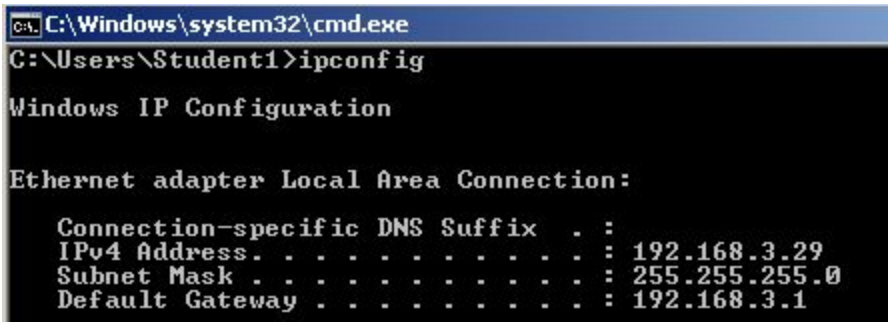
Windows Firewall (GW)

In this activity, you will work with a partner. Team up with a classmate before starting the activity.
Please fill the following survey after the activity:
https://www.surveymonkey.com/s/cvclab_tam

A. Discovering the IP Address of Your Computer

1. Click **Start** and type **`cmd`** into the Search Box and press Enter to open the Command Prompt. (See the figure below)

2. In the Command Prompt, type **`ipconfig`** and **press Enter**.
3. Verify your TCP/IP settings as shown in the following figure



4. **Record the IPv4 Address of both your computer and your partner's. Later on in the activities when you see `<YourIP>` and `<PartnerIP>`, replace them with the IP Address that you recorded in the following table. <u>Note that you will not use the symbols < and > while typing the ip address in the commands.</u>**

	IPv4
`<YourIP>`	
`<PartnerIP>`	

Keep your command prompt window open during the activity.

B. Testing the connection between two computers

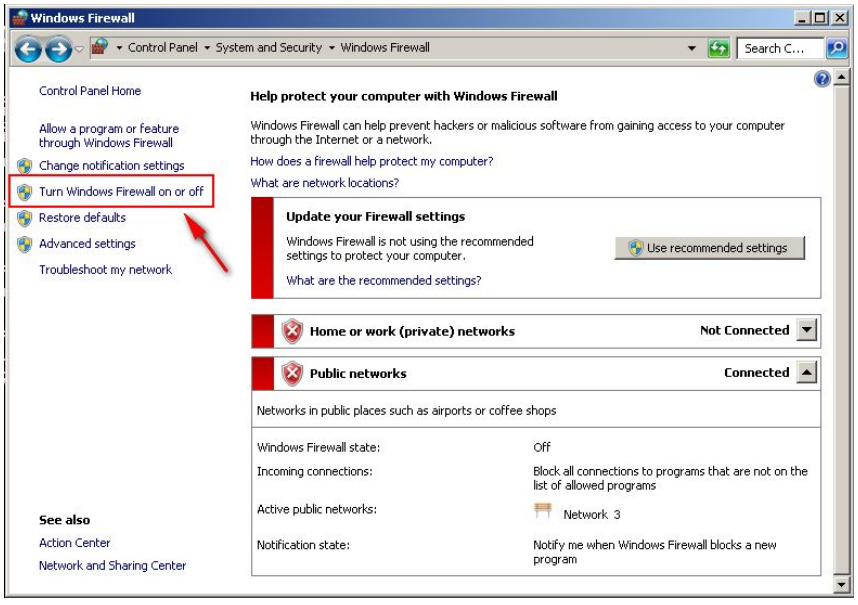
1. To access your teammate's web site, open up **Internet Explorer** and type the following in the address window: **`http://<partnerIP>`** where **`<partnerIP>`** is the IP address of your teammate, and you should see the following page. If you see the following page, then your teammate's web site is working.

2. Try pinging your partner's computer by opening up the **Command Prompt**. Type **`ping <partnerIP>`** into the command line and press Enter. Did you get a response

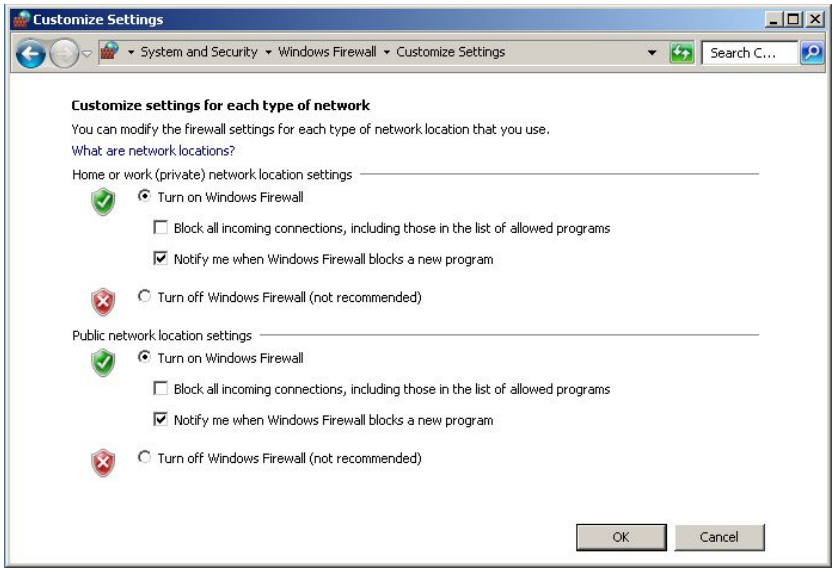
C. The Windows Firewall

C.1. Enabling the Windows Firewall

1. Make sure that Internet Explorer is closed before starting this activity.
2. Go to **Start** and click **Control Panel**, then click **System and Security**.
3. Click **Windows Firewall** to open the firewall (Or you can type Windows Firewall in the Search Window of the Start menu)
4. Then on the left-hand side of the Windows Firewall window, click **Turn Windows Firewall on and off** (see the figure below).



5. To turn the **Windows Firewall** on**,** click the radio button in front of "**Turn on Windows Firewall**" under both the private and public settings. Then click **OK**. Note that your computer has two connections.

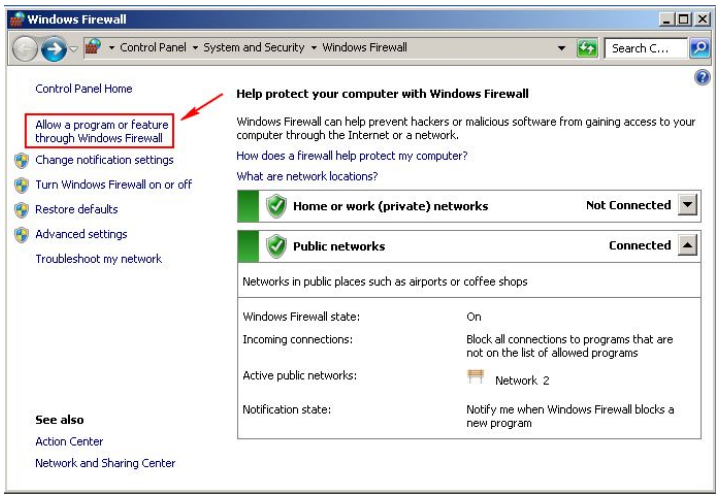


6. Wait for your partner to complete the previous steps. Make sure to coordinate this with your partner.
7. Open command prompt and type **`ping <partnerIP>`** and press Enter**.** Can you ping your partner's computer as you could before?
8. Open **Internet Explorer** and type **`http://<partnerIP>`** in the address window. Then, refresh the browser. Can you load your partner's web site?

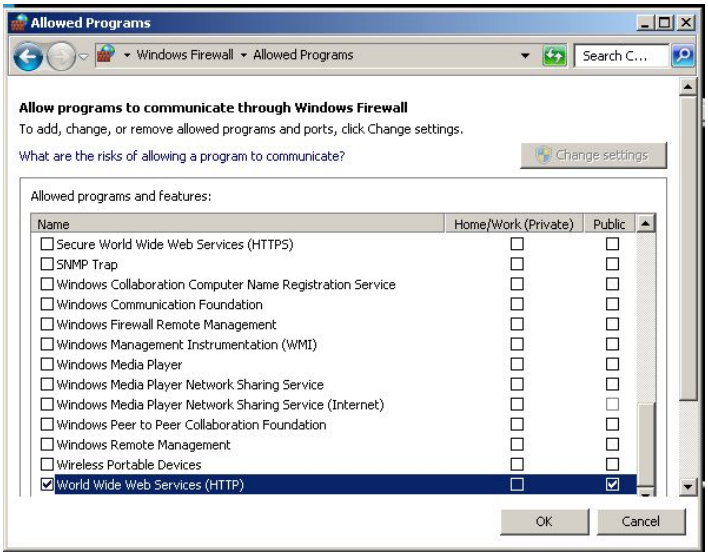
Reflective Observation: With your partner, discuss the functions of a firewall.

C.2 Allowing HTTP in the Windows Firewall for Everyone

1. Go to **Windows Firewall** in **Control Panel**
2. Click “Allow a program or feature …”. (see the figure below)



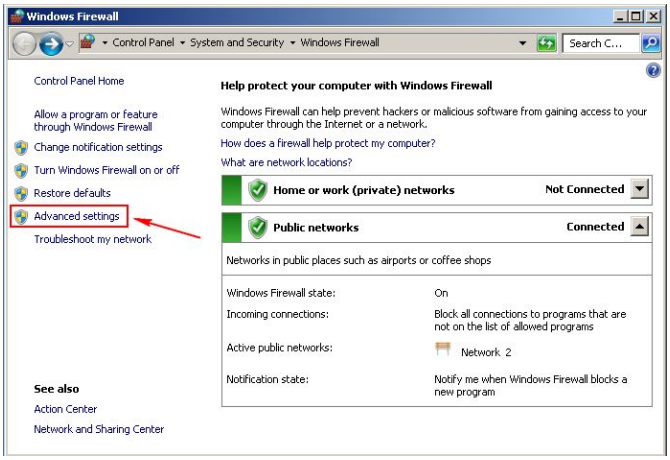
3. In the list of the allowed programs, browse all the way down to the bottom to locate **World Wide Web Services (HTTP)** and check the boxes as shown below. Then, click OK.



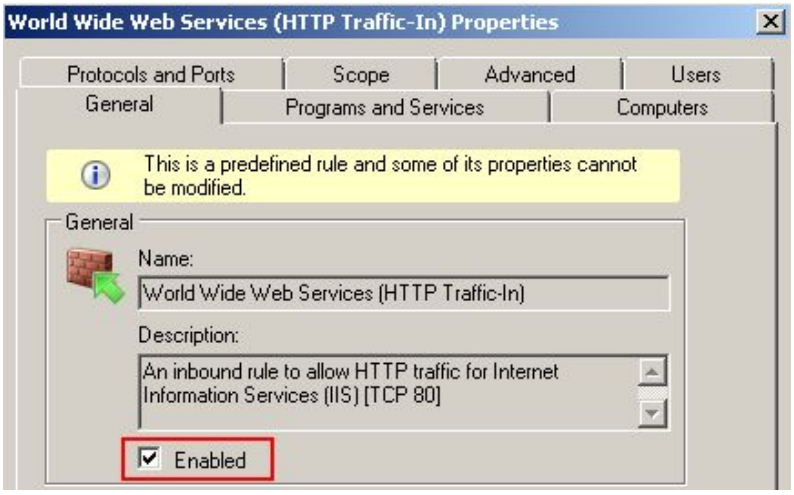
4. Wait for your partner to complete the previous step. Coordinate this with your partner.
5. Open **Internet Explorer** and type http://**`<partnerIP>/`** in the URL window. Then, refresh the browser. Can you load your partner’s web site this time?

C.3 Allowing HTTP in the Windows Firewall for Just Your Partner's Computer

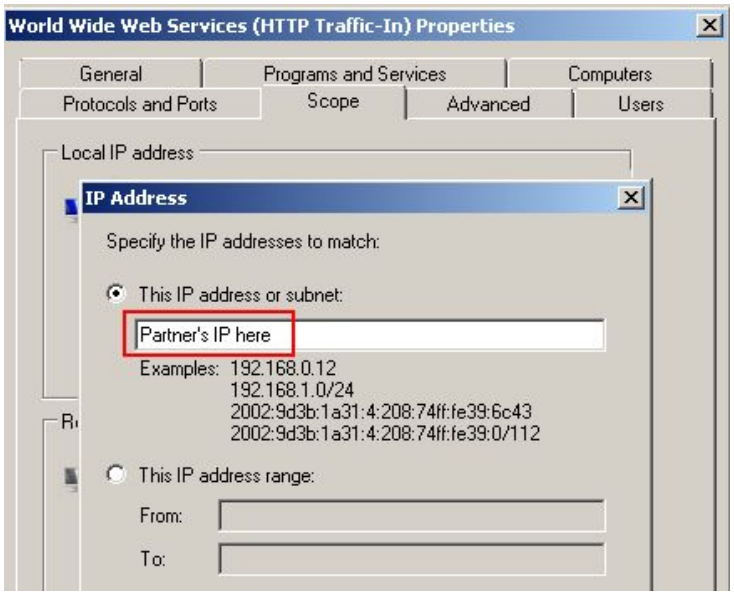
1. Within Windows Firewall, click **Advanced Settings** in the lefthand column.



2. In the **Windows Firewall with Advanced Security** window that opens, select **Inbound Rules** in the left column. Scroll down and locate **World Wide Web Services (HTTP Traffic-In)** at the bottom of the list. Right-click it and select **Properties**.
3. Under the **General** tab, check the box in front of **Enabled**. This will enable HTTP traffic coming in.



4. Click the **Scope** tab. Under **Local IP address**, select the radio button in front of **These IP addresses**. Then, click **Add**.
5. Under **This IP address or subnet**, type **`<partnerIP>`**. Click **OK**.



6. Repeat steps 4 and 5 for the **Remote IP Address**.

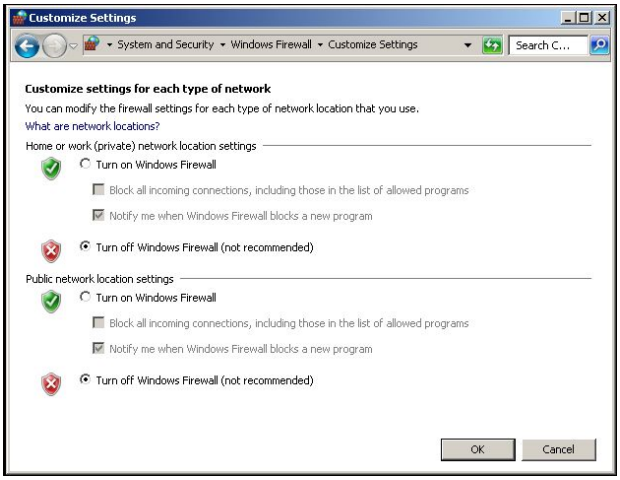
7. Click **OK** again to close the Properties window. World Wide Web Services should now be allowed through the firewall for your partner's computer and no one else's. Notice the green checkmark in the Inbound Rules.

8. Now, try to access your partner's website in the Internet browser. Are you able to do so?

C.4. Disabling the Windows Firewall

You should enable the Windows Firewall at all times. But, in some case you may want to disable it.

1. Open the **Windows Firewall**
2. On the left-hand side of the Windows Firewall window, click **Turn Windows Firewall on and off** (see the figure below).
3. To turn the **Windows firewall** off**,** select the radio button in front of "**Turn off Windows Firewall**" under both the private and public settings, as shown by the figure given below. Then click OK.



4. Ask your partner to ping your computer to make sure that your firewall is not active.

Reflective Observation: Ask some other than your teammate to connect your computer.