CST 334: Operating Systems

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# Bash puzzle

**Purpose**: Working with files and directories is the most common thing you'll be doing at the bash command line. I created this puzzle to help you get familiar with directories and bash commands for file and directory handling.

**Instructions**: The following is output from a bash session.

$ ls

week2-test

$ cd week2-test

$ ls

a foo.txt

$ ls .

a foo.txt

$ cd a

$ ls ..

a foo.txt

$ pwd

/cygdrive/e/Glenn/CSUMB/fall17/os/week2-test/a

$ cd a

$ ls

a foo.txt

$ cat foo.txt

stuff

$ cat ../../foo.txt

some stuff

$ cd a

$ ls

$ cp ../foo.txt bar.txt

$ cp bar.txt ../../foo.txt

$ cd ../../..

$ pwd

/cygdrive/e/Glenn/CSUMB/fall17/os/week2-test

It’s not easy to see what’s happening because many files and directories have the same names.

I want you to look at the sequence of commands, and try to figure out the situation after all the commands have been executed.

The questions below give relative pathnames. They are relative to the current working directory after all the commands have been executed.

1. how many .txt files in the current working directory?
2. is it possible that a file a/bar.txt exists?
3. does file foo.txt exist?
4. does file a/a/bar.txt exist?
5. what is the content of file a/foo.txt?
6. was file a/foo.txt created during the execution of the commands?
7. what is the content of file a/a/foo.txt?
8. was file a/a/foo.txt created during the execution of the commands?
9. what is the content of the file a/a/a/bar.txt?
10. was file a/a/a/bar.txt created during the execution of the commands?

Provide your answers by copying [puzzle.txt](https://drive.google.com/file/d/1sclaNUDqiY5TkJ_bgobs59rM3oh_Fe2c/view?usp=sharing) and editing it.

**Submission** : Submit your edited puzzle.txt on iLearn.

**Grading**. Each question is worth 10 points.