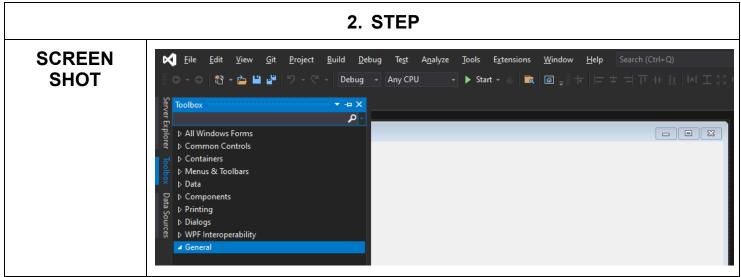
This is 2T Connectivity Program Steps(Insert, Update, delete, select)





DESCRIPTION

Go to the **Toolbox** that is placed on the **left side** of the window and **click** on it.

3. STEP					
SCREEN SHOT	label2				
	button1				
DESCRIPTION	Drag and drop necessary items from the toolbox which are needed in your form. In My Case: four labels, two textboxes, two radio buttons, one DataGridView, one picturebox, and two buttons.				

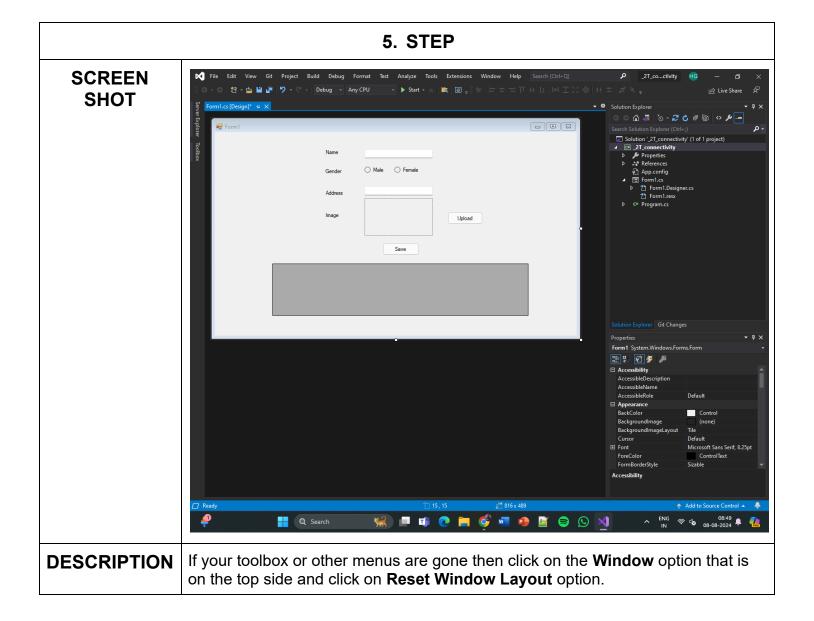
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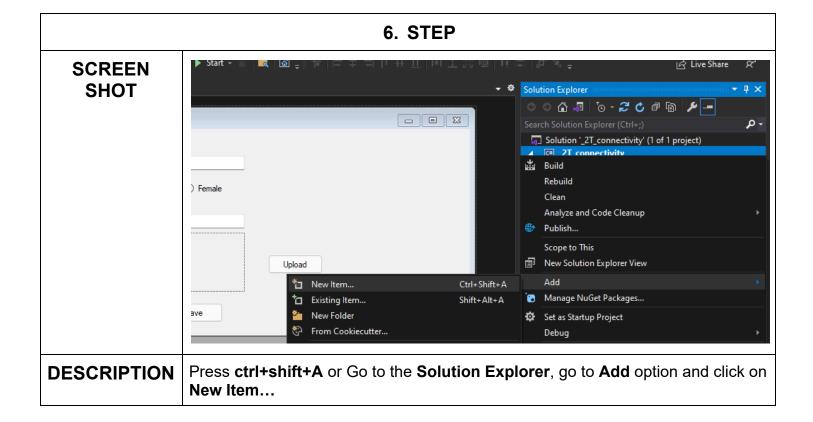
4. STEP **SCREEN** Properties SHOT label 1 System. Windows. Forms. Label [문 및 사람 🗲 🔑 □ Accessibility AccessibleDescriptio AccessibleName AccessibleRole Default □ Appearance BackColor Control Now we change some properties of items. Press f4 or go to item and click on it. **DESCRIPTION** On the right side properties are displayed.

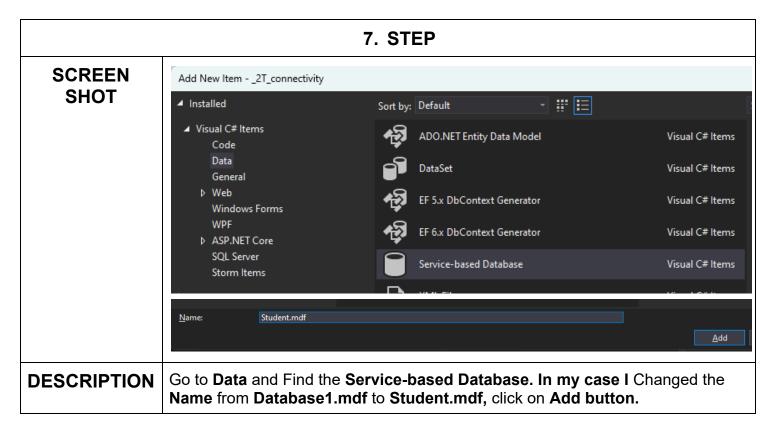
In My Case Properties of Items is set. It is in the table below.

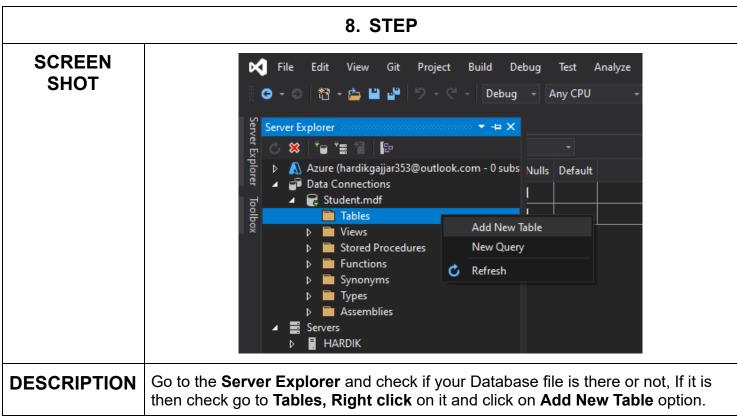
Item Name	Text Property	Name Property	
lable1	Name		
lable2	Gender		
lable3	Address		
lable4	Image		
textbox1		txtName	
radioButton1	Male	rbMale	
radioButton2	Female	rbFemale	
textbox2		txtAddress	
pictureBox1		pblmage	
button2	Upload	bUpload	
button1	Save	bSave	
dataGridView1			

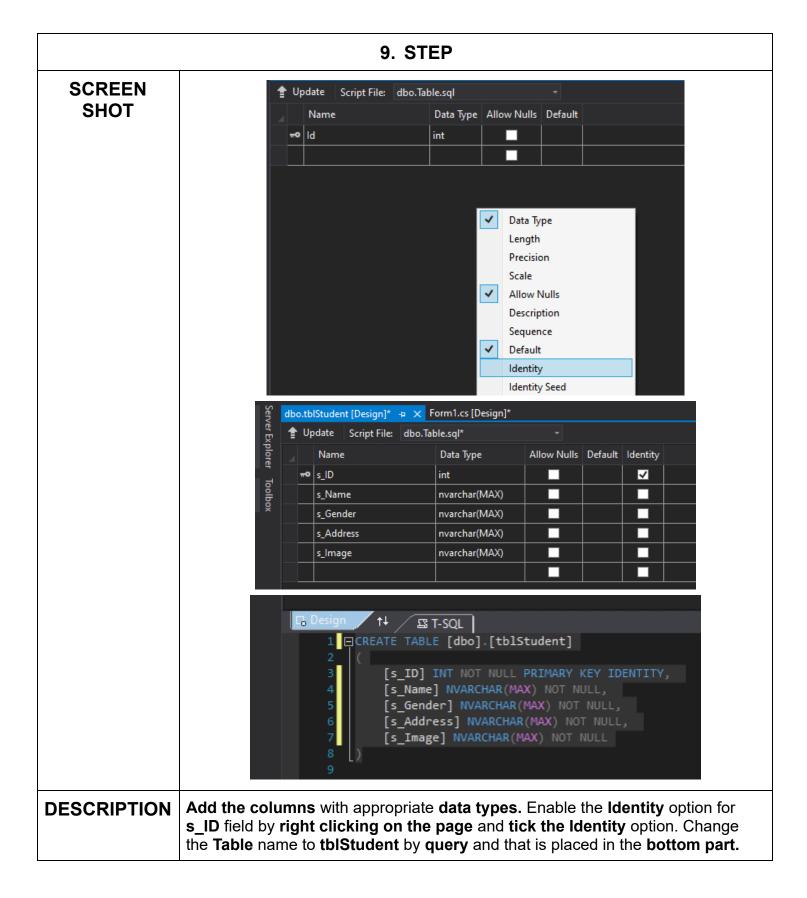
(Note: Blank space means no changes.)



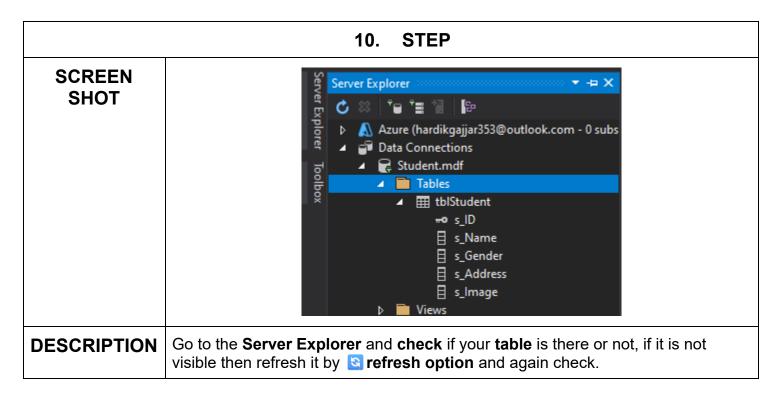


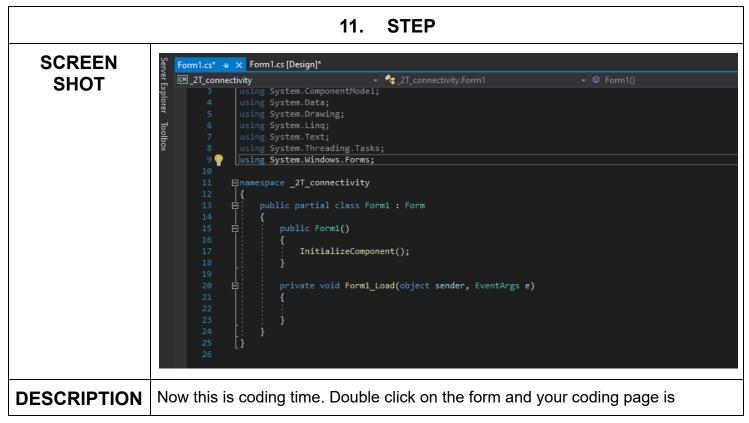






After all click on 1 Update button that is placed in top side. Update Database





opened(Form1.cs*).

using System.IO;

using System.Data.SqlClient;

12. STEP SCREEN <u>F</u>ile Edit View Git Project | Build <u>D</u>ebug Test **Analyz** SHOT Ġ - 🖯 🃸 - 🚰 💾 🛂 🤥 - 🧠 - Debug - Any CPU Server Explorer Form1.cs* + X Form1.cs [Design]* ☐ 2T_connectivity 1 1 2T_connectivity. ⊡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; using System.IO; using System.Data.SqlClient; First of all check libraries. If any are missing then add it. **DESCRIPTION** My Libraries.: using System; using System.Collections.Generic; using System.ComponentModel; using System.Data; using System.Drawing; using System.Ling; using System. Text; using System. Threading. Tasks; using System.Windows.Forms;

STEP 13. espace 2T connectivity **SCREEN** SHOT public partial class Form1 : Form SqlConnection con; // Used for connection SqlCommand cmd; // Insert, Update, Delete DataSet ds://container public Form1() InitializeComponent(); **DESCRIPTION Declare sql variables:** SqlConnection con; // Used for connection SqlCommand cmd; // Insert, Update, Delete SqlDataAdapter da;//Select DataSet ds://container

14. STEP SCREEN SqlConnection con; // Used for connection SHOT SqlCommand cmd; // Insert, Update, Delete SqlDataAdapter da;//Select DataSet ds;//container String s. = @"Data Source=(LocalDB)\MSSQLLocalDB;Atta String i;// for move image String d; //image save in database public Form1() InitializeComponent(); Wright this code: DESCRIPTION String s = @""; String i;// for move image String d; //image save in database In the double quote(@"") you have to add a Connection String path. It is in the properties of the database(Student.mdf). (Server Explorer >> Data Connections >> Student.mdf >> right click >>

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properties >> right side in the properties Connection String >> Copy it >> Paste between double quote (@""))

```
SCREEN
SHOT

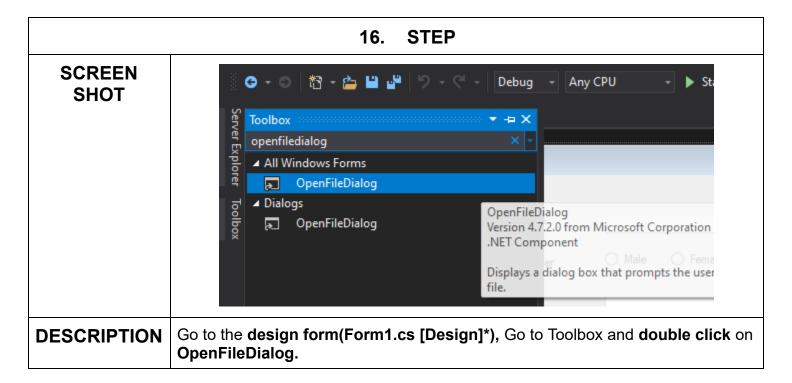
String i; // for move image
String d; //image save in database

void connection()
{
    con = new SqlConnection(s);
    con.Open();
}

DESCRIPTION

Create connection() method for connecting database:

void connection()
{
    con = new SqlConnection(s);
    con.Open();
}
```



SCREEN SHOT

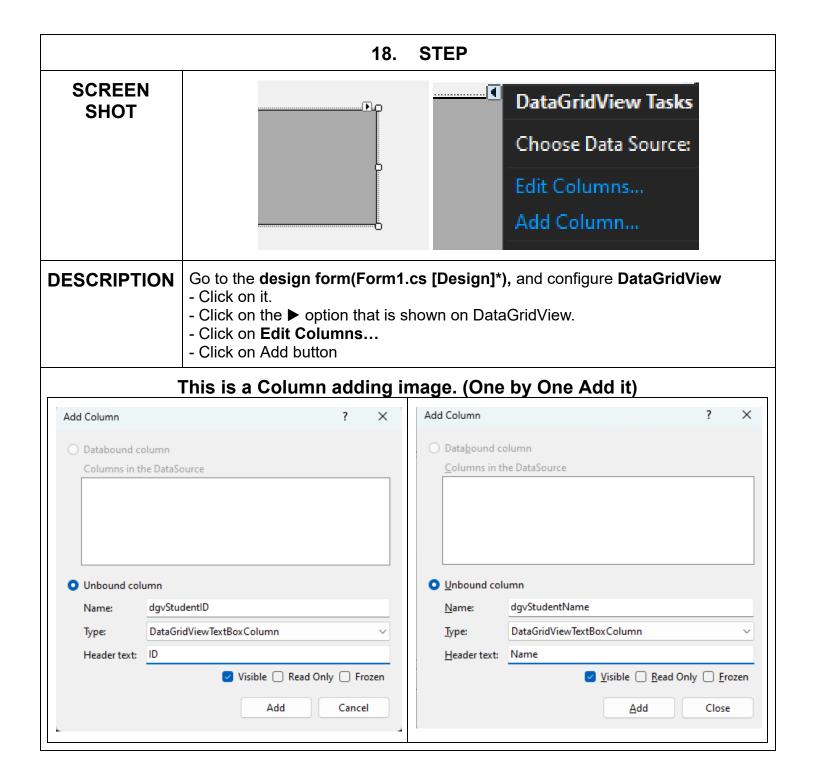
```
void connection()
{
    con = new SqlConnection(s);
    con.Open();
}

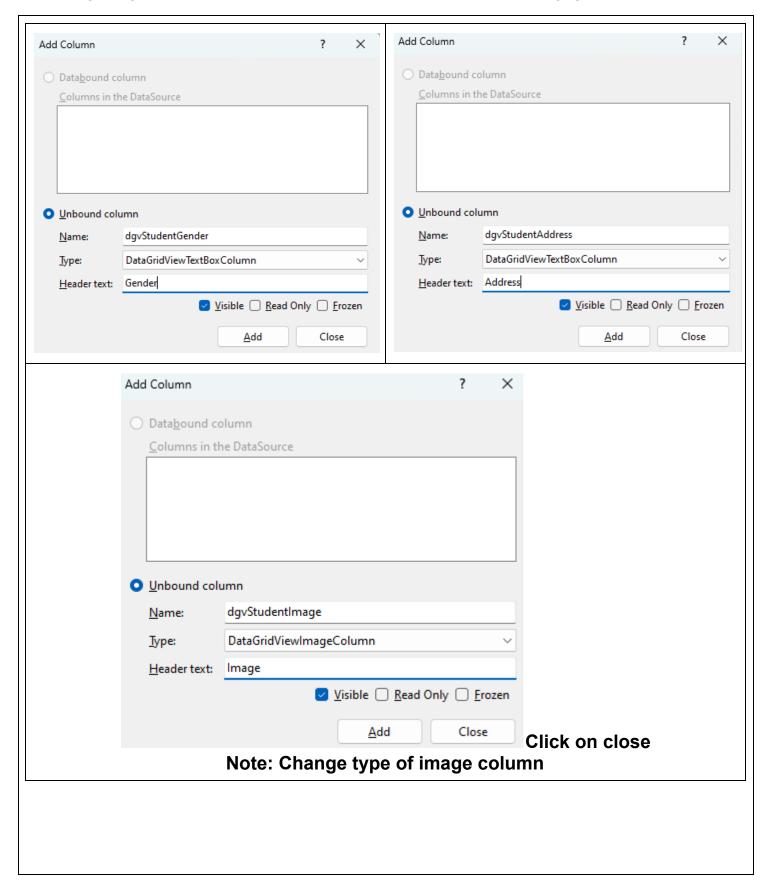
void uploadImage()
{
    openFileDialog1.ShowDialog();
    try
    {
        i = openFileDialog1.FileName.ToString();
        pbImage.Load(i);
    }
    catch (Exception e)
    {
        MessageBox.Show(e.ToString());
    }
}
```

DESCRIPTION

Create uploadImage() method:

```
void uploadImage()
{
   openFileDialog1.ShowDialog();
   try
   {
      i = openFileDialog1.FileName.ToString();
      pbImage.Load(i);
   }
   catch(Exception e)
   {
      MessageBox.Show(e.ToString());
   }
}
```





Set the properties of each columns

Column Name	DataPropertyName	ImageLayout		
ID	s_ID			
Name	s_Name			
Gender	s_Gender			
Address	s_Address			
Image	Photo	Zoom		

(Note: except for the Image column we wrote a DataPropertyName same as database(Student.mdf) columns.)

19. STEP					
SCREEN SHOT	<pre>private void bUpload_Click(object sender, EventArgs e) { uploadImage(); }</pre>				
DESCRIPTION	Go to the design form(Form1.cs [Design]*), double click on the Upload button. It will take you to code of form(Form1.cs*) and your cursor moves between upload method braces. Call the uploadImage(); method.				

SCREEN SHOT

```
void fillGrid()
{
    connection();
    da = new SqlDataAdapter("SELECT s_ID, s_Name, s_Gender, s_Address, s_Image FR
    DataTable dt = new DataTable();
    da.Fill(dt);

    dt.Columns.Add("Photo", Type.GetType("System.Byte[]"));

    dataGridView1.AutoSizeColumnsMode = DataGridViewAutoSizeColumnsMode.Fill;

    foreach (DataRow draw in dt.Rows)
    {
        draw["Photo"] = File.ReadAllBytes(draw["s_Image"].ToString());
    }

    dataGridView1.DataSource = dt;
}

public Form1()
{
    InitializeComponent();
}
```

DESCRIPTION

Now create the fillGrid() method:

```
void fillGrid()
{
    connection();

    da = new SqlDataAdapter("SELECT s_ID, s_Name, s_Gender,
    s_Address, s_Image FROM tblStudent", con);

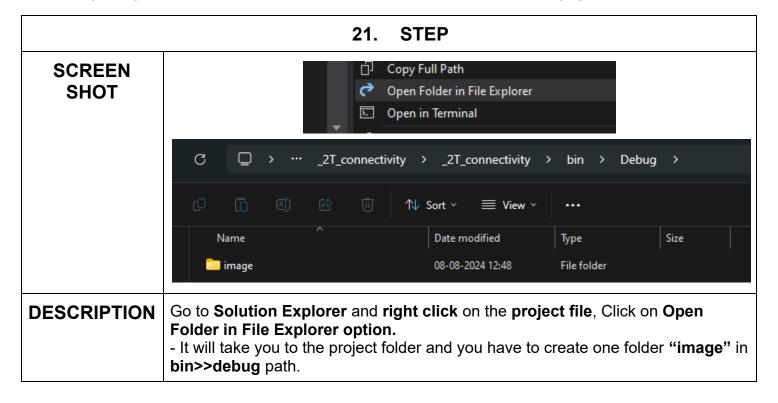
    DataTable dt = new DataTable();
    da.Fill(dt);

    dt.Columns.Add("Photo", Type.GetType("System.Byte[]"));

    dataGridView1.AutoSizeColumnsMode =
DataGridViewAutoSizeColumnsMode.Fill;

    foreach(DataRow draw in dt.Rows)
    {
        draw["Photo"] = File.ReadAllBytes(draw["s_Image"].ToString());
    }

    dataGridView1.DataSource = dt;
}
```



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22. STEP

SCREEN SHOT

```
private void bSave_Click(object sender, EventArgs e)
{
    connection();

    d = Application.StartupPath + "image" + openFileDialog1.SafeFileName.T

    System.IO.File.Copy(i, d);

    String gender = rbMale.Checked ? "Male" : "Female";

    cmd = new SqlCommand("INSERT INTO tblStudent(s_Name, s_Gender, s_Addrecemd.ExecuteNonQuery();
    fillGrid();
}
```

DESCRIPTION

Go to the **design form(Form1.cs [Design]*)**, double click on the Save button. It will take you to **code of form(Form1.cs*)** and **your cursor moves between save method braces.** Write below code between it.

connection();

d = Application.StartupPath + "image" + openFileDialog1.SafeFileName.ToString();

System.IO.File.Copy(i, d);

String gender = rbMale.Checked ? "Male" : "Female";

cmd = new SqlCommand("INSERT INTO tblStudent(s_Name, s_Gender, s_Address, s_Image) VALUES(" + txtName.Text + ", " + gender + "', " + txtAddress.Text + "', " + d + "')", con);

cmd.ExecuteNonQuery();
fillGrid();

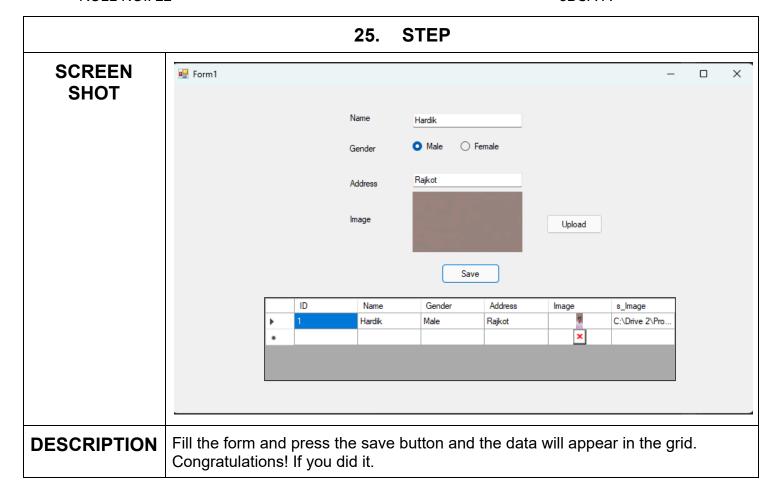
```
SCREEN
SHOT

| private void Form1_Load(object sender, EventArgs e) {
| connection(); | fillGrid(); | } |
| private void bUpload_Click(object sender, EventArgs e) {
| uploadImage(); | } |
| DESCRIPTION | In the Form1_Load() method call the connection() method and fillGrid() method.
```

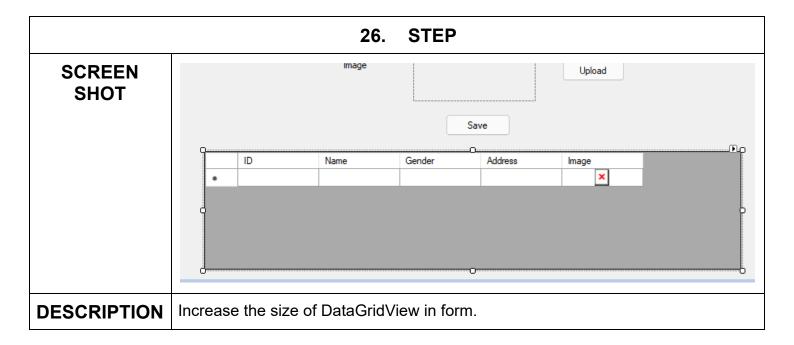
22FOTCA11034

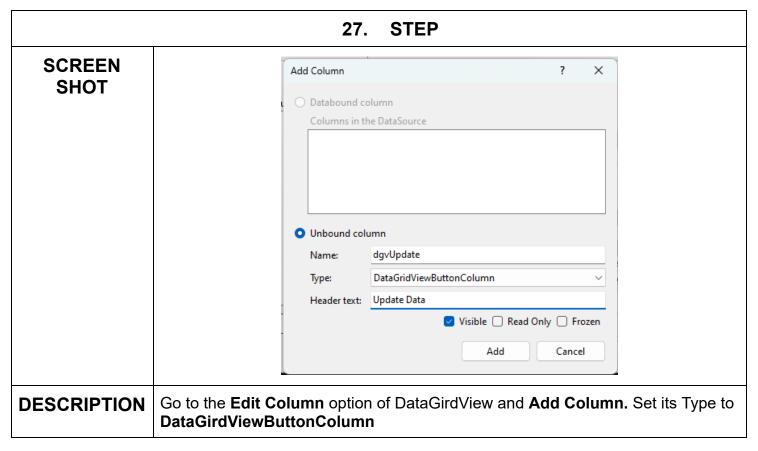
5BCA-A





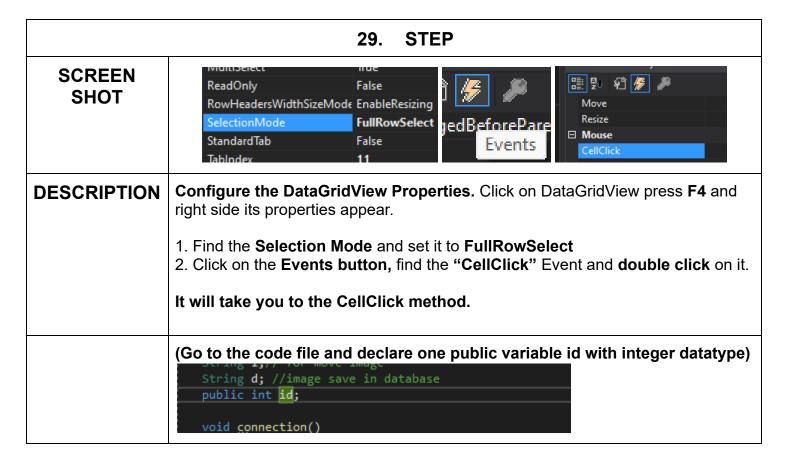
Now we will work on Update data.





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28. STEP								
SCREEN SHOT	•	1 2	Name Hardik Wanda	Gender Male Female	Address Rajkot New York	Image X	Update Data Update Update	s_Image C:\Drive 2\Pro C:\Drive 2\Pro
DESCRIPTION	RIPTION Set its properties: Text: Update UseColumnTextForButton: True AutoSizeMode: ColumnHeader Run and check it has to look like the above image and if you click on it, it does not have to work yet.							



SCREEN SHOT

```
private void dataGridView1_CellClick(object sender, DataGridViewCellEventArgs e)
{
    if(dataGridView1.Columns[e.ColumnIndex].HeaderText=="Update Data")
    {
        bSave.Text = "Update";
        connection();
        int id = Convert.ToInt16(dataGridView1.Rows[e.RowIndex].Cells["dgvStudentID"].Value);
        string name, address;

        name = (dataGridView1.Rows[e.RowIndex].Cells["dgvStudentName"].Value).ToString();
        address = (dataGridView1.Rows[e.RowIndex].Cells["dgvStudentAddress"].Value).ToString();
        txName.Text = name;
        rbMale.Checked = false;
        rbFemale.Checked = false;
        rbFemale.Checked = false;
        txtAddress.Text = address;
    }
    else
    {
        //delete
    }
}
```

DESCRIPTION

Write Below code in CellClick method:

```
txtName.Text = name;
rbMale.Checked = false;
rbFemale.Checked = false;
txtAddress.Text = address;
}
else
{
//delete
}
```

SCREEN SHOT

DESCRIPTION

Go to the bSave() method code:

- Select and Cut the whole code of it.
- Write this if condition in it.

```
if(bSave.Text=="Save")
{
      //paste here, cutted code
}
else
{
```

SCREEN SHOT

```
else
{
    connection();

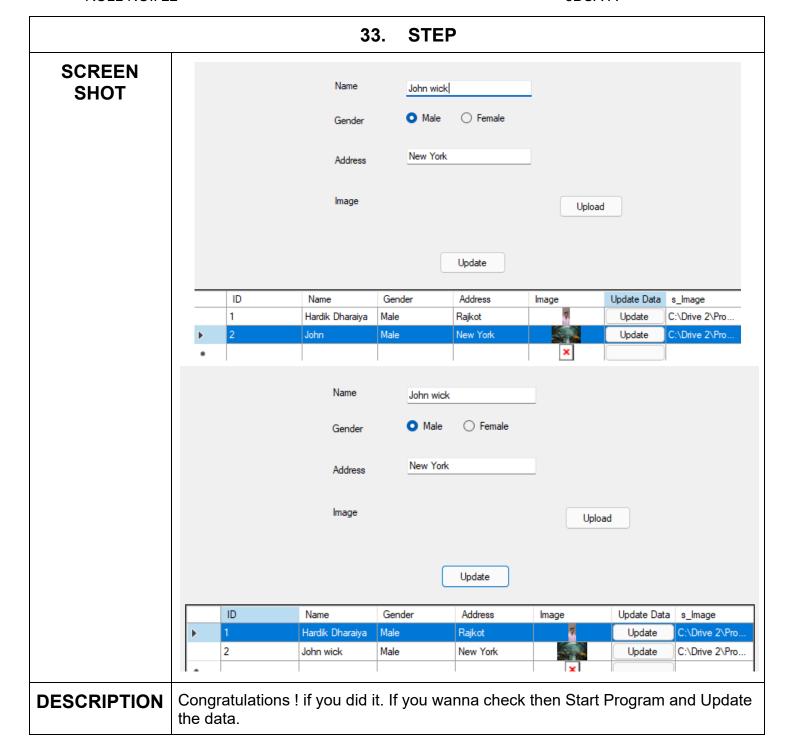
    String gender = rbMale.Checked ? "Male" : "Female";
    cmd = new SqlCommand("UPDATE tblStudent SET s_Name = '"+txtl
    cmd.ExecuteNonQuery();
    fillGrid();
}
```

DESCRIPTION

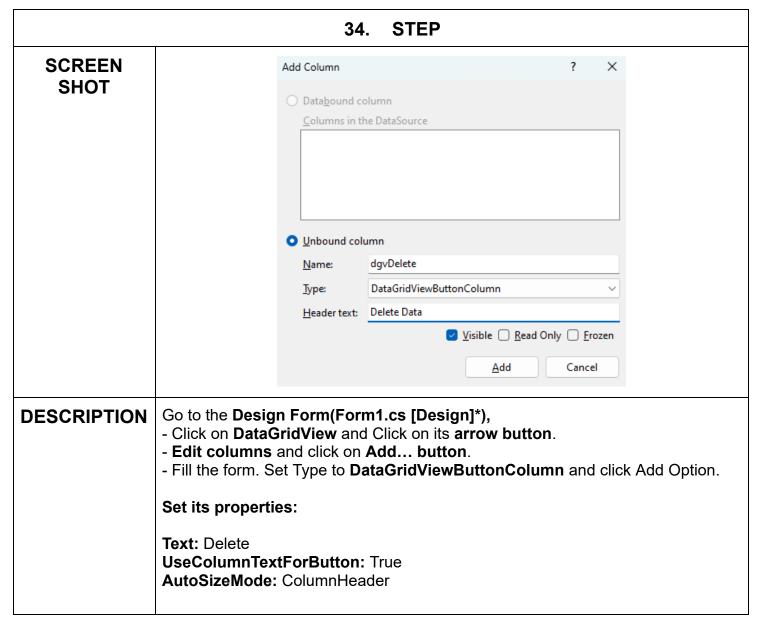
In the else{} part of bSave() method, Write below code:

connection();

String gender = rbMale.Checked ? "Male" : "Female";
cmd = new SqlCommand("UPDATE tblStudent SET s_Name =
""+txtName.Text+"", s_Gender = ""+gender+"", s_Address = ""+txtAddress.Text+""
WHERE s_ID = ""+id+"" ", con);
cmd.ExecuteNonQuery();
fillGrid();



Now We Delete Data



SCREEN SHOT

```
}
else
{
    //delete
    connection();
    int deleteID = Convert.ToInt32(dataGridView1.Rows[e.RowIndex].Cells["dgvStudentID"]

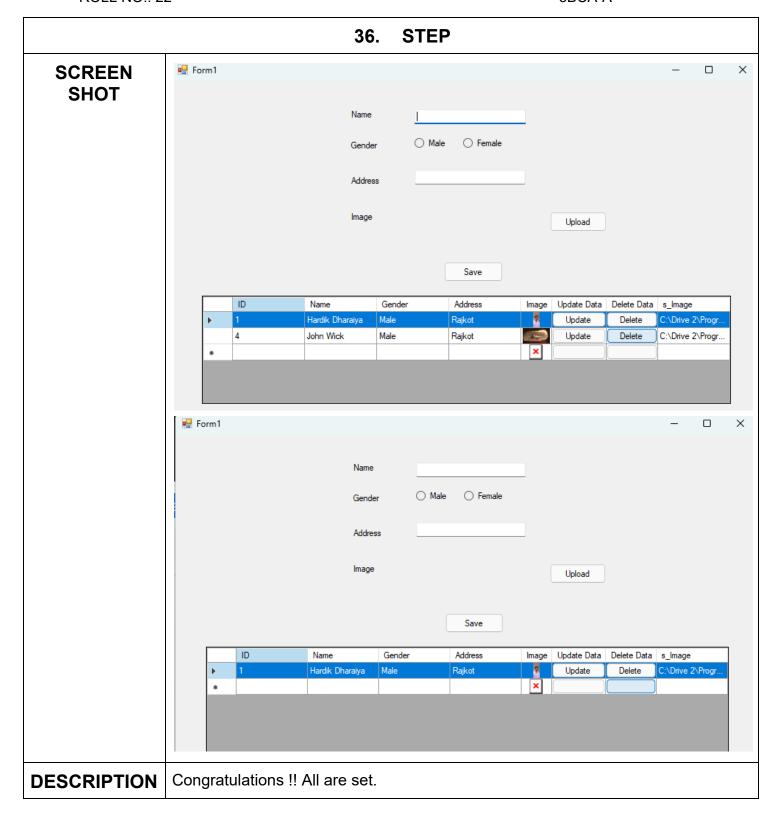
    cmd = new SqlCommand("DELETE FROM tblStudent WHERE s_ID = '"+deleteID+"'", con);
    cmd.ExecuteNonQuery();
    fillGrid();
}
```

DESCRIPTION

Go to the code of form(Form1.cs),

- Go to the CellClick method and its else part is empty.
- So Write below code in it:

```
//delete
connection();
int deleteID =
Convert.ToInt32(dataGridView1.Rows[e.RowIndex].Cells["dgvStudentID"].Value);
cmd = new SqlCommand("DELETE FROM tblStudent WHERE s_ID =
""+deleteID+""", con);
cmd.ExecuteNonQuery();
fillGrid();
```



Whole Code

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Ling;
using System.Text;
using System. Threading. Tasks;
using System.Windows.Forms;
using System.IO;
using System.Data.SqlClient;
namespace 2T connectivity
       public partial class Form1 : Form
              SqlConnection con; // Used for connection
              SqlCommand cmd; // Insert, Update, Delete
              SqlDataAdapter da;//Select
              DataSet ds://container
              String s = @"Data
Source=(LocalDB)\MSSQLLocalDB:AttachDbFilename=C:\Drive 2\Programs\C#.net Window
Desktop\ 2T connectivity\ 2T connectivity\Student.mdf;Integrated Security=True";
              String i;// for move image
              String d; //image save in database
              public int id;
              void connection()
                     con = new SqlConnection(s);
                     con.Open();
              }
              void uploadImage()
                     openFileDialog1.ShowDialog();
                     try
                     {
                            i = openFileDialog1.FileName.ToString();
                            pblmage.Load(i);
                     catch (Exception e)
```

```
MessageBox.Show(e.ToString());
                     }
              }
              void fillGrid()
                     connection();
                     da = new SqlDataAdapter("SELECT s_ID, s_Name, s_Gender,
s Address, s Image FROM tblStudent", con);
                     DataTable dt = new DataTable();
                     da.Fill(dt);
                     dt.Columns.Add("Photo", Type.GetType("System.Byte[]"));
                     dataGridView1.AutoSizeColumnsMode =
DataGridViewAutoSizeColumnsMode.Fill;
                     foreach (DataRow draw in dt.Rows)
                            draw["Photo"] = File.ReadAllBytes(draw["s Image"].ToString());
                     dataGridView1.DataSource = dt;
              }
              public Form1()
                     InitializeComponent();
              private void Form1 Load(object sender, EventArgs e)
                     connection();
                     fillGrid();
              }
              private void bUpload Click(object sender, EventArgs e)
                     uploadImage();
              private void bSave_Click(object sender, EventArgs e)
                     if(bSave.Text=="Save")
                            connection();
```

```
d = Application.StartupPath + "image" +
openFileDialog1.SafeFileName.ToString();
                            System.IO.File.Copy(i, d);
                            String gender = rbMale.Checked ? "Male" : "Female";
                            cmd = new SqlCommand("INSERT INTO tblStudent(s_Name,
s_Gender, s_Address, s_Image) VALUES("" + txtName.Text + "", "" + gender + "", "" +
txtAddress.Text + "', "' + d + "')", con);
                            cmd.ExecuteNonQuery();
                            fillGrid();
                     }
                     else
                     {
                            connection();
                            String gender = rbMale.Checked ? "Male" : "Female";
                            cmd = new SqlCommand("UPDATE tblStudent SET s Name =
"'+txtName.Text+"', s Gender = "'+gender+", s Address = "'+txtAddress.Text+" WHERE s ID
= ""+id+"" ", con);
                            cmd.ExecuteNonQuery();
                            fillGrid();
                     }
              }
              private void dataGridView1 CellClick(object sender,
DataGridViewCellEventArgs e)
                     if(dataGridView1.Columns[e.ColumnIndex].HeaderText=="Update"
Data")
                     {
                            bSave.Text = "Update";
                            connection();
Convert.ToInt16(dataGridView1.Rows[e.RowIndex].Cells["dgvStudentID"].Value);
                            string name, address;
                            name =
(dataGridView1.Rows[e.RowIndex].Cells["dqvStudentName"].Value).ToString();
                            address =
(dataGridView1.Rows[e.RowIndex].Cells["dgvStudentAddress"].Value).ToString();
                            txtName.Text = name;
                            rbMale.Checked = false;
                            rbFemale.Checked = false;
```

```
txtAddress.Text = address;
                    }
                     else
                     {
                            //delete
                           connection();
                            int deleteID =
Convert.ToInt32(dataGridView1.Rows[e.RowIndex].Cells["dgvStudentID"].Value);
                           cmd = new SqlCommand("DELETE FROM tblStudent WHERE
s_ID = ""+deleteID+""", con);
                           cmd.ExecuteNonQuery();
                           fillGrid();
                    }
             }
       }
}
```