**Task No. 1:** Create a CRUD windows form application for students data using “One procedure for all CRUD operations” (use IF Else concept ).

**Solution:**

CREATE PROCEDURE ManageData

@name varchar(255),

@age int,

@gender varchar(50),

@contact int,

@id int,

@operation varchar(10)

AS

BEGIN

IF @operation = 'INSERT'

BEGIN

INSERT INTO EmpDetails (name, age, gender, contact)

VALUES (@name, @age, @gender, @contact)

END

ELSE IF @operation = 'UPDATE'

BEGIN

UPDATE EmpDetails

SET name = @name, age = @age, gender = @gender, contact = @contact

WHERE ID = @id

END

ELSE IF @operation = 'DELETE'

BEGIN

DELETE FROM EmpDetails

WHERE ID = @id

END

END

**VS CODE**

using Microsoft.Azure.Amqp.Framing;

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Data.SqlClient;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace CRUD

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

BindGridView();

// pictureBox1.Image = Properties.Resources.OIP;

cmbgender.SelectedIndex = 0;

}

string cs = Data Source=./;Initial Catalog = db\_connectivity; Integrated Security = True;

void BindGridView()

{

SqlConnection con = new SqlConnection(cs);

string query = "select \* from EmpDetails ";

SqlDataAdapter sda = new SqlDataAdapter(query, con);

DataTable data = new DataTable();

sda.Fill(data);

dataGridView1.DataSource = data;

DataGridViewImageColumn dgv = new DataGridViewImageColumn();

dgv = (DataGridViewImageColumn)dataGridView1.Columns[5];

dgv.ImageLayout = DataGridViewImageCellLayout.Stretch;

dataGridView1.RowTemplate.Height = 50;

}

private void dataGridView1\_CellContentClick(object sender, DataGridViewCellEventArgs e)

{

if (dataGridView1.Rows.Count > 0)

{

txtID.Text = dataGridView1.SelectedRows[0].Cells[0].Value.ToString();

txtname.Text = dataGridView1.SelectedRows[0].Cells[1].Value.ToString();

txtage.Text = dataGridView1.SelectedRows[0].Cells[2].Value.ToString();

cmbgender.Text = dataGridView1.SelectedRows[0].Cells[3].Value.ToString();

txtcontact.Text = dataGridView1.SelectedRows[0].Cells[4].Value.ToString();

}

}

private void btnupdate\_Click(object sender, EventArgs e)

{

if (cmbgender.SelectedIndex == 0)

{

// errorProvider1.SetError(this.cmbgender, "Please Select Gender !");

cmbgender.Focus();

return;

}

SqlConnection con = new SqlConnection(cs);

string query = "ManageData @name,@age,@pic,@gender,@contact,@id,@operation";

SqlCommand cmd = new SqlCommand(query, con);

cmd.Parameters.AddWithValue("@name", txtname.Text);

cmd.Parameters.AddWithValue("@age", txtage.Text);

cmd.Parameters.AddWithValue("@gender", cmbgender.Text);

cmd.Parameters.AddWithValue("@contact", txtcontact.Text);

cmd.Parameters.AddWithValue("@operation", "Update");

cmd.Parameters.AddWithValue("@id", Convert.ToInt32(txtID.Text));

con.Open();

int a = cmd.ExecuteNonQuery();

if (a > 0)

{

MessageBox.Show("Update Data Successfully", "Success", MessageBoxButtons.OK, MessageBoxIcon.Information);

BindGridView();

clearControls();

}

else

{

MessageBox.Show("Updation Failed", "Failed", MessageBoxButtons.OK, MessageBoxIcon.Error);

}

con.Close();

}

void clearControls()

{

txtID.Text = string.Empty;

txtname.Text = string.Empty;

txtcontact.Text = string.Empty;

txtage.Text = string.Empty;

cmbgender.SelectedIndex = 0;

}

private void btndelete\_Click(object sender, EventArgs e)

{

SqlConnection con = new SqlConnection(cs);

string query = "ManageData @name,@age,@pic,@gender,@contact,@id,@operation";

SqlCommand cmd = new SqlCommand(query, con);

cmd.Parameters.AddWithValue("@name", txtname.Text);

cmd.Parameters.AddWithValue("@age", txtage.Text);

cmd.Parameters.AddWithValue("@gender", cmbgender.Text);

cmd.Parameters.AddWithValue("@contact", txtcontact.Text);

cmd.Parameters.AddWithValue("@operation", "Delete");

cmd.Parameters.AddWithValue("@id", Convert.ToInt32(txtID.Text));

con.Open();

int a = cmd.ExecuteNonQuery();

if (a > 0)

{

MessageBox.Show("Deleted Data Successfully", "Success", MessageBoxButtons.OK, MessageBoxIcon.Information);

BindGridView();

clearControls();

}

else

{

MessageBox.Show("Deletion Failed Failed", "Failed", MessageBoxButtons.OK, MessageBoxIcon.Error);

}

con.Close();

}

private void btninsert\_Click(object sender, EventArgs e)

{

if (cmbgender.SelectedIndex == 0)

{

// errorProvider1.SetError(this.cmbgender, "Please Select Gender !");

cmbgender.Focus();

return;

}

SqlConnection con = new SqlConnection(cs);

string query = "ManageData @name,@age,@pic,@gender,@contact,@id,@operation";

SqlCommand cmd = new SqlCommand(query, con);

cmd.Parameters.AddWithValue("@name", txtname.Text);

cmd.Parameters.AddWithValue("@age", txtage.Text);

cmd.Parameters.AddWithValue("@gender", cmbgender.Text);

cmd.Parameters.AddWithValue("@contact", txtcontact.Text);

cmd.Parameters.AddWithValue("@operation", "Insert");

cmd.Parameters.AddWithValue("@id", Convert.ToInt32(txtID.Text));

con.Open();

int a = cmd.ExecuteNonQuery();

if (a > 0)

{

MessageBox.Show("Inserted Data Successfully", "Success", MessageBoxButtons.OK, MessageBoxIcon.Information);

BindGridView();

clearControls();

}

else

{

MessageBox.Show("Insertion Failed", "Failed", MessageBoxButtons.OK, MessageBoxIcon.Error);

}

con.Close();

}

private void Form1\_Load(object sender, EventArgs e)

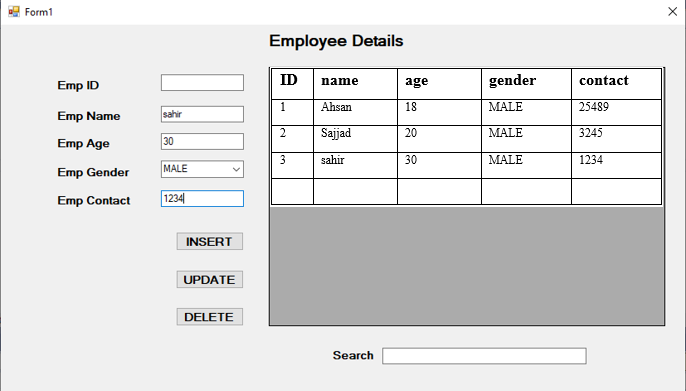
{

}

}

}

**Output:**

****