

consuming wcf service in windows and webapps which is self hosted

IMathService.cs

```
using System.ServiceModel;

namespace MathServiceLibrary
{
    [ServiceContract]
    public interface IMathService
    {
        [OperationContract]
        int Add(int num1, int num2);

        [OperationContract]
        int Subtract(int num1, int num2);

        [OperationContract]
        int Multiply(int num1, int num2);
    }
}
```

MathService.cs

```
namespace MathServiceLibrary
{
    public class MathService : IMathService
    {

        public int Add(int num1, int num2)
        {
            return num1 + num2;
        }

        public int Subtract(int num1, int num2)
        {
            int result = 0;
            if (num1 > num2)
            {
                result = num1 - num2;
            }
            else
            {
                result = num2 - num1;
            }
            return result;
        }

        public int Multiply(int num1, int num2)
        {
```

```
        return (num1 * num2);
    }
}
}
```

Program.cs

```
using System;
using System.ServiceModel;

namespace MathServiceHost
{
    class Program
    {
        static void Main(string[] args)
        {
            ServiceHost serviceHost = null;

            try
            {
                serviceHost = new
ServiceHost(typeof(MathServiceLibrary.MathService));
                serviceHost.Open();
                Console.WriteLine("Service is started");
            }
        }
    }
}
```

```

        if (serviceHost != null)
        {
            Console.WriteLine("Press Any Key to
Shutdown the service");
            Console.ReadKey();
            serviceHost.Close();
            serviceHost = null;
        }
    }
    catch (Exception ex)
    {
        serviceHost = null;
        Console.WriteLine("Service can not be started,
Error :" + ex.Message);
        Console.ReadKey();
    }
}
}
}

```

Operation.cs

```

using System;
using System.Windows.Forms;

```

```
namespace MathClient
{
    public partial class Form1 : Form
    {
        MathServiceClient myClient = new
MathServiceClient();
        public Form1()
        {
            InitializeComponent();

        }

        private void btnAdd_Click(object sender, EventArgs
e)
        {

            int firstNumber =
Convert.ToInt32(txtFirstNumber.Text);
            int secondNumber =
Convert.ToInt32(txtSecondNumber.Text);

            int result = myClient.Add(firstNumber,
secondNumber);
            txtResult.Text = result.ToString();
        }
    }
}
```

```
private void btnSubtract_Click(object sender,
EventArgs e)
{
    int firstNumber =
Convert.ToInt32(txtFirstNumber.Text);
    int secondNumber =
Convert.ToInt32(txtSecondNumber.Text);

    int result = myClient.Subtract(firstNumber,
secondNumber);
    txtResult.Text = result.ToString();
}
```

```
private void btnMultiply_Click(object sender,
EventArgs e)
{
    int firstNumber =
Convert.ToInt32(txtFirstNumber.Text);
    int secondNumber =
Convert.ToInt32(txtSecondNumber.Text);

    int result = myClient.Multiply(firstNumber,
secondNumber);
    txtResult.Text = result.ToString();
}
```

```
private void btnReset_Click(object sender,
EventArgs e)
```

```

    {
        txtFirstNumber.Text = "";
        txtSecondNumber.Text = "";
        txtResult.Text = "";
    }
}
}

```

Output



