

# Week Report 3

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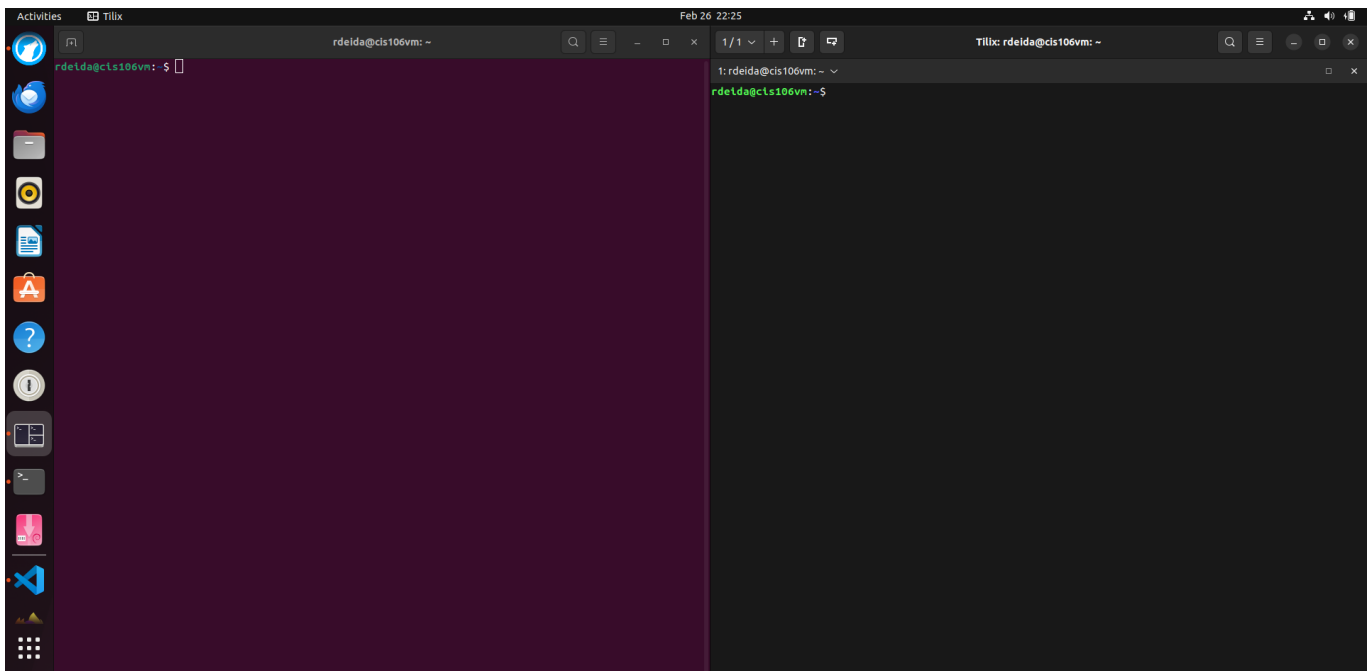
## Completed Work for week 3

- <https://github.com/Snokie99/cis106/blob/main/labs/lab3/lab3.md>
- <https://github.com/Snokie99/cis106/blob/main/notes/notes1.md>

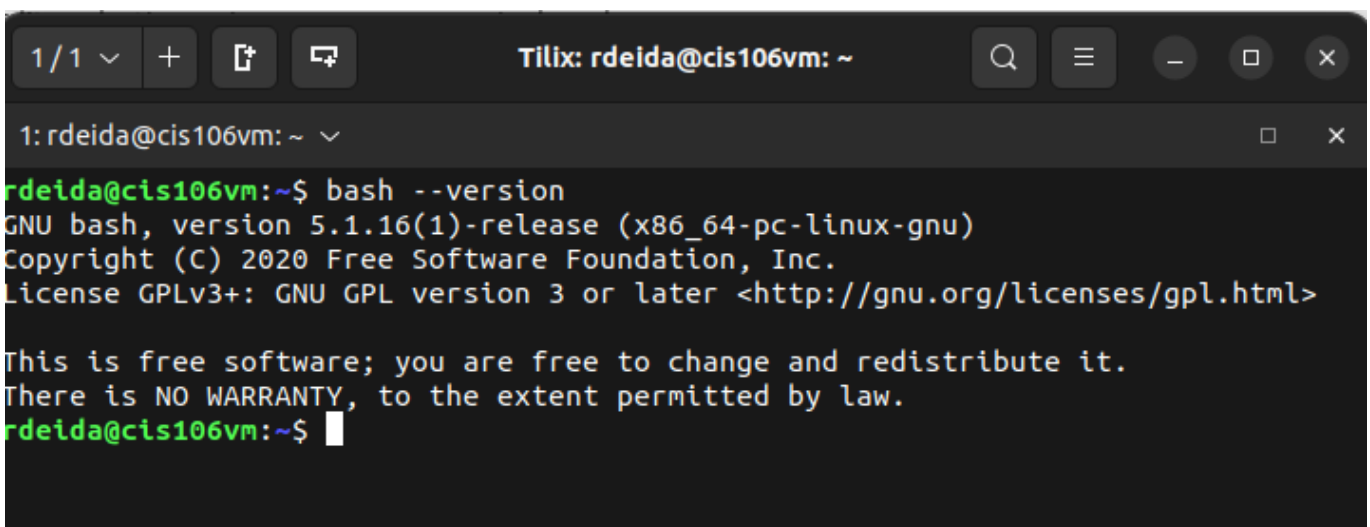
## Bash

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### Practice 1



### Practice 2



### Practice 3

```
1/1 v + T T Tilix: rdeida@cis106vm: ~
1: rdeida@cis106vm: ~ v
164 uname -r
165 clear
166 uname
167 uname -a
168 free
169 clear
170 bash ~/cis106/labs/lab3/lab3ChallengeQuestion4.sh
171 clear
172 bash ~/cis106/labs/lab3/lab3ChallengeQuestion4.sh
173 bash ~/cis106/labs/lab3/challenge_lab3.sh
174 man echo
175 echo -n "hello"
176 echo -e "\thello"
177 echo -e "This is line 1 \nThis is line 2"
178 echo -e "This is line 1 \n\tThis is line 2"
179 echo -e "\tThis is line 1 \n\tThis is line 2"
180 clear
181 bash --version
182 clear
183 date
184 echo "hello world"
185 uname -a
186 history
187 clear
188 clear history
189 clear -h
190 clear -a
191 man clear
192 history
193 clear
194 man history
195 clear
196 date
197 echo "hello world"
198 uname -a
199 history
rdeida@cis106vm:~$ !197
echo "hello world"
hello world
rdeida@cis106vm:~$ !!
echo "hello world"
hello world
rdeida@cis106vm:~$ !!world
echo "hello world"world
hello worldworld
rdeida@cis106vm:~$
```

## Practice 4

```
1/1 v + T T Tilix: rdeida@cis106vm: ~
1: rdeida@cis106vm: ~ v
rdeida@cis106vm:~$ bash ~/scripts/hello.sh
Hello World
I am learning Linux
This is my first shell script
rdeida@cis106vm:~$
```

## Practice 5

```
1/1 v + T T Tilix: rdeida@cis106vm: ~
1: rdeida@cis106vm: ~ v
rdeida@cis106vm:~$ uname -s
Linux
rdeida@cis106vm:~$ uname -n
cis106vm
rdeida@cis106vm:~$ uname -io
x86_64 GNU/Linux
rdeida@cis106vm:~$ free -g
              total        used        free      shared  buff/cache   available
Mem:              1           1           0           0           0           0
Swap:             5           2           2           0           0
rdeida@cis106vm:~$
```

## Practice 6

```

1/1  +  [ ]  [ ]
1:rdeida@cis106vm: ~
%X    locale's time representation (e.g., 23:13:48)
%y    last two digits of year (00..99)
%Y    year
%Z    +hhmm numeric time zone (e.g., -0400)
%:Z   +hh:mm numeric time zone (e.g., -04:00)
%::Z  +hh:mm:ss numeric time zone (e.g., -04:00:00)
%:::Z numeric time zone with : to necessary precision (e.g., -04, +05:30)
%Z    alphabetic time zone abbreviation (e.g., EDT)

By default, date pads numeric fields with zeroes.
The following optional flags may follow '%':

- (hyphen) do not pad the field
_ (underscore) pad with spaces
0 (zero) pad with zeros
+ pad with zeros, and put '+' before future years with >4 digits
^ use upper case if possible
# use opposite case if possible

After any flags comes an optional field width, as a decimal number;
then an optional modifier, which is either
E to use the locale's alternate representations if available, or
O to use the locale's alternate numeric symbols if available.

Examples:
Convert seconds since the epoch (1970-01-01 UTC) to a date
$ date --date='@2147483647'

Show the time on the west coast of the US (use tzselect(1) to find TZ)
$ TZ='America/Los_Angeles' date

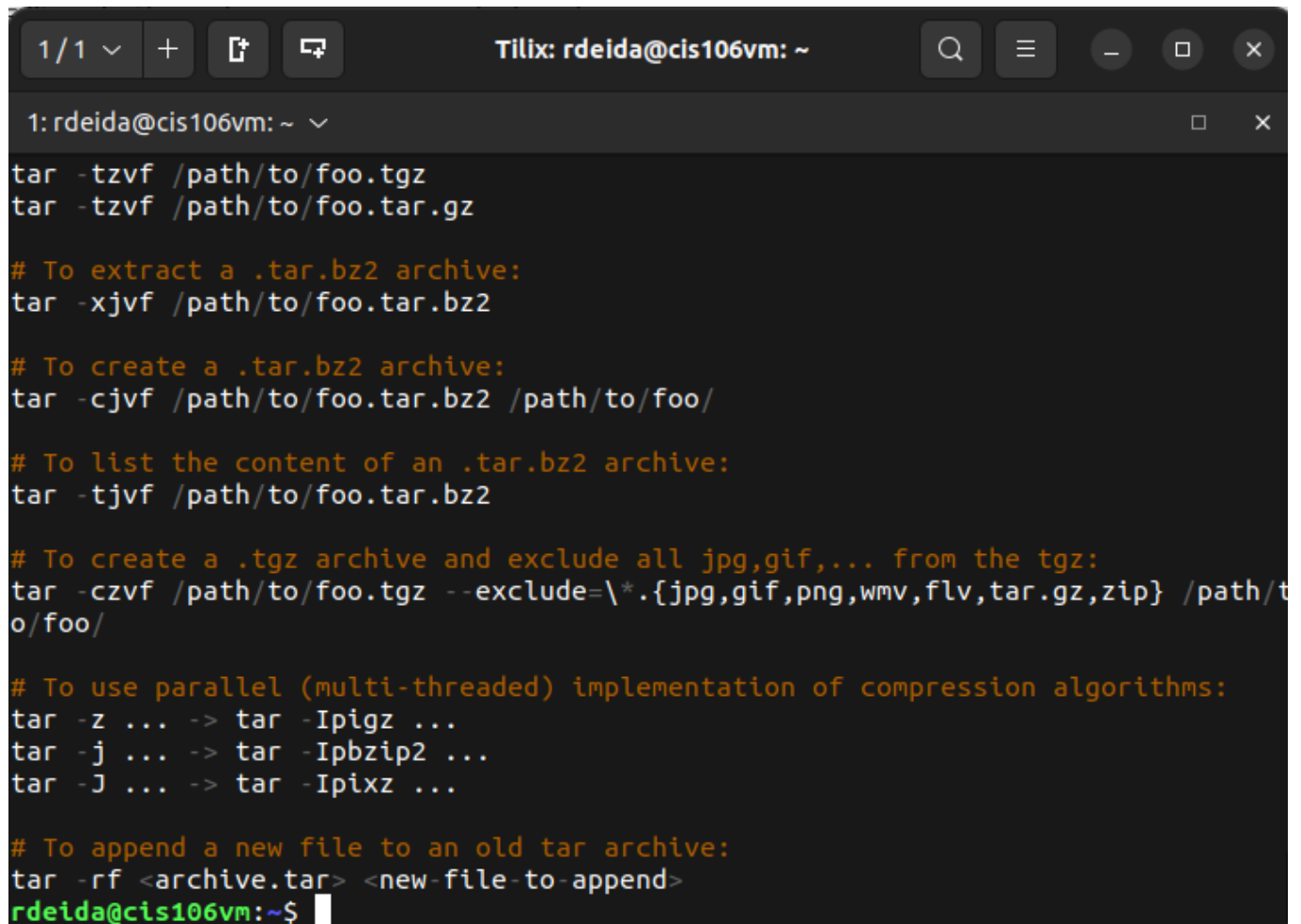
Show the local time for 9AM next Friday on the west coast of the US
$ date --date='TZ="America/Los_Angeles" 09:00 next Fri'

GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
Full documentation <https://www.gnu.org/software/coreutils/date>
or available locally via: info '(coreutils) date invocation'

rdeida@cis106vm:~$ whatis ls
ls (1)          - list directory contents
rdeida@cis106vm:~$ whatis pwd
pwd (1)         - print name of current/working directory
rdeida@cis106vm:~$ whatis apt
apt (8)         - command-line interface
rdeida@cis106vm:~$ whatis sudo
sudo (8)        - execute a command as another user
rdeida@cis106vm:~$ 

```

## Practice 7



A terminal window titled "Tilix: rdeida@cis106vm: ~" showing a series of tar commands and their explanations. The commands are: `tar -tzvf /path/to/foo.tgz`, `tar -tzvf /path/to/foo.tar.gz`, `tar -xjvf /path/to/foo.tar.bz2`, `tar -cjvf /path/to/foo.tar.bz2 /path/to/foo/`, `tar -tjvf /path/to/foo.tar.bz2`, `tar -czvf /path/to/foo.tgz --exclude=\*.{jpg,gif,png,wmv,flv,tar.gz,zip} /path/to/foo/`, `tar -z ... -> tar -Ipigz ...`, `tar -j ... -> tar -Ipbzip2 ...`, `tar -J ... -> tar -Ipixz ...`, and `tar -rf <archive.tar> <new-file-to-append>`. The prompt is `rdeida@cis106vm:~$`.

```
1/1  +  [copy] [paste]  Tilix: rdeida@cis106vm: ~  [search] [menu] [back] [close]

1: rdeida@cis106vm: ~  [close]

tar -tzvf /path/to/foo.tgz
tar -tzvf /path/to/foo.tar.gz

# To extract a .tar.bz2 archive:
tar -xjvf /path/to/foo.tar.bz2

# To create a .tar.bz2 archive:
tar -cjvf /path/to/foo.tar.bz2 /path/to/foo/

# To list the content of an .tar.bz2 archive:
tar -tjvf /path/to/foo.tar.bz2

# To create a .tgz archive and exclude all jpg,gif,... from the tgz:
tar -czvf /path/to/foo.tgz --exclude=\*.{jpg,gif,png,wmv,flv,tar.gz,zip} /path/to/foo/

# To use parallel (multi-threaded) implementation of compression algorithms:
tar -z ... -> tar -Ipigz ...
tar -j ... -> tar -Ipbzip2 ...
tar -J ... -> tar -Ipixz ...

# To append a new file to an old tar archive:
tar -rf <archive.tar> <new-file-to-append>
rdeida@cis106vm:~$
```

# Managing Software

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## Practice 1

```
1/1  +  [T] [C]  Tilix: rdeida@cis106vm: ~  [Q] [≡] [−] [□] [×]

1: rdeida@cis106vm: ~  [□] [×]

ls (0.26-1ubuntu3) ...
rdeida@cis106vm:~$ sudo apt purge bastet
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  apport-symptoms guile-2.2-libs
  libboost-program-options1.74.0
  libgnome-games-support-1-3
  libgnome-games-support-common
  libqqwing2v5 python3-systemd
Use 'sudo apt autoremove' to remove them.
The following packages will be REMOVED:
  bastet*
0 upgraded, 0 newly installed, 1 to remove and 0 not upgraded.
After this operation, 0 B of additional disk space will be used.
Do you want to continue? [Y/n] y
(Reading database ... 267586 files and
directories currently installed.)
Purging configuration files for bastet
(0.43-7) ...
rdeida@cis106vm:~$
```

## Practice 2

```
1/1  +  [T] [C]  Tilix: rdeida@cis106vm: ~  [Q] [≡] [−] [□] [×]

1: rdeida@cis106vm: ~  [□] [×]

rdeida@cis106vm:~$ sudo apt install ./Downloads/c
Reading package lists... Done
E: Unsupported file ./Downloads/c given on commandline
rdeida@cis106vm:~$ sudo apt install ./Downloads/code_1.86.2-1707854558_amd64.deb
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Note, selecting 'code' instead of './Downloads/code_1.86.2-1707854558_amd64.deb'
code is already the newest version (1.86.2-1707854558).
The following packages were automatically installed and are no longer required:
  apport-symptoms guile-2.2-libs libboost-program-options1.74.0
  libgnome-games-support-1-3 libgnome-games-support-common libqqwing2v5
  python3-systemd
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
rdeida@cis106vm:~$
```

## Practice 3

```

1/1 v + [T] [C] Tilix: rdeida@cis106vm: ~
1: rdeida@cis106vm: ~ v
rdeida@cis106vm:~$ snap search "tetris clone"
Name                Version  Publisher  Notes  Summary
tetris-in-racket    1.2-2    brunonova  -      Tetris clone developed in Racket
vitetris            0.57     bladernr   -      Console based version of Tetris
fairtris            3.0.0.4  chronoscz  -      A fair implementation of Classic
Tetris® video game.
pmtris              1.0      kz6fittycent -      Poor Man's Tetris Clone
ltris-windows       1.2.3    marisag1967 -      A free Tetris clone that follows
the original rules but adds some extras
rdeida@cis106vm:~$ snap install tetris-in-racket
tetris-in-racket 1.2-2 from Bruno Nova (brunonova) installed
rdeida@cis106vm:~$ man tetris-in-racket
No manual entry for tetris-in-racket
rdeida@cis106vm:~$ sudo snap install tetris-in-racket
snap "tetris-in-racket" is already installed, see 'snap help refresh'
rdeida@cis106vm:~$ sudo snap remove tetris-in-racket
tetris-in-racket removed
rdeida@cis106vm:~$

```

#### Practice 4

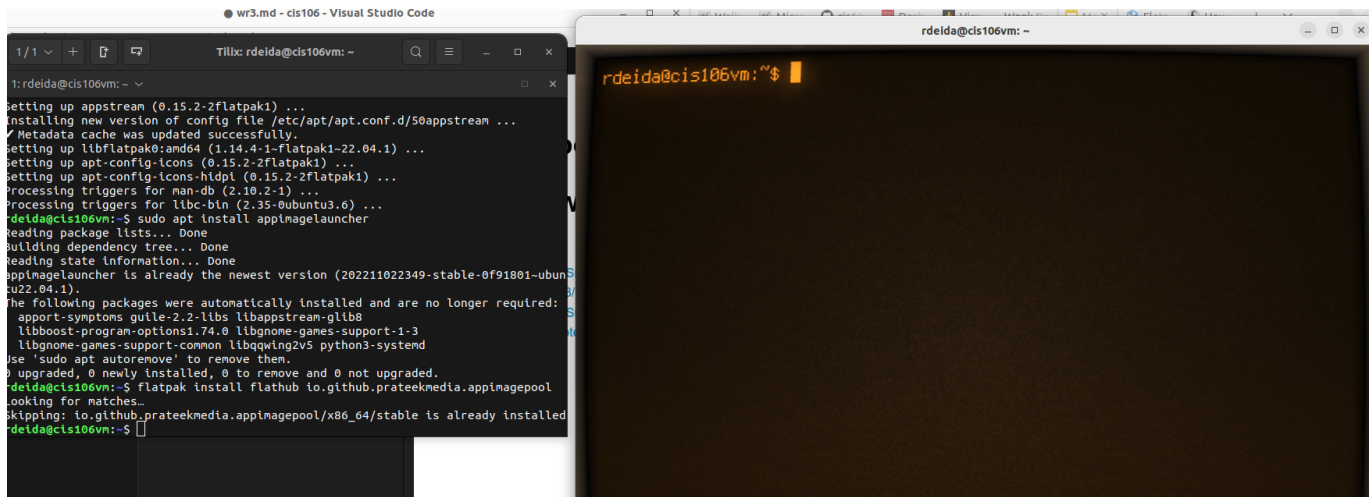
```

wr3.md - cis106 - Visual Studio Code
File Edit View Extensions Search
1/1 v + [T] [C] Tilix: rdeida@cis106vm: ~
1: rdeida@cis106vm: ~ v
After this operation, 662 kB of additional disk space will be used.
Get:1 https://ppa.launchpadcontent.net/flatpak/stable/ubuntu jammy/main amd64 fl
atpak amd64 1.14.4-1~flatpak1~22.04.1 [1,448 kB]
Fetched 1,448 kB in 1s (1,398 kB/s)
(Reading database ... 267585 files and directories currently installed.)
Preparing to unpack .../flatpak_1.14.4-1~flatpak1~22.04.1_amd64.deb ...
Unpacking flatpak (1.14.4-1~flatpak1~22.04.1) over (1.12.7-1) ...
Setting up flatpak (1.14.4-1~flatpak1~22.04.1) ...
Processing triggers for dbus (1.12.20-2ubuntu4.1) ...
Processing triggers for man-db (2.10.2-1) ...
rdeida@cis106vm:~$ sudo apt install gnome-software-plugin-flatpak
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
gnome-software-plugin-flatpak is already the newest version (41.5-2ubuntu2).
The following packages were automatically installed and are no longer required:
  apport-symptoms guile-2.2-libs libappstream-glib8
  libboost-program-options1.74.0 libgnome-games-support-1-3
  libgnome-games-support-common libqqwing2v5 python3-systemd
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 5 not upgraded.
rdeida@cis106vm:~$ flatpak remote-add --if-not-exists flathub https://dl.flathub
.org/repo/flathub.flatpakrepo
rdeida@cis106vm:~$

```

#### Practice 5





The image shows two terminal windows. The left window is titled 'wr3.md - cis106 - Visual Studio Code' and shows the output of a flatpak install command. The right window is titled 'rdeida@cis106vm: ~' and shows the prompt 'rdeida@cis106vm:~\$'.

```
1: rdeida@cis106vm: ~  
Setting up appstream (0.15.2-2flatpak1) ...  
Installing new version of config file /etc/apt.conf.d/50appstream ...  
Metadata cache was updated successfully.  
Setting up libflatpak0:amd64 (1.14.4-1-flatpak1-22.04.1) ...  
Setting up apt-config-icons (0.15.2-2flatpak1) ...  
Setting up apt-config-icons-hidpi (0.15.2-2flatpak1) ...  
Processing triggers for man-db (2.10.2-1) ...  
Processing triggers for libc-bin (2.35-0ubuntu3.6) ...  
rdeida@cis106vm:~$ sudo apt install appimagelauncher  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
appimagelauncher is already the newest version (202211022349-stable-0f91801-ubuntu22.04.1).  
The following packages were automatically installed and are no longer required:  
  appport-symptoms guile-2.2-libs libappstream-glib8  
  libboost-program-options1.74.0 libgnome-games-support-1-3  
  libgnome-games-support-common libqwing2v5 python3-sysnd  
Use 'sudo apt autoremove' to remove them.  
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.  
rdeida@cis106vm:~$ flatpak install flathub io.github.prateekmedia.appimagepool  
Looking for matches...  
Skipping: io.github.prateekmedia.appimagepool/x86_64/stable is already installed  
rdeida@cis106vm:~$
```

```
rdeida@cis106vm:~$
```