**Windows File Management**

Type all commands in this exercise, in some cases extra spaces have been added for readability. The extra spaces may cause the command not to work. All command are to be typed on one line although some may appear as two lines within this document.

Create a file **Lab14cst1##firstname** in Word to save your answers in. (where cst1## is your unique cst number)

**Exercise 1: Accessing the Command Prompt**

1. Logon to your Windows 10 computer.
2. In the Search field, type **cmd**, then click the **Command Prompt** icon when it appears.
3. When the command prompt window opens, you should see a prompt C:\Users\{USERNAME}> with a flashing cursor. The C:\Users\{USERNAME} portion indicates the current location or path in the file system. Windows uses drive letters to indicate partitions (sometimes referred to as drives). Folders can also be indicated. Windows always uses a backslash “\” to indicate a folder or directory. By default the command prompt will open to the user’s home folder. By default for a user called Bob, this would be C:\Users\Bob in Windows 10. You are logged on with your account so your prompt will be C:\Users\{USERNAME}, where {USERNAME} is whatever you called your account when you set your computer up. The flashing cursor or prompt indicates where you can enter input from the keyboard.

**NOTE: Execute each of the following commands by pressing Enter.**

1. At the prompt, type: **whoami**

You should see 2 pieces of information:

* The part after the \ symbol is the user account name you used to log in to the system (though the name may be slightly different than what you saw when you logged in via the GUI)
* The part before the \ symbol indicates where the account is stored. If the your computer is in a workgroup, it is the computername of the computer you are logged onto. If your computer belongs to a domain, it will be the name of the domain that the computer is joined to .

**Q1: What is your user account name? jayde**

1. At the prompt, type: **date**

You should see the date and time (at least what the computer thinks the date and time is).

**Q2: What does Windows display for the current date? 2021-12-02**

1. DO NOT type anything, just press Enter to exit the date command.
2. To close the command prompt window, type: **exit**

**Exercise 2: Navigating through the Windows File System**

1. Open a Windows command prompt.
2. To see the files in your current directory,

Type: **dir**

The dir command lists files, and folders in your current directory which should be G:\.

1. You can view files in other locations by adding a path to the dir command. To view files on the D: partition in the virpc directory on the local computer,

Type: **dir C:\windows**

**<SS01> Screen capture of output from dir C:\windows command (the last portion displayed is adequate**

Text

Description automatically generated with low confidence

1. Every Windows command prompt command has available help that will display what the command does, some syntax examples and a list of available switches. Switches will change the way the command displays information or its functionality. Help can be access by typing the command with a /? switch for help. To display help for the dir command:

Type: **dir /?**

1. To display the contents of the C:\ partition on the computer,

Type: **dir C:\**

1. To display files hidden from display on the C:\ partition on the computer,

Type: **dir C:\ /A:H**

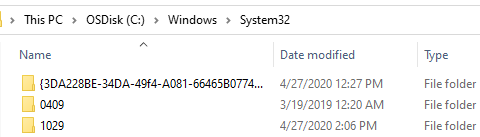
**<SS02> Results or dir C:\ /A:H command. (show command and result)**

Text

Description automatically generated

1. When working at the command prompt the correct syntax is very important. This syntax can be similar, but different between operating systems. It is very important to use the appropriate syntax for that operating systems. Some examples of this:
   1. Windows uses backslashes to denote directories. C:\windows\system32 denotes:

* **C:** partition
* **Windows** folder on the C: partition
* **System32** folder within the Windows folder on the C: partition
* Within the graphical Windows file explore this would appear as:



* As you saw previously to display files in C:\Windows\system32,

Type: **dir C:\Windows\System32**

* Now,

Type: **dir C:/Windows/System32** (use forward slashes instead of backslashes)

**Q3: What happens when dir C:/Windows/System32 is typed?**

**Parameter format not correct - "Windows". i got this type of error**

* So, to confuse the issue Windows uses backslashes to denote folders, Linux uses forward slashes to denote directories.

1. In most cases Windows commands are not case sensitive,

Type: **dir C:\Windows\System32**

Type: **DIR C:\Windows\System32**

Type: **dir c:\WINDOWS\system32**

There should be no error and in these cases the same information should be displayed. Linux IS case sensitive.

1. Your current directory should be C:\Users\{USERNAME}. If you had multiple partitions, like a D:\ current, you would type D:. **Record your current directory for use later**.
2. To move through the directory tree or folders in Windows use the change directory, **cd** command. to see the syntax for this command. Type, **cd /?**
3. To move back to the start or root of the directory structure we use cd\:

Type: **cd\**

Your current directory should be C:\

1. For a directory listing of the C:\ partition,

Type: **dir**

Among other directories or folders you should see the Windows folder. This is where most of the Windows operating system files are located.

1. To make C:\windows your current directory,

Type: **cd windows**

1. To list the contents of the c:\windows directory,

Type: **dir**

**Note:** Directories are indicated with <DIR>. Files have a number in their row, the number indicates the size of the file in bytes.

1. There are numerous ways to filter the display, to display only directories,

Type **dir \*.**

“\*” is a wild card, Basically the command says list all directories in the current directory.

1. To make C:\windows\system32 your current directory,

Type: **cd system32**

1. To list all directories in C:\windows\system32,

Type: **dir \*.**

Notice that there is a directory called **drivers**, as there are many files and directories in system32 you will need to scroll upwards to see it.

1. To make C:\windows\system32\drivers your current directory,

Type: **cd drivers**

1. To list directories in C:\windows\system32\drivers,

Type **dir \*.**

Notice that there is a directory called **etc**.

1. To make C:\windows\system32\drivers\etc your current directory,

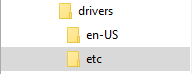
Type: **cd etc**

In Windows File Explorer this should be the view of your current directory:









1. To move one directory back, making C:\windows\system32\drivers your current directory, the command Cd.. will be used.

Type **cd ..**

**<SS03> Show the above command and the result**

A screenshot of a computer

Description automatically generated with medium confidence

1. To move all the way back to the root of the C:\ partition, the command cd \ is used:

Type **cd \**

Your current directory should be C:\.

1. This was somewhat painful to get from C:\ to C:\windows\system32\drivers\etc When moving through folders you do not need to move one folder at a time, you can use the full path to a directory to move to that directory in one step. To make C:\windows\system32\drivers\etc your current directory,

Type: **cd \windows\system32\drivers\etc**

1. To return to the root of the C:\ partition.

Type: **cd \**

1. If you want to view files in a folder it does not need to be your current directory, if C:\ is your current directory, and you want to view the contents of C:\windows\system32\drivers\etc:

Type: **dir C:\windows\system32\drivers\etc**

1. Up to this point we have been using directory names that are one word. In Windows directory names can contain spaces. There is a folder on C:\ that contains a folder called **Program Files**. This is where Windows desktop applications are stored by default. The CST lab computers also have Microsoft Office installed so there is a folder called Microsoft Office within the Program Files directory. In the file system is appears like this C:\Program Files\Microsoft Office.
2. You should be at the root of C:\, to try to view the contents of the C:\Program Files\Microsoft Office folder,

Type: **dir \Program Files\Windows NT**

**Q4. What happens when the command above is typed?**

**The system cannot find the file specified. I GOT This type of error.**

1. Windows does not allow typing a path with a space, unless you enclose that path in double quotes “ “. Rather than retyping the command to try this, we can recall the command from the command history, Press the up arrow key to recall the last command, then use the 🡨 🡪 keys to move the cursor so that you can edit the command adding quotes. The corrected command should look like this:

Type: **dir “\Program Files\Windows NT”**

In a default installation of Windows you should see the contents of the Windows NT folder, if it exists.

**Exercise 3: Creating and Deleting Folders**

1. Up to now we have only been moving through the Windows files system and viewing the contents of folders. We can also create new folders in Windows to organize our data.
2. To move to your home directory

Type: **cd %userprofile%**

Your current directory should be C:\Users\{USERNAME} again.

%userprofile% is a environment variable, Windows has numerous of these, this link will explain some of them:

<https://ss64.com/nt/syntax-variables.html>

Environment variables can be used to either navigate the file system as we have done, to configure applications or in programming. They help us quickly locate default portions of the file system.

1. In Windows the **mkdir** command will create a folder. There is an abbreviated version, **md** of this command. Type **md /?** to view the options for this command.
2. To create a folder called ~NEWDIR on your C:\Users\{USERNAME},

Type: **md ~NEWDIR**

NOTE: While Windows is not case sensitive it will *preserve case*. So, if you typed ~NEWDIR with the md command it would have created a folder that appears as ~NEWDIR, if you typed ~NEWDIR, the folder will appear as ~NEWDIR, if you typed ~NEWDIR, the folder would appear as ~NEWDIR. As Windows is not case sensitive you could get a directory listing by typing dir ~NEWDIR for any of these folders, regardless on the displayed case.

1. To display the ~NEWDIR folder you just created,

Type: **dir**

1. If we wanted to create folders with the ~NEWDIR folder to store files for your CST classes. We could use the cd command to make ~NEWDIR our current directory, then we could use the md command to create folders within ~NEWDIR. Quite often in programming and network administration we want to use absolute paths so that the commands we use execute regardless of where we are in the file system. To try this while C:\Users\{USERNAME} is your current directory we will create 4 folders in ~NEWDIR (substitute the username portion of the whoami command for {USERNAME}. (HINT: to speed this up after typing the first command you can use the up arrow to recall the previous command then edit it)

Type: **md C:\Users\{USERNAME}\~NEWDIR\coos181**

Type: **md C:\Users\{USERNAME}\~NEWDIR\cnet184**

Type: **md C:\Users\{USERNAME}\~NEWDIR\mistake1**

Type: **md C:\Users\{USERNAME}\~NEWDIR\mistake2**

1. To display the folders you just created,

Type: **dir C:\Users\{USERNAME}\~NEWDIR**

**<ss04> The command above and the result:**

Text

Description automatically generated

1. The **rmdir** command, abbreviated **rm** is used to remove, or delete folders. To remove the mistake2 folder,

Type: **rd C:\Users\{USERNAME}\~NEWDIR\mistake2**

1. To confirm the folder has been removed,

Type: **dir C:\Users\{USERNAME}\~NEWDIR**

**Exercise 4: Copying Files**

1. Assuming your current directory is **C:\Users\{USERNAME}**, type cd ~NEWDIR . Your current directory should now be **C:\Users\{USERNAME}\~NEWDIR**
2. Type the following commands exactly pressing Enter at the end of each one:

**copy con testfile.txt**

**Contents of test file**

**<Ctrl> z**  (press the Ctrl key, type z It should appear as ^Z)

The command prompt should say 1 file(s) copied.

These commands uses the **copy con** command which allow us to create a file. The contents of the file will be what you typed in the second line. <ctrl>z creates the file and closes the command.

If you type **dir**, you should see the file you just created.

1. The **copy** command is used to copy files in Windows. Syntax for this command is basically *copy source-path destination-path*, where **source-path** is the path and filename of the file we want to copy and *destination-path* is the location we want to copy it to. Type copy /? to view options for the copy command.
2. Assuming you were able to create the file testfile.txt in your C:\Users\{USERNAME}\~NEWDIR folder we will now make a copy of it:

Type: **copy C:\Users\{USERNAME}\~NEWDIR\testfile.txt C:\Users\{USERNAME}\~NEWDIR\coos181**

If the command was successful you will see **1 file(s) copied** displayed.

1. If we want to rename a file there is a command specific for that which we will use later, however we can also rename a file as part of the copy operation. If we want to copy textfile.txt, but want it to have a new name, **testfile2.txt** we can rename the file while we are copying it by specifying the new name in the destination-path, to try this:

Type: **copy C:\Users\{USERNAME}\~NEWDIR\testfile.txt C:\Users\{USERNAME}\~NEWDIR\coos181\testfile2.txt**

If the command was successful you see **1 file(s) copied** displayed. While, at least you know the file was copied.

**Q5. What single command would you use to see if testfile.txt was copied to g:\~NEWDIR\coos181 AND renamed testfile2.txt without moving out of your current directory?**

**Dir c:\Users\jayde\~NEWDIR\coos181\testfile2.txt**

**Exercise 5: Clearing up the Command Prompt window**

1. Up to this point we have typed a lot of commands. As long as the command prompt window is open it will display everything we type and everything that Windows responds with. This can be distracting.
2. To clear the command prompt window,

Type: **cls**

1. This will clear the display, however the command are still in the command history, so you can still use the up arrow key to recall commands that have been previously typed.

**Exercise 6: Renaming files**

1. You should now have 2 files in G:\~NEWDIR\coos181 called testfile.txt and testfile2.txt.
2. To rename an existing file there is the rename or ren command. Type ren /? to view the syntax for this command. Basically it is, *ren filepath\oldname newname*, you do not need to add the path to the newname.
3. To rename testfile.txt to testfile1.txt,

Type: **ren C:\Users\{USERNAME}\~NEWDIR \coos181\testfile.txt testfile1.txt**

1. To confirm that the rename command worked,

Type: **dir C:\Users\{USERNAME}\~NEWDIR \coos181**

**<ss05> The command above and its results in command prompt:**

Text

Description automatically generated

**Exercise 6: Moving Files**

1. The move command will move a file from one location to another. Type move /? To see the syntax for the move command.
2. To move the file testfile2.txt from the coos181 folder to the cnet184 folder,

Type: **move C:\Users\{USERNAME}\~NEWDIR\coos181\testfile2.txt C:\Users\{USERNAME}\~NEWDIR\cnet184**

You should see the message **1 file(s) moved**.

1. To confirm the move was successful:
   1. Type: **dir C:\Users\{USERNAME}\~NEWDIR\coos181**

Only the 1 file testfile1.txt should be present

* 1. Type: **dir C:\Users\{USERNAME}\~NEWDIR\cnet184**

Only the 1 file testfile2.txt should be present

**Exercise 7: Deleting files and folders**

1. The del command is used to delete files. Type **del /?** to view the syntax for this command.
2. To delete the file testfile2.txt from C:\Users\{USERNAME}\~NEWDIR\cnet184,

Type: **del C:\Users\{USERNAME}\~NEWDIR\cnet184\testfile2.txt**

1. To confirm the file has been deleted,

Type: **dir C:\Users\{USERNAME}\~NEWDIR\cnet184**

There should be no files present.

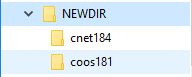
1. To delete a folder, there is the rmdir command. Type rmdir /? To see the command syntax.
2. To remove the mistake1 folder from C:\Users\{USERNAME}\~NEWDIR,

Type **rmdir C:\Users\{USERNAME}\~NEWDIR\mistake1**

1. To confirm the folder is gone and only the folders coos181 and cnet184 exist,

Type: **dir C:\Users\{USERNAME}\~NEWDIR**

1. To complete this lab, we want to remove all files and folder we created. Currently your G: should have this folder structure:



1. There also should be a file called testfile1.txt in the coos181 folder.
2. C:\Users\{USERNAME}\~NEWDIR is your current directory you will need to move away from it prior to attempting a delete. Type **cd..**
3. To try and delete everything we created,

Type: **rmdir C:\Users\{USERNAME}\~NEWDIR**

**Q6. What happens if you type the command rmdir g:\~NEWDIR?**

1. If a folder contains files and/or other folders you cannot delete it with the rmdir command, by itself. You have to add a switch or parameter to modify how the command works. Type rmdir /? And see if you can find what that switch is.

The directory is not empty. I got this type of error.

**Q7. What is the command to delete C:\Users\{USERNAME}\~NEWDIR and all files and folders within it?**

**rmdir /S C:\Users\jayde\~NEWDIR THIS CODE WILL BE USED TO DELETE THAT FILE.**

1. Run the command in Q7. to remove the C:\Users\{USERNAME}\~NEWDIR directory tree. Type dir to confirm it has been removed.

**END OF LAB**

**Upload the file coos181WFM1cst1## to Brightspace>COOS181>Assessments>Dropbox>File Management Lab**