# Batch Files

Time required: 30 minutes

**How to Create Screenshots:** Please use the Windows Snip and Sketch Tool or the Snipping Tool. Paste a screenshot of just the program you are working on. If you are snipping a virtual machine, make sure your focus is outside the virtual machine before you snip.

1. Press and hold down the **Windows key** & **Shift**, then type **S.** This brings up the on-screen snipping tool.
2. Click and Drag your mouse around whatever you want to snip.
3. Release the mouse button. This places the snip into the Windows Clipboard.
4. Go into Word or wherever you want to paste the snip. Hold down **CTRL**, then type **V** to paste the snip.

## Lab Description

A text file with a **bat** or **cmd** extension is called a batch file. You use a batch file to automate command line commands. A batch file is sometimes called a script.

# Shutdown Command

The **shutdown** command in Windows is used to shut down, restart, log off, or hibernate the computer from the command line. This can be used from the command line, or in a batch file.

1. Start 🡪 Command Prompt 🡪 Command Prompt:
2. Shut down the computer, type **shutdown /s /f /t 0** and press Enter.

/s: Initiates the shutdown process.

/f: Forces running applications to close.

/t 0: Sets a timeout of 0 seconds.

1. Restart: To restart, use **shutdown /r /f /t 0**

/r: Initiates a restart.

1. Logoff: For user logoff, use **shutdown /l**

**Options**

1. **/s** This option is used for a **shutdown**. It instructs the computer to initiate a full system shutdown, powering off the machine.
2. **/r**  For a **restart**. This option tells the computer to reboot.
3. **/l** Used for **log off**. It logs off the current user without shutting down or restarting the computer.
4. **/h** This option is used to **hibernate** the computer. It saves the current system state to disk and then powers off the computer. It's similar to shutting down, but it allows you to resume your work exactly where you left off when you turn the computer back on.
5. **/f** The **force** option. When combined with any of the above options, it forces running applications to close without warning. This can result in unsaved data loss, so use it with caution.
6. **/t** The **timeout** option. It allows you to specify a delay in seconds before the chosen action takes effect. For example, `/t 60` will delay the shutdown or restart by 60 seconds.
7. **/a** The **abort** option. If you've scheduled a shutdown or restart with a timeout using `/t`, you can use `/a` to cancel it.

**Example Usage**

* To shut down immediately and force applications to close: **shutdown /s /f /t 0**
* To restart immediately and force applications to close: **shutdown /r /f /t 0**
* To log off the current user: **shutdown /l**
* To hibernate the computer: **shutdown /h**
* To schedule a shutdown in 5 minutes: **shutdown /s /t 300**
* To cancel a scheduled shutdown or restart: **shutdown /a**

Remember to be cautious when using the `/f` option, as it forcefully closes applications without giving users a chance to save their work.

# Robocopy

Robocopy allows you to copy and synchronize files and folders between different locations. You can make a different batch file for different copying needs, just change the source and destination folders. You can also have multiple commands in a batch file.

1. At a command prompt, use robocopy to copy the files in your My Documents folder to a folder named Backup on your USB flash drive. Replace %username% with your username, and E: with your flash drive letter.  
   You can also create a folder on your computer to synchronize to.

|  |
| --- |
| robocopy "C:\users\%username%\documents" "E:\Backup" /MIR /V |

1. **Insert a screenshot of the copy process:**

Click or tap here to enter text.

1. Check your flash drive after the command finishes.
2. Change a file in your documents folder.
3. Create the following file in Notepad. Replace %username% with the username you see in File Explorer.

|  |
| --- |
| robocopy "C:\users\%username%\documents" "E:\Backup" /MIR /V  pause |

1. Use File, Save As to save the batch file to your desktop as **BackupDocumentsToFlash.cmd**  
   Be sure to use All Files when saving.
2. Double Click **BackupDocumentsToFlash.cmd**.
3. **Paste a screenshot of the result when the command is successful and pauses the first time:**

Click or tap here to enter text.

**NOTE:** Some system folders will give errors, that is normal, those folders are compatibility shortcuts and are not relevant.

1. **What did you discover with this assignment?**

Click or tap here to enter text.

1. **Will you use the robocopy or shutdown command in the future? If so, how?**

Click or tap here to enter text.

1. **Will you use batch files in the future? If so, how?**

Click or tap here to enter text.

## Assignment Submission

1. Attach this completed document to the assignment in Blackboard.
2. Attach a separate copy of your batch file to the assignment in Blackboard. Do not put them in this document.