

Lab 2 - Command Line

Instructions

1. Answer the below question in the boxes if needed.
2. Code on your computer and zip all your code before submission.
3. Please submit the assignment through TalentLabs Learning System.

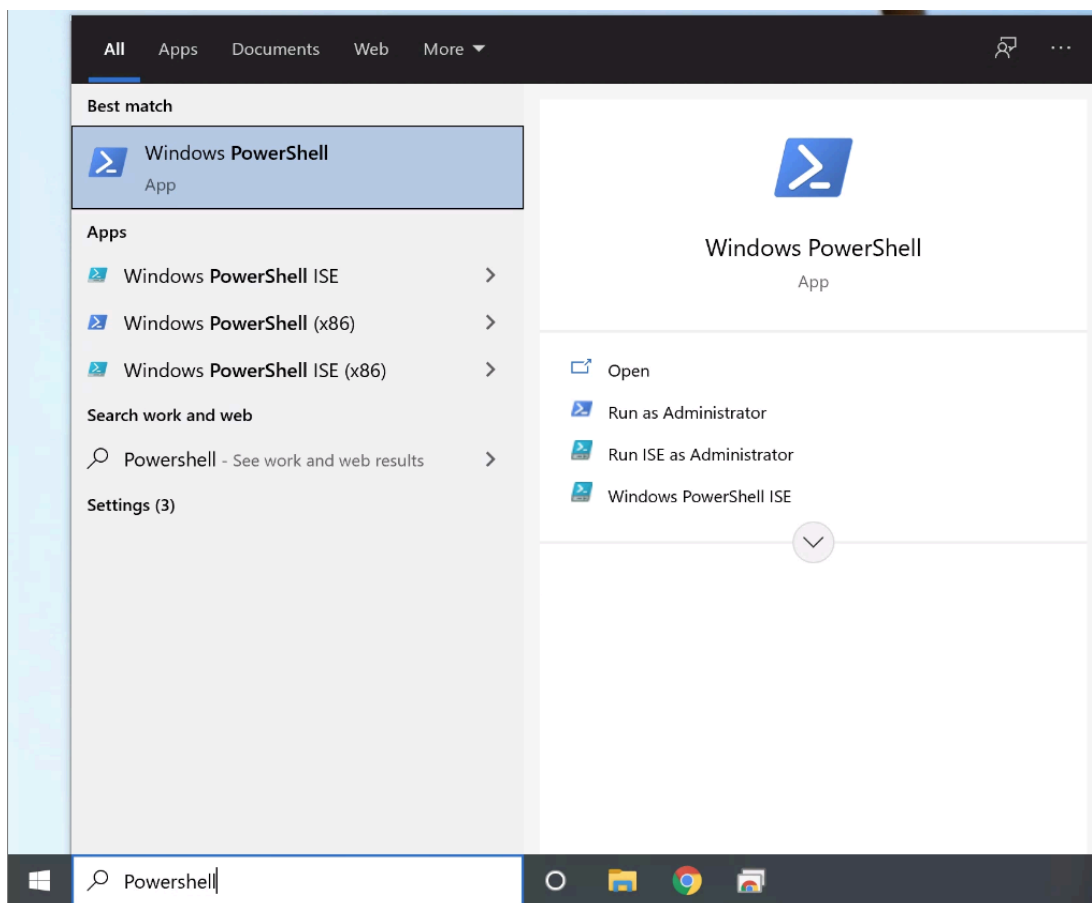
Part 0 Open up Command Line

In this part, we are going to try opening up the terminal on your computer and try running the first command in your terminal.

Windows

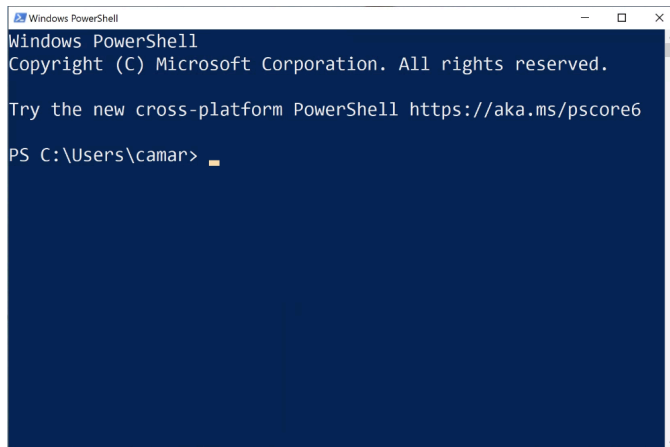
Steps

1. First open up the Powershell on your computer. (Make sure that you are opening the "Windows PowerShell", not the ISE or x86 version.

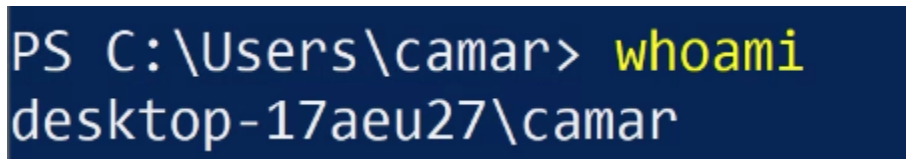


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2. If you successfully started up the PowerShell, you should see a windows pop up similar to this one:



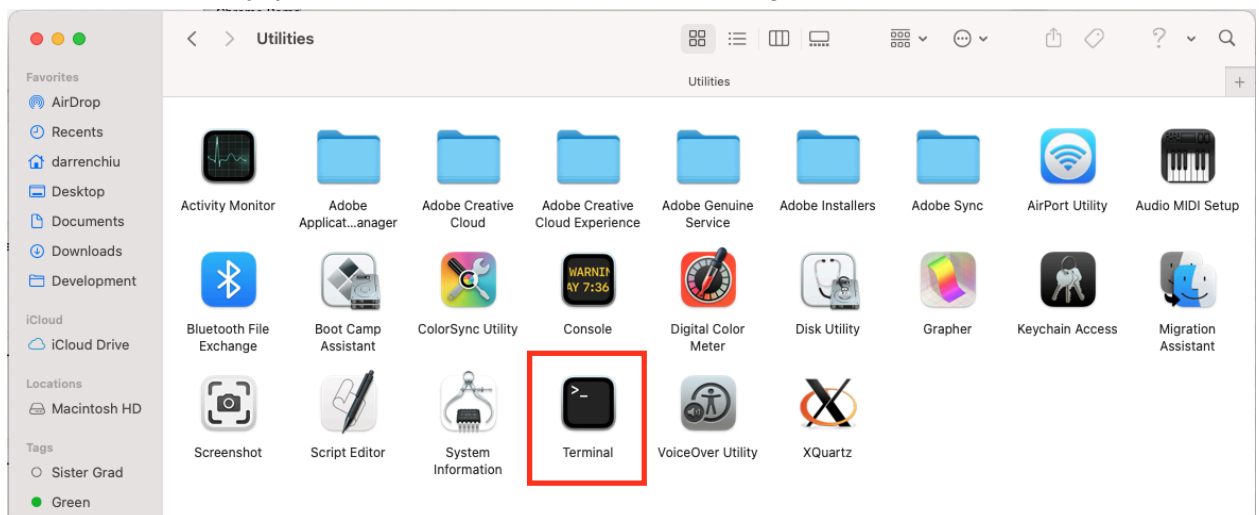
3. Try to type your first command "whoami" in the command prompt and press "Enter" key on your keyboard. You should see it print out your username in the result.



Mac

Steps:

1. Go to your application folder -> Utilities folder, and open up your "Terminal" app in the folder. (Alternatively, you can search for "Terminal" in Spotlight)



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2. If you successfully started up the Terminal, you should see a windows pop up similar to this one:



3. Try to type your first command "whoami" in the command prompt and press "Enter" key on your keyboard. You should see it print out your username in the result.

```
darrenchiu@Darrens-MacBook-Pro ~ % whoami  
darrenchiu
```

Part 1 Getting Familiar with the Interface

1.1 Print out something in command prompt

We are going to try to print out a line in the command prompt using `echo` command.

Steps

1. Type `echo Hello` in the command prompt and press “Enter”. You should see that the command line is outputting “Hello” like below.

```
PS C:\Users\camar> echo hello  
hello
```

(Windows PowerShell)

```
darrenchiu@Darrens-MacBook-Pro ~ % echo Hello  
Hello
```

(Mac)

1.2 Getting out of trouble

Sometimes, if we typed some wrong command into the terminal, or some error occurred, the terminal will get stuck. Beginners will easily get panic at this point as no mouse is available. In this part, we are going to teach you how to leave the trouble.

Steps

1. First, let's get into the trouble by typing a wrong command `echo 'hello` (no closing quote) and press enter. You should find that your command line is not returning anything and doesn't look like the usual interface (get stuck). Also, you are not able to type another command and run it.

```
PS C:\Users\camar> echo "Hello  
>>
```

2. At this point, even if you try to type the correct command again, it won't run. At this point, you will need the magic cure for a situation like this: `Ctrl + C`. Try pressing `Ctrl + C`, and your command line will back to normal again (Sometimes it would require pressing the shortcut twice). This shortcut key will save you from most of the troubles when using the command line.

1.3 Reusing the previous command

You can quick re-type the previous commands by “pressing the up arrow”. Press once means the previous command. Press twice means getting the previous previous command.

Now try:

Using the up arrow, print to the screen the strings “fee”, “fie”, “foe”, and “fum” without retyping echo each time.

Answer (Put down your key sequences in the box):

```
PS C:\Users\user> echo fee
fee
PS C:\Users\user> echo fie
fie
PS C:\Users\user> echo foe
foe
PS C:\Users\user> echo fum
fum
PS C:\Users\user> |
```

1.3 Reusing the previous command

Sometimes after working for a while, the command line interface is full of commands, results and mess. You can clean it up using the `clear` command.

Now try:

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Clean up your command line interface by typing `clear` and press enter.

```
PS C:\Users\camar> clear
```

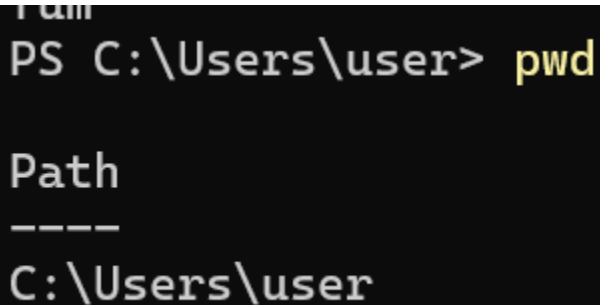
Part 2 Manipulating Files

We are going to try navigating the file system and try to play around with files and folders a bit in this part. Please reference the lecture notes on the command that you should use and follow the steps. Remember to put down the command you used in the box below.

2.1 Setting up the Scene

2.1.1 First, we would like to find out where we are in the command line. What is the command?

pwd



Path

C:\Users\user

The image shows a terminal window with a black background. The prompt is 'PS C:\Users\user>'. The command 'pwd' has been entered and executed. The output shows 'Path' followed by a separator line '----' and then the current directory 'C:\Users\user'.

2.1.2 We are going to work in the Desktop folder. Let's first check what is inside our current folder (supposingly, you should have the "Desktop" folder under your current Folder)

PS C:\Users\user> ls

Directory: C:\Users\user

Mode	LastWriteTime		Length	Name
----	-----	-----	-----	----
d-----	15/1/2024	8:28 PM		.arduinoIDE
d-----	11/10/2023	11:15 AM		.vscode
d-r---	21/1/2024	11:11 PM		Contacts
d-r---	6/7/2024	8:07 PM		Desktop
d-r---	31/7/2024	7:00 PM		Documents
d-r---	1/8/2024	10:18 PM		Downloads
d-r---	21/1/2024	11:11 PM		Favorites
d-----	17/1/2024	12:22 AM		LibrePCB-Workspace

The image shows a terminal window with a black background. The prompt is 'PS C:\Users\user>'. The command 'ls' has been entered and executed. The output shows the directory listing for 'C:\Users\user'. It includes a header with columns for Mode, LastWriteTime, Length, and Name, followed by a list of files and folders.

2.1.3 Now, we want to navigate to our Desktop from our current location (current folder). What is the command?

cd Desktop

```
PS C:\Users\user> cd Desktop
PS C:\Users\user\Desktop> |
```

2.1.4 You should be in your Desktop folder now. Before we create a folder, let's try to check what are the folders and files in your Desktop. What is the command?

ls

```
PS C:\Users\user\Desktop> ls
```

Directory: C:\Users\user\Desktop

Mode	LastWriteTime	Length	Name
-a----	27/9/2022 4:11 AM	2414	Access.lnk
-a----	30/7/2024 8:12 AM	2312	Arduino IDE.lnk
-a----	26/7/2024 5:55 PM	2238	Discord.lnk
-a----	6/7/2024 8:07 PM	9137539	draft fyp b.pdf
-a----	27/9/2022 4:11 AM	2413	Excel.lnk
-a----	1/4/2024 10:38 AM	2350	Microsoft Edge.lnk
-a----	27/9/2022 4:11 AM	2393	OneNote.lnk
-a----	27/9/2022 4:11 AM	2407	Outlook.lnk
-a----	9/11/2023 9:18 AM	2388	Person 1 - Chrome.lnk
-a----	27/9/2022 4:11 AM	2450	PowerPoint.lnk
-a----	9/5/2024 9:25 AM	1619	Proteus 8 Professional.lnk
-a----	27/9/2022 4:11 AM	2401	Publisher.lnk
-a----	27/9/2022 4:11 AM	2451	Word.lnk
-a----	26/12/2023 8:01 PM	1928	Zoom.lnk

2.1.5 Let's create a new folder name "testcommand" on your Desktop. What is the command?

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```
PS C:\Users\user\Desktop> mkdir testcommand
```

```
Directory: C:\Users\user\Desktop
```

Mode	LastWriteTime	Length	Name
d-----	1/8/2024 10:27 PM		testcommand

2.1.6 We want to navigate to the “testcommand” folder. What is the command?

```
cd testcommand
```

```
PS C:\Users\user\Desktop> cd testcommand
PS C:\Users\user\Desktop\testcommand> |
```

2.1.7 We are now in the “testcommand” folder and let’s create a new file named “file1.txt” in it. What is the command?

```
ni file1.txt
```

```
PS C:\Users\user\Desktop\testcommand> ni file1.txt
```

```
Directory: C:\Users\user\Desktop\testcommand
```

Mode	LastWriteTime	Length	Name
-a-----	1/8/2024 10:28 PM	0	file1.txt

2.1.8 You should have the “file1.txt” file in the “testcommand” folder now. Please make a copy of “file1.txt” and name it “file2.txt”. What is the command?

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```
cp file1.txt file2.txt
```

```
PS C:\Users\user\Desktop\testcommand> cp file1.txt file2.txt
```

2.1.9 Please help me to move the newly created “file2.txt” to your Desktop (one level up). What is the command?

```
mv file2.txt ../
```

```
PS C:\Users\user\Desktop\testcommand> mv file2.txt ../
```

2.1.10 I would like to go back to Desktop from my current position (testcommand folder). What is the command?

```
cd ..
```

```
PS C:\Users\user\Desktop\testcommand> cd ..  
PS C:\Users\user\Desktop> |
```

2.1.11 To verify that I have successfully moved the “file2.txt” to Desktop, I will need to list out all the files on Desktop and check if “file2.txt” exists. What is the command that I should use?

```
ls
```

```
Directory: C:\Users\user\Desktop
```

Mode	LastWriteTime	Length	Name
----	-----	-----	----
d-----	1/8/2024 10:29 PM		testcommand
-a----	27/9/2022 4:11 AM	2414	Access.lnk
-a----	30/7/2024 8:12 AM	2312	Arduino IDE.lnk
-a----	26/7/2024 5:55 PM	2238	Discord.lnk
-a----	6/7/2024 8:07 PM	9137539	draft fyp b.pdf
-a----	27/9/2022 4:11 AM	2413	Excel.lnk
-a----	1/8/2024 10:28 PM	0	file2.txt

2.1.12 It's time to clean things up. What is the command for deleting the “file2.txt”?

```
rm file2.txt
```

```
PS C:\Users\user\Desktop> rm file2.txt
```

2.1.13 Also, don't forget to delete the "testcommand folder". What is the command for that?
(Hint: You might need to Google for the right command for deleting a folder recursively)

```
Remove-Item -Recurse -Force .\testcommand
```

```
PS C:\Users\user\Desktop> Remove-Item -Recurse -Force .\testcommand
```

Part 3 Turn in your assignment

Please turn in your assignment to TalentLabs Learning Management System.