1. Change your location to the /etc folder.  
   cd /etc
2. Create a new user named testuser.  
   adduser --no-create-home --disabled-login --gecos GECOS testuser3  
   GECOS – no providing full details  
   userdel testuser3 - delete
3. Add testuser to the sudo group.  
   usermod -aG sudo testuser  
   group testuser
4. Install the htop package.  
   apt install htop
5. Create a new file called info.txt in your home directory.  
   eval echo ~$ubuntu --- to know omefolder location  
   vim /home/ubuntu/info.txt
6. Write "Hello, Linux!" into info.txt.  
   ((in vim…))
7. Create a directory named projects inside /home/testuser.  
   mkdir /home/testuser  
   chown testuser:testuser /home/testuser  
   mkdir /home/testuser/projects
8. Move info.txt to the projects folder.  
   mv info.txt /home/testuser/projects/
9. Set permissions for info.txt so only testuser can read it.  
   chmod go-rwx info.txt[[1]](#footnote-1)
10. List all files in /var/log and save the output to log\_files.txt.  
    find /var/log/ > log\_files.txt
11. Set up a cron job to create a backup of projects every day at 2 AM.  
    crontab -u root -e  
    >> \*/5 \* \* \* \* Cp /home/testuser/projects /home/testuser/projects2 >/dev/null 2>&1[[2]](#footnote-2)
12. Change the owner of projects to testuser.  
    chown testuser:testuser /home/testuser/projects/
13. Find all .conf files in /etc and list them.  
    find /etc -type f -name "\*.conf"
14. Display the last 10 lines of the system log.  
    tail /var/log/syslog -n 10
15. Create a symbolic link to info.txt in the /tmp directory.  
    ln /home/testuser/projects/info.txt /tmp/info
16. Check the disk space usage on the server.  
    df -h
17. Restart the SSH service.  
    systemctl restart ssh.service
18. Grant testuser permission to use the apt-get update command without a password.  
    visudo  
    >> testuset ALL=(ALL:ALL) NOPASSWD: /usr/bin/apt
19. Find out the IP address of your server.  
    ifconfig
20. Delete testuser and their home directory.  
    deluser testuser --remove-home

# Usefull pipeline commands:

* Wc – count lines, world and characters in file/output
* Head – the beginning of input(-n[NUM] number of lines)
* Cut – print the column of the output (-f[NUM] which column)
* Grep – output the line that match a string (-V to show unmatched lines)
* Sort – sort alphabetically
* Uniq – prevent printing same line twice

Useful find command – "man -k [part\_of\_the\_command]". Then, can search for the full name

Touch – update the last modify time of files, used too to create empty file

Ls – '?' is a char, '\*' is multi char

Echo:

* \* - show files,
* $((….)) - use arithmetic's expressions in your output
* …{[stirng],[string],…}…. - Create a multi output with the different string from the {}
* …{[num]..[num]}.. – create a multi output with numbers from firest to second.  
  if added '0's before one of the numbers, it will always have 0 before the output number, to match the number's length
* $[VARNAME] – print variable
* $([COMMAND]) – print command output
* \[CHAR] – print char that usually expression, like '\$'
* "…." – print duplicate space

1. Instructions:

   "u", "g", "o" is for user(owner), group, other  
   "+","-" is for add/remove permission  
   "r","w","x" is for read, write, execute [↑](#footnote-ref-1)
2. https://crontab-generator.org/ [↑](#footnote-ref-2)