DBConnection {

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

    private static final String USER = "root";


    public static Connection getConnection() {

        return DriverManager.getConnection(URL, USER, "");

    }
}


public class Student {
```

```java
    private String firstName;

    private String lastName;

    private int age;

    private String email;

}


public void addStudent(Student s) {

    String sql = "INSERT INTO students (first_name, last_name, age, email) VALUES (?, ?, ?, ?)";

    PreparedStatement ps = con.prepareStatement(sql);

    ps.executeUpdate();

}


SwingWorker<Void, Void> worker = new SwingWorker<>() {

    protected Void doInBackground() {

        dao.addStudent(student);

        return null;

    }


    protected void done() {

        statusArea.setText("Student added successfully");

    }

};

worker.execute();


DefaultTableModel model = (DefaultTableModel) table.getModel();

model.addRow(new Object[]{id, fname, lname, age, email});
```