

# Software Packaging and File Archiving on Linux

1 hour Free

## Introduction

This lab focuses on installing and removing software in Linux, and working with zipped files. You'll be installing a text editor called Atom, and extracting/un-extracting .tar files. You'll also use **apt** to install/uninstall programs.

**Head's up:** You'll experience a delay as the labs initially load (particularly for Windows labs). So, please **wait a couple of minutes for the labs to load**. The grade is calculated when the lab is complete, so be sure to hit "**End Lab**" when you're done!

You'll have 60 minutes to complete this lab.

## Start the lab

You'll need to start the lab before you can access the materials. To do this, click the green "Start Lab" button at the top of the screen.



After you click the "Start Lab" button, you will see a shell, where you will be performing further steps in the lab. You should have a shell that looks like this:

```
student@864a6934570a:~$
```

## Installing Atom

First, use dpkg to install a text editor, called Atom. A .deb file is located at "/home/qwiklab/downloads/atom-amd64.deb", which you can install using this command:

```
sudo dpkg -i /home/qwiklab/downloads/atom-amd64.deb
```

You'll see some errors after this command, but that's okay! The atom package has some dependencies that aren't installed on your machine yet, and dpkg is just warning you that they need to be installed:

```
student@d6a6d94ccec6:~$ sudo dpkg -i /home/qwiklab/downloads/atom-amd64.deb
Selecting previously unselected package atom.
(Reading database ... 36814 files and directories currently installed.)
Preparing to unpack .../downloads/atom-amd64.deb ...
Unpacking atom (1.21.0) ...
dpkg: dependency problems prevent configuration of atom:
 atom depends on git; however:
   Package git is not installed.
 atom depends on gconf2; however:
   Package gconf2 is not installed.
 atom depends on gconf-service; however:
   Package gconf-service is not installed.
 atom depends on libnotify4; however:
   Package libnotify4 is not installed.
 atom depends on python; however:
   Package python is not installed.
 atom depends on gvfs-bin; however:
   Package gvfs-bin is not installed.
dpkg: error processing package atom (--install):
 dependency problems - leaving unconfigured
Processing triggers for mime-support (3.62) ...
Errors were encountered while processing:
 atom
```

You can remedy this by using **apt** to fix the missing dependencies, using this command:

```
sudo apt install -f
```

You'll be prompted to confirm your decision to continue with the operation by typing "Y" (for "Yes"), midway through the process.

Now Atom is successfully installed, which you can verify using dpkg:

```
dpkg -s atom
student@d6a6d94ccec6:~$ dpkg -s atom
Package: atom
Status: install ok installed
Priority: optional
Section: devel
Installed-Size: 456200
Maintainer: GitHub <atom@github.com>
Architecture: amd64
Version: 1.21.0
```

Click Check my progress to verify the objective.

Install Atom

## Extracting an archive

Next, you will extract a .tar archive. The archive "extract\_me.tar" is located in "/home/qwiklab/downloads/". Move to that directory, using this command:

```
cd /home/qwiklab/downloads
```

You can use the Linux tar command to extract it using this command:

```
sudo tar -xvf extract_me.tar
```

The contents of the archive (the file named "great\_job") are then extracted:

```
student@d6a6d94ccec6:~$ cd /home/qwiklab/downloads
student@d6a6d94ccec6:/home/qwiklab/downloads$ sudo tar -xvf extract_me.tar
home/qwiklab/extract_me/
home/qwiklab/extract_me/great_job
```

Click Check my progress to verify the objective.

Extract Archive

## Archiving files

First, move back to the original directory:

```
cd ~
```

You can also use the tar command to do the reverse operation, creating an archive.

There are three files in your /home/qwiklab/documents folder named "Earth", "Mercury", and "Venus". Use tar to archive them into the file "Planets.tar" using this command (one line):

```
tar -cvf Planets.tar --absolute-names /home/qwiklab/documents/Earth /home/qwiklab/documents/Mercury /home/qwiklab/documents/Venus
```

"Planets.tar" will then be added to your current directory, and will contain the three planet files:

```
student@ch49a503d2:~$ tar -cvf Planets.tar --absolute-names /home/qwiklab/documents/Earth /home/qwiklab/documents/Mercury /home/qwiklab/documents/Venus
/home/qwiklab/documents/Earth
/home/qwiklab/documents/Mercury
/home/qwiklab/documents/Venus
student@ch49a503d2:~$ ls
Planets.tar
```

Click Check my progress to verify the objective.

Archive Files

## Installing 7-Zip

You can also install programs on Linux, using **apt** too, which handles dependencies for you to simplify the installation process. You can install the program 7-Zip, using **apt**, with a simple one-line command:

When it's finished, 7-Zip will be installed:

You'll be prompted to confirm your decision midway through the installation process. Confirm this by typing "Y" (for "Yes"). Then, 7-Zip will be installed:

Click [Check my progress](#) to verify the objective.

## Uninstalling GIMP

Click [Check my progress](#) to verify the objective.

## Conclusion

Congrats! You've successfully installed and uninstalled programs on Linux, and archived and unarchived .tar files.

## End your lab

When you have completed your lab, click **End Lab**. Qwiklabs removes the resources you've used and cleans the account for you.

You will be given an opportunity to rate the lab experience. Select the applicable number of stars, type a comment, and then click **Submit**.

The number of stars indicates the following:

- 1 star = Very dissatisfied
- 2 stars = Dissatisfied
- 3 stars = Neutral
- 4 stars = Satisfied
- 5 stars = Very satisfied

You can close the dialog box if you don't want to provide feedback.

For feedback, suggestions, or corrections, please use the **Support** tab.