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Practical:3

BASIC UNDERSTANDING ON FREE AND OPEN-SOURCE SOFTWARE

A) Describe Open Source Software with Example.:-

Open-source software (OSS) is a type of computer software in which sources is released under a license in which the copyright holder grants users the rights to use, study, change, and distribute of software to anyone and for any purpose. Open-source software may be developed in a [collaborative public manner](#).

The Open Source Initiative (OSI), a global nonprofit founded in 1998, acts as a leading authority on OSS. Its definition of open-source software includes ten criteria, relating to matters such as:

- Software redistribution
- Source code availability and integrity
- Distribution and properties of licenses
- Derived works
- Anti-discrimination

Other popular open-source software is:

- 1. Mozilla's Firefox web browser**
- 2. Thunderbird email client**
- 3. PHP scripting language**
- 4. Python programming language**
- 5. Apache HTTP web server**



B) Describe Free Software with Example :-

Free Software Although the terms are often used interchangeably, OSS is slightly different from free software. Both deal with the ability to download and modify software without restriction or charge. However, free software a concept developed in the 1980s by an MIT computer science researcher, Richard Stallman is defined by four conditions, as outlined by the nonprofit Free Software Foundation. These “four freedoms” emphasize the ability of users to use and enjoy software as they see fit.

- 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.

Example:-

- GIMP.
- VLC Media Player.
- Linux.
- Blender.
- GNU Compiler Collection.
- Python.

Application software :

- 7-Zip
- Eclipse
- GIMP
- Chromium
- Blender
- Mozilla Firefox
- Open Office

Operating Systems:

- Android
- Linux
- FreeBSD
- ReactOS
- Haiku
- FreeDOS

Programming Language :

- Perl
- PHP
- Python
- Ruby
- PHDL
- Prolog

C) Difference between Free and Open Source Software.:-

Open source software or free software Although there are different rules for free software licenses (four freedoms) and open source licenses (Open Source Definition), what is not apparent from those two sets of rules is:

- 1. Both terms refer to essentially the same set of licenses and software, and**
- 2. Each term implies different underlying values.**

Open Source Software :

Open Source Software is something which you can modify as per your needs, share With others without any licensing violation burden. When we say Open Source, source Code of software is available publicly with Open Source licenses like GNU (GPL) which Allows you to edit source code and distribute it. Read these licenses and you will realize That these licenses are created to help us.

Coined by the development environments around software produced by open Collaboration of software developers on the internet.Later specified by the Open Source Initiative (OSI).It does not explicitly state ethical values, besides those directly associated to

Software development.

Difference between Free Software and Open Source Software:

Free software = Free software usually refers open source under GNU GPL license. At Least the original term by Richard Stallman did. He meant free as in freedom . Because the Word free in English mean without cost the team open source was created. To hint toward The collaborative development effort ,not the price to acquire something.

Open source = your source code is accessible to anyone to read and modify and Redistribute depending on license condition.

