

Chương trình socket TCP đơn giản

Chương trình phía Server:

```
static void Main(string[] args)
{
    Socket listenSocket = new Socket(AddressFamily.InterNetwork,
    SocketType.Stream, ProtocolType.Tcp);
    IPAddress ipadd = IPAddress.Any;
    IPEndPoint ipep = new IPEndPoint(ipadd, 9012);

    byte[] data = new byte[1024];

    listenSocket.Bind(ipep);
    listenSocket.Listen(10);

    Console.WriteLine("Waiting for client connect .....");
    Socket client = listenSocket.Accept();
    Console.WriteLine("Client connected!");
    IPEndPoint clientep = (IPEndPoint)client.RemoteEndPoint;
    Console.WriteLine("Client information: IP address={0}, Port={1}",
    clientep.Address, clientep.Port);

    string welcome = "Welcome connect to Server!";
    data = Encoding.ASCII.GetBytes(welcome);
    client.Send(data, data.Length, SocketFlags.None);

    int rcv;
    while (true)
    {
        data = new byte[1024];
        rcv = client.Receive(data);
        if (rcv == 0)
            break;
        Console.WriteLine(Encoding.ASCII.GetString(data, 0, rcv));
        client.Send(data, rcv, SocketFlags.None);
    }
    client.Close();
    listenSocket.Close();
}
```

Chương trình phía Client:

```
static void Main(string[] args)
{
    Socket server = new Socket(AddressFamily.InterNetwork, SocketType.Stream,
    ProtocolType.Tcp);
    IPEndPoint ipep = new IPEndPoint(IPAddress.Parse("127.0.0.1"), 9012);

    try
    {
        server.Connect(ipep);
    }
    catch (SocketException e)
    {
        Console.WriteLine("Can not connect to Server");
        Console.WriteLine(e.ToString());
    }

    byte[] data = new byte[1024];
    int recv;
    recv = server.Receive(data);
    Console.WriteLine(Encoding.ASCII.GetString(data, 0, recv));

    while (true)
    {
        string input;
        input = Console.ReadLine();
        if (input == "exit")
            break;
        server.Send(Encoding.ASCII.GetBytes(input));

        data = new byte[1024];
        recv = server.Receive(data);
        Console.WriteLine(Encoding.ASCII.GetString(data, 0, recv));
    }
    Console.WriteLine("Disconnecting...");
    server.Shutdown(SocketShutdown.Both);
    server.Close();
}
```