جامعة بيرزيت
Birzeit University

Computer Science Department- Faculty of Engineering and Technology

Due to: Tuesday 7/5/2024, before 5:00 PM

Submission on the Linux Server

Projects 2. All answers must be from Labs(1-8) only.

Question 1:

On your system, write the commands to do each of the following and save the number of questions and the answer to a file called ***Question1_ answers.*** ***You MUST also take screen captures or images clearly showing the commands you executed on your system for each question below and the results displayed on the screen. The screen captures, or images should be sequenced in a Word file called Question1_ images.***

Note: ***Every time, run the clear command before taking a screenshot of your machine terminal.*** ***YOUR TERMINAL PROMPT should be clearly shown.***

1. **Question#1:** Use the find command to search for the password file in your system (under the root'/'directory). The command must redirect the output to a file called result.txt and the list of error messages in a file called errors.txt.
2. **Question#2:** run vi forever in the terminal and write the following script:

```
while true
do echo hi comp311 students> out
done: wq!
```

3. **Question#3:** Run the command *forever twice* in the background using &.
4. **Question#4:** Run the command *forever* twice in the foreground, suspend them with CTRL+z, and put them running into the background. Stop the first job. Bring the second job into the foreground and then suspend it. Print the status of these jobs into a jobfile.txt.
5. **Question#5:** Run the command *forever* six times in the background using &, then use the kill command to terminate the process by its job number. Repeat this task but kill the process by specifying its PID.

6. **Question#6:** Run the command *forever* in the background using &, then use the kill command to suspend (stop)the process. Finally, use the bg command to resume running the process.
7. **Question#7:** Suppose there are many *forever* processes in the background, for example, more than 30 processes in the jobs. We need to kill these processes at once using **only** the *kill* command (the terminal mustn't be killed, terminated, or hanged).
8. **Question#8:** Create a variable called myprj2var in your current bash shell with value project, then make sure that the variable myprj2var is passed from bash to *csh* when you run a *csh* shell under your *bash* shell.
9. **Question#9:** Create a Prj2 directory under your home directory, add the directory to the end of your current **PATH** environment variable (temporarily), and display the value of the **PATH** variable on the screen.
10. **Question#10:** What is the difference between *nice* and *renice* commands? Give a usage example for each of them. (use man command)

Question 2:

Using the given *prj2_passwd* file, use your system to write a *single* command to do each of the following (Write the number of the question and the answer to a file called *Question2_answers*). *You MUST also take screen captures or images clearly showing the commands you executed on your system for each question below and the results displayed on the screen. The screen captures or images should be included in sequence in a Word file called Question2_images.*

1. **Question#1:** Display the login names (e.g., u1180111) of all users whose last name is hamdan (all cases) and whose default shell is *csh*.

2. **Question#2:** Display the last names in uppercase of all unique users (all cases) with comp311 as part of their home directory, sorted by the numerical value of their user id numbers in descending order.

3. **Question#3**: Select all *ksh* shell usernames (full name, separated by a space in uppercase) and save them to a file called *ksh_shellusers*.

4. **Question#4:** Save the last five students' full names into a *user's.txt* file. The name in this file should appear in uppercase and sorted in descending order (i.e., first name and last name separated by a space) for only students have defualt bash shell.

5. **Question#5:** Display the unique first names of all users (all cases) whose last names end with the letter between a-h, and save the result to the a_hSorted.txt file

6. **Question#6:** List the full names (*all in uppercase*) sorted in ascending order of all users whose shell is NOT ksh.

7. **Question#7:** List the first names of all users (sorted based on ID number in descending). The user that has a login name starts with u118. Store the result in the u118.txt file.

8. **Question#8:** Display all files in the (*/etc.)* directory that do not contain word *passwd* in these files page by page on the screen

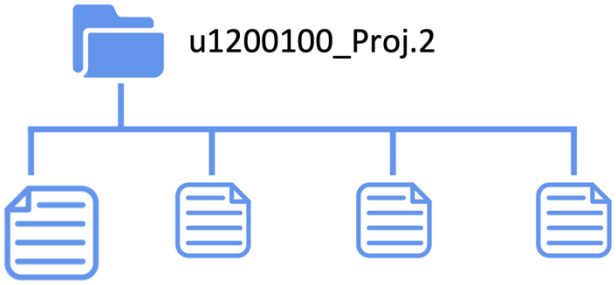
9. **Question#9:** Display the number of directors and files in the */etc.* The directory or file starts with any letters of rage (a-j) for all cases.

10. **Question#10:** List the initials (i.e., the first letter of the first name followed by the first letter of the last name) of all comp322 users.

Submission (on the Linux Server by the due date and time):

You must create prj. 2 under your home directory (at Linux server 172.16.2.90 from inside Masri Building using FOIT wireless point). Submit inside this directory the following four documents:

Sample:



Question1_answers
Question1_images
Question2_answers
Question2_images

Note: You can use the FileZilla tool OR ftp command as follows

ftp 172.16.2.90 (using the same username and password). After logging in, use the command put (from your home directory)
put question1_answers.doc
(a successful message should be displayed on the screen)

Projects that do NOT include the two image files will NOT be graded and will receive a zero grade.

- ***You should do all the work above wholly on your own. Working with anybody else in class or others on any part of this project will result in a zero grade.***
- **No projects will be accepted after the due date *and TIME for any reason***

Goodluck