Fundamentals of Computing
Workshop week-10
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Instruction:

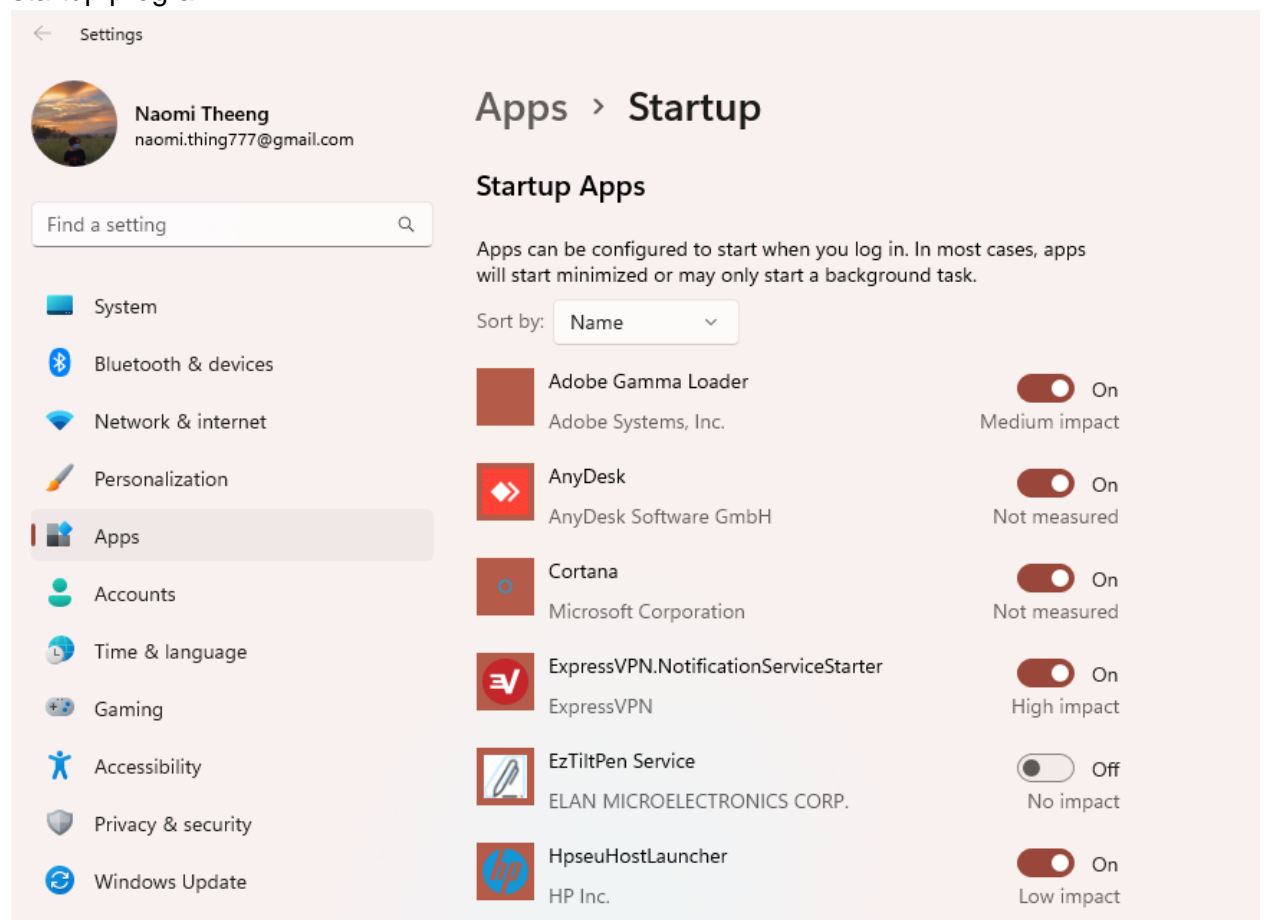Complete all questions in 2:30 hrs

Let's get started with some helpful Batch scripts:

1. What is Windows Start-up? How can all the start-up programs be viewed?
   Answer:
   The process that occurs when a Windows operating system is booted up is referred to as Windows startup. Loading the operating system kernel, initializing system services, and starting any programs or processes that are set to run automatically at startup are all part of this process.
   You can use Windows' Task Manager to see all the programs that are set to start automatically at startup. Then, on your keyboard, press the "ctrl+shift+esc" or "ctrl+alt+delete" keys, and then click on the "startup" tab. This will show a list of all the programs that are set to start automatically, as well as information about how they affect system performance. From this screen, you can also disable or enable the startup program.

2. Write a batch script to display a simple "Hello YourName" message during the startup.
   Note: Copy the file to the Startup folder

```
W2.bat      X

W2.bat
1    @echo off
2    echo hello naomi
3    pause
```

3. Write a batch script to schedule to automatically back up important files and folders to a different location at a scheduled time.

```
W3.bat
1    @echo off
2    set source=C:/users/HP/Downloads/Date
3    set destination=D:/users/HP/Documents
4    xcopy %source% %destination% /S /I /Y
5    echo files copied from %source% to %destination%
6    echo Backup completed in %date% and %time%
7    pause
```

4. Write a Windows batch script that automatically deletes temporary files and clears out the recycle bin to free up space on the hard drive.

```
W4.bat
1    @echo off
2    rmdir /s /q "%temp%"
3    echo Y|cleanmgr /sagerun:1
4    echo Cleanup complete!
5    pause
```

5. Write a windows batch script that can be run to diagnose and troubleshoot common network issues

```
W5.bat
1    @echo off
2    rem check the connection to the default gateway
3    ping %gateway% -n 4
4    rem check the connection to a specific website
5    ping google.com -n 4
6    rem check for DNS issues
7    nslookup google.com
8    rem check for other network connectivity issues
9    tracert google.com
10   pause
```

6. Write a batch script that can be scheduled to shut down the computer at a specific time(**using WINDOWS TASK SCHEDULER**).

```
W6.bat
1    shutdown /s /t 10
```

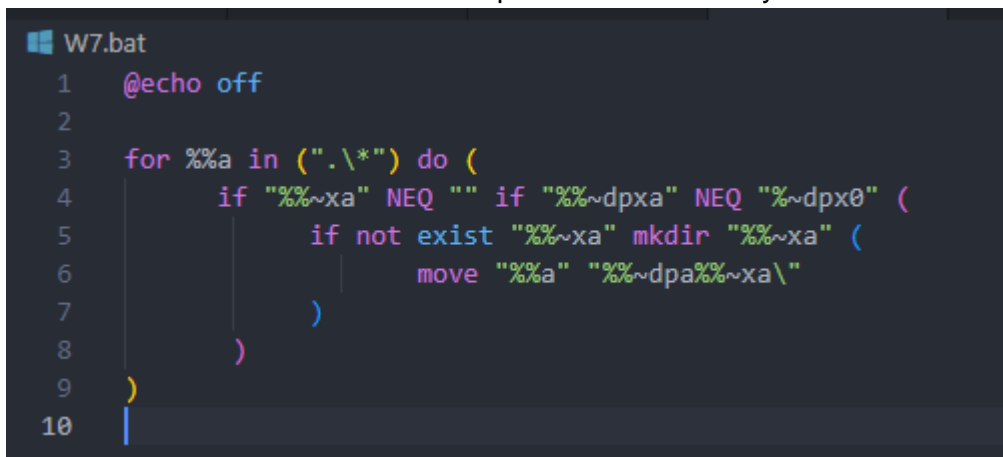7. Copy the following script Save this and run this in the **Downloads** directory or any directory you want.

```
@echo off

for %%a in (".\*") do (
    if "%%~xa" NEQ "" if "%%~dpxa" NEQ "%~dpx0" (
        if not exist "%%~xa" mkdir "%%~xa" (
            move "%%a" "%%~dpa%%~xa\"
        )
    )
)
```

What does the above script do? Elaborate on your answer.

```
W7.bat
1    @echo off
2
3    for %%a in (".\*") do (
4            if "%%~xa" NEQ "" if "%%~dpxa" NEQ "%~dpx0" (
5                    if not exist "%%~xa" mkdir "%%~xa" (
6                            move "%%a" "%%~dpa%%~xa\"
7                    )
8            )
9    )
10   |
```

Answer:

The above script is written in Windows batch script, and it appears to be doing the following:

1. The first line "@echo off" disables command echoing, so the script's commands are not displayed in the command prompt as they run.

2. The "for" loop loops through all the files and directories in the current directory that match the pattern ".*." (All files and directories in the current directory.)

3. The "if" statement decides whether the current file's file extension is not an empty string and whether the fully qualified path of the current file is not the same as the fully qualified path of the current directory.

4. If the preceding conditions are met, the script checks to see if the current directory has a directory with the same name as the current file.

5. If the preceding condition is met, the script will create a new directory with the same name as the current file.

6. The script then copies the current file to the newly created directory.

Thus, all files (not directories) in the current directory will be moved to a new directory with the same name as the file. If the directory already exists, the file will be moved to it.