

**Exercise 10.1** Basic APT Commands

1. Check to see if there are any available updates for your system.
2. Update a particular package.
3. List all installed kernel-related packages, and list all installed or available ones.
4. Install the **apache2-dev** package, or anything else you might not have installed yet. Doing a simple:

```
$ apt-cache pkgnames
```

will let you see a complete list; you may want to give a wildcard argument to narrow the list.

Solution 10.1

1. First synchronize the package index files with remote repositories:

```
$ sudo apt-get update
```

To actually upgrade:

```
$ sudo apt-get upgrade  
$ sudo apt-get -u upgrade
```

(You can also use `dist-upgrade` as discussed earlier.) Only the first form will try to do the installations.

2.

```
$ sudo apt-get upgrade bash
```

3.

```
$ apt-cache search "kernel"  
$ apt-cache search -n "kernel"  
$ apt-cache pkgnames "kernel"
```

The second and third forms only find packages that have `kernel` in their name.

```
$ dpkg --get-selections "*kernel*"
```

to get only installed packages. Note that on **Debian**-based systems you probably should use `linux` not `kernel` for kernel-related packages as they don't usually have `kernel` in their name.

4.

```
$ sudo apt-get install apache2-dev
```