

# 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，运行结果可以截图。

## 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

Password

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

## Question:

- E1. Use the command uname to simultaneously show the name and version of the system
- E2. Use the command echo to show the full path of your home directory
- E3. Use the command whoami to show the current login user.
- E4. Use the command chmod to make the file 1.sh in the current directory executable.
- E5. Show the disk usage of the current directory, with depth 1, and human readable output.
- E6. Use ssh to connect to 10.19.248.12, with user guest.
- E7. Use apt-get to install jq.
- E8. Display the absolute path of the current directory.
- E9. Make a new file named 1.sh, with content: echo "hello world".
- E10. Change the name of file 1.sh to 2.sh.
- E11. Make a new folder in current directory, named folder1.
- E12. Copy 3.sh in current directory to folder1, still named 3.sh.
- E13. Use the command cat to obtain the content of 2.sh and redirect the output to 3.sh.
- E14. Create two new txt files, add line numbers to the contents of file 1, and then input file 1 to file 2.
- E15. Show the name of all files and folders, including the hidden ones, in current directory.
- E16. Randomly select a file directory to list the files modified in the current directory and its subdirectories in the last 10 days.
- E17. Make the files and subdirectories of directory "dir" readable, unwritable, and executable to all users.
- E18. 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. Use grep to find '.txt' files in the current directory and delete.
  - N3. Copy the file 1.sh in the current directory to your home directory, the modification time should be preserved
  - N4. Make the files and subdirectories of directory "dir" readable, writable, executable to all users, use mode.
  - N5. Use grep to find all matches of pattern "url" in file "commits.json", print 1 line of leading and trailing context surrounding each match.
  - N6. 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.
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- H1. Use ps to find the process who start with "python "and kill them.
  - H2. Transform all uppercase letters to lowercase in the file "input.txt", and output the result to "output.txt" .
  - H3. Use awk to show the first and the second column of command "ls -l" , the header should not be included(grep -v).
  - H4. Write a script to display "Moring"、"Noon"、"Evening"
  - H5. Write a script to Calculate the total size of files which ends with '.conf' in '/etc'
  - H6. 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.