STUDENT MANAGEMENT APPLICATION .NET C#

Muhammad Anshad P A
Roll no :36

PROGRAM CODE:

File: MainForm.cs

```csharp
using System;
using System.Windows.Forms;

namespace StudentManagementApp
{
    public partial class MainForm : Form
    {
        public MainForm()
        {
            InitializeComponent();
        }

        private void buttonLogin_Click(object sender, EventArgs e)
        {
            LoginForm loginForm = new LoginForm();
            loginForm.Show();
            this.Hide();
        }

        private void buttonRegistration_Click(object sender, EventArgs e)
        {
            RegistrationForm registrationForm = new RegistrationForm();
            registrationForm.Show();
            this.Hide();
        }

        private void label1_Click(object sender, EventArgs e)
        {

        }
    }
}
```

File: LoginForm.cs

```csharp
using System;
using System.Data.SqlClient;
using System.Windows.Forms;

namespace StudentManagementApp
{
    public partial class LoginForm : Form
    {
        private string connectionString = "Data Source=ANSHADANSHA1;Initial
Catalog=StudentManagement;Integrated Security=True;TrustServerCertificate=True";

        public LoginForm()
        {
            InitializeComponent();
        }

        private void buttonLogin_Click(object sender, EventArgs e)
        {
            string name = textUser.Text;
            string password = textPass.Text;

            if (ValidateCredentials(name, password))
            {
                StudentDashboard studentdashboard = new StudentDashboard();
                studentdashboard.Show();
                this.Hide();
            }
            else
            {
                MessageBox.Show("Invalid username or password.");
            }
        }

        private bool ValidateCredentials(string name, string password)
        {
            bool isValid = false;
            string query = "SELECT COUNT(*) FROM Student WHERE Name = @Name AND Password =
@Password";

            using (SqlConnection connection = new SqlConnection(connectionString))
            {
                using (SqlCommand command = new SqlCommand(query, connection))
                {
                    command.Parameters.AddWithValue("@Name", name);
                    command.Parameters.AddWithValue("@Password", password);

                    try
                    {
                        connection.Open();
                        int userCount = (int)command.ExecuteScalar();
                        isValid = (userCount > 0);
                    }
                    catch (Exception ex)
                    {
                        MessageBox.Show($"Error: {ex.Message}");
                    }
                }
            }

            return isValid;
        }

        private void label1_Click(object sender, EventArgs e)
        {
```

```csharp
        }

        private void btnCancel_Click(object sender, EventArgs e)
        {
            MainForm mainForm = new MainForm();
            mainForm.Show();
            this.Hide();
        }
    }
}
```

File: RegistrationForm.cs

```csharp
using System;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace StudentManagementApp
{
    public partial class RegistrationForm : Form
    {
        private string connectionString = "Data Source=ANSHADANSHA1;Initial
Catalog=StudentManagement;Integrated Security=True;TrustServerCertificate=True";

        public RegistrationForm()
        {
            InitializeComponent();
        }

        private void buttonRegister_Click(object sender, EventArgs e)
        {
            string name = textBoxName.Text;
            string department = textBoxDepartment.Text;
            string phone = textBoxPhone.Text;
            DateTime dob = dateTimePickerDOB.Value;
            string gender = radioButtonMale.Checked ? "Male" : radioButtonFemale.Checked ?
"Female" : "Other";
            string password = textBoxPassword.Text;

            using (SqlConnection connection = new SqlConnection(connectionString))
            {
                string query = "INSERT INTO Student (Name, Department, PhoneNo, DOB,
Gender, Password) VALUES (@Name, @Department, @Phone, @DOB, @Gender, @Password)";
                using (SqlCommand command = new SqlCommand(query, connection))
                {
                    command.Parameters.AddWithValue("@Name", name);
                    command.Parameters.AddWithValue("@Department", department);
                    command.Parameters.AddWithValue("@Phone", phone);
                    command.Parameters.AddWithValue("@DOB", dob);
                    command.Parameters.AddWithValue("@Gender", gender);
                    command.Parameters.AddWithValue("@Password", password);
                    try
                    {
                        connection.Open();
                        command.ExecuteNonQuery();
                        MessageBox.Show("Student registered successfully!");

                        MainForm mainForm = new MainForm();
                        mainForm.Show();
                        this.Hide();
                    }
                    catch (Exception ex)
                    {
                        MessageBox.Show($"Error: {ex.Message}");
                    }
                }
            }
        }
        private void button1_Click(object sender, EventArgs e)
        {
            MainForm mainForm = new MainForm();
            mainForm.Show();
            this.Hide();
        }
    }
}
```

File: StudentDashBoard.cs

```csharp
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace StudentManagementApp
{
    public partial class StudentDashboard : Form
    {
        public StudentDashboard()
        {
            InitializeComponent();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            ViewMarksForm viewmarksForm = new ViewMarksForm();
            viewmarksForm.Show();
            this.Hide();
        }

        private void label1_Click(object sender, EventArgs e)
        {

        }

        private void button1_Click(object sender, EventArgs e)
        {
            AddMarksForm addmarksForm = new AddMarksForm();
            addmarksForm.Show();
            this.Hide();
        }
    }
}
```

File: AddMarksForm.cs

```csharp
using System;
using System.Data.SqlClient;
using System.Windows.Forms;

namespace StudentManagementApp
{
    public partial class AddMarksForm : Form
    {
        private string connectionString = "Data Source=ANSHADANSHA1;Initial
Catalog=StudentManagement;Integrated Security=True;TrustServerCertificate=True";

        public AddMarksForm()
        {
            InitializeComponent();
            LoadStudents();
        }

        private void LoadStudents()
        {
            using (SqlConnection connection = new SqlConnection(connectionString))
            {
                string query = "SELECT ID, Name FROM Student";
                using (SqlCommand command = new SqlCommand(query, connection))
                {
                    connection.Open();
                    SqlDataReader reader = command.ExecuteReader();
                    while (reader.Read())
                    {
                        comboBoxStudent.Items.Add(new { ID = reader["ID"], Name =
reader["Name"] });
                    }
                    connection.Close();
                }
            }
            comboBoxStudent.DisplayMember = "Name";
            comboBoxStudent.ValueMember = "ID";
        }

        private void buttonAddMarks_Click(object sender, EventArgs e)
        {
            if (comboBoxStudent.SelectedItem == null)
            {
                MessageBox.Show("Please select a student.");
                return;
            }

            if (string.IsNullOrWhiteSpace(textBoxMarks.Text)
|| !int.TryParse(textBoxMarks.Text, out int marks))
            {
                MessageBox.Show("Please enter a valid marks value.");
                return;
            }

            int studentID = (int)((dynamic)comboBoxStudent.SelectedItem).ID;
            string subject = cbSubject.SelectedItem.ToString();

            using (SqlConnection connection = new SqlConnection(connectionString))
            {
                string query = "INSERT INTO Mark (StudentID, Subject,Mark) VALUES
(@StudentID,@Subject, @Mark)";
                using (SqlCommand command = new SqlCommand(query, connection))
                {
                    command.Parameters.AddWithValue("@StudentID", studentID);
                    command.Parameters.AddWithValue("@Subject", subject);
```

```csharp
                command.Parameters.AddWithValue("@Mark", marks);

                try
                {
                    connection.Open();
                    command.ExecuteNonQuery();
                    MessageBox.Show("Marks added successfully!");
                }
                catch (Exception ex)
                {
                    MessageBox.Show($"Error: {ex.Message}");
                }
                finally
                {
                    connection.Close();
                }
            }
        }
    }

    private void comboBoxStudent_SelectedIndexChanged(object sender, EventArgs e)
    {

    }

    private void button1_Click(object sender, EventArgs e)
    {
        StudentDashboard studentdashboard = new StudentDashboard();
        studentdashboard.Show();
        this.Hide();
    }

    private void comboBox1_SelectedIndexChanged(object sender, EventArgs e)
    {

    }
    }
}
```

File: ViewMarksForm.cs

```csharp
using System;
using System.Data.SqlClient;
using System.Drawing;
using System.Windows.Forms;

namespace StudentManagementApp
{
    public partial class ViewMarksForm : Form
    {
        private const string PlaceholderText = "Enter Student Name";

        public ViewMarksForm()
        {
            InitializeComponent();
            SetPlaceholder();
        }

        private void SetPlaceholder()
        {
            textBoxStudentName.Text = PlaceholderText;
            textBoxStudentName.ForeColor = Color.Gray;
            textBoxStudentName.Enter += RemovePlaceholder;
            textBoxStudentName.Leave += SetPlaceholder;
        }

        private void RemovePlaceholder(object sender, EventArgs e)
        {
            if (textBoxStudentName.Text == PlaceholderText)
            {
                textBoxStudentName.Text = "";
                textBoxStudentName.ForeColor = Color.Black;
            }
        }

        private void SetPlaceholder(object sender, EventArgs e)
        {
            if (string.IsNullOrWhiteSpace(textBoxStudentName.Text))
            {
                textBoxStudentName.Text = PlaceholderText;
                textBoxStudentName.ForeColor = Color.Gray;
            }
        }

        private void buttonFetchMarks_Click(object sender, EventArgs e)
        {
            string studentName = textBoxStudentName.Text;

            if (studentName == PlaceholderText || string.IsNullOrWhiteSpace(studentName))
            {
                MessageBox.Show("Please enter a valid Student Name.");
                return;
            }

            using (SqlConnection connection = new SqlConnection("Data
Source=ANSHADANSHA1;Initial Catalog=StudentManagement;Integrated
Security=True;TrustServerCertificate=True"))
            {
                // Updated query to fetch marks by student name
                string query = @"
                    SELECT m.Subject, m.Mark
                    FROM Mark m
                    INNER JOIN Student s ON m.StudentId = s.Id
                    WHERE s.Name = @StudentName";

                using (SqlCommand command = new SqlCommand(query, connection))
```

```
        {
            command.Parameters.AddWithValue("@StudentName", studentName);

            try
            {
                connection.Open();
                using (SqlDataReader reader = command.ExecuteReader())
                {
                    listBoxMarks.Items.Clear();
                    while (reader.Read())
                    {
                        string subject = reader["Subject"].ToString();
                        string mark = reader["Mark"].ToString();
                        listBoxMarks.Items.Add($"{subject}: {mark}");
                    }
                }
            }
            catch (Exception ex)
            {
                MessageBox.Show($"Error: {ex.Message}");
            }
            finally
            {
                connection.Close();
            }
        }
    }
  }
 }
}
```

PROGRAM OUTPUT:

RegistrationForm

Registration

Name	Muhammad Anshad P A
Department	CS
Phone	8157847663
DOB	11 April 2000
Gender	● Male
	○ Female
	○ Other
Password:	•••

[Register] [Cancel]

Form.cs   Vie
lentManagementApp

ex)

ow($"Error: +

lose();

×

Student registered successfully!

[OK]

Login

Student Login

Username	Muhammad Anshad P A
Password	•••

[Login] [Cancel]

StudentDashboard

Student Dashboard

Add Student Marks

View Student Marks

Add Marks

Add Marks

Student   Muhammad Anshad P A

Subject   Python

Marks   81

Add Marks   **Go to Dashboard**

StudentDashboard

Add Marks

Student   Muhammad Anshad P A   ⌄

Subject   Python   ⌄

Marks   81

×
Marks added successfully!
OK

Add Marks   Go to Dashboard

Muhammad Anshad P A   **Fetch Marks**   Go Back

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