CIS106 – Homework #2

Please note these are the same requirements as listed in homework #1. These will always be the requirements for the assignments but they won't be listed in any future assignments.

- Create a directory on your disk named batchfiles2 and store all batch files created in this assignment within that directory.
- The email server at BCC will not allow .BAT files to be received as attachments. For this reason, you are required to send all batch files created in this assignment in one zipped file. Zip the BATCHFILES directory (which should contain all your batch files) and send me the zipped file. **Name the zipped file BATCHFILES2**. If you don't know how to ZIP files, refer to the instructions provided on the course website – supplemental materials page - for zipping and unzipping files. (If you're using **gmail**, you will need to remove the extensions on the batch files before zipping them. I'll add the extension back when I receive the files.)
- For each batch file, in addition to including it in the zipped file, you must copy the text from the batch file into your Word document as the answer to that problem.
- You must also provide a sample execution of the batch file – I need to see the command you used to run the batch file and its output – copy all that text from the command prompt and paste it into your Word document.
- Each batch file must include documentation which, at a minimum, requires your name, the file's name and the general purpose of the batch file. Add any additional documentation where appropriate.
- Use the messaging recommendations discussed in class – remember to use @echo off -- keep your output 'clean'.
- Please note that when words within the instructions for the problem or within the sample message are displayed in italics, you are required to use an environment variable for that value; i.e., if the instruction refers to *username* (in italics) you should be using the %username% variable.
- If you don't know what I'm looking for – ask *before* submitting!
- These problems must be completed using the commands covered to-date in the class. To-date being the date the assignment was assigned.

Please remember to number each of your answers with the respective problem number.
These problems will require that you create user accounts on the computer. If you'd prefer not to add users to your personal computer, use one of your CIS106 virtual machines.

You should use the Virtual machines to complete all batch files in this assignment.

1) Create a batch file named user.bat . The batch file must use the net user command to add a local user account to the computer. The user's login name and password must be passed to the batch file by the user at the time the batch file is executed (parameters). The command must use the parameters entered by the user when creating the account. **Before** creating the account, you must check if the account already exists. If the account already exists, display an informative message to the user (sample message provided below) and end the batch file. If the account doesn't exist yet, create it and display an appropriate message (sample message provided below). The only messages that should be displayed in the output are those that *you* provided; no system messages should be displayed. You must use conditional processing symbols - no IF statements for this one. This doesn't mean you can't use labels! DO NOT nest a bunch of conditional statements on ONE line.

Sample Executions:

The first example displays a sample message that would display if the user does not already exist and is successfully added.
The second example displays a sample message that would display if the user already exists on the computer.

```
X:\>user john Microsoft!

The john user was successfully added.
```

```
X:\>user john Microsoft!

The john user already exists on this computer.
Please use a different username.
```

2) Modify the batch file created in question 1; call this one **useradd.bat**. All the same requirements as in question 1. In addition if when attempting to create the user the net user command generates an error message, display an appropriate error message. The system generated error should not be displayed. As with useradd, this must be done with conditional processing symbols - no IF statements. This doesn't mean you can't use labels! DO NOT nest a bunch of conditional statements on ONE line. All other aspects of the batch file should still work.

Sample below:

```
Command Prompt

I:\>useradd james
An Error was generated when attempting to create the user
    These are things you can check:
        Did you open the command prompt as administrator?
        If passwords are required on your system, did you include on?
I:\>
```

3) Modify the **userinfo.bat** file created in homework 1. The following requirements must be met:

The batch file must be able to handle multiple parameters entered by the user. In other words, it must allow the user to enter more than one username (parameter) and output the user's name, the user's full name and the date that the last password was set. (If you use the virtual machine that was used in homework 1, your users should have full names. If the users on the computer your using don't have values in their full name property, add a full name.) The batch file must verify a user exists. If the user exists, his/her password last set information must be displayed. If the user doesn't exist, an appropriate message must be displayed. A message *formatted as displayed below* must be provided for *each* username entered. Be sure the date is only displayed once.

Sample Execution:

X:\>userinfo mable john mary jarruda janelle

On Wed 02/07/2018, on K201-Podium

Note: the date on this line must be the current date and must ONLY appear once in the output. The computer name must be the actual computer's name.

mable
Full Name Mable Jones
Password last set 2/7/2018 5:44:41 PM

john
Full Name John Smith
Password last set 2/7/2018 4:52:58 PM

The mary user does not exist

jarruda
Full Name Janelle Arruda
Password last set 12/27/2017 11:53:09 AM

The janelle user does not exist

- You must use the SHIFT command and looping
- You must include the logic that will allow the loop to end on its own when there are no parameters left to process

- You must include the logic that will display an error message if the user attempts to run the batch file without entering a parameter
- You must include user verification. If the user exists, his/her password last set information must be displayed. If the user doesn't exist, an appropriate message must be displayed.
- Messages must be formatted as displayed in the sample execution above.
- Only messages created by you should be displayed; system generated messages should be hidden.

4) Make a copy of the userinfo.bat file created in problem 3. Name the copied file **info.bat**. The batch file <u>must continue to do everything that userinfo.bat did</u>. In addition, you must create a Help screen for your batch file. If the user enters /? as a parameter, display a screen that provides a brief explanation of your 'command', the syntax etc., similar to the help you see when viewing help on a windows command. Use the standard formatting syntax (i.e, [brackets] for optional parameters, etc.) Make your help screen look professional.

5) Create a batch file named hide.bat. The batch file must use the attrib command to hide files. The file name(s) of the file(s) to be hidden must be passed to the batch file by the user at the time the batch file is executed (parameters)
    - The batch file must be able to handle multiple parameters entered by the user. In other words, it should allow the user to enter more than one file name. (i.e, Hide File1.txt file2.txt file3.txt)
    - You must use the SHIFT command and looping
    - You must include the logic that will allow the loop to end on its own when there are no parameters left to process
    - You must include the logic that will display an error message if the user attempts to run the batch file without entering a parameter
    - Messages must be appropriately formatted.
    - Before hiding the file the batch file should confirm that it exists. If the file doesn't exist, the attrib command shouldn't be executed.
    - Two logs should be kept a hidden.log file and an error.log file. Each time a file is successfully hidden, a message should be stored in the hidden.log file. The message must identify the file name (including its absolute path) of the file that was successfully hidden. Each time a file is not successfully hidden (because it didn't exist), a message should be stored in the error.log file. The message must identify the file name of the file that didn't exist.
    - If either of the log files exist from a previous execution, they should be deleted before processing the parameters. No messages should be displayed in regards to the deletion.
    - At the completion of the batch file, the content of each log file must be displayed on the screen with an appropriate heading; i.e., The following files were hidden; The following files were not hidden because they didn't exist. NO output should be displayed on the screen while the batch file is running – all output should be sent to the log files and each log file's contents must be displayed when the batch file ends. The log files should only be displayed if they exist.
    - After displaying the log files, they should NOT be deleted.
    - Before displaying each of the log files, make sure it exists; if it doesn't exist, don't display it.
    - If the user enters /? As a parameter, information help for the command should be presented. An explanation of the purpose of the batch file as well as the command's syntax must be included in the output. The message must look professional.