

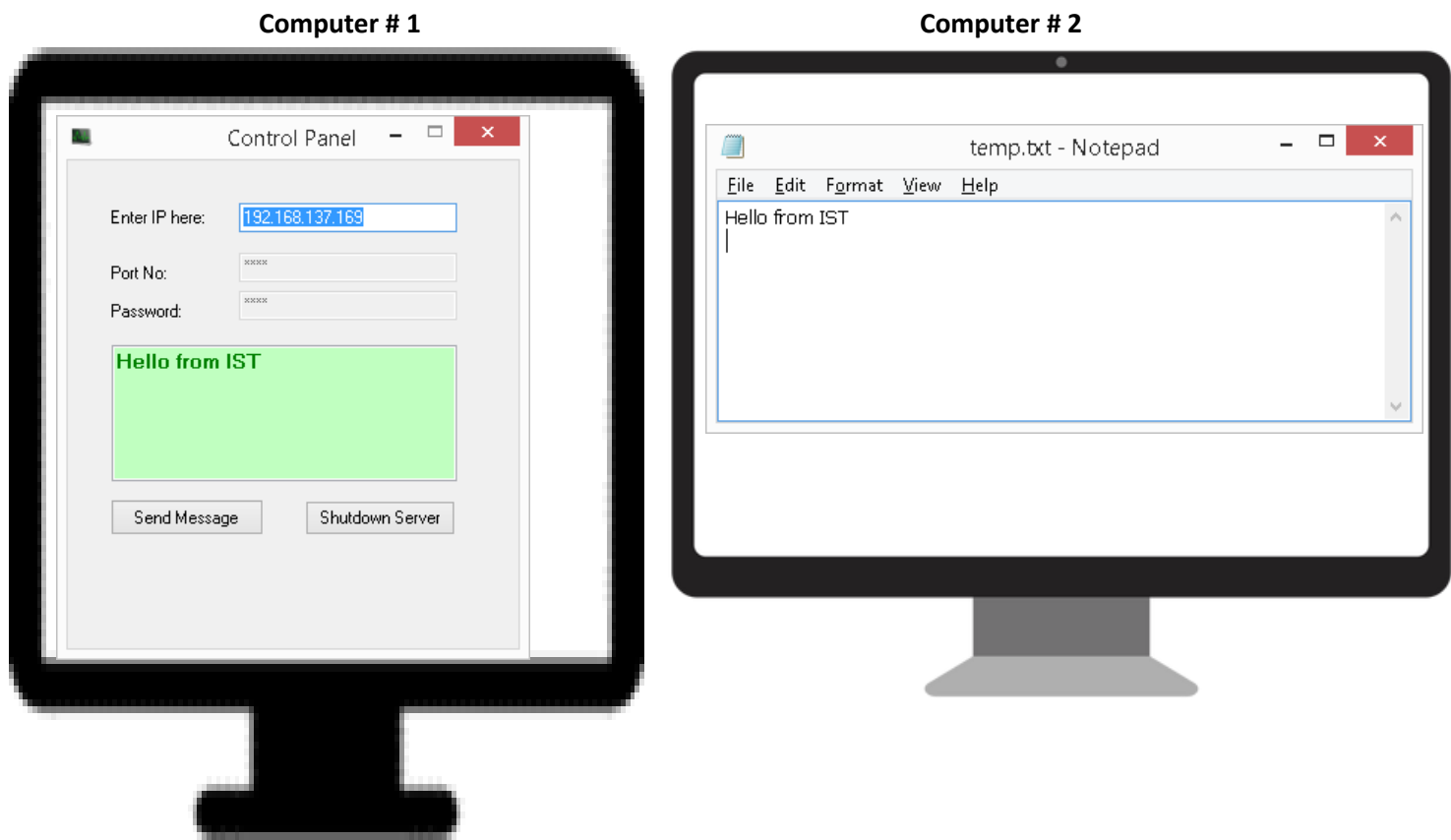
Q#1

In the folder, please find two programs: ClientAssignII and ServerAssignII.

You can run the two programs on two computers connected with the same WiFi or with the same network. If network is not available, both programs could be run on same computer and use IP 127.0.0.1.

Firewalls and anti-virus might need to be disabled for this to work.

If we run the ServerAssignII file on any computer, it will go in the background and start a popup message service. This means that any other computer (or the same) running the ClientAssignII program could send a popup text message in notepad to the computer on the server end. For example:



Experiment with the software and see if it works properly.

Step 1: Type IP address of server computer in client software (Control Panel).

Step 2: Type a message and then click on “Send Message.” If server is accessible, a notepad will open on server displaying the message.

Step 3: If you want to shut down the server application (not the computer), click on “Shutdown Server.” Now messaging on notepad is no longer possible.

Now identify correct tools and methods to solve the following tasks:

Task 1: Find out what port no is being used by the server (hidden as asterisk)?

Task 2: Find out what password is being used by the server for sending message (hidden as asterisk)?

Task 3: What is the length of packet sent (data only – excluding header) when: i. Send Message is clicked, ii. Shutdown Server is clicked?

Task 4: Demonstrate that you have found the correct port no and password by sending a message using PuTTY or nc instead of the ClientAssignII program. Show screenshots and completely describe the protocol in operation. What command/packet is transmitted to turn off the server application?