Task # 5

Design a C# Windows Forms application for managing student information. The application should have fields for entering student details such as name, age, course, and GPA. Include validation checks to ensure that the age is a positive integer and the GPA is a positive decimal number between 0 and 4. Implement functionality to add new students to a SQL Server database table named 'Students' and display all students in a DataGridView.

**Breakdown:**

1. **Design the User Interface (UI)** (2 marks):
   * Create a Windows Form with labels and textboxes for entering student details.
   * Add a button for adding new students and a DataGridView for displaying student records.
2. **Implement Validation Checks** (2 marks):
   * Validate that the age is a positive integer.
   * Validate that the GPA is a positive decimal number between 0 and 4.
3. **Connect to the Database** (3 marks):
   * Use the **Microsoft.Data.SqlClient** namespace to establish a connection to the SQL Server database.
4. **Insert New Students** (3 marks):
   * Write code to insert new student records into the 'Students' table.
   * Use parameterized queries to prevent SQL injection.
5. **Display Students in DataGridView** (2 marks):
   * Retrieve student records from the database and display them in the DataGridView.
6. **Overall Functionality** (3 marks):
   * Ensure that the application provides a user-friendly interface.
   * Include clear feedback messages for successful operations and error handling.

**Total marks:** 15