Software management

Goals

- Understand the software management techniques that are used by the computer and a Linux distribution such as Debian.
- Be able to install software (apps, utilities …) in the computer from source code and using others system tools .

Part 1: Software management

1. Take a snapshot with the initial state of the system.
2. Install the last version of the ssh server *(openssh)*, from source code, in the directory `/opt/openssh/<version>` (without overwriting the current version). Look for the code in the *OpenSSH repository (http://www.openssh.org/portable.html)* and make the new version operative in the default runlevel. Resolve all the dependencies with source code installations (do not use apt-get)
3. Debian distribution system allows the generation of installable packages from its source code. Download and build (compile) "automatically" with apt-get the .deb package for the last version of text editor *nedit*.
   a. Install all the required software to solve the dependencies that might appear.
4. Guess which version of *acpid* software is installed in the system and the amount of disk space occupied by it. Identify which have been the last changes of the installed version.
5. Install the application "Acrobat Reader" from a rpm package.
6. Discover which mechanisms can be used to verify the authenticity of deb packages.
   a. List the keys of the repositories employed by APT.
7. Change the software repositories URL to the main Debian servers (highly recommended, because some mirrors such as rediris usually contain partial updates, which is a disaster for system management).
8. Change the repository distribution to the stable version and upgrade your system.

Part 2: Shell Scripting

1. Create a shell script with a single command line argument, the name of the package that we want to know if it's installed or not. In case it's installed the script prints the release number of the package, otherwise the script auto installs the package and its dependencies with the command apt-get. All the installation process is saved in an external logfile.