Things To Do After Installing

LINUX

Tips and Tricks for My Fellow Noobs

3rd Ed.

Sajid Hasan Apon

Department of CSE, BUET

sajidhasanapon@gmail.com

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Behold, peasant !

If you are reading this, you probably are one of those who have recently installed Linux in their computer and share the same belief with me - **Windows sucks !** (And a novice like me - that goes without saying).

Well, Linux sucks, too. But hey, Windows is too mainstream (admit it)! Everyone uses Windows. Linux gives you the opportunity to post flashy screenshots of your unconventional desktop on Facebook, and claim that you are a black-hat hacker, or Keanu Reeves in disguise (nerds will get it).

Anyways, back to business. Since you are a fellow Linux user, I thought it might be of help to you if I shared my list of "things to do after Linux installation".

I am going to assume that you are running a Debian based distro (Ubuntu, Linux Mint, Peppermint OS etc.). Here is a list of distros that are derivatives of Debian, which itself is a popular distro. The default package manager in Debian is **apt-get**, unlike **pacman** from Arch Linux or **yum** in Fedora. So, the commands described in here will not work in other families.

Also, I am assuming that **gedit** text editor is installed in your system. If not, you can install it by running

$ sudo apt-get install gedit

or, you can replace the word "gedit" by the name of your preferred editor in the commands described later.

The list is far from complete and I don't know when I'll update it (I have a hand-written list but typing is a pain, you know).

Last of all, I am a newbie too, just like you are. So don't blame me if something doesn't work or you accidentally blow up your computer.

Have a good day.

1 Install Windows-only Applications

There are many applications that are available for Windows, but not for Linux. Probably, this is the biggest reason behind your Linux-allergy, especially if you are a gamer. But, you can, infact, run most of those software in Linux too.

Wine is a compatibility layer software that allows you to run programs that were intended for Windows. In plain words, it allows the installation of .exe files (Pretty awesome, isn't it?).

To install Wine, open a terminal and type in:

```
$ sudo apt-get install wine-stable
```

If the above does not work, go for:

```
$ sudo apt-get install wine
```

After that, you can install any .exe by running

```
$ sudo wine <software_name>.exe
```

For example, let's assume that you want to install Notepad++, and have downloaded the installation file named npp-installer.exe into /home/Downloads. Then you have to run

```
$ sudo wine ~/Downloads/npp-installer.exe
```

It will take you through an installation wizard similar to Windows.

The installed software can be found in

```
/home/.wine/drive_c/Program Files
                 and
/home/.wine/drive_c/Program Files(x86)
```

2 Disable Wi-fi Driver's Power-saving Option

The power manager in Debian-based distros cuts off power to the wireless card in regular intervals, resulting in wi-fi disconnection. Fortunately, there is a workaround to this bug. Type the following in the terminal.

```
$ sudo touch /etc/modprobe.d/rtl8723be.conf
$ sudo gedit /etc/modprobe.d/rtl8723be.conf
```

A blank document will open. Paste the following line there, save the document and restart the system.

```
options rtl8723be fwlps=0
```

This method works only for Realtek RTL8723BE Wireless Chipset Driver. For other Realtek Wireless Drivers, visit here.

3 Execute 'sudo' Without Password

Every time you issue a sudo command, the system asks for the user password, which is a good thing for security reasons. It also acts like a confirmation and gives you a second chance before you execute devastating commands that can destroy your system.

However, if you love to tweak around with your system, you will find typing in the password again and again pretty annoying before long. And it's no surprise that there is a workaround.

Open a terminal and type in:

```
sudo visudo
```

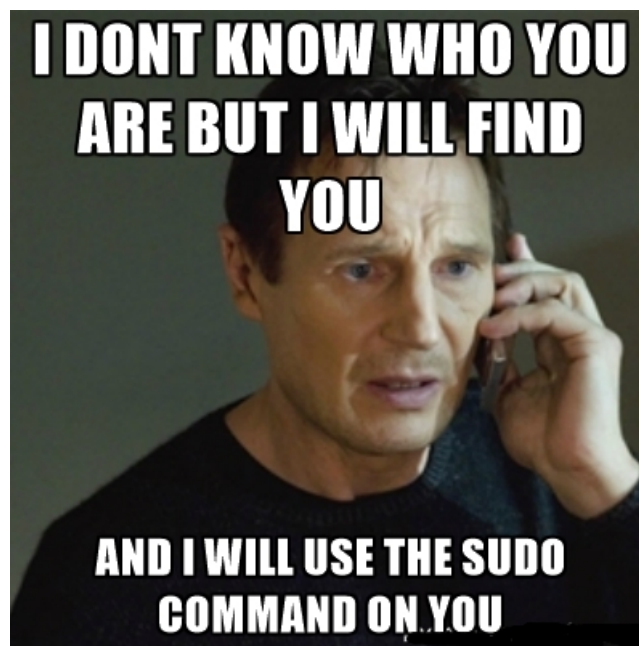At the bottom of the file, type in:

```
<your_username> ALL=(ALL) NOPASSWD: ALL
```

Press ctrl + x
Press Y
Press ENTER

Remember: This only applies to **sudo** command in terminal window, and nowhere else. For example, you will still be prompted to type in your password when you log in.

4 Disable Suspend and Hibernation

Due to BIOS and driver incompatibility, 99% of the machines running on Ubuntu or Ubuntu-derivatives can not wake up after putting into sleep, suspension, or hibernation; and you will have to restart the system for bringing it out of 'coma'.

To avoid this problem, go to settings (or, control panel, depending on your distro) and turn off automatic suspension from power manager. Also, set the 'lid close', 'sleep button press', and 'power button press' option values to nothing.

If you want to permanently disable the suspend and hibernate options and remove them from your system, do the following.

4.1 Remove Hibernate Option

This procedure is needed only in **Linux Mint** because Ubuntu has hibernation disabled by default.

Open a terminal and type in the following.

```
$ rm -v /etc/polkit-1/localauthority/50-local.d/com.ubuntu.enable-hibernate.pkla
```

4.2 Remove Suspend Option

Open a terminal and type in the following.

```
$ sudo touch /etc/polkit-1/localauthority/90-mandatory.d/disable-suspend.pkla
```

Put the following lines into the newly opened blank document.

```
[Disable suspend (upower)]
Identity=unix-user:*
Action=org.freedesktop.upower.suspend
ResultActive=no
ResultInactive=no
ResultAny=no

[Disable suspend (logind)]
Identity=unix-user:*
Action=org.freedesktop.login1.suspend
ResultActive=no

[Disable suspend for all sessions (logind)]
Identity=unix-user:*
Action=org.freedesktop.login1.suspend-multiple-sessions
ResultActive=no
```

Save the file and reboot your computer (full reboot). Suspend should now no longer be one of the options in the shutdown menu.

WARNING: You will not be able to undo these settings.

5 View Bangla Fonts In the Browser

Most of the distros out there can not show Bangla fonts (and other unicode fonts) right out of the box. But it is not difficult at all to view Bangla in the browser, you need to install a font first.

5.1 Preparations

1. Download the **Kalpurush** font from here.

2. You will get a file named **kalpurush.ttf**. Copy the file into your **home** folder.

3. Kick off a terminal and type in

   ```
   sudo mv kalpurush.ttf /usr/share/fonts
   ```

The installation is complete. Now, Bangla fonts are shown in the browser.

But wait, something's wrong. The compound letters are broken. That is because we have not changed the settings in the browser yet. So, the next part is browser integration.

5.2 Firefox Users

1. Open the browser and go to **Preferences**. If your browser was already open, restart it after installing the font.

2. Navigate to **Content**.

3. Under **Fonts & Colors**, choose **Kalpurush** as the default font.

4. Click the **Advanced** button.

5. Set the **Serif** and **Sans-serif** fonts to **Kalpurush**.

You are all set.

6   Install Oracle RDBMS

1. Download Oracle Database 11g XE from here (Linux 64).

2. Copy the downloaded file into your **home** folder.

3. Start boiling water to make a cup of coffee (yes, I am perfectly sane).

4. Open a terminal and type in:

   ```
   1. $ unzip oracle-xe-11.2.0-1.0.x86_64.rpm.zip
   2. $ sudo apt get install make
   3. $ sudo apt-get install alien libaio1 unixodbc
   4. $ sudo gedit /sbin/chkconfig
   ```

5. A blank file will open. Put the following lines in that file.

   ```
   #!/bin/bash
   # Oracle 11gR2 XE installer chkconfig hack for Ubuntu
   file=/etc/init.d/oracle-xe
   if [[ ! 'tail -n1 $file | grep INIT' ]]; then
   echo >> $file
   echo '### BEGIN INIT INFO' >> $file
   echo '# Provides: OracleXE' >> $file
   echo '# Required-Start: $remote_fs $syslog' >> $file
   echo '# Required-Stop: $remote_fs $syslog' >> $file
   echo '# Default-Start: 2 3 4 5' >> $file
   echo '# Default-Stop: 0 1 6' >> $file
   echo '# Short-Description: Oracle 11g Express Edition' >> $file
   echo '### END INIT INFO' >> $file
   fi
   update-rc.d oracle-xe defaults 80 01
   ```

6. Save and close the file.

7. In the terminal, type in:

   ```
   5. $ sudo chmod 755 /sbin/chkconfig
   6. $ sudo gedit /etc/sysctl.d/60-oracle.conf
   ```

8. Another blank file opens. Paste these lines in there:

   ```
   # Oracle 11g XE kernel parameters
   fs.file-max=6815744
   net.ipv4.ip_local_port_range=9000 65000
   kernel.sem=250 32000 100 128
   kernel.shmmax=536870912
   ```

9. Save and close the file.

10. Now, type in the following lines in the terminal.

    ```
     7. $ sudo cat /etc/sysctl.d/60-oracle.conf
     8. $ sudo service procps start
     9. $ sudo sysctl -q fs.file-max
    10. $ free -m
    11. $ sudo ln -s /usr/bin/awk /bin/awk
    12. $ mkdir /var/lock/subsys
    13. $ touch /var/lock/subsys/listener
    14. $ cd ~/Disk1
    15. $ sudo alien --scripts -d oracle-xe-11.2.0-1.0.x86_64.rpm
    ```

11. It will take 5 - 10 minutes for this command to execute. The water is warm enough by now. sudo make coffee; sudo drink coffee.

12. When the terminal comes back to life, type in:

```
16. $ sudo dpkg --install oracle-xe_11.2.0-2_amd64.deb
17. $ cd
18. $ sudo /etc/init.d/oracle-xe configure
```

13. Enter the following configuration information:

```
HTTP Port   :       8080
Listener    :       1521
Password    :       Everyone knows that "123" is the "strongest" one.
                    But you can let your imagination run wild; no problem.
Confirm     :       Repeat your password.
Auto-start  :       Hell yes ! YES !
```

14. Type into terminal:

```
19. $ gedit .bashrc
```

15. Add the following lines at the end of the file that opens.

```
export ORACLE_HOME=/u01/app/oracle/product/11.2.0/xe
export ORACLE_SID=XE
export NLS_LANG='$ORACLE_HOME/bin/nls_lang.sh'
export ORACLE_BASE=/u01/app/oracle
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
export PATH=$ORACLE_HOME/bin:$PATH
```

16. Save and close the file.

17. Type into terminal:

```
20. $ . ./.profile
21. $ sudo service oracle-xe start
22. $ rm oracle-xe-11.2.0-1.0.x86_64.rpm.zip
```

18. Get yourself a reward because you've done it. Oracle is now installed in your system. You will find sql*plus in dash(Unity, Gnome) or menu(Cinnamon, Mate). The rest is just like Windows. Use the same password that you set in step 13.

7 Install JAVA

1. Download JDK from here.

2. Extract the downloaded .tar.gz file. Let's say, the extracted folder's name is <folder–name>.

3. Copy the extracted folder to your **home** directory.

4. Execute the following commands one by one:

   ```
   1. $ sudo mkdir /opt/java
   2. $ sudo cp -R ~/<folder-name> /opt/java
   3. $ sudo update-alternatives --install /usr/bin/java java /opt/java/<folder-name>/bin/java 100
   4. Chill. You are done.
   ```

8 Install IntelliJ IDE

1. Download IntelliJ IDE from here.

2. Extract the downloaded .tar.gz file.Let's say, the extracted folder's name is <folder–name>.

3. Copy the extracted folder to your **home** directory.

4. Execute the following commands one by one:

   ```
   1. $ sudo cp -R ~/<folder-name> /opt
   2. $ sudo chmod +x /opt/<folder-name>/bin/idea.sh
   3. sudo /opt/<folder-name>/bin/idea.sh
   ```

5. It will take you through an installation wizard similar to Windows.

6. Don't skip any step.

7. In the second step, don't forget to mark the "Create a desktop entry for all of the users" checkbox.

8. Finish installation.

9. Voila !