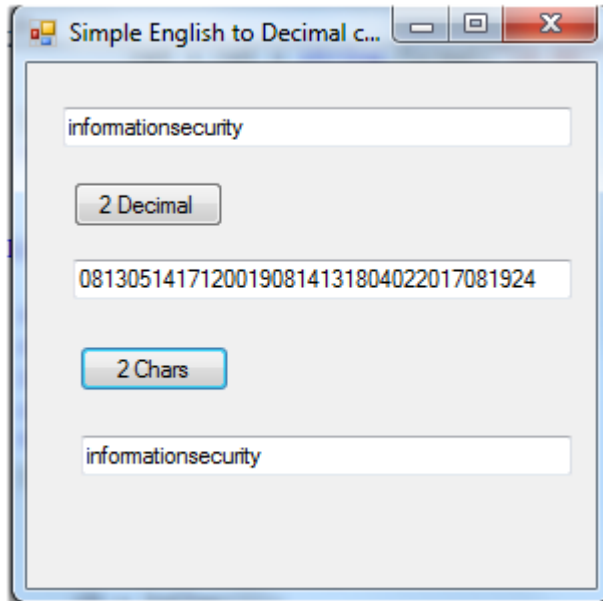


## Information Security Lab 01

### English plain text to decimal numbers converter

#### Interface



```

//*****
//***** CipherLib class*****
//*****

```

```

class CipherLib
{
    public char[] charSpace ={'a','b','c','d','e','f','g','h','i','j',
                              'k','l','m','n','o','p','q','r','s','t',
                              'u','v','w','x','y','z'};

    public int toDec(char ch)
    {
        int ret = -1;
        ch = char.ToLower(ch);
        for (int n = 0; n < charSpace.Length; n++)
        {
            if (charSpace[n] == ch)
            {
                ret = n;
                break;
            }
        }
        return ret;
    }

    public char toChar(int i)
    {
        char ch;
        ch = charSpace[i];
        return ch;
    }
}

```



```
public string formatAndRemoveCharsNotInCharSpace(string str)
{
    string lstr = str.ToLower();
    string ret = "";
    int pos;
    for (int n = 0; n < lstr.Length; n++)
    {
        pos = -1;
        for (int m = 0; m < charSpace.Length; m++)
        {
            if (lstr[n] == charSpace[m]) { pos = n; break; }
        }
        if (pos > -1) ret = ret + lstr[n];
    }
    return ret;
}

public string toDecString(string input)
{
    int i;
    string ret = "";
    char[] chs = input.ToCharArray();
    for (int n = 0; n < chs.Length; n++)
    {
        i = toDec(chs[n]);
        if (i >= 0)
        {
            //ret = ret + string.Format("{0:00}", i);
            if (i < 10)
                ret = ret + "0" + i;
            else
                ret = ret + i;
        }
    }
    return ret;
}

public string toCharsString(string input)
{
    string ret = "";
    char ch;
    int i1, i2, i;
    string st;
    char[] decs = input.ToCharArray();
    for (int n = 0; n < decs.Length; )
    {
        /*i2 = decs[n] - '0';
        i1 = decs[n + 1] - '0';
        i = (i2 * 10) + i1;*/
        st = "" + decs[n] + decs[n + 1];
        i = int.Parse(st);
        ch = toChar(i);
        ret = ret + ch;
        n = n + 2;
    }
    return ret;
}
}}
```



```

//*****//
//***** main form *****//
//*****//

public partial class Form1 : Form
{
    CipherLib c1 = new CipherLib();

    public Form1()
    {
        InitializeComponent();
    }

    private void button1_Click(object sender, EventArgs e)
    {
        textBox1.Text = c1.formatAndRemoveCharsNotInCharSpace(textBox1.Text);
        textBox2.Text=c1.toDecString(textBox1.Text);
    }

    private void button2_Click(object sender, EventArgs e)
    {
        textBox3.Text = c1.toCharsString(textBox2.Text);
    }
}

```