

Bài Tập Thực Hành Lab 1 - Bài nộp lại

Bài 1: Tạo thư mục theo yêu cầu

```
ubuntu@ubuntu-2274802010449:~/iDragonCloud$ cd ~
ubuntu@ubuntu-2274802010449:~$ mkdir -p lab/{data,project}
ubuntu@ubuntu-2274802010449:~$ touch lab/data/file1.txt lab/data/file2.txt
ubuntu@ubuntu-2274802010449:~$ cp /etc/passwd lab/data/file1.txt && cp /etc/passwd lab/data/file2.txt
ubuntu@ubuntu-2274802010449:~$ cd ~/lab
ubuntu@ubuntu-2274802010449:~/lab$ tree
.
|-- data
|   |-- file1.txt
|   |-- file2.txt
|-- project

2 directories, 2 files
ubuntu@ubuntu-2274802010449:~/lab$ cd data/
ubuntu@ubuntu-2274802010449:~/lab/data$ cat file1.txt
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin)/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
_apt:x:100:65534:./nonexistent:/usr/sbin/nologin
systemd-network:x:101:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:102:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:103:104:./nonexistent:/usr/sbin/nologin
systemd-timesync:x:104:105:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
ubuntu:x:1000:48:SysAdmin:/home/ubuntu:/bin/bash
ubuntu@ubuntu-2274802010449:~/lab/data$
```

2 file (file1.txt) và (file2.txt) đã được tạo có nội dung được chép từ file */etc/passwd*.

Bài 2: Xóa, di chuyển, sao chép file và thư mục

- Sao chép lab sang backup

```
ubuntu@ubuntu-2274802010449:~$ cp -r ~/lab ~/backup
ubuntu@ubuntu-2274802010449:~$ cd ~/backup
ubuntu@ubuntu-2274802010449:~/backup$ tree
.
|-- data
|   |-- file1.txt
|   `-- file2.txt
`-- project

2 directories, 2 files
ubuntu@ubuntu-2274802010449:~/backup$
```

- Tạo thêm 2 file more1.txt và more2.txt có chứa nội dung như 2 file đầu

```
ubuntu@ubuntu-2274802010449:~$ touch lab/project/more1.txt lab/data/more2.txt
ubuntu@ubuntu-2274802010449:~$ cp /etc/passwd lab/project/more1.txt && cp /etc/passwd lab/data/more2.txt
ubuntu@ubuntu-2274802010449:~$ cd ~/lab
ubuntu@ubuntu-2274802010449:~/lab$ tree
.
|-- data
|   |-- file1.txt
|   |-- file2.txt
|   `-- more2.txt
`-- project
    `-- more1.txt

2 directories, 4 files
ubuntu@ubuntu-2274802010449:~/lab$
```

- Lại sao chép thư mục lab sang backup

```
ubuntu@ubuntu-2274802010449:~$ cp -rT ~/lab ~/backup
ubuntu@ubuntu-2274802010449:~$ cd ~/backup
ubuntu@ubuntu-2274802010449:~/backup$ tree
.
|-- data
|   |-- file1.txt
|   |-- file2.txt
|   `-- more2.txt
`-- project
    `-- more1.txt

2 directories, 4 files
ubuntu@ubuntu-2274802010449:~/backup$
```

- Xóa thư mục lab

```
ubuntu@ubuntu-2274802010449:~$ rm -rf ~/lab
ubuntu@ubuntu-2274802010449:~$
```

Bài 3: Tập hợp, nén, giải nén thư mục

Nén file:

```
ubuntu@ubuntu-2274802010449:~$ tar -cvjf backup.tar.bz2 backup
backup/
backup/project/
backup/project/more1.txt
backup/data/
backup/data/file1.txt
backup/data/file2.txt
backup/data/more2.txt
ubuntu@ubuntu-2274802010449:~$ tree
.
|-- backup
|   |-- data
|   |   |-- file1.txt
|   |   |-- file2.txt
|   |   `-- more2.txt
|   `-- project
|       `-- more1.txt
|-- backup.tar.bz2
```

- Giải nén file và đổi tên

```
ubuntu@ubuntu-2274802010449:~$ mkdir -p lab && tar -xvj backup.tar.bz2 -C lab
backup/
backup/project/
backup/project/more1.txt
backup/data/
backup/data/file1.txt
backup/data/file2.txt
backup/data/more2.txt
```

```
ubuntu@ubuntu-2274802010449:~/lab$ tree
.
|-- backup
|   |-- data
|   |   |-- file1.txt
|   |   |-- file2.txt
|   |   `-- more2.txt
|   `-- project
|       `-- more1.txt
```

Bài 4: Lọc dữ liệu đơn giản

Lọc file .txt

```
ubuntu@ubuntu-2274802010449:~$ find / -type f -name "*.txt" 2>/dev/null
/home/ubuntu/iDragonCloud/django/app/requirements.txt
/home/ubuntu/lab/ubuntu/backup/project/more1.txt
/home/ubuntu/lab/ubuntu/backup/data/file1.txt
/home/ubuntu/lab/ubuntu/backup/data/file2.txt
/home/ubuntu/lab/ubuntu/backup/data/more2.txt
/home/ubuntu/home/ubuntu/backup/project/more1.txt
/home/ubuntu/home/ubuntu/backup/data/file1.txt
/home/ubuntu/home/ubuntu/backup/data/file2.txt
/home/ubuntu/home/ubuntu/backup/data/more2.txt
/home/ubuntu/lab1mr/Documents/Assignments/assignment2.txt
/home/ubuntu/lab1mr/Documents/Notes/note1.txt
/home/ubuntu/lab1mr/Documents/Notes/assignment1.txt
/home/ubuntu/lab1mr/Documents/Notes/note2.txt
/usr/lib/python3/dist-packages/wadllib-1.3.6.egg-info/requires.txt
/usr/lib/python3/dist-packages/wadllib-1.3.6.egg-info/top_level.txt
/usr/lib/python3/dist-packages/wadllib-1.3.6.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/distro-1.7.0.egg-info/top_level.txt
/usr/lib/python3/dist-packages/distro-1.7.0.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/distro-1.7.0.egg-info/entry_points.txt
/usr/lib/python3/dist-packages/PyGObject-3.42.1.egg-info/requires.txt
/usr/lib/python3/dist-packages/PyGObject-3.42.1.egg-info/top_level.txt
/usr/lib/python3/dist-packages/PyGObject-3.42.1.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/dbus-python-1.2.18.egg-info/top_level.txt
/usr/lib/python3/dist-packages/dbus-python-1.2.18.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/more_itertools-8.10.0.egg-info/top_level.txt
/usr/lib/python3/dist-packages/more_itertools-8.10.0.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/python_apt-2.4.0+ubuntu3.egg-info/top_level.txt
/usr/lib/python3/dist-packages/python_apt-2.4.0+ubuntu3.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/zipp-1.0.0.egg-info/requires.txt
/usr/lib/python3/dist-packages/zipp-1.0.0.egg-info/top_level.txt
/usr/lib/python3/dist-packages/zipp-1.0.0.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/launchpadlib-1.10.16.egg-info/requires.txt
/usr/lib/python3/dist-packages/launchpadlib-1.10.16.egg-info/top_level.txt
/usr/lib/python3/dist-packages/launchpadlib-1.10.16.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/unattended_upgrades-0.1.egg-info/top_level.txt
/usr/lib/python3/dist-packages/unattended_upgrades-0.1.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/lazr.uri-1.0.6.egg-info/requires.txt
```

```
/usr/lib/python3/dist-packages/lazr.uri-1.0.6.egg-info/namespace_packages.txt
/usr/lib/python3/dist-packages/lazr.uri-1.0.6.egg-info/top_level.txt
/usr/lib/python3/dist-packages/lazr.uri-1.0.6.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/pyparsing-2.4.7.egg-info/top_level.txt
/usr/lib/python3/dist-packages/pyparsing-2.4.7.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/cryptography-3.4.8.egg-info/requires.txt
/usr/lib/python3/dist-packages/cryptography-3.4.8.egg-info/top_level.txt
/usr/lib/python3/dist-packages/cryptography-3.4.8.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/PyJWT-2.3.0.egg-info/requires.txt
/usr/lib/python3/dist-packages/PyJWT-2.3.0.egg-info/top_level.txt
/usr/lib/python3/dist-packages/PyJWT-2.3.0.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/httplib2-0.20.2.egg-info/requires.txt
/usr/lib/python3/dist-packages/httplib2-0.20.2.egg-info/top_level.txt
/usr/lib/python3/dist-packages/httplib2-0.20.2.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/importlib_metadata-4.6.4.egg-info/requires.txt
/usr/lib/python3/dist-packages/importlib_metadata-4.6.4.egg-info/top_level.txt
/usr/lib/python3/dist-packages/importlib_metadata-4.6.4.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/lazr.restfulclient-0.14.4.egg-info/requires.txt
/usr/lib/python3/dist-packages/lazr.restfulclient-0.14.4.egg-info/namespace_packages.txt
/usr/lib/python3/dist-packages/lazr.restfulclient-0.14.4.egg-info/top_level.txt
/usr/lib/python3/dist-packages/lazr.restfulclient-0.14.4.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/six-1.16.0.egg-info/top_level.txt
/usr/lib/python3/dist-packages/six-1.16.0.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/distro_info-1.1+ubuntu0.2.egg-info/top_level.txt
/usr/lib/python3/dist-packages/distro_info-1.1+ubuntu0.2.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/oauthlib-3.2.0.egg-info/requires.txt
/usr/lib/python3/dist-packages/oauthlib-3.2.0.egg-info/top_level.txt
/usr/lib/python3/dist-packages/oauthlib-3.2.0.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/SecretStorage-3.3.1.egg-info/requires.txt
/usr/lib/python3/dist-packages/SecretStorage-3.3.1.egg-info/top_level.txt
/usr/lib/python3/dist-packages/SecretStorage-3.3.1.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/keyring-23.5.0.egg-info/requires.txt
/usr/lib/python3/dist-packages/keyring-23.5.0.egg-info/top_level.txt
/usr/lib/python3/dist-packages/keyring-23.5.0.egg-info/dependency_links.txt
/usr/lib/python3/dist-packages/keyring-23.5.0.egg-info/entry_points.txt
/usr/lib/python3.10/LICENSE.txt
/usr/share/nmap/nselib/data/jdwp-class/README.txt
/usr/share/nmap/nselib/data/enterprise_numbers.txt
/usr/share/nmap/nselib/data/tftplist.txt
/usr/share/nmap/nselib/data/rtsp-urls.txt
```



```
/usr/share/nmap/nselib/data/http-folders.txt
/usr/share/gnupg/help.ro.txt
/usr/share/gnupg/help.pt_BR.txt
/usr/share/gnupg/help.sv.txt
/usr/share/gnupg/help.be.txt
/usr/share/gnupg/help.fr.txt
/usr/share/gnupg/help.zh_TW.txt
/usr/share/gnupg/help.txt
/usr/share/gnupg/help.pl.txt
/usr/share/gnupg/help.hu.txt
/usr/share/gnupg/help.eo.txt
/usr/share/gnupg/help.de.txt
/usr/share/gnupg/help.fi.txt
/usr/share/gnupg/help.el.txt
/usr/share/gnupg/help.ru.txt
/usr/share/gnupg/help.zh_CN.txt
/usr/share/gnupg/help.ca.txt
/usr/share/gnupg/help.cs.txt
/usr/share/gnupg/help.gl.txt
/usr/share/gnupg/help.it.txt
/usr/share/gnupg/help.es.txt
/usr/share/gnupg/help.da.txt
/usr/share/gnupg/help.nb.txt
/usr/share/gnupg/help.sk.txt
/usr/share/gnupg/help.pt.txt
/usr/share/gnupg/help.id.txt
/usr/share/gnupg/help.tr.txt
/usr/share/gnupg/help.et.txt
/usr/share/gnupg/help.ja.txt
/usr/share/perl/5.34.0/Unicode/Collate/keys.txt
/usr/share/perl/5.34.0/Unicode/Collate/allkeys.txt
/usr/share/perl/5.34.0/unicore/NamedSequences.txt
/usr/share/perl/5.34.0/unicore/Blocks.txt
/usr/share/perl/5.34.0/unicore/SpecialCasing.txt
ubuntu@ubuntu-2274802010449:~$ █
```

- Lọc file dat

```
ubuntu@ubuntu-2274802010449:/$ find / -type f -name "dat*" 2>/dev/null
/var/lib/systemd/catalog/database
/sys/kernel/boot_params/setup_data/5/data
/sys/kernel/boot_params/setup_data/3/data
/sys/kernel/boot_params/setup_data/1/data
/sys/kernel/boot_params/setup_data/6/data
/sys/kernel/boot_params/setup_data/4/data
/sys/kernel/boot_params/setup_data/2/data
/sys/kernel/boot_params/setup_data/0/data
/sys/kernel/boot_params/data
/sys/devices/pnp0/00:00/rtc/rtc0/date
/usr/bin/date
/usr/lib/python3/dist-packages/wadllib/tests/data/data-types-wadl.xml
/usr/lib/python3.10/datetime.py
/usr/lib/python3.10/__pycache__/datetime.cpython-310.pyc
/usr/lib/python3.10/__pycache__/dataclasses.cpython-310.pyc
/usr/lib/python3.10/dataclasses.py
/usr/share/nmap/nselib/datafiles.lua
/usr/share/nmap/nselib/datetime.lua
/usr/share/perl/5.34.0/Net/FTP/dataconn.pm
ubuntu@ubuntu-2274802010449:/$
```