

**PRACTICAL 3: Basic understanding on free and open-source software.****a) Describe Open-source software with example.**

- A software whose source code is freely distributed with a license to study, change and further distributed to anyone for any purpose is called open-source software. Source code is the part of software that most computer users don't ever see; it's the code computer programmers manipulate to control how a program or application behaves. Programmers who have access to source code can change a program by adding to it, changing it, or fixing parts of it that aren't working properly. OSS typically includes a license that allows programmers to modify the software to best fit their needs and control how the software can be distributed. Following are the examples of open-source software:
- Gimp
  - SugarCRM
  - GNU cash
  - VLC media player
  - PHP
  - Firefox
  - jQuery

**b) Describe Free software with example.**

- Free software means the software is freely accessible and can be freely used, changed, improved, copied and distributed by all who wish to do so. And no payments are needed to be made for free software. The concept of free software is the brainchild of Richard Stallman, head of the GNU Project. The best-known example of free software is Linux, an operating system that is proposed as an alternative to Windows or other proprietary operating systems. Other examples of Free software are:
- The Apache web server
  - The MySQL relational database
  - The BSD and Linux Operating system
  - The Gimp
  - The GNU compiler collection and C library

**c) Difference between Free and Open-source software.**

<b><u>FREE SOFTWARE</u></b>	<b><u>OPEN-SOURCE SOFTWARE</u></b>
1. Free software is a social movement.	1.Open source is a development methodology.
2.It is focused to provide moral collaboration.	2. It is focused to provide economical collaboration.
3.Users of free software may have access to study the source code as part of their ability to modify it.	3.Open-source code can be used for studying and allows capable end users to adapt software to their personal needs.
4.Free software focuses on providing a moral/ethical argument for open source.	4.Open source tends to focus on providing an economic/business argument for free software.
5.Freedom to run program for any purpose.	5.It has distribution of license.
6.Using free software is a good, morally right thing to do.	6.Using open-source software is beneficial to you and your business.
7.Software freedom translates to social freedom.	7.Ethics are to be associated to the people not to the software.
8.Examples: The Free software Directory maintains a large database of free-software packages. Some of the best-known examples include the Linux kernel, the BSD and Linux operating systems.	8.Examples: Prime examples of open-source products are the Apache HTTP server, the ecommerce platform of Commerce, internet browsers, Mozilla Firefox.