Debian Packaging Tutorial
Magic that makes "`apt-get install`" work

Muneeb Shaikh
`iammuneeb@gmail.com`

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Outline

1. General Installation Procedure

2. Packaging

3. Creating Debian Package Steps

Outline

From Source

- ▶ Download the source from upstream
- ▶ Read the installation instructions
- ▶ Hunt for the pre-requisites of installing (Download Dependencies)
- ▶ Finally install with these commands
  1. `./configure`
  2. `make`
  3. `make install`

From Repository
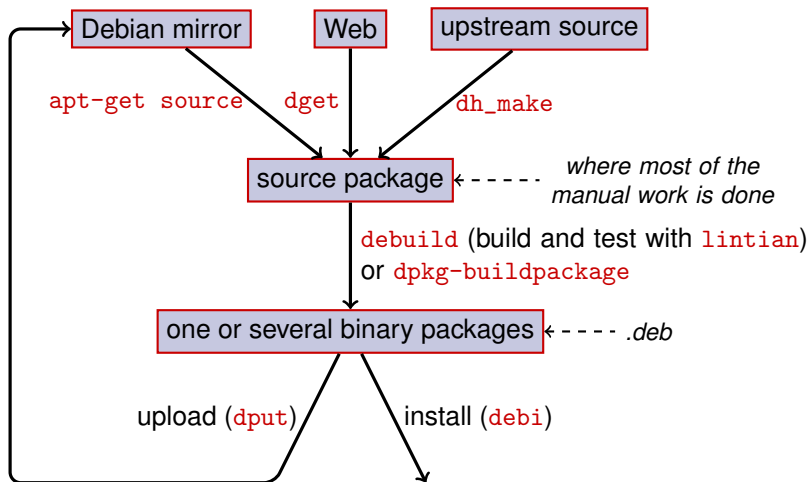
```
sudo apt-get install package_name
```

Outline

Tools of Trade

- A Debian (or Ubuntu) system (with root access)
- Some packages:
  - **build-essential**: contains basic building tools such as **gcc, g++, make** and mainly **dpkg-dev**, which contains basic Debian-specific tools to create packages
  - **devscripts**: contains many useful scripts for Debian maintainers
  - **dh-make**: tool to Debianize the upstream source easily
  - **lintian**: Debian package checker

General packaging workflow

Outline

Creating Debian Package Steps

1. Setting up your BASH environment
2. Download the upstream tarball
3. Rename the upstream tarball
4. Unpack the upstream tarball
5. Add the Debian packaging files
6. Build the package
7. Check for errors
8. Install the package
9. If everything is working as expected upload it to `mentors.debian.net`

Step 1: Setting up your BASH environment

- Append the following lines to ~/.bashrc
  [replace the values with Your full name and email address]

  ```
  DEBEMAIL="abdulkarimmemon@gmail.com"
  DEBFULLNAME="AbdulKarim Memon"
  export $DEBFULLNAME $DEBEMAIL
  ```

- Restart your terminal or execute following in the terminal.

  ```
  $ source ~/.bashrc
  ```

Step 2: Download upstream tarball

```
$ mkdir ~/packaging
$ cd ~/packaging
$ wget http://download.savannah.gnu.org/releases/smc/
    hyphenation/patterns/hyphen-as-0.7.0.tar.bz2
```

Rename the upstream tarball

Rename the tarball to `<package_name>_<version>.orig.tar.bz2`