

### Practical 3

#### **Title:**Basic Understanding on Free and Open-Source Software

##### **a) Describe Open-Source Software with example.**

**Open-Source Software:-** The term open source software is closely related to Open-Source Software(OSS). Open source software is a type of computer software that is released under the license, but the source code is made available to all the users. The copyright holders of such software allow the users to use it and do some valuable modifications in its source code to add some new features, to improve the existing features, and to fix bugs if there are any. Because of this reason only Open-source software is mostly developed collaboratively.

##### **Example:**

Operating system

1. Android
2. Ubuntu
3. Linux

Internet Browser

1. Mozilla Firefox
2. Chromium

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

**Free Software:** Free Software are the softwares that allows the user to do to any kind of work he/she wants as well as they can modify, add new features and they have the freedom to distribute the changed version. A software is said to be free if it gives users the ultimate freedom to do things the way they want. The term free software is sometimes misunderstood it has nothing to do with price. It is about freedom. Here, therefore, is the definition of free software for you

- Freedom 0- You have the freedom to execute the program the way you want and to serve any kind of purpose.
- Freedom 1- You have the freedom to study how the program works and you are free to modify the program to suit your needs.
- Freedom 2- You have the freedom to redistribute copies either gratis or for a fee. So that you can help others and earn profits too.
- Freedom 3- You have the freedom to distribute the modified versions of a program.

**Example:**

- 1.Linux kernal
- 2.The BSD and Linux Operating Systems
- 3.The GNU compiler collection and C library
- 4.The MySQL relational database
- 5.The Apache Web Server
- 6.The Sendmail mail Transport agent

**c) Difference Between Free and Open-Source Software**

Free Software	Open-Source Software
1. Software is an important part of people's lives.	1. Software is just software. There are no ethics associated directly to it.
2. Software freedom translates to social freedom.	2. Ethics are to be associated to the people not to the software.
3. Freedom is a value that is more important than any economical advantage.	3. 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.	4. 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.