**Boot-up Controls**

* Boot in BIOS:
  + Advanced startup from Settings under Recovery. Choose Troubleshoot, Advanced Options, and UEFI Firmware Settings. Restart.
  + Press and hold Shift as I restart or turn off the computer. Press and hold the F2 button as I press the power button. Do not let go until the BIOS displays. Press F2 or DEL as logo screen appears to launch BIOS.
* Supervisor BIOS:
  + Press and hold Insert as you power on. Then enter the password, and press and hold F2.
* Press and hold F8 as computer restarts
  + Safe boot. Removes all CDs and external drives.
* Press F11 or SHIFT+F8
  + Advanced startup options.
  + Alternatively, use a recovery drive. Preferably set it before restarting.
* Press F12 for boot order menu.

**Frequently Used Commands**

* cls
  + Clears command screen
* start *executable*
  + Substitute only ONE word for “executable”
    - For example, to open up Internet Explorer, write:
      * “start explorer”
* runas
  + Bring up a menu of how to use this command.
* exit
  + To close command prompt
* cd /d F:/Folder Path with Spaces or with Back Slashes is Fine
  + Use this if I need to change the hard drive.cd Folder Path
* cd Folder Path
  + Use this if I don’t need to change the hard drive.

**Programming Commands**

* fc test.out solution.txt
  + ***file compares*** *test.out* and *solution.txt*
  + Notes any differences between files, or lack of.
* gcc -o hillcipher hillcipher.c
  + Compile hillcipher.c into an executable called hillcipher.exe
  + Flag with -lm after gcc to link the math library.
* hillcipher sample-key.txt sample-input.txt
  + Run the C program hillcipher.exe as argument 0 with sample-key.txt and sample-input.txt as arguments 1 and 2, respectively.
* sudokode < sudokode.txt > sudokode.out
  + Run the C program sudokode.exe with sudokode.txt as the input file for scanf and sudokode.out as the output file for printf.
    - Omit < if I want to produce external output without a need for external input, or omit > if I need external input but I do not need to produce external output.
* javac SneakyQueens.java
  + Compile SneakyQueens.java
* java TestCase10
  + Run TestCase10.java
* java -jar Othello.jar
  + Run Othello.jar
* editcap -i 10 captured.pcapng 10secs.pcapng
  + Split the captured file into many 10-second interval trace files using a utility called editcap.
  + -c 10000
    - 10,000 packets per trace
  + -s 128
    - Slice the file to 128 bytes per file.
* net start npf
  + Start the NPF driver (WinPcap).
* net stop npf
  + Stop the NPF driver (WinPcap).

**List of Keywords for Command Prompt**

* sfc /scannow
  + System File Checker
* DISM /Online /Cleanup-Image /ScanHealth
  + Probably scans health and reports back.
  + Never tried before.
* DISM /Online /Cleanup-Image /RestoreHealth
  + Downloads missing files. Restores corrupted files.
* findstr /c:”[SR]” %windir%\Logs\CBS\CBS.log>”%userprofile%\Desktop\sfcdetails.txt”
  + View SFC details.
* takeown /f *Path\_And\_File\_Name*
  + Administrative ownership of file.
* icacls *Path\_And\_File\_Name* /grant adminstrators:F
  + Full access to file.
* copy *Source\_File Destination*
  + “Destination” is old file. “Source\_File” is good/new.
* helphelp ***or*** help *ver*
  + “or” is to indicate the other command. Do not include “or” in command prompt!
  + “ver”is an example
* ipconfig
  + IP Address
* netsh winsock reset
  + Resets winsock catalog. Useful for network connection errors.
* netsh int ip reset c:\resetlog.txt
  + TCP/IP reset. Rewrites two registry keys.
* Chkdsk /f /r
  + Detect and resolve any file system structural corruption
  + NEVER USE THIS COMMAND. IT’S THE ONE WITH THE 10% SCANNING REPAIR ERROR. THIS IS A FORBIDDEN COMMAND.
* fsutil dirty query c:
  + Command checks to see if the C: drive is dirty or not, and inform the user subsequently.
    1. A different drive can be used, instead.
* CHKNTFS /X C:
  + Prevents Windows from running chkdsk on C: drive on next boot up
    1. A different drive can be used, instead.
* Says the type of file system is NTFS?
* ipconfig /flushdns
  + No reboot is needed. Give it a few minutes, and then load various websites.
  + Alternatively:
    1. View Network Connections
    2. Right-click on Network Adapter, and choose “Properties”
    3. Scroll down in the “This connection uses the following items:” box
    4. Uncheck “Internet Protocol Version 6 (TCP/IPv6)”
       - Note that IPv6 is more secure than IPv4, but the traffic taking the IPv4 tunnel is faster
* lodctr: /T: TermService
  + Modifies the size and date that are stored in the registry for the Perfts.dll file
  + Fixes event ID 2003
* diskpart (see superuser.com/questions/536813/how-to-delete-a-partition-on-a-usb-drive)
* netsh wlan show network mode=bssid
  + See signal strength of all Wifi’s in your range