

NAME: _____

COLLABORATOR(S): _____

1. Read *Origins and History of Unix*: Who were the inventors of Unix? What was the motivation between the projects when considering batch computing?

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2. What are the three components of a Unix system? Provide an example of the interaction from a user perspective down to the hardware and back up.

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3. According to *APUE*, what does an operating system consist of, in a "broad sense"?

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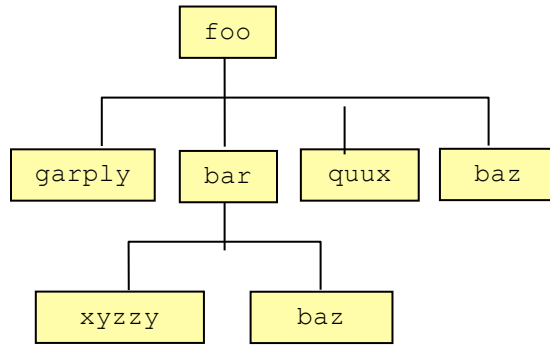
4. In the Unix File System hierarchy, match the location of the item to its directory path

- _____ Essential Command Binaries
- _____ The Kernel
- _____ Unix Manual Pages
- _____ Non-Essential Command Binaries
- _____ Library files for Binaries

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5. Consider the following file system hierarchy and the path:
 /foo/bar/../../quux/../../baz/../../bar/../../baz



- (a) Circle the item that the path refers to.
- (b) Draw arrows indicating the items that are being referenced.

6. Assume you are in your home directory, and you want to create a directory structure and files that looks like this:

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```

~/
|--> myDir/
|   |--> foo.txt
|   |--> bar/
|       |--> baz.txt
|___,->iloveic221
  
```

Write the sequence of command line instructions to generate that file structure, assuming you are in your home directory.

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7. Assume the following file system structure for your current working directory.

```
~/
|--> classNotes/
|   |___,-> lec0.txt
|   |___,-> demo
|       |___,-> ls-demo.txt
|-->CynicalMidsGifs/
|-->tmp.txt
|-->.emacs
`-->.ssh/
    |___,->known_host
    |___,->authorized_keys
    |___,->id_rsa.pub
    |___,->id_rsa
```

What files/directories are listed when running the following commands from the current working directory:

(a) `ls`

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(b) `ls -a`

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(c) `ls -a .ssh/`

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(d) `ls .emacs`

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8. Consider the following `ls -l` output, label the output appropriately.

```
drwxr-xr-x  2 aviv  4096 2013-12-22 10:57 demo/  
-rw-r--r--  1 aviv 13454 2013-12-22 10:56 text.dat
```

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9. For the following commands, determine in which bin directory they live using the `which` command.

| | | | |
|-------|-------|-------|-------|
| ls | _____ | cat | _____ |
| which | _____ | touch | _____ |
| head | _____ | tail | _____ |
| cd | _____ | mv | _____ |
| rmdir | _____ | grep | _____ |
| cut | _____ | find | _____ |

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10. For one of the commands above that was not covered in lecture or lab, use the `man` command to read the description in the Unix manual and describe its function and one of its options:

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