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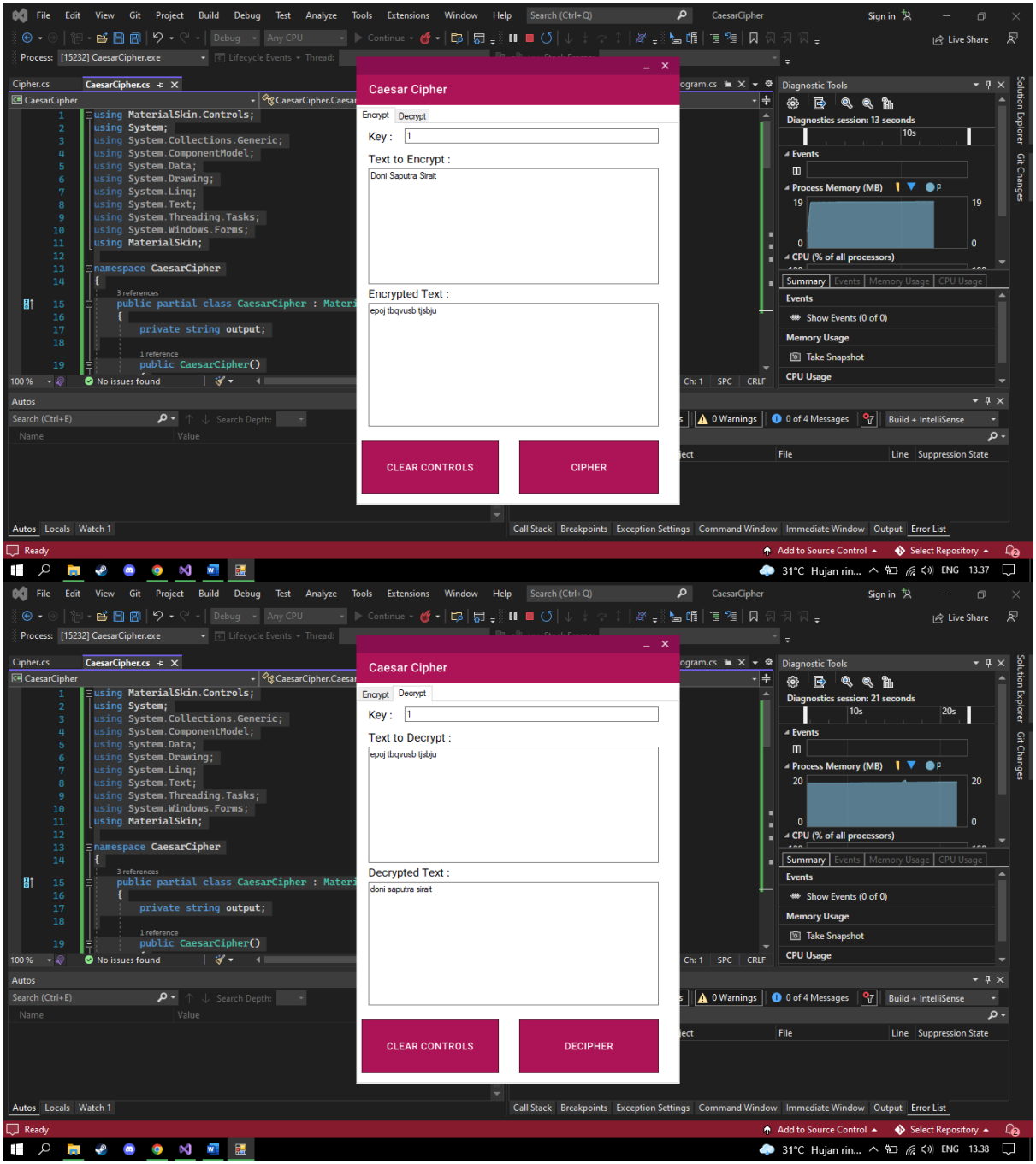
Caesar Cipher

```
using MaterialSkin.Controls;
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 MaterialSkin;

namespace CaesarCipher
{
    public partial class CaesarCipher : MaterialForm
    {
        private string output;

        public CaesarCipher()
        {
            InitializeComponent();
            var materialSkinManager = MaterialSkinManager.Instance;
            materialSkinManager.AddFormToManage(this);
            materialSkinManager.Theme = MaterialSkinManager.Themes.LIGHT;
            materialSkinManager.ColorScheme = new ColorScheme(Primary.Pink800,
Primary.Pink900,
            Primary.Pink500, Accent.LightBlue200, TextShade.WHITE);
            ClearControlsEncrypt();
            ClearControlsDecrypt();

        }

        public void ClearControlsEncrypt()
        {

            txtEncryptedText.Text = "";
            txtKeyToEncrypt.Text = "";
            txtToEncrypt.Text = "";
        }

        public void ClearControlsDecrypt()
        {
            txtDecryptedText.Text = "";
            txtKeyToDecrypt.Text = "";
            txtTextToDecrypt.Text = "";
        }

        private void btnClearControls_Click(object sender, EventArgs e)
        {
            ClearControlsEncrypt();
        }

        private void btnClearControlsDecrypt_Click(object sender, EventArgs e)
        {
```

```
            ClearControlsDecrypt();
        }

        private void btnCipher_Click(object sender, EventArgs e)
        {
            if (!string.IsNullOrEmpty(txtKeyToEncrypt.Text) &&
!string.IsNullOrEmpty(txtToEncrypt.Text))
            {
                output = Cipher.Encrypt(txtToEncrypt.Text,
int.Parse(txtKeyToEncrypt.Text));

                txtEncryptedText.Text = output;
            }
        }

        private void btnDecipher_Click(object sender, EventArgs e)
        {
            if (!string.IsNullOrEmpty(txtKeyToDecrypt.Text) &&
!string.IsNullOrEmpty(txtTextToDecrypt.Text))
            {
                output = Cipher.Decrypt(txtTextToDecrypt.Text,
int.Parse(txtKeyToDecrypt.Text));

                txtDecryptedText.Text = output;
            }
        }
    }
}
```

```
using System;

namespace CaesarCipher
{
    public class Cipher
    {

        public static string Encrypt(string textToEncrypt, int key)
        {
            if (textToEncrypt.Length == 0) return String.Empty;

            char chr = textToEncrypt[0].ToString().ToLower()[0];

            var code = IsBasicLetter(chr) ? (char)(((chr - 'a' + key) % 26) +
'a') : chr;
            return code + Encrypt(textToEncrypt.Substring(1), key);
        }

        public static string Decrypt(string textToDecrypt, int key)
        {
            if (textToDecrypt.Length == 0) return String.Empty;

            char chr = textToDecrypt[0].ToString().ToLower()[0];

            var code = IsBasicLetter(chr) ? (char)('z' - (('z' - chr + key) %
26)) : chr;
            return code + Decrypt(textToDecrypt.Substring(1), key);
        }

        private static bool IsBasicLetter(char c)
        {
            return (c >= 'a' && c <= 'z') || (c >= 'A' && c <= 'Z');
        }

    }
}
```


Caesar Cipher
Encrypt
Decrypt
Key :
1
Text to Encrypt :
Doni Saputra Sirait
Encrypted Text :
epoj tbqvusb tjsbju
CLEAR CONTROLS
CIPHER
Caesar Cipher
Encrypt
Decrypt
Key :
1
Text to Decrypt :
epoj tbqvusb tjsbju
Decrypted Text :
doni saputra sirait
CLEAR CONTROLS
DECIPHER