CHƯƠNG 4: BÀI TẬP 3

```
using System;
using System.Net;
using System.Net.Sockets;
using System.Text;
class BinaryUdpSrvr
{
  public static void Main()
  {
   byte[] data = new byte[1024];
   IPEndPoint ipep = new IPEndPoint(IPAddress.Any, 9050);
   UdpClient newsock = new UdpClient(ipep);
   Console.WriteLine("Waiting for a client...");
   IPEndPoint sender = new IPEndPoint(IPAddress.Any, 0);
   data = newsock.Receive(ref sender);
   Console.WriteLine("Message received from {0}:", sender.ToString());
   Console.WriteLine(Encoding.ASCII.GetString(data, 0, data.Length));
   string welcome = "Welcome to my test server";
   data = Encoding.ASCII.GetBytes(welcome);
   newsock.Send(data, data.Length, sender);
   byte[] data1 = newsock.Receive(ref sender);
   int test1 = BitConverter.ToInt32(data1, 0);
   Console.WriteLine("test1 = {0}", test1);
   byte[] data2 = newsock.Receive(ref sender);
   double test2 = BitConverter.ToDouble(data2, 0);
   Console.WriteLine("test2 = {0}", test2);
   byte[] data3 = newsock.Receive(ref sender);
   int test3 = BitConverter.ToInt32(data3, 0);
   Console.WriteLine("test3 = {0}", test3);
   byte[] data4 = newsock.Receive(ref sender);
   bool test4 = BitConverter.ToBoolean(data4, 0);
   Console.WriteLine("test4 = {0}", test4.ToString());
   byte[] data5 = newsock.Receive(ref sender);
   string test5 = Encoding.ASCII.GetString(data5);
   Console.WriteLine("test5 = {0}", test5);
   newsock.Close();
  }
}
```

```
using System;
using System.Net;
using System.Net.Sockets;
using System.Text;
class BinaryUdpClient
{
  public static void Main()
  {
   byte[] data = new byte[1024];
   string stringData;
   UdpClient server = new UdpClient("127.0.0.1", 9050);
   IPEndPoint sender = new IPEndPoint(IPAddress.Any, 0);
```

```
   string welcome = "Hello, are you there?";
   data = Encoding.ASCII.GetBytes(welcome);
   server.Send(data, data.Length);
   data = new byte[1024];
   data = server.Receive(ref sender);
   Console.WriteLine("Message received from {0}:", sender.ToString());
   stringData = Encoding.ASCII.GetString(data, 0, data.Length);
   Console.WriteLine(stringData);

   int test1 = 45;
   double test2 = 3.14159;
   int test3 = -1234567890;
   bool test4 = false;
   string test5 = "This is a test.";
   byte[] data1 = BitConverter.GetBytes(test1);
   server.Send(data1, data1.Length);
   byte[] data2 = BitConverter.GetBytes(test2);
   server.Send(data2, data2.Length);
   byte[] data3 = BitConverter.GetBytes(test3);
   server.Send(data3, data3.Length);
   byte[] data4 = BitConverter.GetBytes(test4);
   server.Send(data4, data4.Length);
   byte[] data5 = Encoding.ASCII.GetBytes(test5);
   server.Send(data5, data5.Length);
   Console.WriteLine("Stopping client");
   server.Close();
  }
}
```

```
using System;
using System.Net;
using System.Text;
class BinaryDataTest
{
  public static void Main()
  {
   int test1 = 45;
   double test2 = 3.14159;
   int test3 = -1234567890;
   bool test4 = false;
   byte[] data = new byte[1024];
   string output;
   data = BitConverter.GetBytes(test1);
   output = BitConverter.ToString(data);
   Console.WriteLine("test1 = {0}, string = {1}", test1, output);
   data = BitConverter.GetBytes(test2);
   output = BitConverter.ToString(data);
   Console.WriteLine("test2 = {0}, string = {1}", test2, output);
   data = BitConverter.GetBytes(test3);
   output = BitConverter.ToString(data);
   Console.WriteLine("test3 = {0}, string = {1}", test3, output);
   data = BitConverter.GetBytes(test4);
   output = BitConverter.ToString(data);
```

```
   Console.WriteLine("test4 = {0}, string = {1}", test4, output);
  }
}
```