PRACTICAL-NO:3

**AIM**: BASIC UNDERSTANDING ON FREE AND OPEN-SOURCE SOFTWARE.

1. Describe Open-Source Software with Example.

**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.

EXAMPLES OF POPULAR OPEN-SOURCE SOFTWARES ARE:

* Mozilla's Firefox web browser
* Thunderbird email client
* [PHP](https://www.thebalancecareers.com/websites-for-learning-php-2071891) scripting language
* Python [programming language](https://www.thebalancecareers.com/high-paying-programming-languages-2071890)
* Apache HTTP web server

1. Describe Free Software with Example

Free software (or libre software) is computer software distributed under terms that allow users to run the software for any purpose as well as to study, change, and distribute it and any adapted versions.Free software is a matter of liberty, not price; all users are legally free to do what they want with their copies of a free software (including profiting from them) regardless of how much is paid to obtain the program. Computer programs are deemed "free" if they give end-users (not just the developer) ultimate control over the software and, subsequently, over their devices.

**EXAMPLE:**

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. Other influential examples include the Emacs text editor; the GIMP raster drawing and image editor; the X Window System graphical-display system; the LibreOffice office suite; and the TeX and LaTeX typesetting systems.

1. Difference between Free and Open-Source Software.

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| Free source | Open source |
| Software is an important part of people’s lives. | Software is just software. There are no ethics associated directly to it. |
| Software freedom translates to social freedom. | Ethics are to be associated to the people not to the software. |
| Freedom is a value that is more important than any economical advantage. | Freedom is not an absolute concept. Freedom should be allowed, not imposed. |
| 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. | 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. |