

# Debian Packaging Tutorial

Magic that makes "`apt-get install`" work

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# Outline

- ➊ General Installation Procedure
- ➋ Packaging
- ➌ Creating Debian Package Steps



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# 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
  - ❶ `./configure`
  - ❷ `make`
  - ❸ `make install`



# From Repository

```
sudo apt-get install package_name
```



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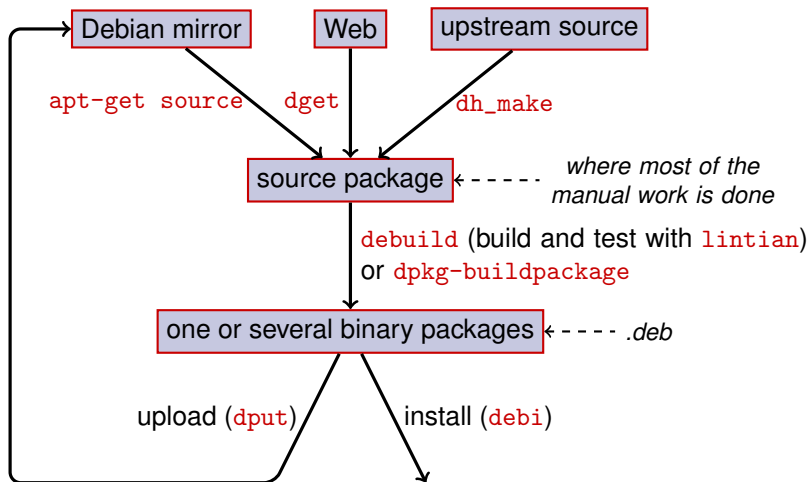


# Tools of Trade

- ▶ 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





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# Creating Debian Package Steps

- ➊ Setting up your BASH environment
- ➋ Download the upstream tarball
- ➌ Rename the upstream tarball
- ➍ Unpack the upstream tarball
- ➎ Add the Debian packaging files
- ➏ Build the package
- ➐ Check for errors
- ➑ Install the package
- ➒ If everything is working as expected upload it to [mentors.debian.net](https://mentors.debian.net)



## Step 1: Download upstream tarball

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



## Step 2: Setting up your BASH environment

Add the following lines to `~/.bashrc`  
[replace the valuse with Your full name and email  
address]

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

