**Project-1 Linux**

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**邮件主题：**高级大数据解析Project-1

**附件：**姓名+学号.pdf

报告中只需包含题号和相应的command或shell脚本内容，无需实现结果。

**截止日期：**

**Prerequisite:**

**Master the commands listed below:**

Uname, cat, echo, whoami, chmod, chown, du, df, apt-get, mv, cp, rm, tail, head, grep, ssh, tr, find, kill

**You can use the following account to log into our group linux server:**

Ip:

User name 0:

Password 0:

User name 1:

Password 1:

You can start with question E6 if you don't know how to connect to a server.

**Question:**

1. Use the command uname to simultaneously show the name and version of the system
2. Use the command echo to show the full path of your home directory
3. Use the command whoami to show the current login user.
4. Use the command chmod to make the file 1.sh in the current directory executable.
5. Show the disk usage of the current directory, with depth 1, and human readable output.
6. Use ssh to connect to 10.19.248.12, with user oyel.
7. Use apt-get to install jq.
8. Display the absolute path of the current directory.
9. Make a new file named 1.sh, with content: echo “hello world”.
10. Change the name of file 1.sh to 2.sh.
11. Make a new folder in current directory, named folder1.
12. Copy 3.sh in current directory to folder1, still named 3.sh.
13. Use the command cat to obtain the content of 2.sh and redirect the output to 3.sh.
14. Create two new txt files, add line numbers to the contents of file 1, and then input file 1 to file 2.
15. Show the name of all files and folders, including the hidden ones, in current directory.
16. Randomly select a file directory to list the files modified in the current directory and its subdirectories in the last 10 days.
17. Make the files and subdirectories of directory “dir” readable, writable, and executable to all users, use mode.
18. Run a python program, query the pid number, and kill it with the kill command.

N1. Show line 6-10 of file /etc/hosts.

N2. Copy the file 1.sh in the current directory to your home directory, the modification time should be preserved.

N3. Check whether the files and subdirectories of directory “dir” are writable. If not, output “no x mode”.

N4. Use grep to find all matches of pattern “url” in file “commits.json”, print 1 line of leading and trailing context surrounding each match.

N5. Sort all the files and subdirectories in the current folder according to size in descending order and print the largest three with filename and size. Use pipeline.

H1. Echo every 2 letter combination of a, b, c, and d including doubles. Do not write out all combinations manually, and do not use loops.

H2. Use awk to show the first and the second column of command “ls -l”, the header should not be included(grep -v).

H3. Transform all uppercase letters to lowercase in the file “input.txt”, and output the result to “output.txt”.

H4. Write a script to sum from 1 to 100.

H5. Write a script to show the number of lines of each file in the current directory.

H6. Write a script. Count the number of users currently logged in to the system, and judge whether it is more than three. If it is, display the actual number and give a warning message. Otherwise, list the account name and terminal of the logged-in user.