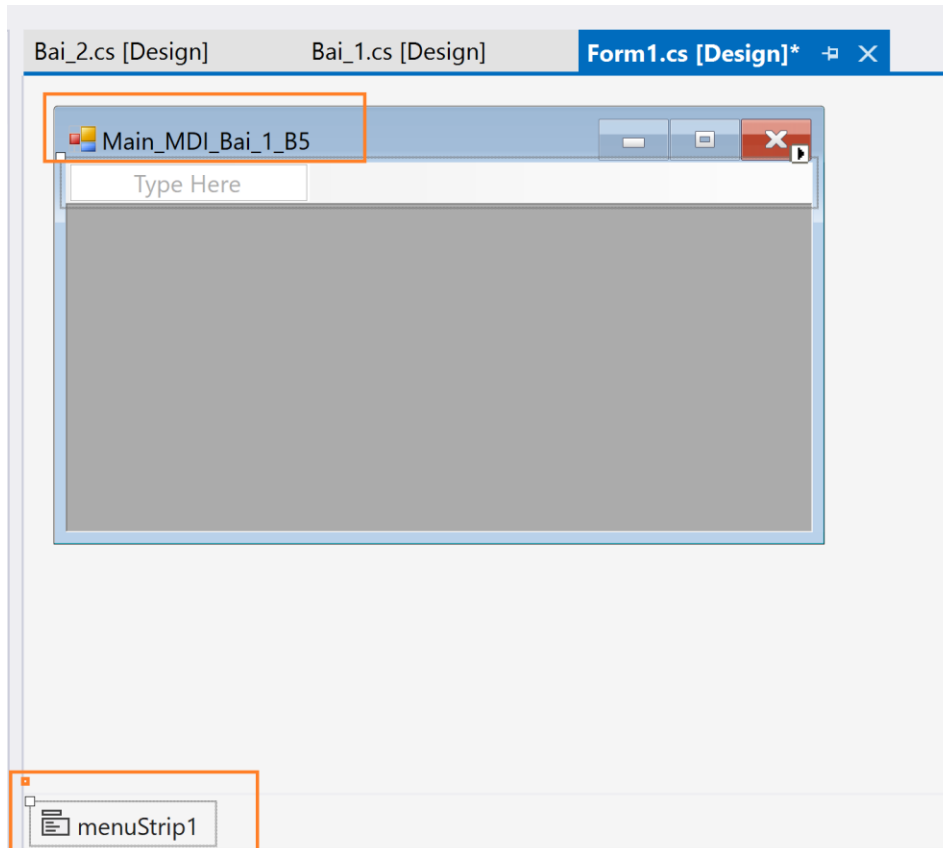


Bài 1: Sử dụng Multiple-Document Interface (MDI) in Windows Forms

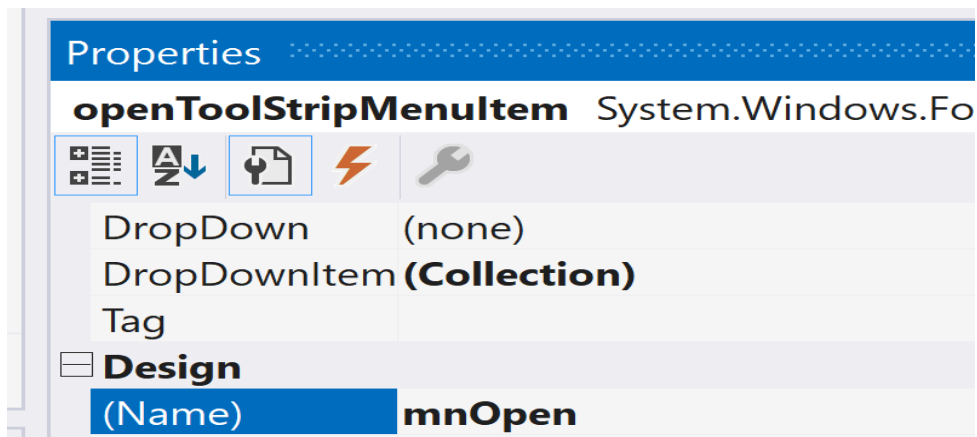
B1: Tạo form cha: IsMdiContainer:True

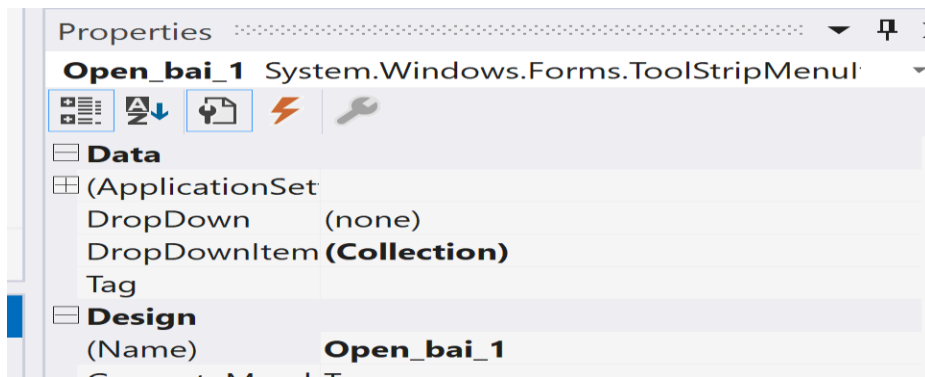
B2: add 2 form : Bai_1.cs, Bai_2.cs, Bai_3.cs

B3 : Chọn menutrip, kéo vào gõ Open

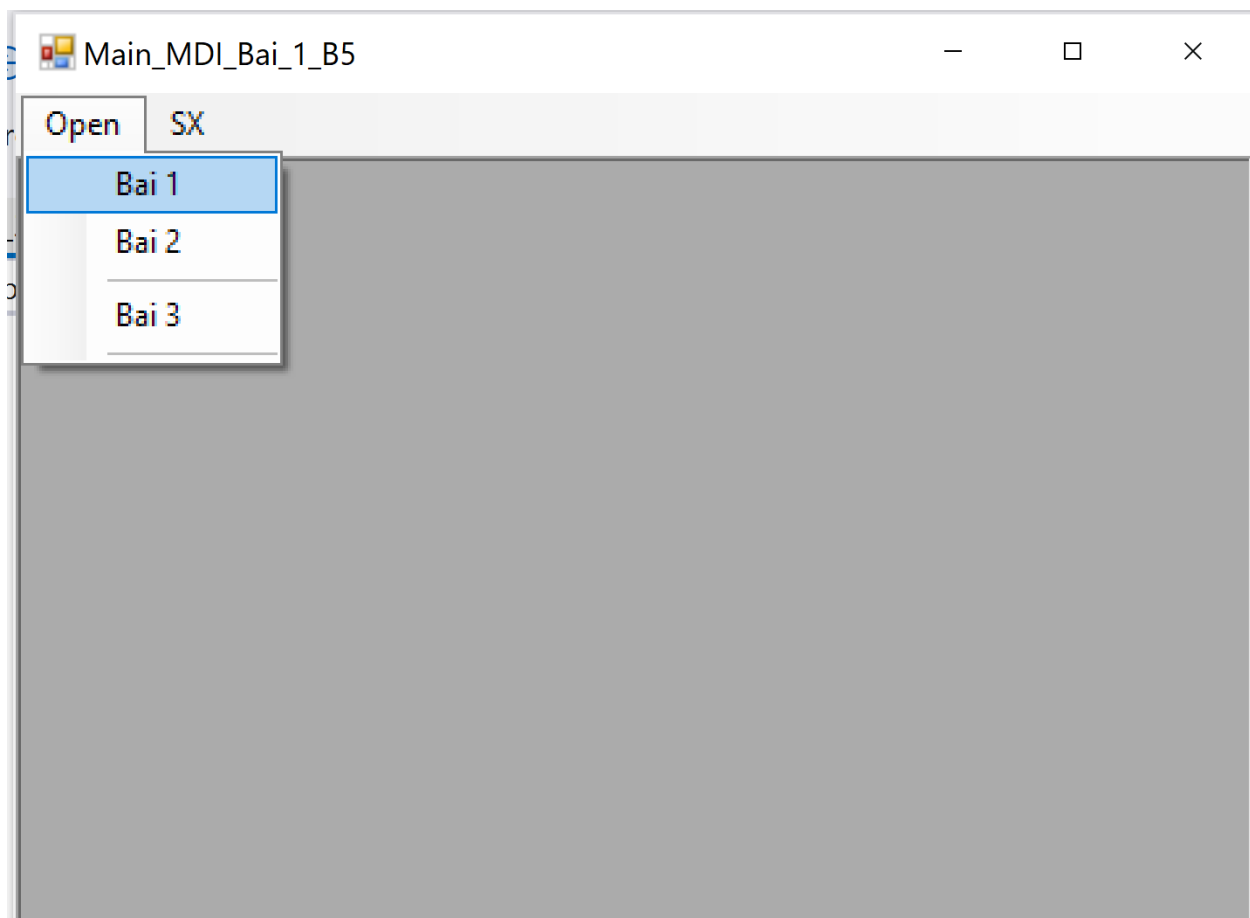


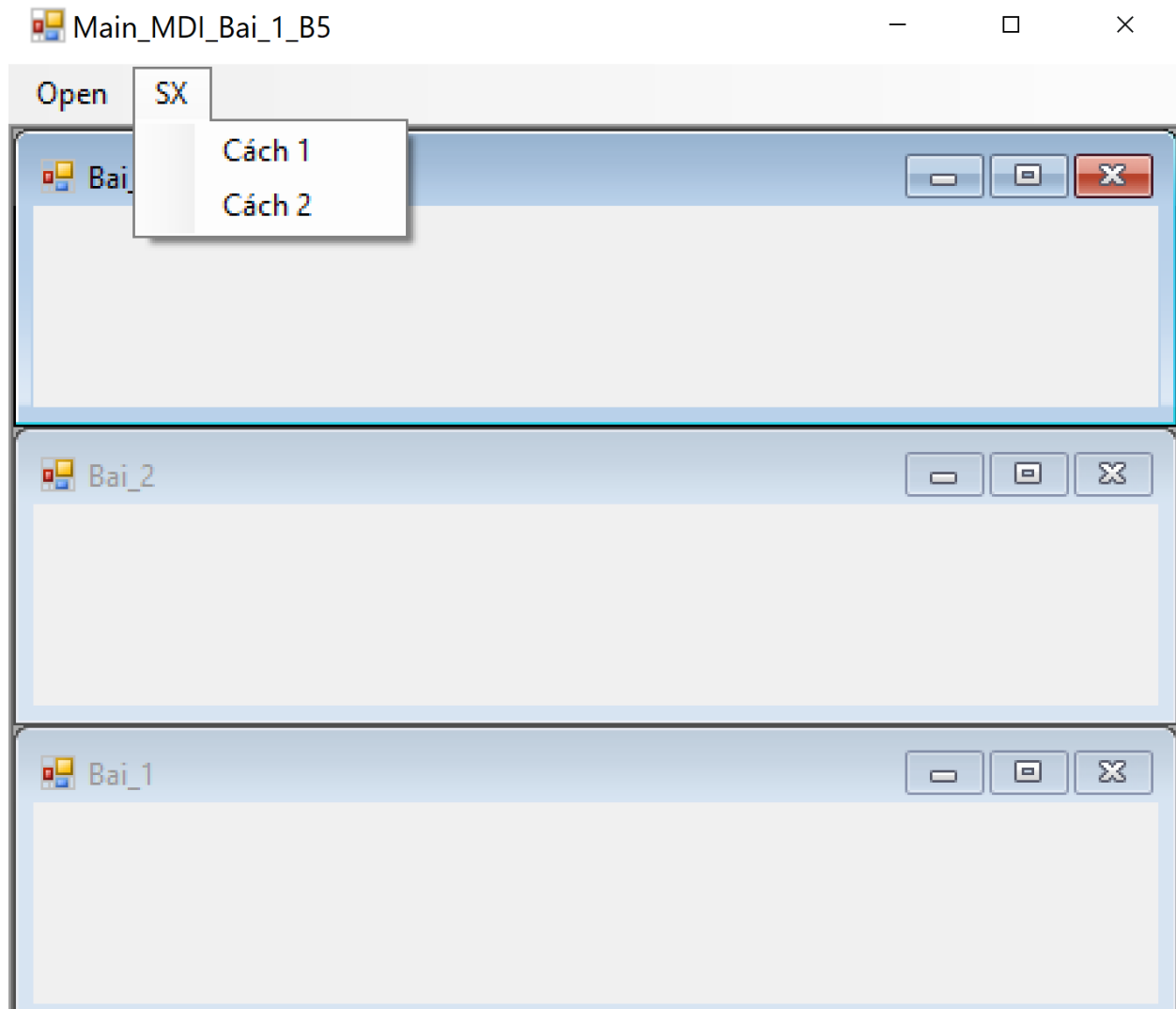
Type Here gõ Open: Bai_1, Bai 2, Gõ - : để phân cách menu (đường kẻ)





B4: Double click Bai 1, gọi





```
private void Open_bai_1_Click(object sender, EventArgs e)
{
    Bai_1 f1 = new Bai_1();
    f1.MdiParent = this;
    f1.Show();
}
```

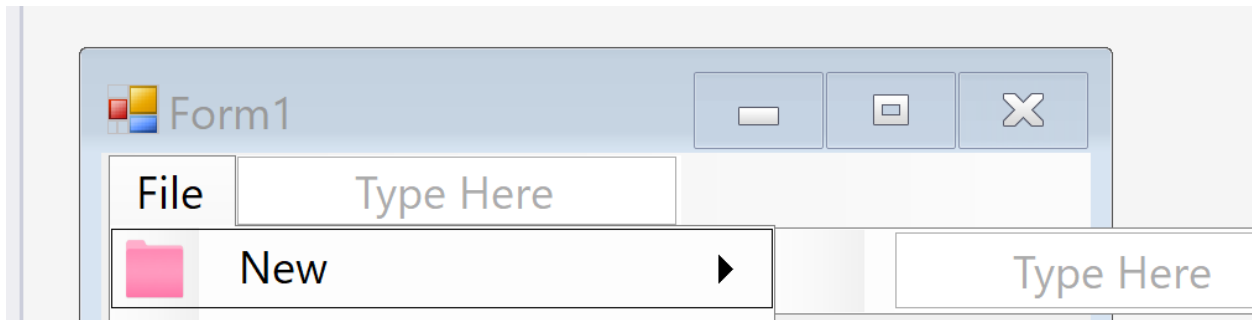
```
private void cách1ToolStripMenuItem_Click(object sender, EventArgs e)
{
    LayoutMdi(MdiLayout.TileVertical);
}
```

Bài 2: Tạo menu, phím tắt, contextmenu

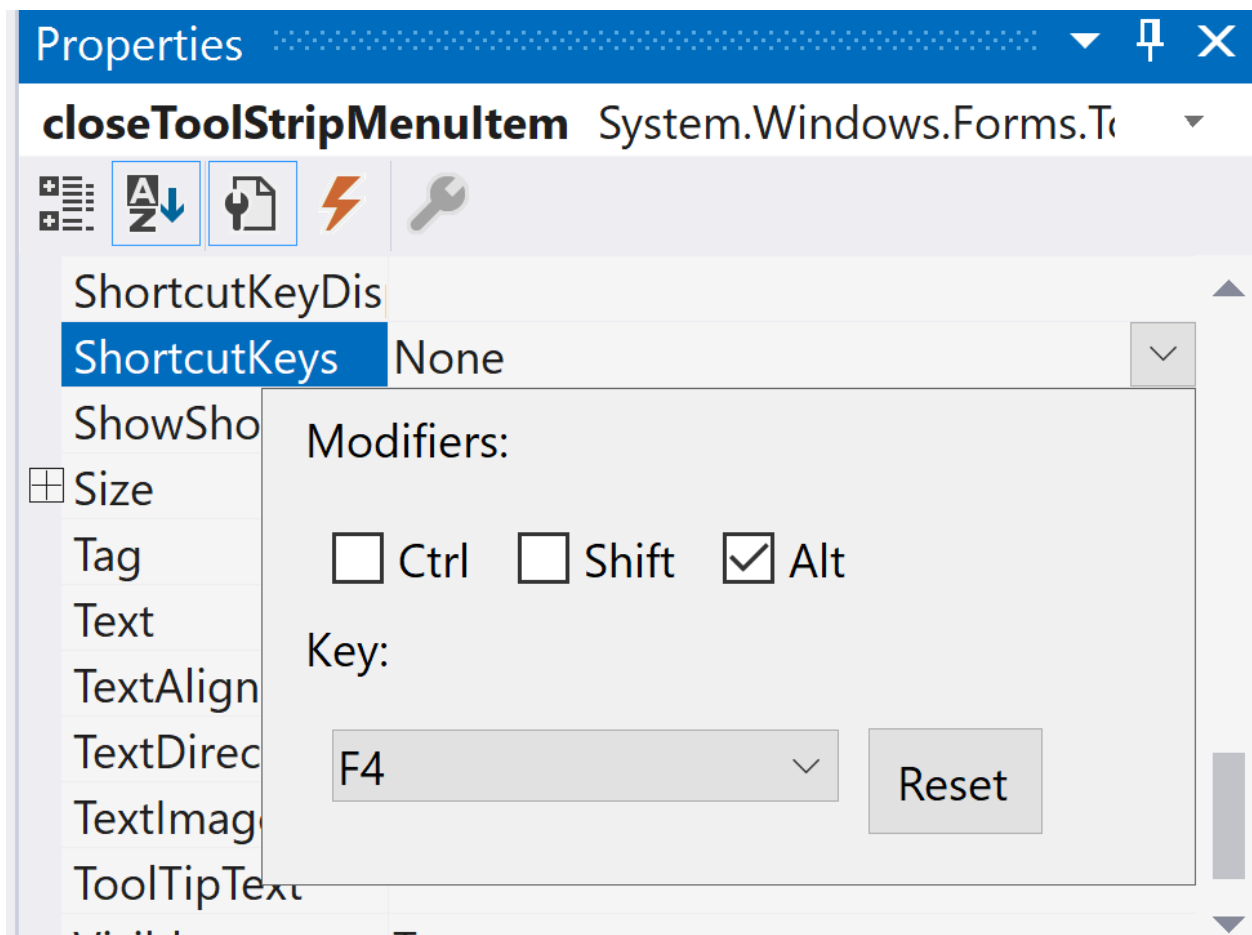
B1: menustrip như bài 1

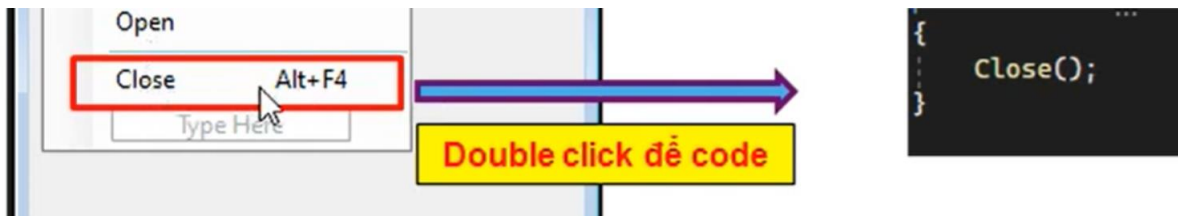
B2: thêm icon phía trước new

Click open

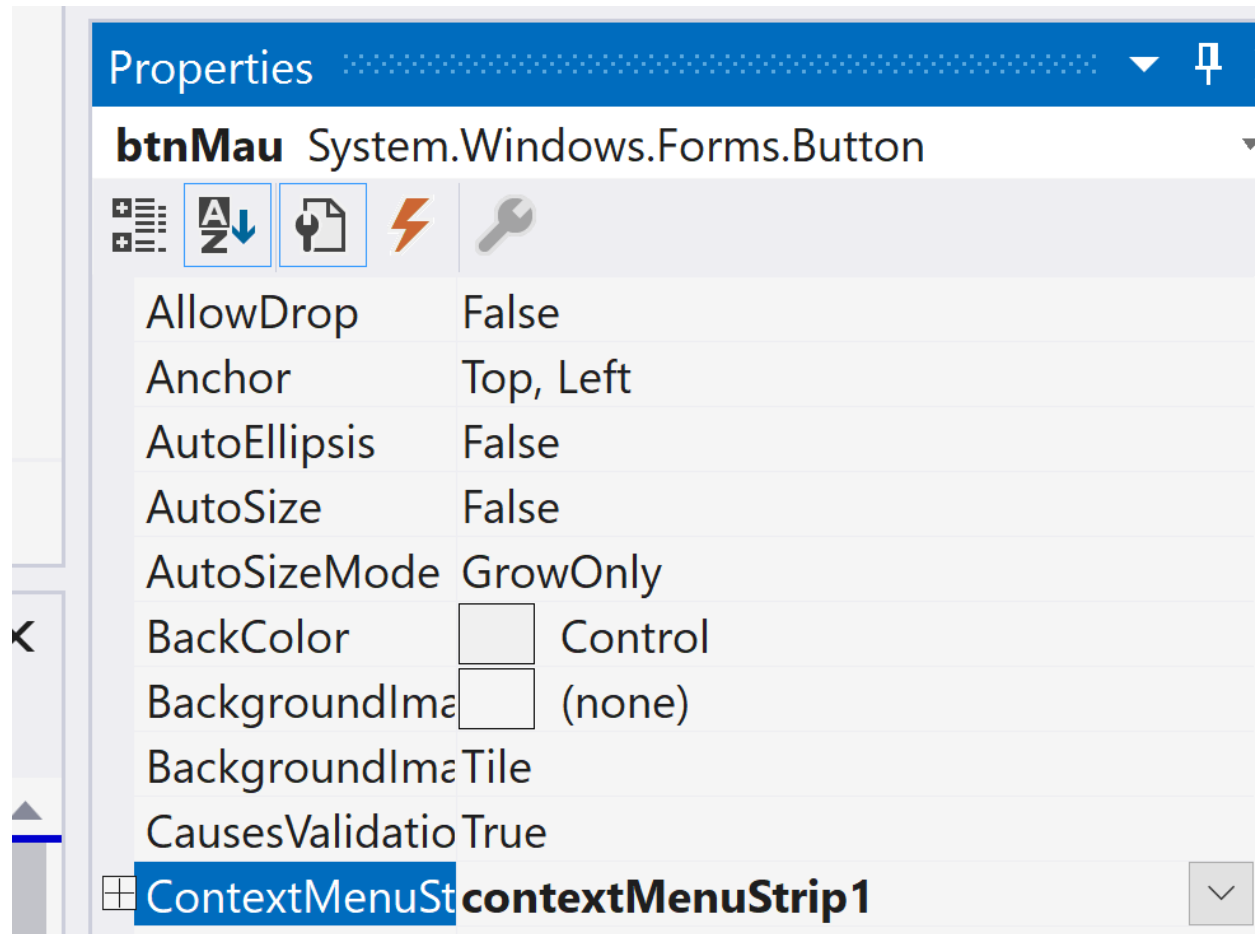


B3: tạo các phím gõ tắt vào menu close

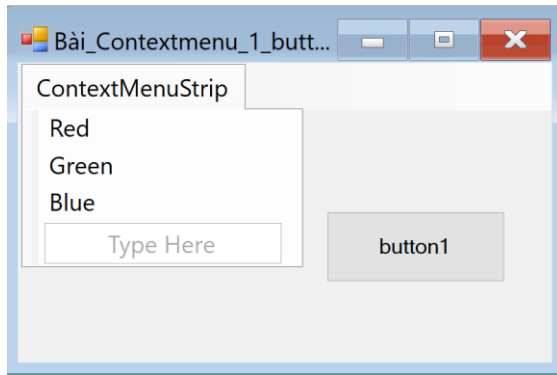




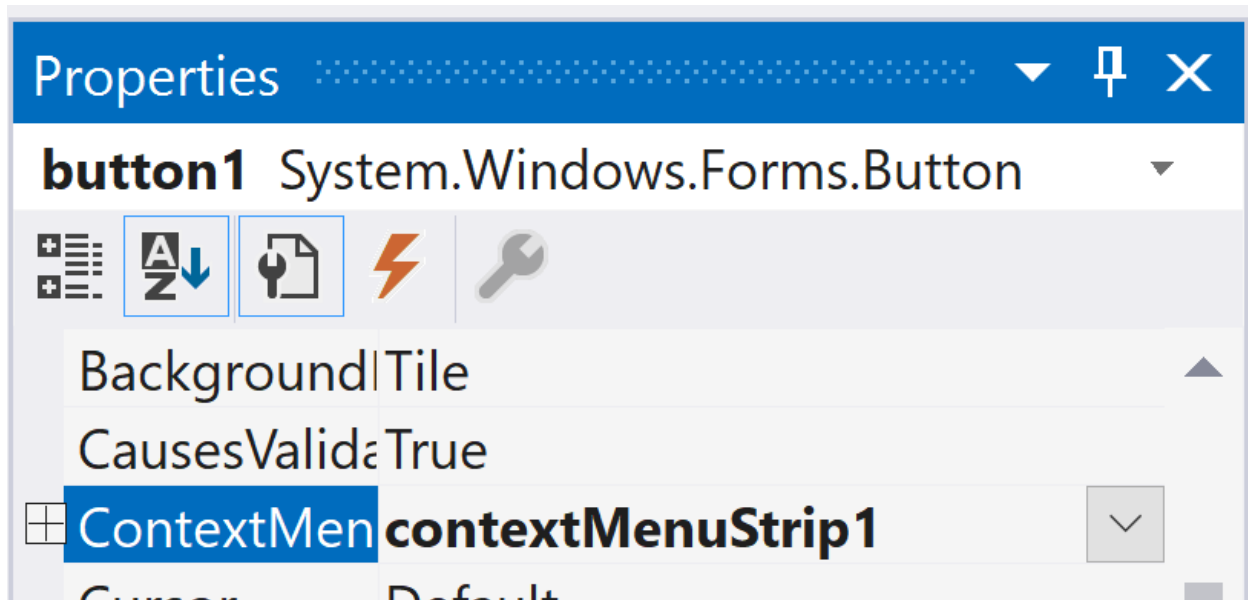
Tạo btnMau trong form open, tạo contextMenuStrip cho button



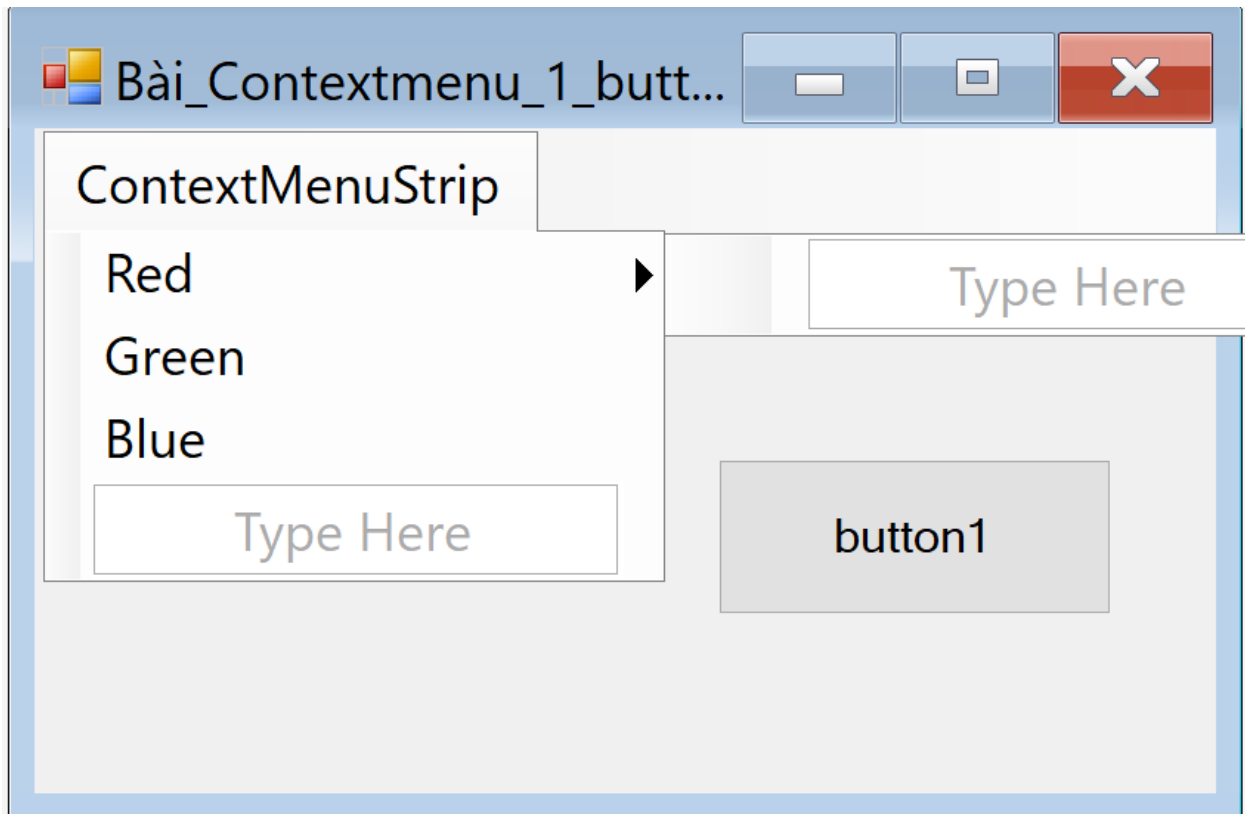
Bài contextmenu, 1 button



Chọn button1, properties



Double lên contextmenu Green

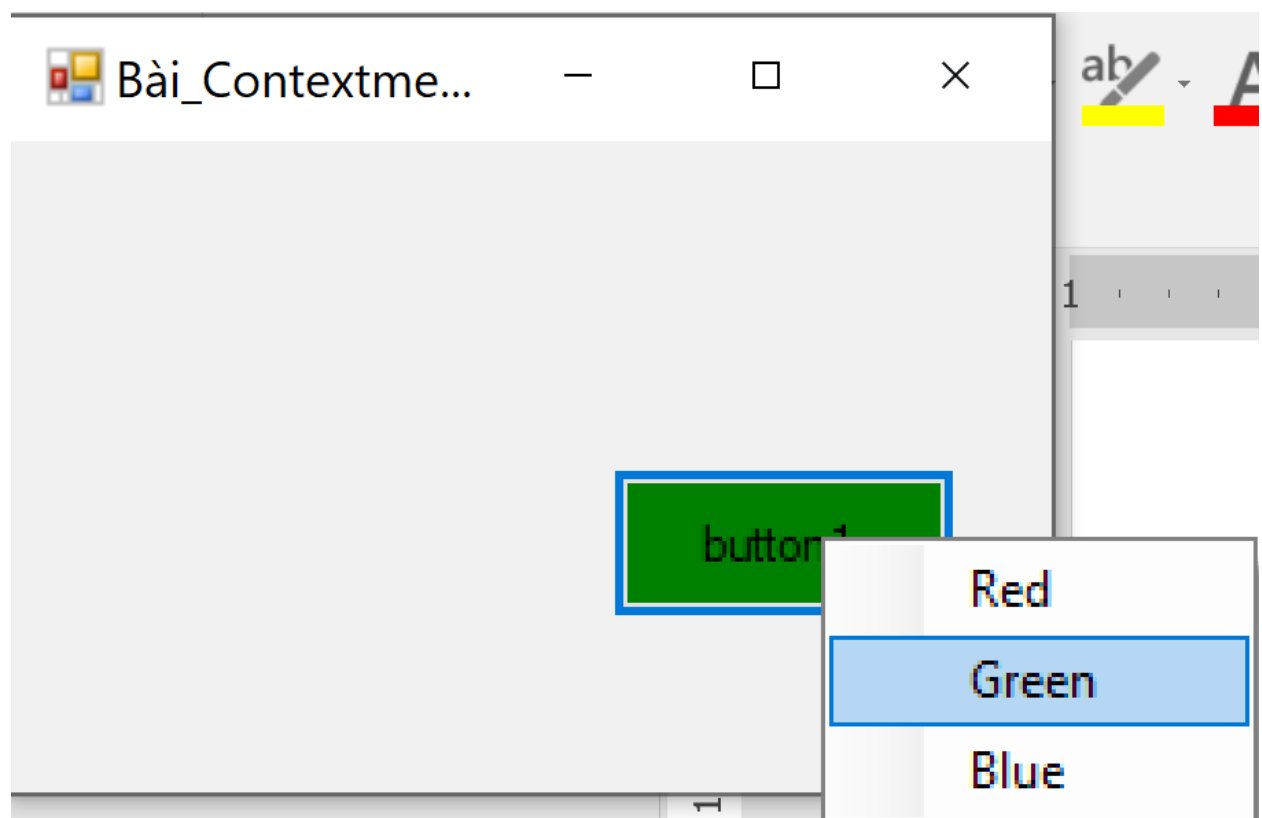
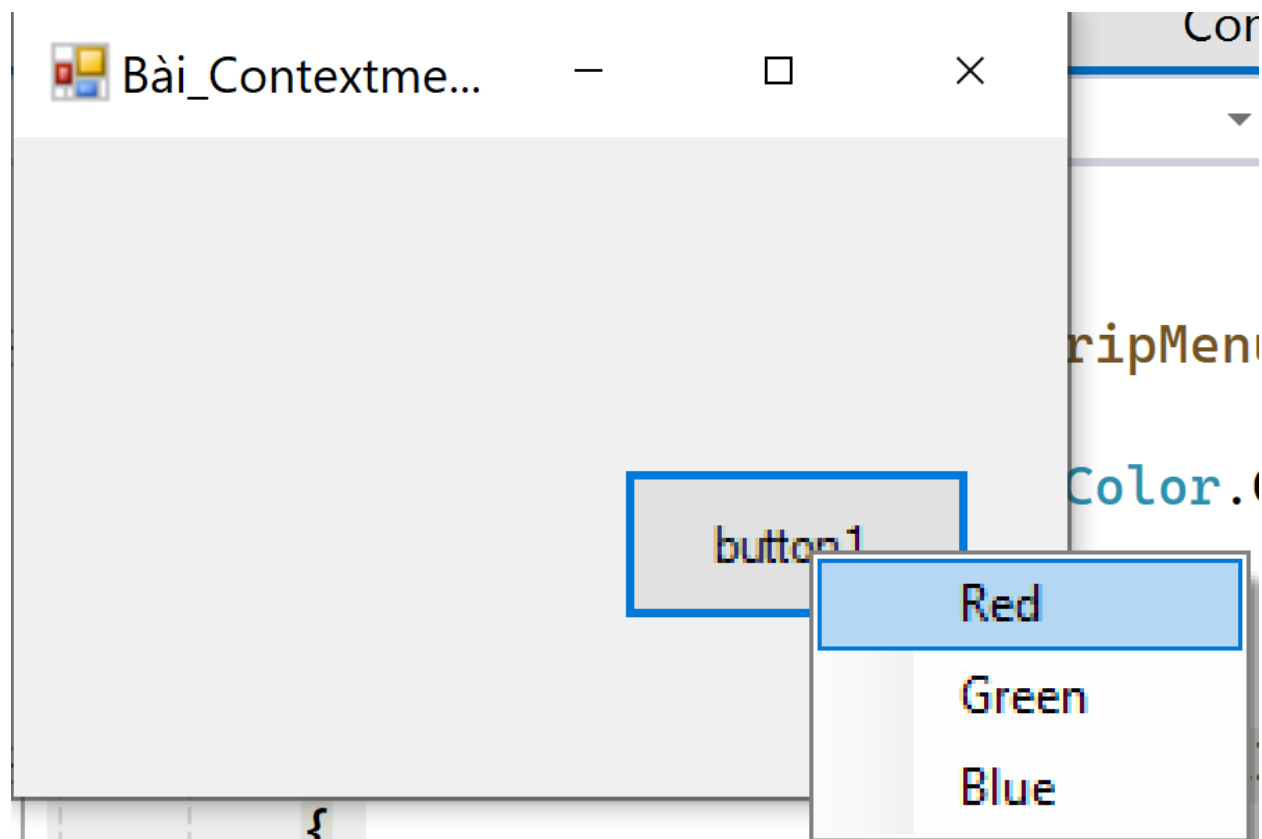


```
private void greenToolStripMenuItem_Click(object sender, EventArgs e)
{
    button1.BackColor = Color.Green;
}

private void greenToolStripMenuItem_Click(object sender, EventArgs e)
{
    button1.BackColor = Color.Green;
}

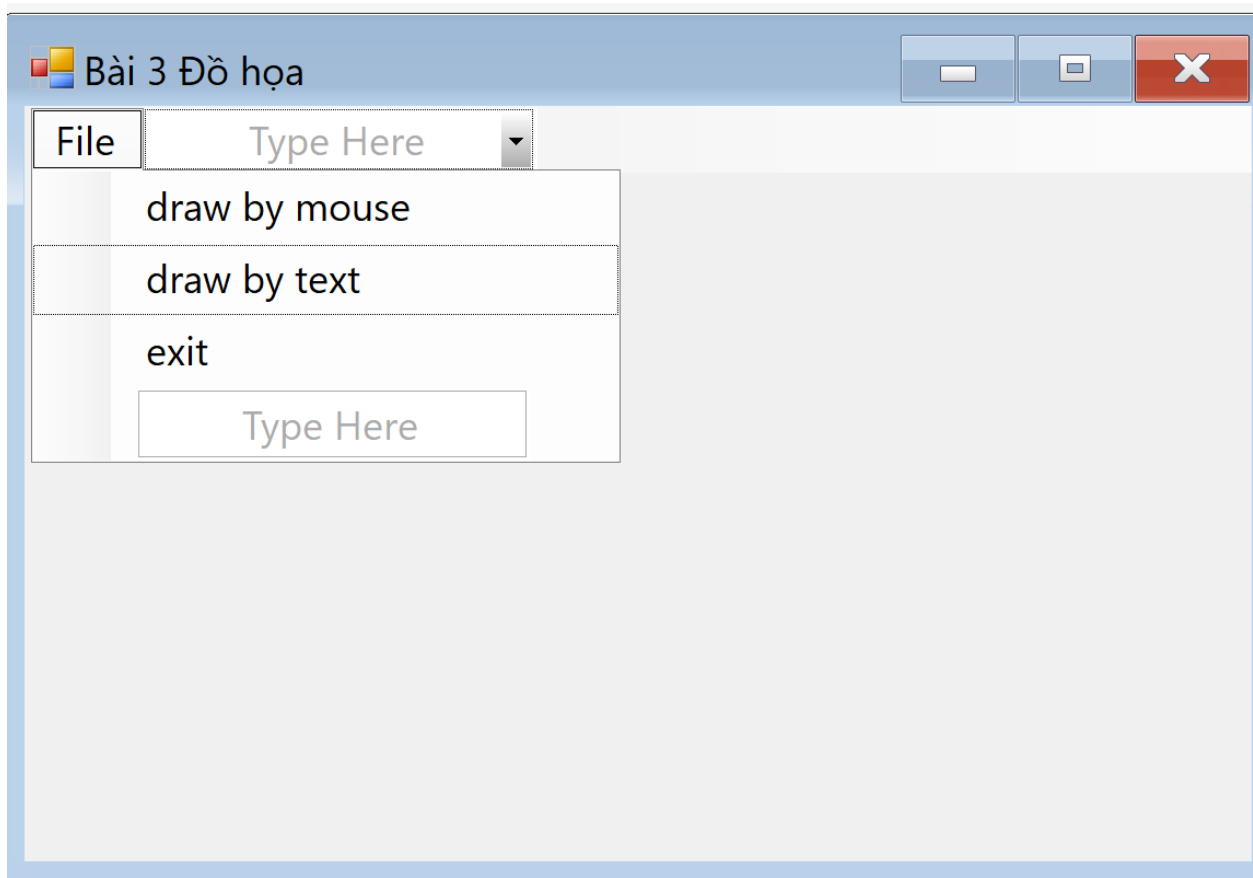
//tương tự cho contextmenu Blue
private void blueToolStripMenuItem_Click(object sender, EventArgs e)
{
    button1.BackColor = Color.Blue;
}
```

Chạy kết quả:

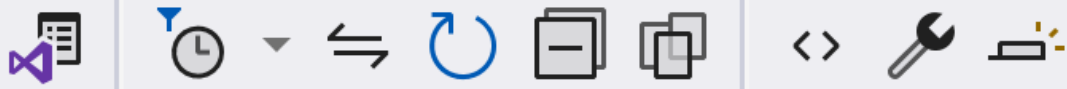


Tương tự khi right-click button red , blue









Bài 3: đồ họa



Solution Explorer



Search Solution Explorer (Ctrl+;)

- ▶  Properties
- ▶  References
-  App.config
- ▶  DrawbyText.cs
- ▶  DrawMouse.cs
- ▲  Form1.cs
 - ▶  Form1.Designer.cs
 -  Form1.resx
- ▶ **C#** Program.cs

```
private void DrawbyText_Paint(object sender, PaintEventArgs e)
{
    Graphics g = e.Graphics;
    string chuoi = "Hello";
    //Cọ
    //cọ có hiệu ứng nền
    HatchBrush hatchBr = new HatchBrush(HatchStyle.DashedHorizontal, Color.Yellow, Color.Red);
    //cọ pha trộn giữa hai màu
    LinearGradientBrush linerGB = new LinearGradientBrush(new Rectangle(10, 10, 10, 10),
        Color.Blue, Color.Yellow, LinearGradientMode.BackwardDiagonal);

    //g.DrawString(chuoi, new Font("Arial", 40), hatchBr, new Point(0, 0));
    //tren
    Font f = new Font("Arial", 40, FontStyle.Bold);
    StringFormat fo = new StringFormat();
    fo.Alignment = StringAlignment.Far;//canh lề phải
    g.DrawString(chuoi, new Font("Arial", 40), Brushes.Green, ClientRectangle, fo);
}
```

➤ This PC ➤ New Volume (D:) ➤ LTGD ➤ c8_dohoa ➤ c8_dohoa ➤ bin ➤ Debug ➤ Anh



anh_3

```
//dưới
//cọ nề là đối tượng ảnh
Image img = Image.FromFile(Application.StartupPath + @"\\Anh\\anh_3.jpg");
TextureBrush textB = new TextureBrush(img);

fo.Alignment = StringAlignment.Near;//canh lề phải
fo.LineAlignment = StringAlignment.Far;//canh lề dưới
g.DrawString(chuoi, new Font("Arial", 40), textB, ClientRectangle, fo);
```



Draw by mouse

```
DrawMouse.cs  DrawbyText.cs [Design]  DrawMouse.cs [Design]  Form1.cs  Form1.cs [Design]
c8_dohoa.DrawMouse  DrawMouse_KeyDown(object sender, EventArgs e)

{
    InitializeComponent();
}

//Độ dày nét vẽ
int penW;
Color color;
Point oldPoint;
Bitmap bmpmem;

1 reference
private void DrawMouse_Load(object sender, EventArgs e)
{
    penW = 1;
    color = Color.Red;
    bmpmem = new Bitmap(ClientRectangle.Width, ClientRectangle.Height, CreateGraphics());
}
```

```
private void DrawMouse_Paint(object sender, PaintEventArgs e)
{
    e.Graphics.DrawImageUnscaled(bmpmem, 10, 10);
}
```

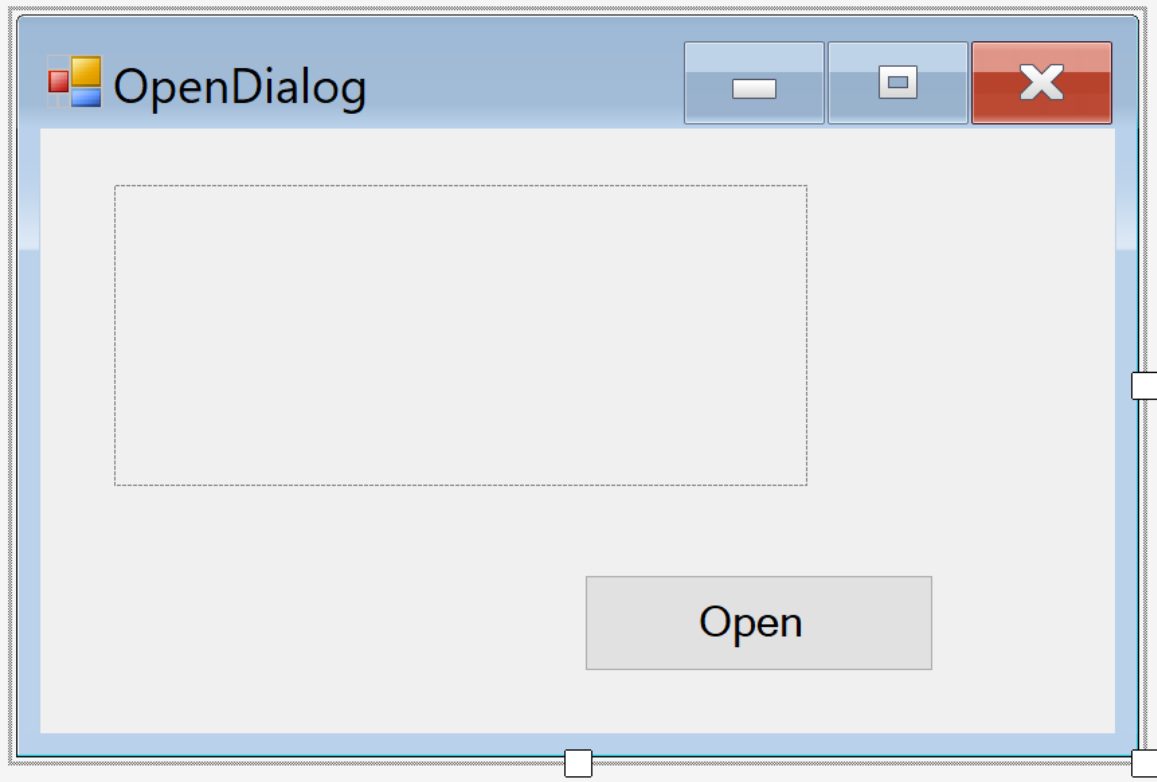
1 reference

```
private void DrawMouse_MouseDown(object sender, MouseEventArgs e)
{
    oldPoint = e.Location;
}
```

```
private void DrawMouse_MouseMove(object sender, MouseEventArgs e)
{
    //nhân chuột trái
    if (e.Button == MouseButtons.Left)
    {
        //đối tượng vẽ, graphic
        Graphics g = Graphics.FromImage(bmpmem);
        Pen pen = new Pen(color, penW);
        pen.DashCap = DashCap.Round;
        pen.EndCap = LineCap.Round;
        pen.StartCap = LineCap.Round;
        g.DrawLine(pen, oldPoint, e.Location);
        oldPoint = e.Location;
        Invalidate(); //ve lại, gọi hàm paint
    }
}
```

```
private void DrawMouse_KeyDown(object sender, KeyEventArgs e)
{
    switch (e.KeyCode)
    {
        case Keys.R: color = Color.Red; break;
        case Keys.G: color = Color.Green; break;
        case Keys.B: color = Color.Blue; break;
        case Keys.Up: penW++; break;
        case Keys.Down: penW--; break;
    }
}
```

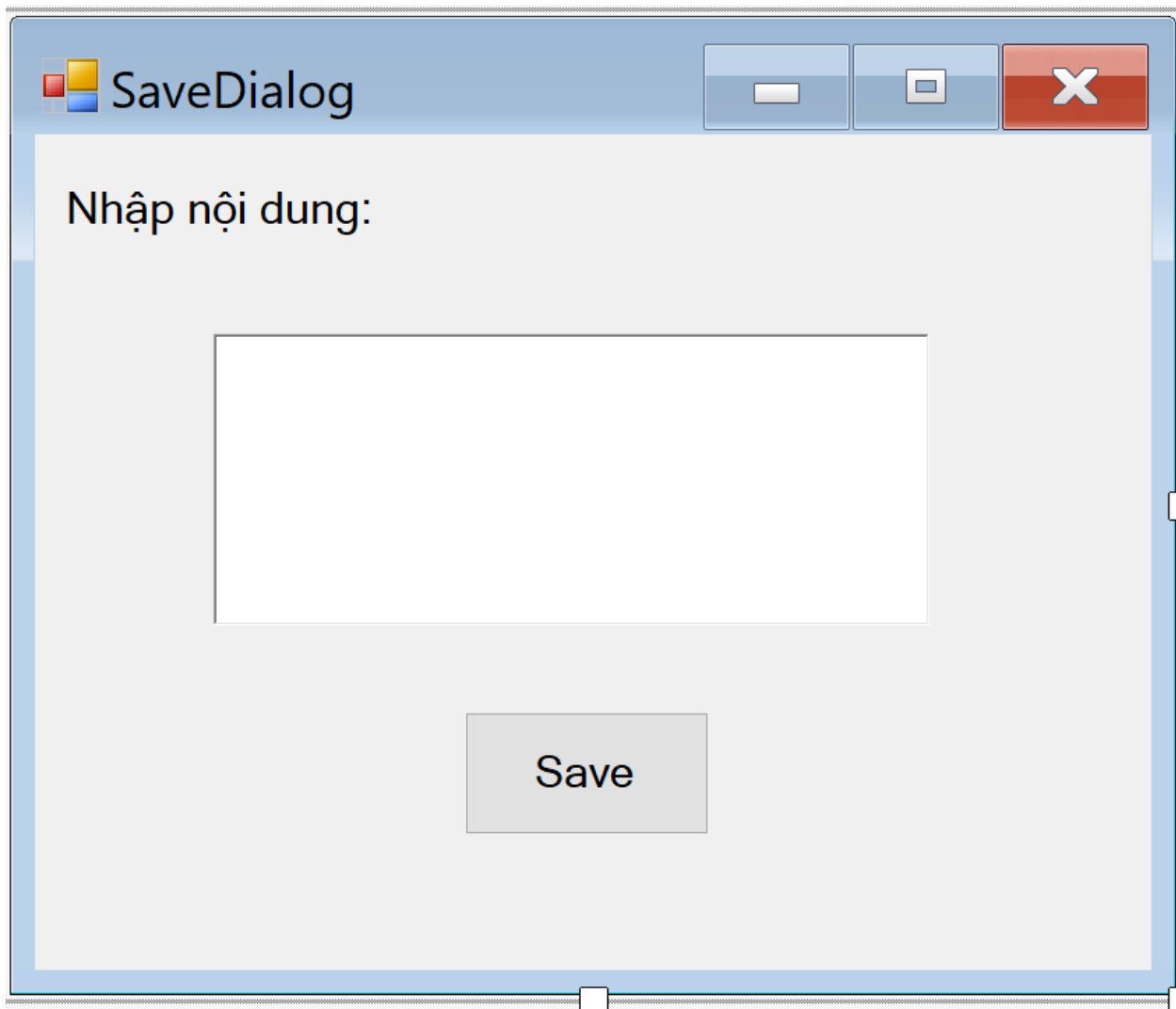
Bài 4: OpenFileDialog và SaveDialog



Mở 1 ảnh, pictureBox

```
private void btnOpen_Click(object sender, EventArgs e)
{
    OpenFileDialog openFileDialog = new OpenFileDialog();
    //set tiêu đề
    openFileDialog.Title = "mở file LTGD ";
    //check dk loc file "File anh|*.jpg;*.png;|All file|*.*";
    openFileDialog.Filter = "File anh|*.jpg;|All file|*.*";
    //check xem nguoi dung da chon file hay chua
    if(openFileDialog.ShowDialog() == DialogResult.OK)
    {
        pictureBox1.Image = Image.FromFile(openFileDialog.FileName);
    }
}
```

SaveDialog



```
private void btnSave_Click(object sender, EventArgs e)
{
    //tieu de
    saveFileDialog1.Title = " day la tieu de lưu nội dung";
    //filter
    saveFileDialog1.Filter = "File text|*.txt |File pdf|*.pdf |All File|*.*";
    if (saveFileDialog1.ShowDialog() == DialogResult.OK)
    {
        File.WriteAllText(saveFileDialog1.FileName, rtxtND.Text);
    }
    else
    {
        MessageBox.Show("Bạn chưa lưu nội dung");
    }
}
```

end