

PRACTICAL 3

TITLE: BASIC UNDERSTANDING ON FREE AND OPEN – SOURCE SOFTWARE

a) Describe **Open-Source Software** with Example.

⇒ Open source software is software with source code that anyone can inspect, modify, and enhance. "Source code" is the part of software that most computer users don't ever see. It's the code computer programmers can manipulate to change how a piece of software—a "program" or "application"—works. Programmers who have access to a computer program's source code can improve that program by adding features to it or fixing parts that don't always work correctly.

Examples of Open-Source Software

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

Other examples of open-source software is:

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

b) Describe **Free Software** with Example.

⇒ Free software means software that respects user's freedom and community. Roughly, it means that **the users have the freedom to run, copy, distribute, study, change and improve the software**. Thus, "free software" is a matter of liberty, not price. A program is free software if it gives users adequately all of these freedoms.

The Free Software Directory maintains a large database of free-software packages.

Some of the best-known examples include:

- **The Linux kernel**, The Linux kernel is protected by the GPL, and is used daily by millions of people throughout the world. As the kernel, it is one of the most important components of the GNU system.
- **Apache**, the most widely used web server in the world. More than 56% of the web servers on this planet use Apache; far more than its fierce competitors, Microsoft and Netscape.
- **The Gimp** is a powerful bitmap mode digital creation program. In spite of being relatively new, The Gimp has rapidly become serious competition for Photoshop.
- **PostgreSQL** is an object-relational database. It is currently the most sophisticated free software database available.

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

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Sr no.	Free Source	Open-Source
1	Software is an important part of people's lives.	Software is just software. There are no ethics associated directly to it.
2	Software freedom translates to social freedom.	Ethics are to be associated to the people not to the software.
3	Freedom is a value that is more important than any economic advantage.	Freedom is not an absolute concept. Freedom should be allowed, not imposed.
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 Send 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.