

# > BASIC UNDERSTANDING ON FREE AND OPEN- SOURCE SOFTWARE

\* Acronym for Free or Open Source Software.

FOSS programs are those that have licenses that allow users to freely run the program for any purpose, modify the program as they want, and also to freely distribute copies of either the original version or their own modified version.

# a) Describe Open Source Software with Example.



Open-source software (OSS) is a type of computer software in which source code is released under a license in which the copyright holder grants users the rights to use, study, change, and distribute the software to anyone and for any purpose. Open-source software may be developed in a collaborative public manner.

## > Open-source software with Example

- 1) Firefox— A Web browser that competes with Internet Explorer.
- 2) OpenOffice—A competitor to Microsoft Office.
- 3) Gimp—A graphic tool with features found in Photoshop.
- 4) Alfresco—collaboration software that competes with Microsoft Sharepoint and EMC's Documentum.

## **> b) Describe 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. Debian is an example of a distributor of a Linux package.

## > Free Software with Example

- 1) The Linux kernel, of course! The Linux kernel is protected by the GPL, and is used daily by millions of people throughout the world.
- 2) Apache, the most widely used web server in the world.
- 3) The Gimp is a powerful bitmap mode digital creation program.
- 4) PostgreSQL is an object-relational database.

# c) Difference between Free and Open Source Software.

## Free Software

- > According to the Free Software Foundation (FSF), a non-profit organization that supports the development of free software, free software is the software that grants the user the freedom to share, study, and modify it. The FSF coined the term in the 1980s.
- > This type of software allows you to do anything you want with it, even improving the version and profiting from it.
- > The FSF asserts that a free software must adhere to the following four pillars of freedom (which are rights and not obligations)
  - 1) The freedom to deploy the software for any use case without any restrictions. For example, saying that the license of a program expires after 30 days makes it non-free.
  - 2) The freedom to study how the software works and modify it according to your needs and preferences.
  - 3) The freedom to freely re-distribute the software to assist someone in need. The redistribution can be done at a cost or at no cost.
  - 4) The freedom to enhance the performance of the software and release your enhancements for the community to benefit—both programmers and non-programmers. You can do this at a cost or at no cost.

# Open Source Software

- > Open source software has a close meaning to free software, although the two terms are not identical. Although both terminologies refer to a similar group of licenses and software, each term alludes to different underlying ideologies.
- > The Open Source Initiative (OSI), the non-profit organization that supports the development of open source software, asserts that any open source software must adhere to the following criteria:
  - 1) Free redistribution of the software.
  - 2) The source code should be publicly available.
  - 3) The software can be modified and distributed in a different format from the original software.
  - 4) The software should not discriminate against persons or groups.
  - 5) The software should not restrict the usage of other software.