Mastering Open Source Software (S6)

The GNU Project

- freedom to run programs as you wish
- freedom to study how the program works and change it → open source
- freedom to redistribute
- freedom to redistribute copies
- GNU public license
- Linux Kernel under GNU licence
- www.gnu.org

Compiling Software from Source Code

- Sudo apt-get install gcc → for c compiler
    - configure → to configure gcc for the system
- sudo apt-get install make → for make
    - make → compile the files with cmake
    - sudo make install to install compiled code

The Software Repositories

- https://help.ubuntu.com/community/Repositories/Ubuntu
- https://packages.ubuntu.com/
- uname –m → to get architecture

The Apt Cache

- apt-cache search <searchterm> → to find packages in cache
    - cache under /var/lib/apt/lists

Updating the Cache and Upgrading Software

- sudo apt-get update → update apt cache
- sudo apt-get uprade → update installed packages

Installing New Software

- apt-get install <package>[=<version>] → install a package

Downloading Source Code

- https://help.ubuntu.com/community/Repositories/CommandLine
- /etc/apt/sources.list → sources are stored here
    - Uncomment sources here to be able to download them
- sudo apt-get dpkg-dev → to install sourcecode
- sudo apt-get source <package> → install sourcecode

Uninstalling Software

- sudo apt-get remove <package> → not full removal
- sudo apt-get purge <package> → also removes config files
- sudo apt-get autoremove → removes unused dependencies
- sudo apt-get clean → removes archived packed packages
- sudo apt-get autoclean → removes unused archived packages