

## CHƯƠNG 2: BÀI TẬP 1

```
using System;
using System.Net;
using System.Net.Sockets;
using System.Text;
class SimpleTcpSrvr
{
    public static void Main()
    {
        int recv;
        byte[] data = new byte[1024];
        IPEndPoint ipep = new IPEndPoint(IPAddress.Any,
            9050);
        Socket newsock = new
            Socket(AddressFamily.InterNetwork,
                SocketType.Stream, ProtocolType.Tcp);
        newsock.Bind(ipep);
        newsock.Listen(10);
        Console.WriteLine("Waiting for a client...");
        Socket client = newsock.Accept();
        IPEndPoint clientep =
            (IPEndPoint)client.RemoteEndPoint;
        Console.WriteLine("Connected with {0} at port {1}",
            clientep.Address, clientep.Port);

        string welcome = "Welcome to my test server";
        data = Encoding.ASCII.GetBytes(welcome);
        client.Send(data, data.Length,
            SocketFlags.None);
        while(true)
        {
            data = new byte[1024];
            recv = client.Receive(data);
            if (recv == 0)
                break;

            Console.WriteLine(
                Encoding.ASCII.GetString(data, 0, recv));
            client.Send(data, recv, SocketFlags.None);
        }
        Console.WriteLine("Disconnected from {0}",
            clientep.Address);
        client.Close();
        newsock.Close();
    }
}
```

```
}
```

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```
using System;
using System.Net;
using System.Net.Sockets;
using System.Text;
class SimpleTcpClient
{
    public static void Main()
    {
        byte[] data = new byte[1024];
        string input, stringData;
        IPEndPoint ipep = new IPEndPoint(
            IPAddress.Parse("127.0.0.1"), 9050);
        Socket server = new Socket(AddressFamily.InterNetwork,
            SocketType.Stream, ProtocolType.Tcp);
        try
        {
            server.Connect(ipep);
        } catch (SocketException e)
        {
            Console.WriteLine("Unable to connect to server.");
            Console.WriteLine(e.ToString());
            return;
        }
        int recv = server.Receive(data);
        stringData = Encoding.ASCII.GetString(data, 0, recv);
        Console.WriteLine(stringData);
        while(true)
        {
            input = Console.ReadLine();
            if (input == "exit")
                break;
            server.Send(Encoding.ASCII.GetBytes(input));
            data = new byte[1024];
            recv = server.Receive(data);
            stringData = Encoding.ASCII.GetString(data, 0, recv);
            Console.WriteLine(stringData);
        }
        Console.WriteLine("Disconnecting from server...");
        server.Shutdown(SocketShutdown.Both);
    }
}
```

```
    server.Close();  
}  
}
```