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|  | Linux Quiz #2  D2L Based |  |

**Setup**

For the following questions, please ensure that you are starting in the ~/Downloads directory. Your answers should be consistent with this. You should not open the files or access them in any way except via the terminal.

1. Download the file “Linux\_Quiz\_2.tar.xz” from D2L before (unsure if/how D2L offers downloading files during a quiz) opening the quiz.
2. Extract the contents of this archive in your ~/Downloads directory.

**File manipulation**

1. What command would you use to display the last 20 lines of the text file provided?
   1. tail -20 Linux\_Quiz\_2.txt
2. What three commands would you use to determine the number of lines that contain the string “and” **in the first 500 lines** of the provided text file?
   1. head
   2. grep
   3. wc
3. How many lines contain the string “Minerva” (case-sensitive) in the first 2,000 lines of the provided text file?
   1. 47, “head -2000 Linux\_Quiz\_2.txt | grep “Minerva” | wc -l”
4. Which line of the provided file contains “Go Bears!” (**case-sensitive**)
   1. 1069, grep -n “Go Bears!” Linux\_Quiz\_2.txt
5. Which lines of the provided file contain “Go Bears!” (**case-insensitive**)
   1. 161, 1069, 4740, 4744, “grep -n -I “Go Bears!” Linux\_Quiz\_2.txt”
6. Make a new directory called “TOOP\_Quiz”. From the Downloads directory, create a new text file called “Top50.txt” containing the first 50 lines of Linux\_Quiz\_2.txt.
   1. “head -50 Linux\_Quiz\_2.txt > TOOP\_Quiz/Top50.txt”
7. Sort the Top50.txt file alphanumerically and store the output in a new text file called sorted.txt. Next print the last line of the file. What is this line?
   1. cat TOOP\_Quiz/Top50.txt | sort > TOOP\_Quiz/sorted.txt
   2. “wife and country, was detained by the goddess Calypso, who had got”

**File ownership and permissions**

Say you download a script from the internet that is to install dependencies of a large program for you. However, when you attempt to run this program, you are given the following message: “bash: ./launcher.sh: Permission denied.” You attempt to run the command again as the super user, but the program informs you that it is not designed to run as the super user.

1. What command would you use to determine the permissions of the launcher?
   1. “ls -l launcher.sh”
   2. “stat launcher.sh”
2. Assume that you notice that the line given appears as such “-rw-rw-r-- 1 objee objee …” Express these permissions as three octal numbers.
   1. 664
3. Assume you are given the following octal numbers that represent permissions. Express these as a character string: 623
   1. rw--w--wx
4. How would you change the permissions of the file to allow the owner of the file and group members to execute the script? You do not want others to execute the file.
   1. “chmod 774 launcher.sh”
5. You wish to remove all permission from the other users. How would you do this?
   1. “chmod o-rwx launcher.sh”
6. You wish to take ownership of this file. Your username is “gooblatz”. How would you do this?
   1. “sudo chown gooblatz launcher.sh”
7. You wish to change the group of the file to “cadet”. How would you do this? Assume that you already own the file.
   1. “chown :cadet launcher.sh”