NP 109112

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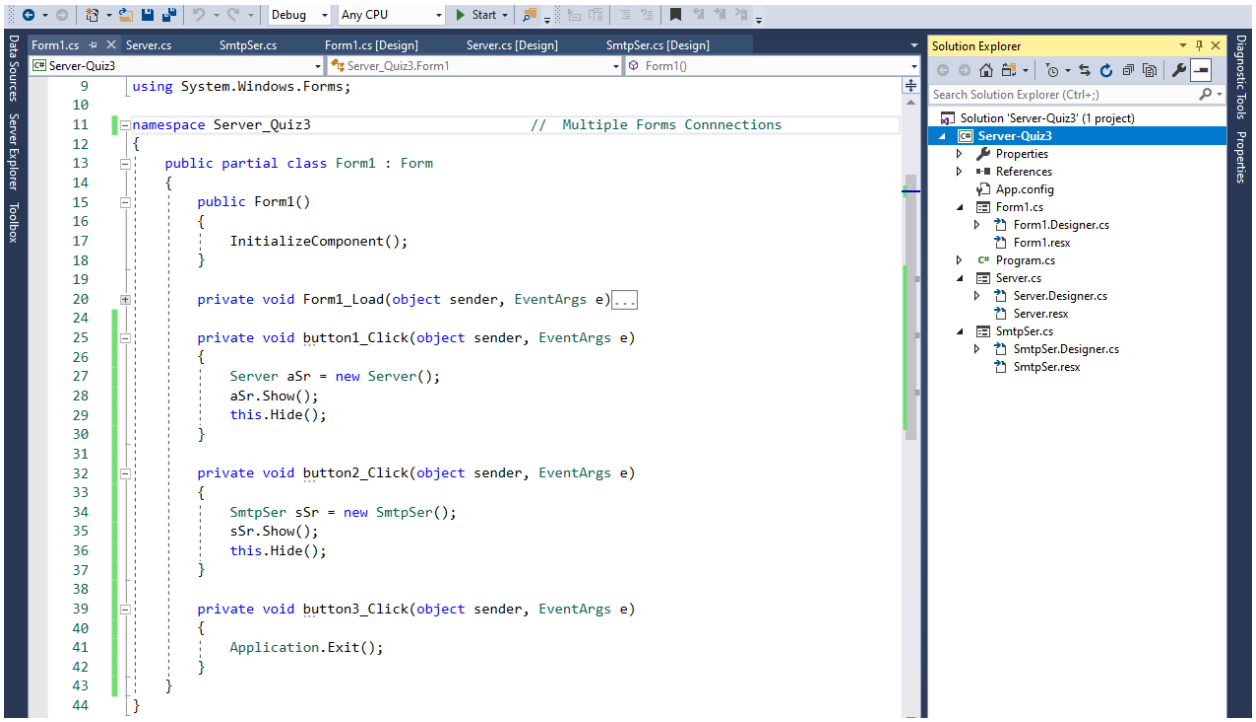
Quiz 3 Date: 21-04-2022

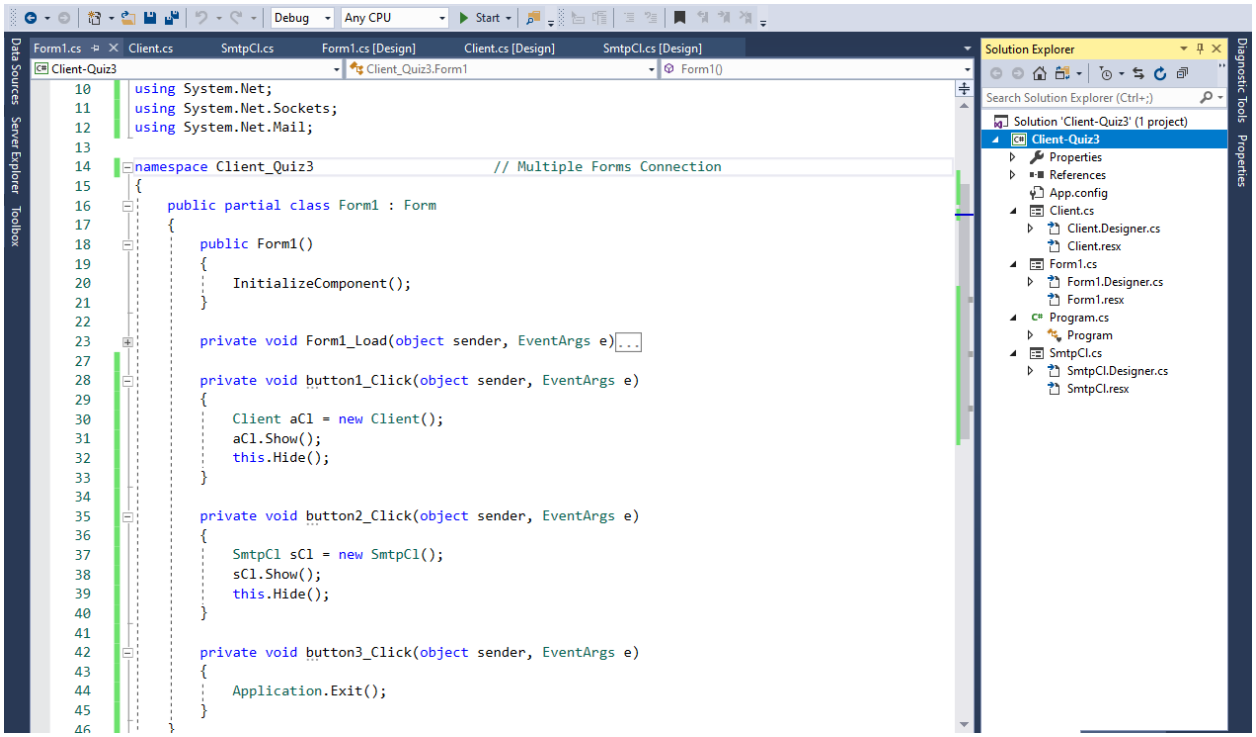
Code SS:

Server:



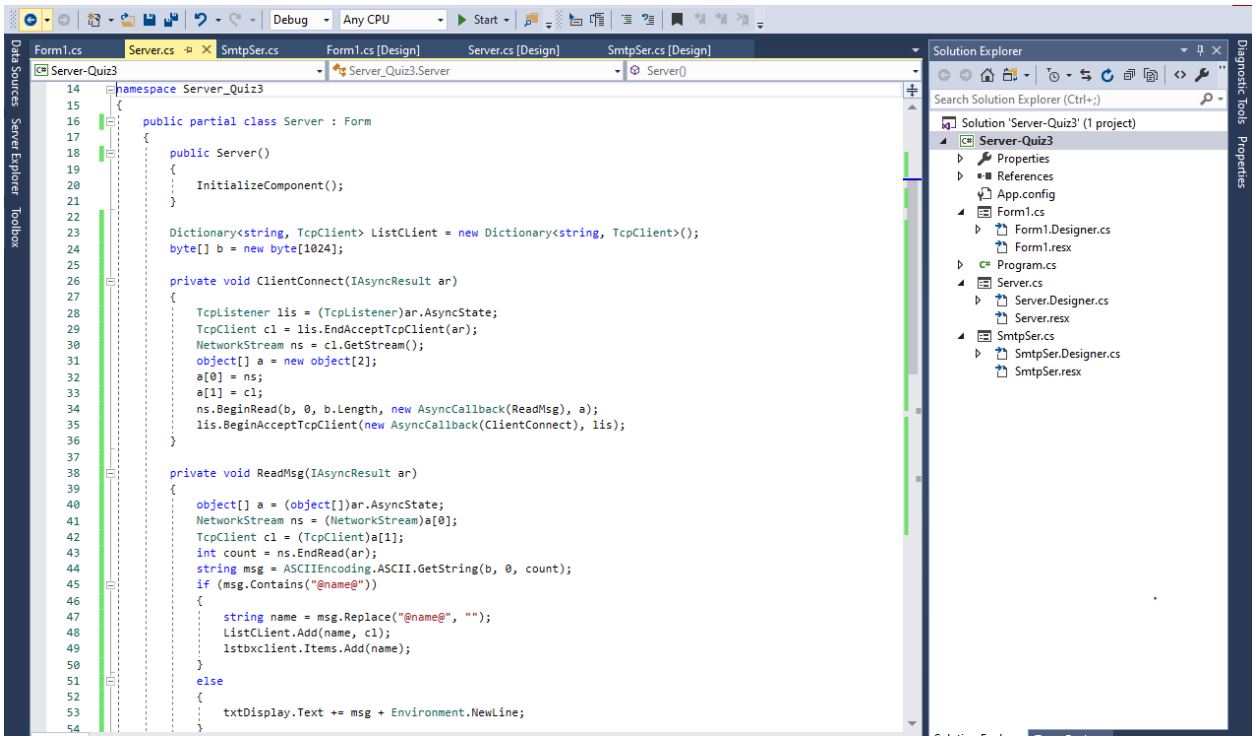
```
using System.Windows.Forms;

namespace Server_Quiz3                          //  Multiple Forms Connnections
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void Form1_Load(object sender, EventArgs e)...

        private void button1_Click(object sender, EventArgs e)
        {
            Server aSr = new Server();
            aSr.Show();
            this.Hide();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            SmtpSer sSr = new SmtpSer();
            sSr.Show();
            this.Hide();
        }

        private void button3_Click(object sender, EventArgs e)
        {
            Application.Exit();
        }
    }
}
```

Client



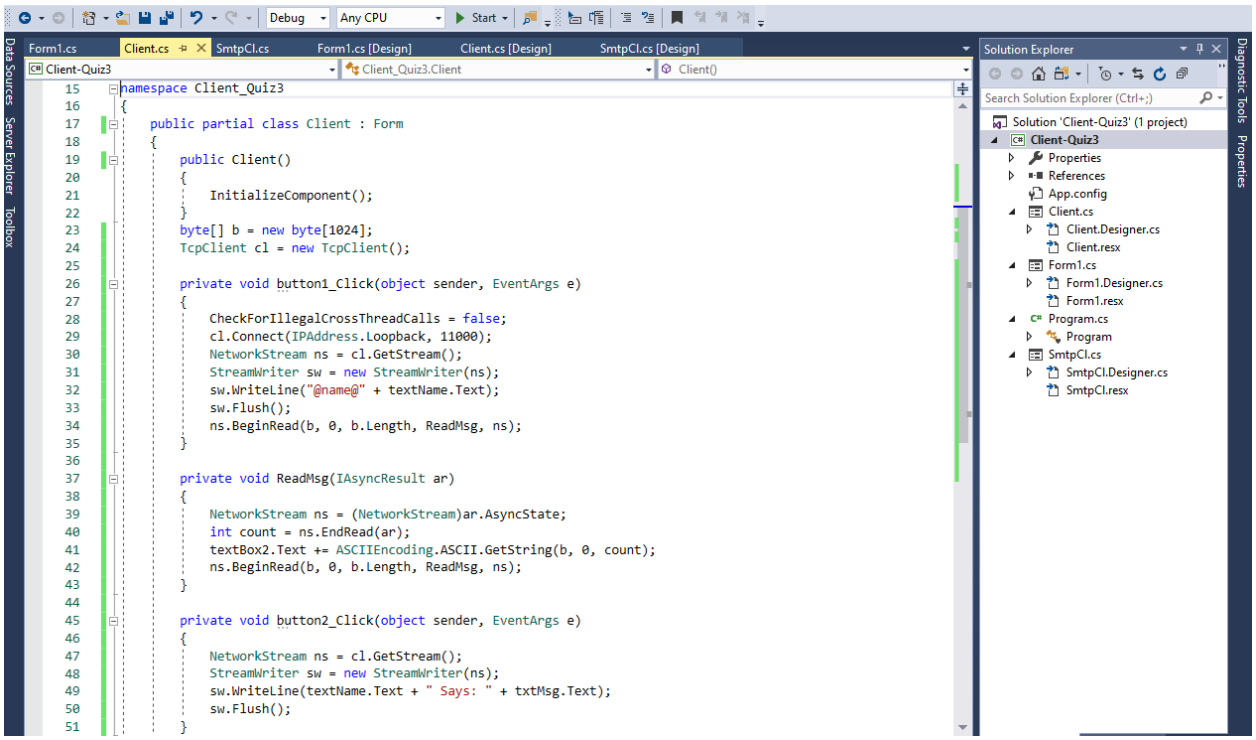
```
using System.Net;
using System.Net.Sockets;
using System.Net.Mail;

namespace Client_Quiz3                          // Multiple Forms Connection
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void Form1_Load(object sender, EventArgs e)...

        private void button1_Click(object sender, EventArgs e)
        {
            Client aCl = new Client();
            aCl.Show();
            this.Hide();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            SmtpCl sCl = new SmtpCl();
            sCl.Show();
            this.Hide();
        }

        private void button3_Click(object sender, EventArgs e)
        {
            Application.Exit();
        }
    }
```

Server Async:



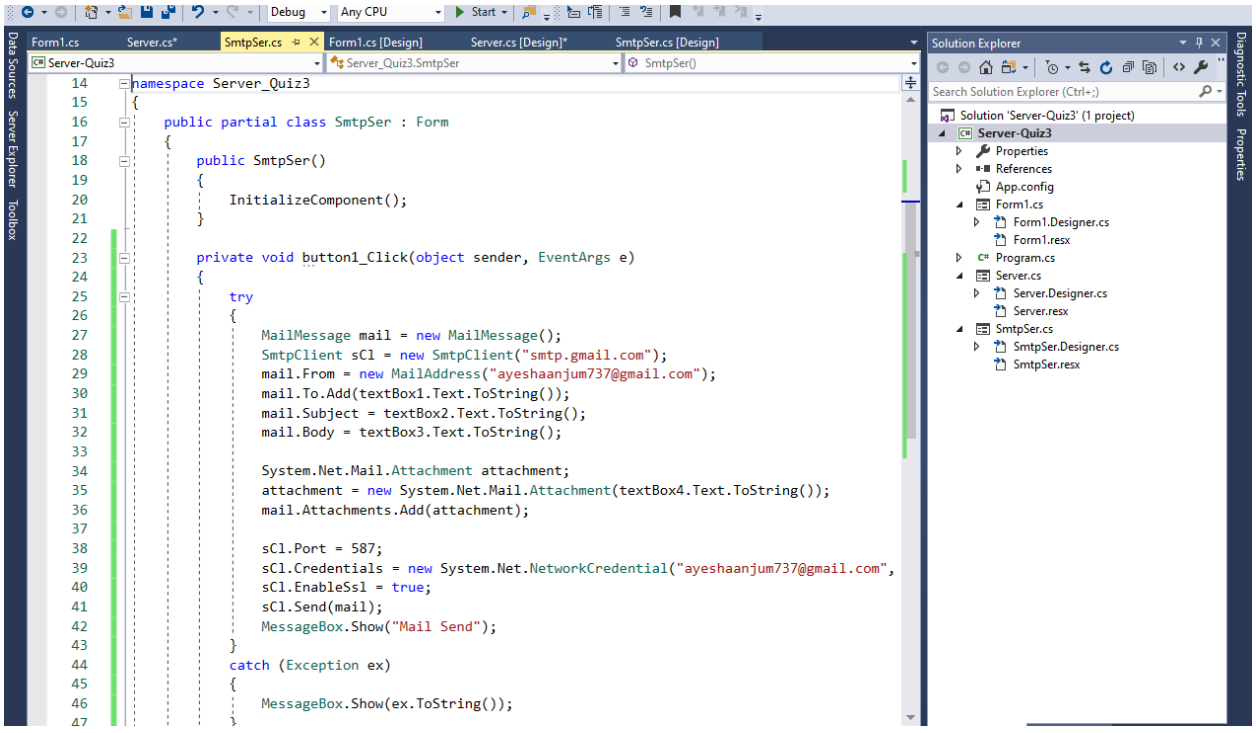
```
namespace Server_Quiz3
{
    public partial class Server : Form
    {
        public Server()
        {
            InitializeComponent();
        }

        Dictionary<string, TcpClient> ListCLient = new Dictionary<string, TcpClient>();
        byte[] b = new byte[1024];

        private void ClientConnect(IAsyncResult ar)
        {
            TcpListener lis = (TcpListener)ar.AsyncState;
            TcpClient cl = lis.EndAcceptTcpClient(ar);
            NetworkStream ns = cl.GetStream();
            object[] a = new object[2];
            a[0] = ns;
            a[1] = cl;
            ns.BeginRead(b, 0, b.Length, new AsyncCallback(ReadMsg), a);
            lis.BeginAcceptTcpClient(new AsyncCallback(ClientConnect), lis);
        }

        private void ReadMsg(IAsyncResult ar)
        {
            object[] a = (object[])ar.AsyncState;
            NetworkStream ns = (NetworkStream)a[0];
            TcpClient cl = (TcpClient)a[1];
            int count = ns.EndRead(ar);
            string msg = ASCIIEncoding.ASCII.GetString(b, 0, count);
            if (msg.Contains("@name@"))
            {
                string name = msg.Replace("@name@", "");
                ListCLient.Add(name, cl);
                lstbxclient.Items.Add(name);
            }
            else
            {
                txtDisplay.Text += msg + Environment.NewLine;
            }
            ns.BeginRead(b, 0, b.Length, new AsyncCallback(ReadMsg), a);
        }

        private void button1_Click(object sender, EventArgs e)
        {
            foreach (var item in ListCLient.Values)
            {
                NetworkStream ns = item.GetStream();
                StreamWriter sw = new StreamWriter(ns);
                string textToSend = "Server Says to all: " + txtMsg.Text;
                txtDisplay.Text = textToSend + Environment.NewLine;
                sw.WriteLine(textToSend);
                sw.Flush();
            }
        }

        private void button2_Click_1(object sender, EventArgs e)
        {
            TcpClient cl = (TcpClient)ListCLient[lstbxclient.SelectedItem.ToString()];
            NetworkStream ns = cl.GetStream();
            StreamWriter sw = new StreamWriter(ns);
            string textToSend = "Server Says: " + txtMsg.Text;
            sw.WriteLine(textToSend);
            txtDisplay.Text += textToSend + Environment.NewLine;
            sw.Flush();
        }
    }
}
```

Client Async:



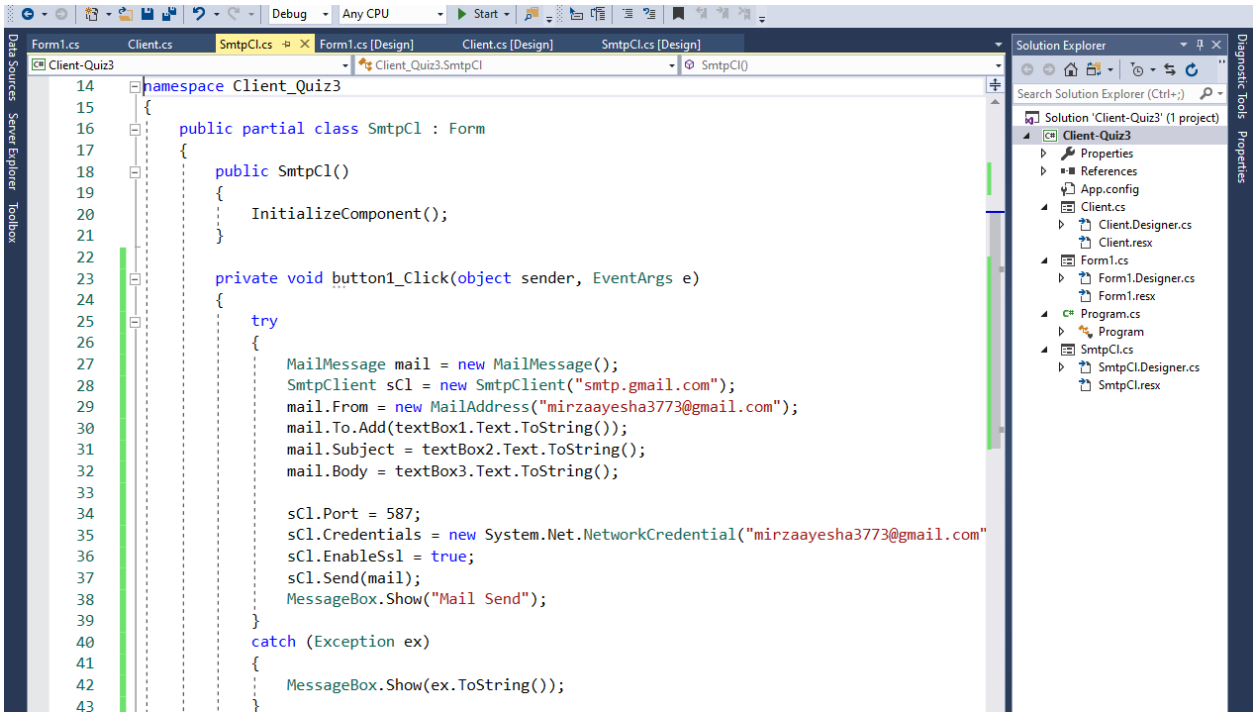
```
namespace Client_Quiz3
{
    public partial class Client : Form
    {
        public Client()
        {
            InitializeComponent();
        }
        byte[] b = new byte[1024];
        TcpClient cl = new TcpClient();

        private void button1_Click(object sender, EventArgs e)
        {
            CheckForIllegalCrossThreadCalls = false;
            cl.Connect(IPAddress.Loopback, 11000);
            NetworkStream ns = cl.GetStream();
            StreamWriter sw = new StreamWriter(ns);
            sw.WriteLine("@name@" + textName.Text);
            sw.Flush();
            ns.BeginRead(b, 0, b.Length, ReadMsg, ns);
        }

        private void ReadMsg(IAsyncResult ar)
        {
            NetworkStream ns = (NetworkStream)ar.AsyncState;
            int count = ns.EndRead(ar);
            textBox2.Text += ASCIIEncoding.ASCII.GetString(b, 0, count);
            ns.BeginRead(b, 0, b.Length, ReadMsg, ns);
        }

        private void button2_Click(object sender, EventArgs e)
        {
            NetworkStream ns = cl.GetStream();
            StreamWriter sw = new StreamWriter(ns);
            sw.WriteLine(textName.Text + " Says: " + txtMsg.Text);
            sw.Flush();
        }
```

Server SMTP:



```
namespace Server_Quiz3
{
    public partial class SmtpSer : Form
    {
        public SmtpSer()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            try
            {
                MailMessage mail = new MailMessage();
                SmtpClient sCl = new SmtpClient("smtp.gmail.com");
                mail.From = new MailAddress("ayeshaanjum737@gmail.com");
                mail.To.Add(textBox1.Text.ToString());
                mail.Subject = textBox2.Text.ToString();
                mail.Body = textBox3.Text.ToString();

                System.Net.Mail.Attachment attachment;
                attachment = new System.Net.Mail.Attachment(textBox4.Text.ToString());
                mail.Attachments.Add(attachment);

                sCl.Port = 587;
                sCl.Credentials = new System.Net.NetworkCredential("ayeshaanjum737@gmail.com",
                sCl.EnableSsl = true;
                sCl.Send(mail);
                MessageBox.Show("Mail Send");
            }
            catch (Exception ex)
            {
                MessageBox.Show(ex.ToString());
```

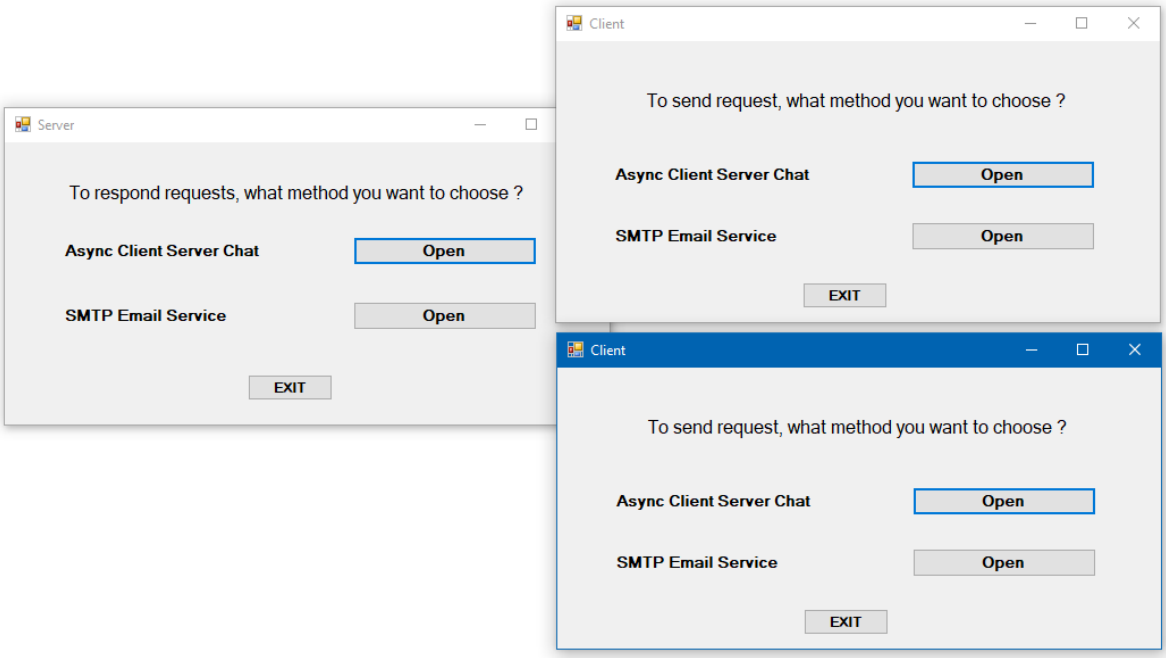
Client SMTP:



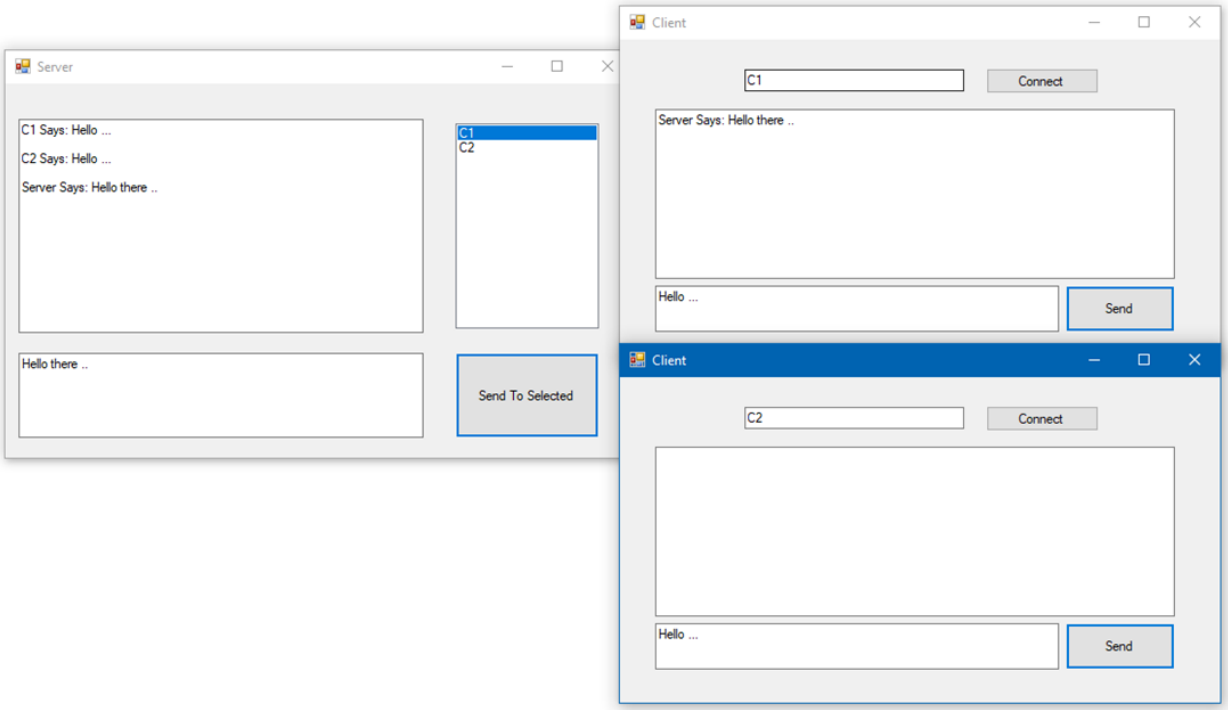
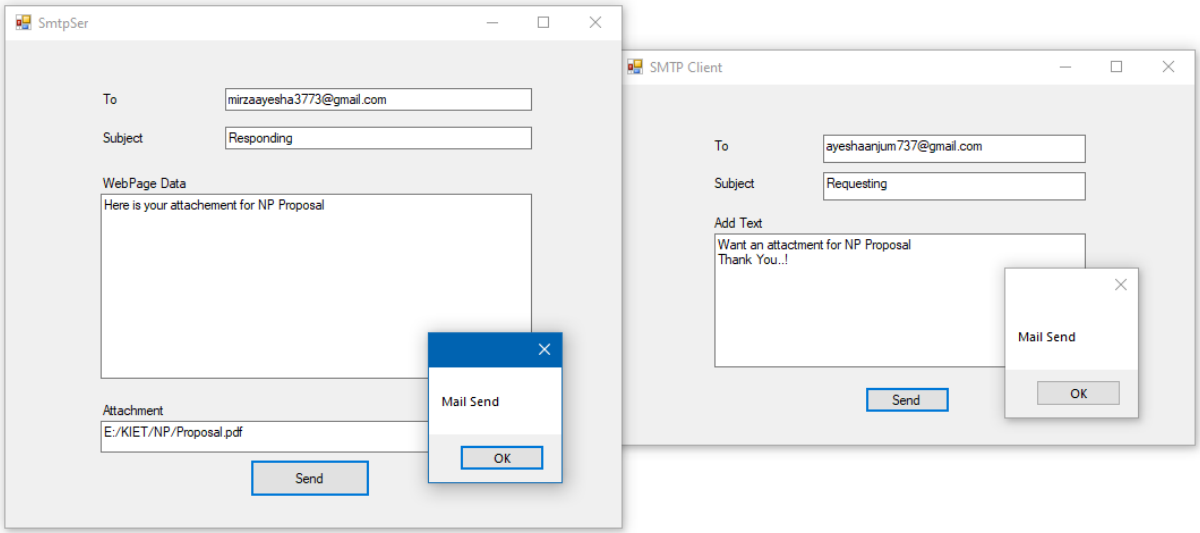
```
namespace Client_Quiz3
{
    public partial class SmtpCl : Form
    {
        public SmtpCl()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            try
            {
                MailMessage mail = new MailMessage();
                SmtpClient sCl = new SmtpClient("smtp.gmail.com");
                mail.From = new MailAddress("mirzaayesha3773@gmail.com");
                mail.To.Add(textBox1.Text.ToString());
                mail.Subject = textBox2.Text.ToString();
                mail.Body = textBox3.Text.ToString();

                sCl.Port = 587;
                sCl.Credentials = new System.Net.NetworkCredential("mirzaayesha3773@gmail.com"
                sCl.EnableSsl = true;
                sCl.Send(mail);
                MessageBox.Show("Mail Send");
            }
            catch (Exception ex)
            {
                MessageBox.Show(ex.ToString());
            }
```

Outputs:

Select Client Server Communication Type



Async Client Server Chat



SMTP Client Server Email Sending