

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

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

**Answer :** Open-source software is a type of computer software in which source code is released under a license in which the copyright holder grants user 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 is a prominent example of open collaboration.

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 :

- Firefox—a Web browser that competes with Internet Explorer
- OpenOffice—a competitor to Microsoft Office
- Gimp—a graphic tool with features found in Photoshop
- Alfresco—collaboration software that competes with Microsoft Sharepoint and EMC's Documentum
- Marketcetera—an enterprise trading platform for hedge fund managers that competes with FlexTrade and Portware.
- Zimbra—open source e-mail software that competes with Outlook server.

- MySQL, Ingres, and EnterpriseDB—open source database software packages that each go head-to-head with commercial products from Oracle, Microsoft, Sybase, and IBM.

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

**Answer :** Free 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.

“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. Thus, “free software” is a matter of liberty, not price.

Examples :

- The Linux kernel of an operating system .The Linux kernel is protected by the GPL, and is used daily by millions of people throughout the world.
- Apache, the most widely used web server in the world.
- The Gimp is a powerful bitmap mode digital creation program.
- PostgreSQL is an object-relational database .
- Replicant smartphone, an Android-based system that is 100% free software.
- Libreoffice is a free multi-platform office suite.
- Creating a 3D car racing game using the Blender Game Engine.

**c) Difference between Free and Open Source Software.****Answer :**

<b>Sr.no.</b>	<b>Free Software</b>	<b>Open Source Software</b>
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 economical advantage.	Freedom is not an absolute concept. Freedom should be allowed, not imposed.
4.	Example : Linux kernel based operating system.	Example : Mozilla Firefox an internet browser.