Practical No. 3

Open-source software :-

Open-source software (**OSS**) is computer software that is released under a license in which the copyright holder grants users the rights to use, study, change, and distribute the software and its source code 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, meaning any capable user is able to participate online in development, making the number of possible contributors indefinite. The ability to examine the code facilitates public trust in the software.

Open-source software development can bring in diverse perspectives beyond those of a single company. A 2008 report by the Standish Group stated that adoption of open-source software models has resulted in savings of about $60 billion per year for consumers.

Open source code can be used for studying and allows capable end users to adapt software to their personal needs in a similar way user scripts and custom style sheets allow for web sites, and eventually publish the modification as a fork for users with similar preferences, and directly submit possible improvements as pull requests.

Examples of open-source software:-

- Libre Office.
- GNU/Linux.
- VLC Media Player.
- Mozilla Firefox.
- GIMP.
- VNC.
- Apache web server.
- jQuery.

Free - source software :-

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.

The right to study and modify a computer program entails that source code-the preferred format for making changes-be made available to users of that program. While this is often called "access

to source code" or "public availability", the Free Software Foundation (FSF) recommends against thinking in those terms, because it might give the impression that users have an obligation (as opposed to a right) to give non-users a copy of the program.

Although the term "free software" had already been used loosely in the past, Richard Stallman is credited with tying it to the sense under discussion and starting the free-software movement in 1983, when he launched the GNU Project: a collaborative effort to create a freedom-respecting operating system, and to revive the spirit of cooperation once prevalent among hackers during the early days of computing.

Examples of free-source software:-

- Mysql
- Linux

Difference between Free Software and Open Source Software:

S.No.	**Free source software**	**Open source software**
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.	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.