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Error Provider

What is error provider ?

Error provider is a class using which we can validate entire form controls like labels, text boxes, radio buttons, checkboxes.

Example : Person name must be given in form text box if we don't give validator gives error as name must give and also we restrict age must within 10 to 25 only.

PROGRAM

```
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 FormDay35
{
    public partial class Form6 : Form
    {
        private System.Windows.Forms.Label label1;
        private System.Windows.Forms.Label label2;
        private System.Windows.Forms.Label label3;
        private System.Windows.Forms.TextBox nameTextBox1;
        private System.Windows.Forms.NumericUpDown ageUpDownPicker;
        private System.Windows.Forms.ComboBox favoriteColorComboBox;
        private System.Windows.Forms.ErrorProvider ageErrorProvider;
        private System.Windows.Forms.ErrorProvider nameErrorProvider;
        private System.Windows.Forms.ErrorProvider favoriteColorErrorProvider;

        public Form6()
        {
```

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        InitializeComponent();
    }

    private void Form6_Load(object sender, EventArgs e)
    {
        this.label1 = new Label();
        this.label2 = new Label();
        this.label3 = new Label();
        this.nameTextBox1 = new TextBox();
        this.ageUpDownPicker = new NumericUpDown();
        this.favoriteColorComboBox = new ComboBox();

        // Name Label
        this.label1.Location = new Point(56, 32);
        this.label1.Size = new Size(40, 23);
        this.label1.Text = "Name:";

        // Age Label
        this.label2.Location = new Point(40, 64);
        this.label2.Size = new Size(56, 23);
        this.label2.Text = "Age (10-25)";

        // Favorite Color Label
        this.label3.Location = new Point(24, 96);
        this.label3.Size = new Size(80, 24);
        this.label3.Text = "Favorite color";

        // Name TextBox
        this.nameTextBox1.Location = new Point(112, 32);
        this.nameTextBox1.Size = new Size(120, 20);
        this.nameTextBox1.TabIndex = 0;
        this.nameTextBox1.Validated += new
System.EventHandler(this.nameTextBox1_Validated);

        // Age NumericUpDown
        this.ageUpDownPicker.Location = new Point(112, 64);
        this.ageUpDownPicker.Maximum = new System.Decimal(new int[] { 100, 0, 0, 0
});
        this.ageUpDownPicker.TabIndex = 4;
        this.ageUpDownPicker.Validated += new
System.EventHandler(this.ageUpDownPicker_Validated);

        // Favorite Color ComboBox
        this.favoriteColorComboBox.Items.AddRange(new object[]
{"None", "Red", "Yellow",
"Green", "Blue", "Purple"});
        this.favoriteColorComboBox.Location = new Point(112, 96);
        this.favoriteColorComboBox.Size = new Size(120, 21);
        this.favoriteColorComboBox.TabIndex = 5;
        this.favoriteColorComboBox.Validated += new
System.EventHandler(this.favoriteColorComboBox_Validated);

        // Set up how the form should be displayed and add the controls to the form.
        this.ClientSize = new Size(464, 250);
    }

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        this.Controls.AddRange(new Control[] {
            this.label3,
            this.favoriteColorComboBox, this.ageUpDownPicker,
            this.label2, this.label1, this.nameTextBox1});
        this.Text = "Error Provider Example";

        // Create and set the ErrorProvider for each data entry control.

        nameErrorProvider = new ErrorProvider();
        nameErrorProvider.SetIconAlignment(this.nameTextBox1,
ErrorIconAlignment.MiddleRight);
        nameErrorProvider.SetIconPadding(this.nameTextBox1, 2);
        nameErrorProvider.BlinkRate = 1000;
        nameErrorProvider.BlinkStyle = ErrorBlinkStyle.AlwaysBlink;

        ageErrorProvider = new ErrorProvider();
        ageErrorProvider.SetIconAlignment(this.ageUpDownPicker,
ErrorIconAlignment.MiddleRight);
        ageErrorProvider.SetIconPadding(this.ageUpDownPicker, 2);
        ageErrorProvider.BlinkStyle = ErrorBlinkStyle.BlinkIfDifferentError;

        favoriteColorErrorProvider = new ErrorProvider();
        favoriteColorErrorProvider.SetIconAlignment(this.favoriteColorComboBox,
ErrorIconAlignment.MiddleRight);
        favoriteColorErrorProvider.SetIconPadding(this.favoriteColorComboBox, 2);
        favoriteColorErrorProvider.BlinkRate = 1000;
        favoriteColorErrorProvider.BlinkStyle = ErrorBlinkStyle.NeverBlink;

    }
    private void nameTextBox1_Validated(object sender, System.EventArgs e)
    {
        if (IsNameValid())
        {
            // Clear the error, if any, in the error provider.
            nameErrorProvider.SetError(this.nameTextBox1, String.Empty);
        }
        else
        {
            // Set the error if the name is not valid.
            nameErrorProvider.SetError(this.nameTextBox1, "Name is required.");
        }
    }

    private void ageUpDownPicker_Validated(object sender, System.EventArgs e)
    {
        if (IsAgeTooYoung())
        {
            // Set the error if the age is too young.
            ageErrorProvider.SetError(this.ageUpDownPicker, "Age less than 10");
        }
        else if (IsAgeTooOld())
        {
            // Set the error if the age is too old.
            ageErrorProvider.SetError(this.ageUpDownPicker, "Age more than 25");
        }
        else
        {

```

```

        // Clear the error, if any, in the error provider.
        ageErrorProvider.SetError(this.ageUpDownPicker, String.Empty);
    }
}

private void favoriteColorComboBox_Validated(object sender, System.EventArgs e)
{
    if (!IsColorValid())
    {
        // Set the error if the favorite color is not valid.
        favoriteColorErrorProvider.SetError(this.favoriteColorComboBox, "Must
select a color.");
    }
    else
    {
        // Clear the error, if any, in the error provider.
        favoriteColorErrorProvider.SetError(this.favoriteColorComboBox,
String.Empty);
    }
}

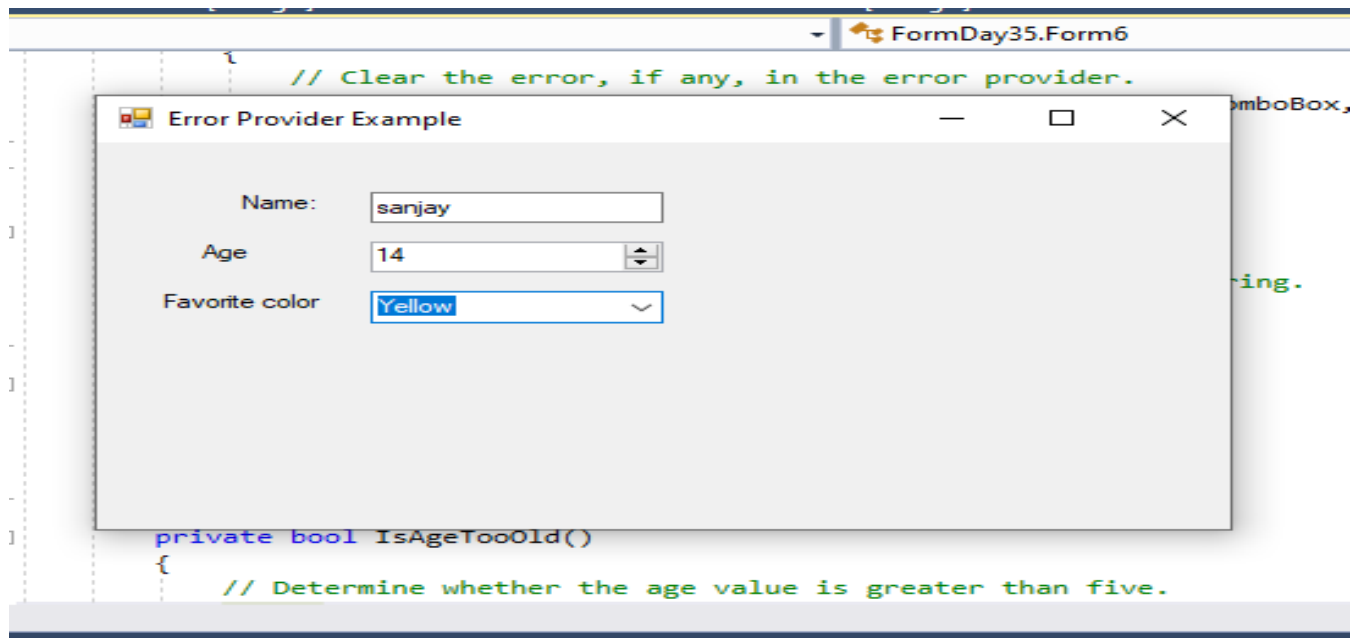
// Functions to verify data.
private bool IsNameValid()
{
    // Determine whether the text box contains a zero-length string.
    return (nameTextBox1.Text.Length > 0);
}

private bool IsAgeTooYoung()
{
    // Determine whether the age value is less than three.
    return (ageUpDownPicker.Value < 10);
}

private bool IsAgeTooOld()
{
    // Determine whether the age value is greater than five.
    return (ageUpDownPicker.Value > 25);
}

private bool IsColorValid()
{
    // Determine whether the favorite color has a valid value.
    return ((favoriteColorComboBox.SelectedItem != null) &&
(!favoriteColorComboBox.SelectedItem.ToString().Equals("None")));
}
}
}

```



WITH ERRORS :

