PRACTICAL 03 BASIC UNDERSTANDING ON FREE AND OPEN-SOURCE SOFTWARE

a)   Describe Open-Source Software with Example.

Open source is source code that is made freely available for possible modification and redistribution. Products include permission to use the source code, design documents, or content of the product. The open-source model is a decentralized software development model that encourages open collaboration. A main principle of open-source software development is peer production, with products such as source code, blueprints, and documentation freely available to the public. The open-source movement in software began as a response to the limitations of proprietary code. The model is used for projects such as in open-source appropriate technology, and open-source drug discovery. Open source promotes universal access via an open-source or free license to a product's design or blueprint, and universal redistribution of that design or blueprint. Before the phrase open source became widely adopted, developers and producers have used a variety of other terms. Open source gained hold with the rise of the Internet. The open-source software movement arose to clarify copyright, licensing, domain, and consumer issues. Generally, open source refers to a computer program in which the source code is available to the general public for use or modification from its original design. Code is released under the terms of a software license. Depending on the license terms, others may then download, modify, and publish their version (fork) back to the community. Many large formal institutions have sprung up to support the development of the open-source movement, including the Apache Software Foundation, which supports community projects such as the open-source framework Apache Hadoop and the open-source HTTP server Apache HTTP.

b)   Describe Free Software with Example

A program is free software if the program's users have the four essential freedoms: The freedom to run the program as you wish, for any purpose (freedom 0). The freedom to study how the program works, and change it so it does your computing as you wish (freedom 1). Access to the source code is a precondition for this.The freedom to redistribute copies so you can help others (freedom 2).The freedom to distribute copies of your modified versions to others (freedom 3). By doing this you can give the whole community a chance to benefit from your changes. Access to the source code is a precondition for this. A program is free software if it gives users adequately all of these freedoms. Otherwise, it is nonfree. While we can distinguish various nonfree distribution schemes in terms of how far they fall short of being free, we consider them all equally unethical. 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.

c)   Difference between Free and Open-Source Software

FREE SOFTWARE	OPEN SOURCE SOFTWARE
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.
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	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