

Encrypt:

```
– references
public string EncryptCaesar(string plaintext, int key)
{
    string ciphertext = "";
    char charater;
    for (int i = 0; i < plaintext.Length; i++)
    {
        if (plaintext[i].ToString() == " ")
        {
            ciphertext += " ";
        }
        else if (char.IsUpper(plaintext[i]))
        {
            charater = (char)((((int)plaintext[i] + key - 65) % 26 + 65);
            ciphertext += charater;
        }
        else
        {
            charater = (char)((((int)plaintext[i] + key - 97) % 26 + 97);
            ciphertext += charater;
        }
    }
    return ciphertext;
}
```

Decrypt

1 reference

```
public string DecryptCaesar(string ciphertext, int key)
{
    string recovertext = "";
    char character;
    for (int i = 0; i < ciphertext.Length; i++)
    {
        if (ciphertext[i].ToString() == " ")
        {
            recovertext += " ";
        }
        else if (char.IsUpper(ciphertext[i]))
        {
            character = (char)((((int)ciphertext[i] - key - 65 + 26) % 26 + 65);
            recovertext += character;
        }
        else
        {
            character = (char)((((int)ciphertext[i] - key - 97 + 26) % 26 + 97);
            recovertext += character;
        }
    }
    return recovertext;
}
```

Button

1 reference

```
private void button1_Click(object sender, EventArgs e)
{
    try
    {
        int key = int.Parse(textBox1.Text);
        string plaintext = richTextBox1.Text;
        string ciphertext = EncryptCaesar(plaintext, key);
        richTextBox2.Text = "";
        richTextBox2.Text = ciphertext;
    }
    catch (Exception ex)
    {
        MessageBox.Show(ex.Message);
    }
}
```

1 reference

```
private void button2_Click(object sender, EventArgs e)
{
    try
    {
        int key = int.Parse(textBox1.Text);
        string ciphertext = richTextBox2.Text;
        string plaintext = DecryptCaesar(ciphertext, key);
        richTextBox1.Text = "";
        richTextBox1.Text = plaintext;
    }
    catch (Exception ex)
    {
        MessageBox.Show(ex.Message);
    }
}
```

Demo

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Encrypt

Decrypt

Hello World

Mjqqt Btwqi