Access Control Lab

In this activity, you will get some practical experience with Network Access Control, File-level Access Control, and Remote Access Control

1. Import the Windows 10 VM. We will use this is in labs for this course.
    a. On the V:\Old\ drive, copy the "Win10ClassVM" folder to your desktop (should take a couple minutes).
    b. In the folder there is a document titled "BasicWindows10VMwithIISandXAMPPinstalled". This describes how to import the VM into VMWare. Ignore VMware Update messages.
        i. The import rendering process takes ~ 5-10 minutes.
    c. Once the VM is imported, in VMWare change the Memory to **4 GB** of RAM (instead of 2 GB), in Bridge mode.
    d. During profile setup, at 'Get Going fast' screen, select 'Customize' > click Next on Personalization & Location (privacy issues?) > click Next (auto connecting to open hotspots, really?!) > Turn off "Get Updates from & send updates from other PCs" & then Next > Setup local account now > Next > Username + password (something you'll need to remember) > some screens > On "Your PC has an update waiting" screen, select "NOT NOW" in the bottom-left > then should be at logon with your new account & password.
        i. Search how to disable auto-updates in MS 10.

2. Network Access Control

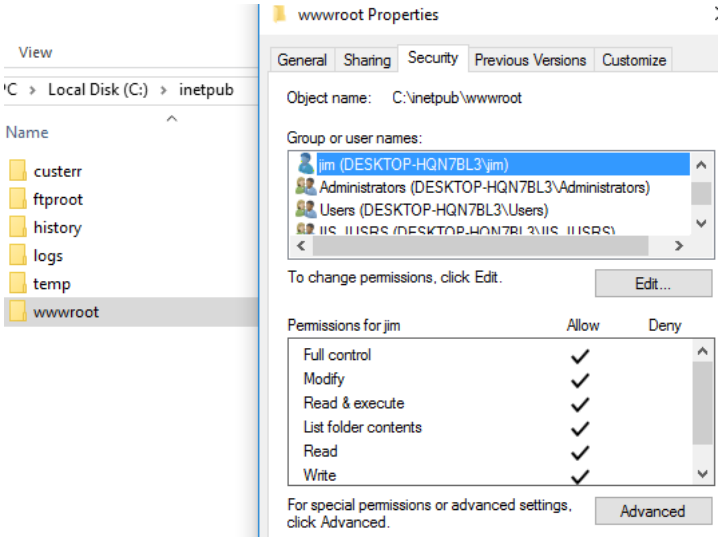
You will use a firewall to get some experience and gain some understanding of the concepts by blocking some hosts and services.

a. The IIS web server is running on this VM. Start up a browser and enter **localhost** in the URL. You should get the generic splash page for Windows Internet Information Service (IIS). If you ever want to test changes, then use this as a quick spot check.
b. In order to make sure we know which computers and web servers you are dealing with, create a personal page.
c. Copy the following into notepad:

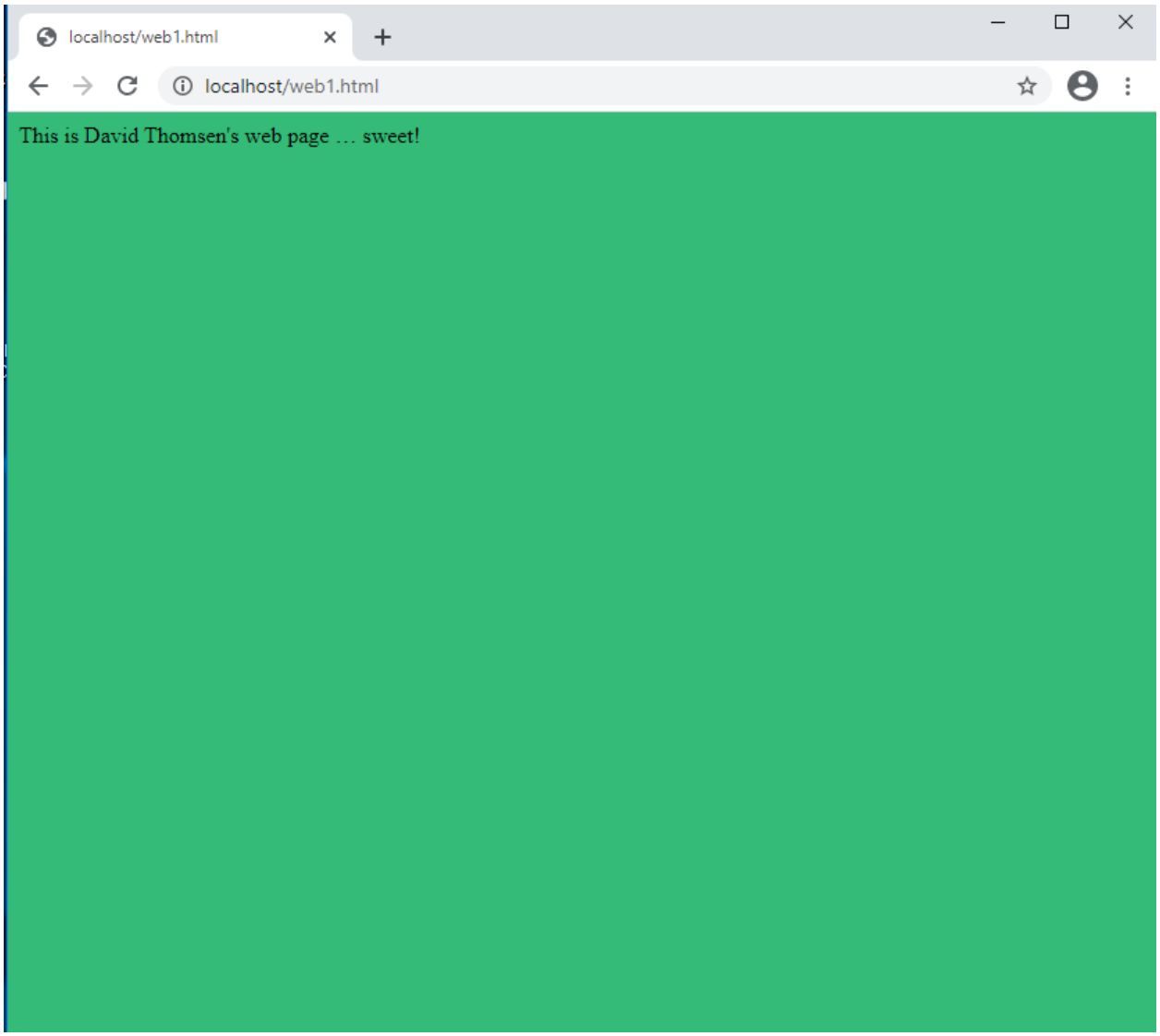
```
<html>
<body bgcolor="33bb77">

This is FirstName Lastname's web page … sweet!

</body>
</html>
```

d. Save it to "C:\inetpub\wwwroot as web1.html" (Q: How did you save the file?)

a. If it says access denied, add permissions on the wwwroot folder (Pro Tip: This is access control in action!) → Right-click on folder, Properties, add your user if not there, and give full permission for that user. #SharingIsCaring



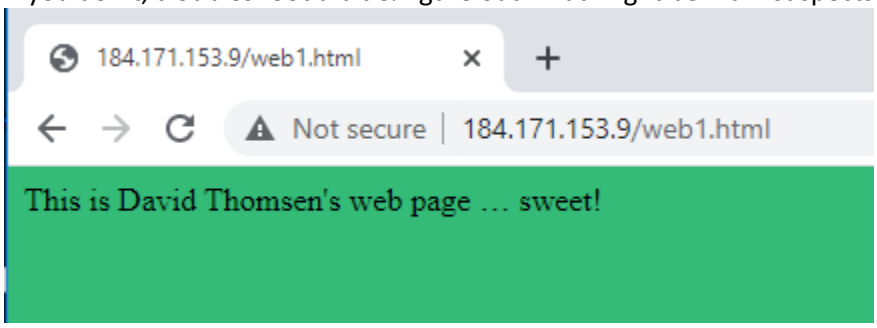
e. Test it out by entering localhost/web1.html . You should see your web page. Snip & save it for later.

f. 

g. Now check connectivity to neighbor's pages

h. Enter http://ThierActualIPaddressHere/web1.html and see if you get their page.

i. If you don't, troubleshoot a bit & figure out what might be main suspects.

j. 

k. Now open Windows Firewall, and go to Advanced Settings

l. Set the firewall rules so that one neighbor cannot access your web server

m. **First, you need to disable a pre-defined rule set up to allow all traffic in for IIS. Look at the firewall rules. Find the one labelled World Wide Web Services (HTTP Traffic-IN) and disable it.**

n. Create a new rule so that nobody can ping (icmp) your system.

Block ICMP V4 for IP Address 184.171.153.9

o. Show the instructor your working firewall rules. (Or take a Snip of it 'working').

p. 

q. Remove your firewall rule, and re-enable the Predefined HTTP rule.

r. Make sure your web traffic works again.

Common Troubleshoot Suspects: check permissions, check file type, check rules, check firewall, check services, check IP addresses, check syntax.

3. File level Access Control

a. Do this part in groups of 3. Only the middle computer creates access rights. The ones on either side will be users in this exercise.

b. On the Windows 10 virtual machine in the middle, create users:

   i. Create a user for yourself

   ii. Create a user for both of your neighbors

   iii. Create an account called instructor.

c. Now create a folder under C:\ called "CyberTestMonkey"

d. For that folder, set the names and permissions as given below:

   - Neighbor1 (use name) read only
   - Neighbor 2 (use name) read and write

   Create a document named "SuperSecretPasswordList.txt", and save it in the folder.

e. In order for your neighbors to access the files, enable remote access:

   - File Explorer > This PC> Properties > Remote Settings > Remote Desktop, All remote connections.

f. Neighbors should click the Windows bottom & type "Remote Desktop" and launch the Remote Desktop Connection.

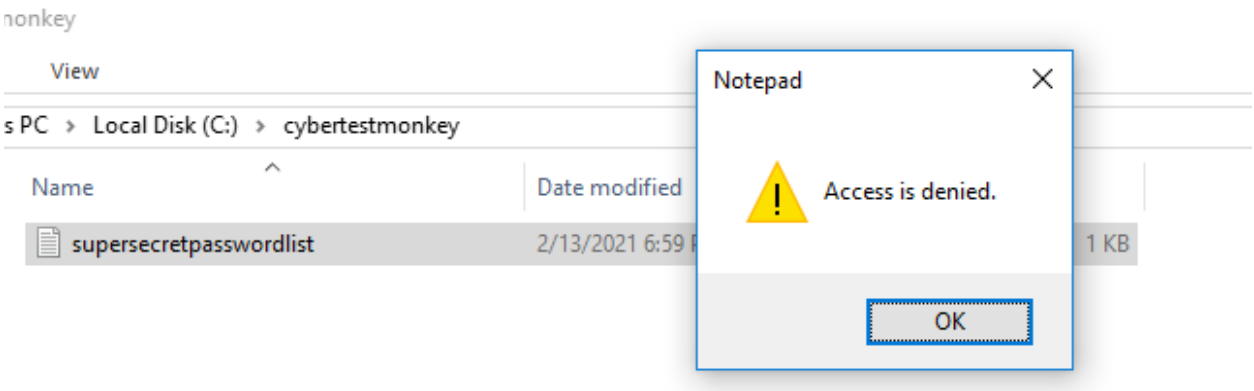
g. Enter the IP address of center Win10 VM machine.

h. When connected to the Win10 VM, select other user and then enter the username/password.

i. The users should try to modify the document

j. Show the instructor that this worked.

k.



Common Troubleshoot Suspects: check permissions, check file names & locations, check IP addresses, check syntax, check accounts & passwords.

** **Pro Tips** → If you want, then this is something you can do completely solo! You've have had VMware workstation experience from the pre-req, so you can run a VM or 2 VMs and use them for your own testing ground. Change their backgrounds if you want to make sure they is no confusion between which host & account you're on. Then, you can modify one VM & test it connection & access on the other. You can create multiple accounts with differing access, and then test them. Just take Snips/Screenshots of when you get the main objectives. Main point is: you have as your fingertips a lab environment with lots of possibility … how are you going to push yourself to learn & win?