MUHAMMAD OMAR KHAN 10619
QUIZ 3 NETWORK PROGRAMMING

FTP:

FTP is simple file transfer protocol that is used to send file from the devices from the server to the client. It is actually used to transfer files and exchange files from devices and to establish special connection between client and the server. One disadvantage of ftp is that it is not secure and the username and password credentials are send in text form to the client.

SMTP:

SMTP is simple mail transfer protocol by using this we can use the email functionality and send emails from the client to the server and vise versa. We use System.mail library to use smtp in c# socket programming. Different email companies use different protocol but for example smtp is used by Gmail. To send and receive emails and to communicate.

FTP WINFORM:

```
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 System.IO;
using System.Text;
using System.Net;

using System.Net;
namespace WindowsFormsApp7
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }
```

```
        private void textBox1_TextChanged(object sender, EventArgs e)
        {

        }

        private void backgroundWorker1_DoWork(object sender, DoWorkEventArgs
e)
        {
            string fileName = ((FtpSetting)e.Argument).Filename;
            string fullName = ((FtpSetting)e.Argument).Fullname;
            string username = ((FtpSetting)e.Argument).Username;
            string password = ((FtpSetting)e.Argument).Password;
            string server = ((FtpSetting)e.Argument).Server;
            FtpWebRequest request = (FtpWebRequest)WebRequest.Create(new
Uri(string.Format("{0}/{1}", server, fileName)));
            request.Method = WebRequestMethods.Ftp.UploadFile;
            request.Credentials = new NetworkCredential(username, password);
            Stream ftpstream = request.GetRequestStream();
            FileStream fs = File.OpenRead(fullName);
            byte[] buffer = new byte[1024];
            double total = (double)fs.Length;
            int byteRead = 0;
            double read = 0;
            do
            {
                if (!backgroundWorker1.CancellationPending)
                {
                    byteRead = fs.Read(buffer, 0, 1024);
                    ftpstream.Write(buffer, 0, byteRead);
                    read += (double)byteRead;
                    double percentage = read / total * 100;
                    backgroundWorker1.ReportProgress((int)percentage);
                }
            }
            while (byteRead != 0);
            fs.Close();
            ftpstream.Close();

        }
        struct FtpSetting
        {
            public string Server { get; set; }
            public string Username { get; set; }
            public string Password { get; set; }
            public string Filename { get; set; }
            public string Fullname { get; set; }
        }
        FtpSetting _inputParameter;
```

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```
        private void backgroundWorker1_ProgressChanged(object sender,
ProgressChangedEventArgs e)
        {
            label4.Text = $"Upload Completed{e.ProgressPercentage}%";
            progressBar1.Value = e.ProgressPercentage;
            progressBar1.Update();
        }

        private void backgroundWorker1_RunWorkerCompleted(object sender,
RunWorkerCompletedEventArgs e)
        {
            label4.Text = "Upload Completed";
        }

        private void button1_Click(object sender, EventArgs e)
        {
            using (OpenFileDialog ofd= new OpenFileDialog() { Multiselect =
false, ValidateNames = true, Filter = "All files|*.*"})
            {
                if (ofd.ShowDialog() == DialogResult.OK)
                {
                    FileInfo fi = new FileInfo(ofd.FileName);
                    _inputParameter.Username = textBox3.Text;
                    _inputParameter.Password = textBox2.Text;
                    _inputParameter.Server = textBox1.Text;
                    _inputParameter.Filename = fi.Name;
                    _inputParameter.Fullname = fi.FullName;
                }
            }
        }
    }
}
```

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OUTPUT: