

Linux Exercise 9-Package management

1. At first, update package repositories. Then check the available commands for apt using command help. What commands are used to perform the following tasks with apt:

- Upgrading installed packages in the system

```
apt upgrade package_name
```

- Removing unused packages from the system

```
apt autoremove
```

2. Check the information for the package called figlet and answer the following questions:

- What is the size of the package?

```
752 kB
```

- What is the newest version available for the package?

```
2.2.5
```

- Check the package description → What does the program do?

```
jean@ubuntu:~$ apt search figlet
Sorting... Done
Full Text Search... Done
figlet/focal 2.2.5-3 amd64
  Make large character ASCII banners out of ordinary text

irssi-scripts/focal 20200223 all
  collection of scripts for irssi

php-text-figlet/focal 1.0.2-4 all
  Engine for use FIGlet fonts to rendering text

presentty/focal 0.2.1-1.1 all
  Console-based presentation software

python3-pyfiglet/focal 0.8.0+dfsg-1 all
  Python 3 port of the FIGlet specification

ruby-text/focal 1.3.0-1 all
  Collection of text algorithms for Ruby

toilet/focal 0.3-1.2 amd64
  display large colourful characters in text mode

toilet-fonts/focal 0.3-1.2 all
  collection of TOIlet fonts

jean@ubuntu:~$
```

3. Install the figlet package and verify it works.

```
jean@ubuntu:~$ sudo apt install figlet
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  figlet
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 133 kB of archives.
After this operation, 752 kB of additional disk space will be used.
Get:1 http://fi.archive.ubuntu.com/ubuntu focal/universe amd64 figlet amd64 2.2.5-3 [133 kB]
Fetched 133 kB in 0s (772 kB/s)
Selecting previously unselected package figlet.
(Reading database ... 68659 files and directories currently installed.)
Preparing to unpack .../figlet_2.2.5-3_amd64.deb ...
Unpacking figlet (2.2.5-3) ...
Setting up figlet (2.2.5-3) ...
update-alternatives: using /usr/bin/figlet-figlet to provide /usr/bin/figlet (figlet) in auto mode
Processing triggers for man-db (2.9.1-1) ...
jean@ubuntu:~$ _
```

JOHAN

```
jean@ubuntu:~$
```

- run after the removal.

```
jean@ubuntu:~$ showfigfonts
bash: /usr/bin/showfigfonts: No such file or directory
jean@ubuntu:~$ _
```

- ## Download the package from the

url <http://student.labranet.jamk.fi/~hantt/os/Python-3.7.4.tgz>.

- apt:**

- ## 1. libffi-dev

2. zlib1g-dev

- Find out if you already have newer version of Python3 installed by running command `python3`. Check the version that is in the output and exit with `Ctrl + D`.
- If you have newer version than 3.7.4, find out where this executable is located and replace the existing symbolic link with symbolic link pointing to your Python 3.7.4 version executable.
- Verify the operation of Python3 by starting the shell with command `python3`. You should now see the version 3.7.4 at the start of your Python shell.

```
Processing triggers for libc-bin (2.31-0ubuntu9.2) ...
jean@ubuntu:~$ sudo apt install build-essential
```

```
jean@ubuntu:~$ sudo wget http://student.labranet.jamk.fi/~hantt/os/Python-3.7.4.tgz
--2021-07-01 04:23:40-- http://student.labranet.jamk.fi/~hantt/os/Python-3.7.4.tgz
Resolving student.labranet.jamk.fi (student.labranet.jamk.fi)... 192.168.20.20
Connecting to student.labranet.jamk.fi (student.labranet.jamk.fi)|192.168.20.20|:80... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://student.labranet.jamk.fi/~hantt/os/Python-3.7.4.tgz [following]
--2021-07-01 04:23:40-- https://student.labranet.jamk.fi/~hantt/os/Python-3.7.4.tgz
Connecting to student.labranet.jamk.fi (student.labranet.jamk.fi)|192.168.20.20|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 23017663 (22M) [application/x-gzip]
Saving to: 'Python-3.7.4.tgz'

Python-3.7.4.tgz      100%[=====] 21.95M  3.51MB/s   in 6.8s
2021-07-01 04:23:47 (3.22 MB/s) - 'Python-3.7.4.tgz' saved [23017663/23017663]

jean@ubuntu:~$ _
```

```
jean@ubuntu:~$ ls
av.txt  b.txt  Python-3.7.4  Python-3.7.4.tgz  txt.txt  users.txt
jean@ubuntu:~$ sudo tar xvf Python-3.7.4.tgz
```

```
jean@ubuntu:~/Python-3.7.4$ sudo ./configure_
```

```
File Machine View Input Devices Help
```

```
jean@ubuntu:~/Python-3.7.4$ sudo make_
```

```
File Machine View Input Devices Help
```

```
jean@ubuntu:~/Python-3.7.4$ sudo make install
```

```
jean@ubuntu:~/Python-3.7.4$ python3
Python 3.7.4 (default, Jul 1 2021, 04:34:08)
[GCC 9.3.0] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>>
```