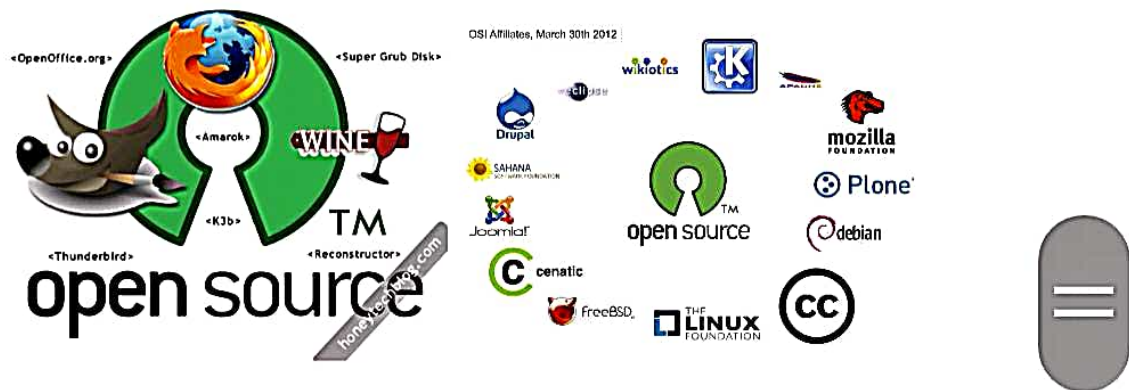


## PRACTICAL 3

### **PRACTICAL 3: BASIC UNDERSTANDING ON FREE AND OPEN-SOURCE SOFTWARE.**

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.<sup>[1]</sup> Open-source software may be developed in a collaborative public manner.



Open-source technologies helped establish much of the internet. Furthermore, many of the programs in use every day are based on open-source technologies. Cases in point: Android OS and Apple's OS X are based on the kernel and Unix/BSD open-source technologies, respectively.

Other popular open-source software is:

- Mozilla's Firefox web browser
- Thunderbird email client
- PHP scripting language
- Python programming language
- Apache HTTP web server

b) Describe Free Software with Example

Free software is a term coined and promoted by the GNU project and Free Software Foundation. It is used for open source software which allows users to freely look at the source of the software, modify it, distribute it, and use it without any restriction. Software available without any payment is not necessarily free software. According to the definition as presented by the Free Software Foundation, the word Free in "free software" implies the idea of freedom rather than not having a cost. If software is available to be downloaded without being paid for, but the user is not able to modify the source then it is not free software. It is important to note

### c) Difference between Free and Open Source Software.

#### **Free Software:**

"Free software" means software that respects users' freedom and community. Roughly, it means that the users have the freedom to run, copy, distribute, study, change and improve

the software. The term "free software" is sometimes misunderstood—it has nothing to do with price. It is about freedom.

1. Free Software is an important part of people's lives.
2. Free Software freedom translates to social freedom.
3. Freedom is a value that is more important than any economical advantage.
4. 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, the GNU Compiler Collection and C library; the MySQL relational database; the Apache web server; and the Sendmail mail transport agent.

#### **Open Source Software :**

Open Source Software is something which you can modify as per your needs, share with others without any licensing violation burden. When we say Open Source, source code of software is available publicly with Open Source licenses like GNU (GPL) which allows you to edit source code and distribute it. Read these licenses and you will realize that

these licenses are created to help us.

1. Coined by the development environments around software produced by open collaboration of software developers on the internet.
2. Later specified by the Open Source Initiative (OSI).



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1. Coined by the development environments around software produced by open collaboration of software developers on the internet.

2. Later specified by the Open Source Initiative (OSI).

3. It does not explicitly state ethical values, besides those directly associated to software development.

4. OpenSource Software is just software. There are no ethics associated directly to it.

5. Freedom is not an absolute concept. Freedom should be allowed, not imposed.

6. Examples: Prime examples of open-source products are the Apache HTTP Server, the e-commerce platform osCommerce, internet browsers Mozilla Firefox and Chromium (the project where the vast majority of development of the freeware Google Chrome is done) and the full office suite LibreOffice.

