

Individual Assignment Part I

ឈ្មោះ:

ពិន្ទុសរុប៖ ១៥ ពិន្ទុ

គោលបំណង

បន្ទាប់ពីបញ្ចប់លំហាត់នេះ និស្សិតអាច៖

- បង្កើត Archive ដោយប្រើ tar
- Compress File ដោយប្រើ gzip, bzip2, និង xz
- Extract Archive File
- មើលមាតិកាខាងក្នុង Archive
- ប្រៀបធៀបការប្រើប្រាស់ Compression ផ្សេងៗ

សម្ភារៈត្រូវមាន

- Ubuntu / CentOS

សេចក្តីណែនាំ

❖ លំហាត់ទី១៖ បង្កើត Working Directory (១ ពិន្ទុ)

បង្កើត Folder មួយឈ្មោះ LinuxLab15 នៅក្នុង Home Directory របស់អ្នក។
LinuxLab15

Solution 1

```
panhavoïn@localhost:~$ pwd
/home/panhavoïn
panhavoïn@localhost:~$ cd
panhavoïn@localhost:~$ mkdir LinuxLab15
mkdir: cannot create directory 'LinuxLab15': File exists
panhavoïn@localhost:~$ ls
'Archive and Compression'  Documents  LinuxLab15  Pictures  Templates
Desktop                    Downloads  Music       Public   Videos
panhavoïn@localhost:~$
```

❖ លំហាត់ទី២៖ បង្កើត Sample Files (១ ពិន្ទុ)

បង្កើត File ចំនួន ៣ ដូចខាងក្រោម៖

- ❖ student.txt
- ❖ course.txt

❖ linux.txt

បន្ទាប់មក បញ្ចូលអត្ថបទណាមួយទៅក្នុង File នីមួយៗ។

ឧទាហរណ៍៖

Linux Lab Exercise > student.txt

Introduction to Linux > course.txt

Archiving Practice > linux.txt

Solution2

```
panhavoin@localhost:~/LinuxLab15$ cd
panhavoin@localhost:~$ ls
'Archive and Compression '  Documents  LinuxLab15  Pictures  Templates
Desktop                    Downloads   Music       Public    Videos
panhavoin@localhost:~$ pwd
/home/panhavoin
panhavoin@localhost:~$ cd LinuxLab15/
panhavoin@localhost:~/LinuxLab15$ ls
course.txt  linux.txt  student.txt
panhavoin@localhost:~/LinuxLab15$ echo "Linux Lab Exercise" > student.txt
panhavoin@localhost:~/LinuxLab15$ echo "Archiving Practice" > linux.txt
panhavoin@localhost:~/LinuxLab15$ echo "Introduction to Linux" > course.txt
panhavoin@localhost:~/LinuxLab15$ cat student.txt
Linux Lab Exercise
panhavoin@localhost:~/LinuxLab15$ cat course.txt
Introduction to Linux
panhavoin@localhost:~/LinuxLab15$ cat linux.txt
Archiving Practice
panhavoin@localhost:~/LinuxLab15$
```

❖ លំហាត់ទី៣៖ បង្កើត Archive File (២ ពិន្ទុ)

បង្កើត Archive File មួយឈ្មោះ backup.tar ដែលផ្ទុក File ទាំង ៣។

Solution 3

```
panhavoin@localhost:~/LinuxLab15$ tar -cvf backup.tar student.txt course.txt lin
ux.txt
student.txt
course.txt
linux.txt
panhavoin@localhost:~/LinuxLab15$ ls
backup.tar  course.txt  linux.txt  student.txt
panhavoin@localhost:~/LinuxLab15$ tar -tvf backup.tar
-rw-r--r-- panhavoin/panhavoin 20 2026-08-02 21:51 student.txt
-rw-r--r-- panhavoin/panhavoin 22 2026-08-02 21:52 course.txt
-rw-r--r-- panhavoin/panhavoin 19 2026-08-02 21:51 linux.txt
panhavoin@localhost:~/LinuxLab15$
```

❖ លំហាត់ទី៤៖ មើលមាតិកាខាងក្នុង Archive (១ ពិន្ទុ)

បង្ហាញ File ទាំងអស់ដែលមាននៅក្នុង backup.tar។

Solution 4

```
panhavoin@localhost:~/LinuxLab15$ pwd
/home/panhavoin/LinuxLab15
panhavoin@localhost:~/LinuxLab15$ tar -tvf backup.tar
-rw-r--r-- panhavoin/panhavoin 20 2026-08-02 21:51 student.txt
-rw-r--r-- panhavoin/panhavoin 22 2026-08-02 21:52 course.txt
-rw-r--r-- panhavoin/panhavoin 19 2026-08-02 21:51 linux.txt
panhavoin@localhost:~/LinuxLab15$
```

❖ លំហាត់ទី៥៖ Extract Archive (១ ពិន្ទុ)

បង្កើត Folder មួយឈ្មោះ Extracted ហើយ Extract backup.tar ទៅក្នុង Folder នេះ។

Solution 5

```
panhavoin@localhost:~/LinuxLab15$ pwd
/home/panhavoin/LinuxLab15
panhavoin@localhost:~/LinuxLab15$ ls
backup.tar course.txt linux.txt student.txt
panhavoin@localhost:~/LinuxLab15$ tar -xvf backup.tar -C Extracted
tar: Extracted: Cannot open: No such file or directory
tar: Error is not recoverable: exiting now
panhavoin@localhost:~/LinuxLab15$ mkdir Extracted
panhavoin@localhost:~/LinuxLab15$ tar -xvf backup.tar -C Extracted
student.txt
course.txt
linux.txt
```

❖ លំហាត់ទី៦៖ Compress ដោយប្រើ gzip (២ ពិន្ទុ)

Compress backup.tar ដោយប្រើ gzip។

ផ្ទៀងផ្ទាត់ថា File បានប្តូរទៅជា៖ backup.tar.gz

Solution 6

```
panhavoin@localhost:~/LinuxLab15$ tar -xvf backup.tar -C Extracted
student.txt
course.txt
linux.txt
panhavoin@localhost:~/LinuxLab15$ pwd
/home/panhavoin/LinuxLab15
panhavoin@localhost:~/LinuxLab15$ ls
backup.tar course.txt Extracted linux.txt student.txt
panhavoin@localhost:~/LinuxLab15$ gzip backup.tar
panhavoin@localhost:~/LinuxLab15$ ls
backup.tar.gz course.txt Extracted linux.txt student.txt
panhavoin@localhost:~/LinuxLab15$
```

❖ លំហាត់ទី៧៖ Decompress gzip File (១ ពិន្ទុ)

Restore backup.tar.gz ទៅជា backup.tar។

Solution 7

```
panhavoine@localhost:~/LinuxLab15$ pwd
/home/panhavoine/LinuxLab15
panhavoine@localhost:~/LinuxLab15$ ls
backup.tar  course.txt  Extracted  linux.txt  student.txt
panhavoine@localhost:~/LinuxLab15$ gzip backup.tar
panhavoine@localhost:~/LinuxLab15$ ls
backup.tar.gz  course.txt  Extracted  linux.txt  student.txt
panhavoine@localhost:~/LinuxLab15$ pwd
/home/panhavoine/LinuxLab15
panhavoine@localhost:~/LinuxLab15$ ls
backup.tar.gz  course.txt  Extracted  linux.txt  student.txt
panhavoine@localhost:~/LinuxLab15$ gunzip backup.tar.gz
panhavoine@localhost:~/LinuxLab15$ ls
backup.tar  course.txt  Extracted  linux.txt  student.txt
panhavoine@localhost:~/LinuxLab15$
```

❖ សំណាត់ទី៨៖ Compress ដោយប្រើ bzip2 (២ ពិន្ទុ)

Compress backup.tar ដោយប្រើ bzip2។

ផ្ទៀងផ្ទាត់ថា File បានប្តូរទៅជា៖ backup.tar.bz2

បន្ទាប់មក Restore File មកវិញ។

Solution 8

```
/home/panhavoine/LinuxLab15
panhavoine@localhost:~/LinuxLab15$ ls
backup.tar.gz  course.txt  Extracted  linux.txt  student.txt
panhavoine@localhost:~/LinuxLab15$ gunzip backup.tar.gz
panhavoine@localhost:~/LinuxLab15$ ls
backup.tar  course.txt  Extracted  linux.txt  student.txt
panhavoine@localhost:~/LinuxLab15$ pwd
/home/panhavoine/LinuxLab15
panhavoine@localhost:~/LinuxLab15$ ls
backup.tar  course.txt  Extracted  linux.txt  student.txt
panhavoine@localhost:~/LinuxLab15$ bzip2 backup.tar
panhavoine@localhost:~/LinuxLab15$ ls
backup.tar.bz2  course.txt  Extracted  linux.txt  student.txt
panhavoine@localhost:~/LinuxLab15$ bunzip2 backup.tar.bz2
panhavoine@localhost:~/LinuxLab15$ ls
backup.tar  course.txt  Extracted  linux.txt  student.txt
panhavoine@localhost:~/LinuxLab15$
```

❖ សំណាត់ទី៩៖ Compress ដោយប្រើ xz (២ ពិន្ទុ)

Compress backup.tar ដោយប្រើ xz។

ផ្ទៀងផ្ទាត់ថា File បានប្តូរទៅជា៖ backup.tar.xz

បន្ទាប់មក Restore File មកវិញ។

Solution

```
panhavoïn@localhost:~/LinuxLab15$ pwd
/home/panhavoïn/LinuxLab15
panhavoïn@localhost:~/LinuxLab15$ ls
backup.tar.xz  course.txt  Extracted  linux.txt  student.txt
panhavoïn@localhost:~/LinuxLab15$ unxz backup.tar.xz
panhavoïn@localhost:~/LinuxLab15$ ls
backup.tar  course.txt  Extracted  linux.txt  student.txt
panhavoïn@localhost:~/LinuxLab15$
```

- ❖ លំហាត់ទី១០៖ បង្កើត Compressed Archive ដោយប្រើពាក្យបញ្ជាតែមួយ (២ ពិន្ទុ)
បង្កើត File ឈ្មោះ final_backup.tar.gz ដោយប្រើ Command តែមួយ។
បន្ទាប់មក ផ្ទៀងផ្ទាត់មាតិកាខាងក្នុង Archive។

ការដាក់ស្នើ

និស្សិតត្រូវថត Screenshot បង្ហាញលទ្ធផលដូចខាងក្រោម៖

1. Working Directory ត្រូវបានបង្កើត
2. Sample Files ទាំង ៣ ត្រូវបានបង្កើត
3. backup.tar
4. ការបង្ហាញមាតិកាខាងក្នុង Archive
5. ការធ្វើ Extract Archive
6. backup.tar.gz
7. backup.tar.bz2
8. backup.tar.xz
9. final_backup.tar.gz
10. ការផ្ទៀងផ្ទាត់ Archive ដោយប្រើ tar -tzvf