

*System Admin*

*Training Assignments*

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| **Program Code** |  |
| **Issue/Revision** | **x/y** |
| **Effective date** | **04/Aug /2023** |

**Assignment Day 03. Install and Uninstall Software**

**Mục Lục:**

1. **Install and Uninstall Software (Ubuntu)**

**1.1. Tổng hợp các lệnh**

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| **command** | **explanation** |
| /etc/apt/sources.list | File that contains URL’s to repositories. |
| /etc/apt/sources.d/ | Directory that contains extra repository files. |
| apt-get update | Update the local information with the remote repositories. |
| apt-cache search foo | Search the repositories for packages with **foo** in their name. |
| apt-get install foo | Download and install package **foo**. |
| apt-get remove foo | Remove (=Uninstall) the package **foo**. |
| apt-get purge foo | Remove the package **foo** and all its configuration. |
| apt-get upgrade | Upgrade all installed packages to the latest version in the repo. |
| aptitude update | Update the local information with the remote repositories. |
| aptitude upgrade | Upgrade all packages to the latest version. |
| aptitude search foo | Search for all packages with **foo** in their name. |
| aptitude install foo | Download and install the package **foo**. |
| aptitude remove foo | Remove the package **foo**. |
| aptitude purge foo | Remove the package **foo** and all its configuration. |
| apt update | Update the local information with the remote repositories. |
| apt upgrade | Upgrade all packages to the latest version. |
| apt search foo | Search for all packages with **foo** in their name. |
| apt install foo | Download and install the package **foo**. |
| apt remove foo | Remove the package **foo**. |
| apt purge foo | Remove the package **foo** and all its configuration. |
| dpkg -l foo | Display information about package **foo**. |
| dpkg -l | List all installed and/or configured packages. |
| dpkg -s foo | Display detailed information about package **foo**. |
| dpkg -S bar | Query to which package the file **bar** belongs. |
| dpkg -L foo | List all files installed by the package **foo**. |
| dpkg -i foo.deb | Install the **foo.deb** package. |
| dpkg -r foo | Uninstall the **foo.deb** package. |

1. **Thực hành cài đặt và gỡ cài đặt từ Package Manager**

**Exercise:**

1. Update the meta-information about all packages in the repository to your server.
2. Download and upgrade all packages on your server to the newest version.
3. Search for all packages containing the string zfs.
4. Take a backup of **/etc/apt/sources.list**.
5. Add the **contrib** packages to **/etc/apt/sources.list** .
6. Update all repository information, then search for zfs again.
7. Verify with **dpkg** whether any of the zfs packages are installed.
8. Verify which package installed **/bin/mkdir** .

**Solution:**

1. Update the meta-information about all packages in the repository to your server.

apt update

apt-get update

aptitude update

1. Download and upgrade all packages on your server to the newest version.

apt-get upgrade

1. Search for all packages containing the string zfs.

aptitude search zfs

1. Take a backup of **/etc/apt/sources.list**.

cp /etc/apt/sources.list /etc/apt/sources.list.20190914

1. Add the **contrib** packages to **/etc/apt/sources.list** .

root@debian10:~# vi /etc/apt/sources.list

root@debian10:~# grep contrib /etc/apt/sources.list

deb http://deb.debian.org/debian/ buster main contrib

deb-src http://deb.debian.org/debian/ buster main contrib

root@debian10:~#

1. Update all repository information, then search for zfs again.

aptitude update

aptitude search zfs # You should see more zfs packages.

1. Verify with **dpkg** whether any of the zfs packages are installed.

dpkg -l | grep -i zfs

1. Verify which package installed **/bin/mkdir** .

dpkg -S /bin/mkdir

1. **Thực hành cài đặt và gỡ cài đặt từ Source Code**

**Exercise:**

Install netcat utility from source code

Download source: http://nchc.dl.sourceforge.net/project/netcat/netcat/0.7.1/netcat-0.7.1.tar.gz

**Solution:**

Download netcat-0.7.1.tar.gz to /tmp directory

cd /tmp

wget http://nchc.dl.sourceforge.net/project/netcat/netcat/0.7.1/netcat-0.7.1.tar.gz

Extract netcat source code

tar –xvzf netcat-0.7.1.tar.gz

View installation instruction and install netcat

cd ./netcat-0.7.2

less README

less INSTALL

./configure

make

make install

Test netcat after installed

which netcat

netcat -h