using System.Net;

using System.Net.Sockets;

namespace ConsoleApp118

{

// ---------------------------

class Server

{

static List<Socket> clients = new List<Socket>();

static Socket server;

public static void Start()

{

server = new Socket(

AddressFamily.InterNetwork,

SocketType.Stream,

ProtocolType.Tcp

);

try

{

server.Bind(new IPEndPoint(IPAddress.Parse("127.0.0.1"), 80));

server.Listen(10);

Console.WriteLine("Server started...");

while (true)

{

Socket newCLient = server.Accept();

newCLient.Send(System.Text.Encoding.ASCII.GetBytes("Hello! And welcome\n"));

clients.Add(newCLient);

Console.ForegroundColor = ConsoleColor.Blue;

Console.WriteLine($"Client {clients.IndexOf(newCLient)} connected!");

Console.ForegroundColor = ConsoleColor.Gray;

Task.Run(() => ManageClient(newCLient));

Task.Run(() => Sending());

}

}

catch (SocketException e) { Console.WriteLine(e.Message); }

}

public static void Sending()

{

while (true) {

foreach (var item in clients)

{

item.Send(System.Text.Encoding.ASCII.GetBytes($"{DateTime.Now}\n"));

}

Thread.Sleep(1000);

}

}

public static void ManageClient(Socket client)

{

byte[] buffer = new byte[1024];

int bufferSize;

try

{

while ((bufferSize = client.Receive(buffer)) > 0)

{

string message = System.Text.Encoding.ASCII.GetString(buffer, 0, bufferSize);

Console.WriteLine($"Received from {clients.IndexOf(client)}: {message}");

}

}

catch (SocketException e)

{

Console.WriteLine(e.Message);

Console.WriteLine("Client disconnected.");

}

finally

{

client.Close();

clients.Remove(client);

}

}

}

// ---------------------------

internal class Program

{

static void Main(string[] args)

{

Server.Start();

}

}

}