Week 5 Topics:
OS X, Getting All Kinds of GUI, and DOS Scripting

Before class read these questions over. Complete them in class as time permits and finish them in the current week. If you don't understand a question, ask for clarification in class. Questions from quizzes will form the bulk of the midterm and final exams.

1. What is the correct pronunciation of OS X? (Circle one)
   (a) "Oh-Es-Ex"
   (b) "Oss-Ex"
   (c) "Oh-Es-Ten"
   (d) "Ox"
   (e) "Ewwww..."

2. What was the name of Steve Jobs company that Apple bought, and where the X comes from in the name of the Mac operating system? **NeXT Inc. / NeXT Computer Inc. / NeXT Software Inc.**

3. Which is the most current version of OS X? **OS X 10.10 (Yosemite)** Why is this relevant? **Apple releases operating systems at the rate of approximately one major point-release (EG: 10.9 -> 10.10) per year. When they do, they will usually halt development on the second oldest release (n-2), and only release ultra-critical security and stability patches for systems older than first oldest release (n-1), effectively freezing the version number of that release.**

4. Why do you think Apple dropped 32 bit support with OS X 10.7? **By 2011, when "Lion" was released, most Apple computers had 64-bit processors and supporting hardware. The 32-bit machines were coming-up on 5 years old and this is roughly the time where most computer hardware becomes, "too small" or "too slow" to run current applications.**

5. Which processor does OS X 10.7 run on? **Any 64-bit Intel processor starting with the Core 2 Duo, and up through the i3, 15, and i7 models including the Xeon series.**

6. Which operating system is OS X based on?   (General) **Berkley Unix**
   (Specific distribution)? **FreeBSD and NetBSD**

7. Why is it a good idea <u>NOT</u> to use spaces in file names? **In many operating systems, "white space" is important in the syntax of commands. By adding extra white space, you can cause some commands to fail, and/or filenames to be truncated or even conflict with another filename with a similar name structure.**

8. Is there any reason to keep file names short, e.g. 8.3, in Windows and Linux? **Only if you intend to ensure that the files remain highly portable to (older) FAT filesystems. "SFN" (Short File Names) may be required by certain embedded systems such as digital cameras that still use CF (Compact Flash) cards or older SD (Secure Digital)**

9. Do extensions have meaning to the file system in Linux? **No.**

10. What is "Windows Explorer"? **Windows' file manager**

11. What is "Nautilus"? **The default file manager for the Gnome 2 desktop environment under Linux**

12. If you double click on a file in Windows Explorer or Nautilus to execute it and it does not run,
how do you add an association from that file type in...
... Windows? **(8.1) Select a file -> Right click -> "Open With" -> Choose an application or <-> "more options" ->**
"Look for another App on this PC." (7) Select a file -> Right Click -> "open" -> "Select a program from a list of installed
... Linux? **programs" -> Ok -> Select a program -> ok.**
(Nautilus) Select a file -> right click ->"Properties"->"Open With" (tab) -> Select an application or add one.

13. Will the process of file association differ for different windowing environments under Linux?
(EG: KDE – Knoqueror / Dolphin, Gnome – Nautilus, XFCE – Thunar) **Yes**

14. How do you cause Windows to always display extensions? **Open "Control Panel" -> Appearance and**
Personalization -> Folder Options. Under the "View" tab, un-check "Hide extensions for known file types" -> Ok.
Why is this a good idea? **It is not uncommon to get files with double extensions (EG: virus.txt.exe) and clicking**
on it could have potentially dire and unwanted consequences. With such reliance on file extensions for hints as to
how to deal with a file when double-clicked, its wise for the user to know EXACTLY what they're getting into.

15. What is a task bar? **A graphical tool bar that assists in the launching and management of programs and program**
Where is it usually found? **Along the bottom edge of the screen** **windows**
Does it have to stay there? **No. It can be dragged to another edge of the screen - but always an edge.**

16. When you are done with DOS, it is safe to just power it off? **Yes** Is this safe in Windows
and Linux? **No** Why or why not? **With sophisticated filesystems like NTFS or EXT4 it is important to let**
the computer finish all writes to the filesystem. Failure to shut-down properly has the potential to , at best, corrupt the
filesystem and, at worst, damage it beyond repair.

17. What kinds of things can you do by right clicking on the desktop in Windows or Linux?
Configure some items of the GUI such as re-sizing, the desktop, add more virtual desktops (Linux), or change the
background image.

18. What program is the CLI in DOS? **COMMAND.COM**

19. **Research Question** (Get your Google on)
Why is the command line called a "shell"? **Because the program itself is an interpreted programming**
language used to interact with the kernel, and still remain "protected" from having to know all of its nuances.

20. How do you use positional parameters passed to a FreeDos script? **You access them by means of an**
array of 10 variables - the name of the script itself, (%0), and each variable up to a maximum of 9 (%1 .. %9)

21. In FreeDos what is the purpose of the @Echo off command? **This tells DOS to not output each item**
in the script to the display as it iterates over them unless specifically asked to. The default is "@Echo on"

22. How many parameters can you pass in FreeDos without needing to use the [**SHIFT**]
command? **Nine.**

23. How do you set and use assigned variables in FreeDos?
Set: set <variablename>=[character string] (EG: "set mystuff=something")
Get: %<variablename>% (EG: "Echo %mystuff%")

24. List two types of "test" in FreeDos, and how do you use them?
   IF [NOT] EXIST <filename | directoryname> <some action> (EG: IF EXIST BACKUP.TXT ATTRIB +A BACKUP.TXT
   IF [NOT] ERRORLEVEL <#> <someaction> (EG: IF ERRORLEVEL 1 SET varname=Error occured)
   IF [NOT] <value1>==<value2> <some action> (EG: IF NOT %var1%==%4 GOTO Marker)

25. How would you implement a block of code to execute as the result of an if statement in FreeDos? **Through the use of "tags" and "GOTO" statements pointing to those tags. (EG:**
   :LOOP
   IF %1==%var1% GOTO JUMPOUT
   SET /p var1=
   GOTO LOOP

26. What is the purpose of the "choice" command in FreeDos? **To return the ERRORLEVEL that corresponds**
   with one of the given options in CHOICE's "/c" flag/option.

27. What is "PATH" in FreeDOS, and how is it set? **PATH is the list of default directories through which**
   DOS will search to run a given command. It is set in the AUTOEXEC.BAT file as
   "SET PATH=[<C:\[directory]\[subdirectory]\[…]>;[…]]" (EG: "SET PATH=C:\%sysdir%;C:\mystuff\;D:\")