Exercise 10.1: Basic APT Commands

Please Note

To do these labs you need to have access to a system that is **Debian**-based, such as **Debian**, **Ubuntu**, or **Linux Mint**.

1. Check to see if there are any available updates for your system.
2. List all installed kernel-related packages, and list all installed or available ones.
3. 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 update
   ```

   To actually upgrade:

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

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

2. ```
   $ 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.

3. ```
   $ sudo apt install apache2-dev
   ```

