**STUDENT MANAGEMENT APPLICATION**

**.NET C#**

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**Roll no :18**

**PROGRAM CODE:**

**File: MainForm.cs**

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| 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**

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| 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)  {  }  private void btnCancel\_Click(object sender, EventArgs e)  {  MainForm mainForm = new MainForm();  mainForm.Show();  this.Hide();  }  }  } |

**File: RegistrationForm.cs**

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| 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**

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| 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**

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| 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);  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**

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| 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:**

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