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## PRACTICAL:- 3

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### **UNDERSTANDING ON FREE BASIC AND OPEN-SOURCE SOFTWARE**

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

##### **Definition:**

- 1) A software for which the original source code is made freely available and may be redistributed and modified according to the requirement of the user.
- 2) Open source software is that by which the source code or the base code is usually available for modification or enhancement by anyone for reusability and accessibility.
- 3) Open source code is the part of software that mostly users don't ever see.
- 4) Anyone can manipulate and change a piece of software so that the program or application can work. Programmers who have access to a computer program source code can improve a program by adding features to it or fixing parts that don't always work correctly.

##### **Description:**

- 5) There are two kinds of software. One is open source software and the other is proprietary software or closed source software.
- 6) As the source code of an open source program can be modified by anyone without any licence to do the same, this is also free to download.
- 7) The terms of use are often defined by the General Public Licence, which serves as the Software Licence Agreement (SLA) for many open source programs.
- 8) Many people prefer open source software because they are interested in more control over these kinds of software.
- 9) They can examine the code to make sure it's not doing anything they don't want it to do, and they can only change parts of it they don't like to do.
- 10) Generic users who aren't programmers also took benefit from open source software, because they can use this kind of software for any purpose without any prior notice to the proprietor as they wish—not merely the way someone else thinks they should.
- 11) This is a common misconception about what open source implies. Generally programmers can't charge money for the open source software they create or to which they contribute.

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

### **Definition:**

- 1) 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.
- 2) Thus, “free software” is a matter of liberty, not price. To understand the concept, you should think of “free” as in “free speech,” not as in “free beer”.
- 3) We sometimes call it “libre software,” borrowing the French or Spanish word for “free” as in freedom, to show we do not mean the software is gratis.

### **➡ The four essential freedoms :**

- 4) The freedom to run the program as you wish, for any purpose
- 5) 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.
- 6) The freedom to redistribute copies so you can help others
- 7) The freedom to distribute copies of your modified versions to others
- 8) 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.

**C) Difference between Free and Open Source Software.**

| <b>Open Source</b>  | <b>Free Source</b>  |
|---|---|
| <b>Open source is a development methodology</b>             | <b>Free software is a social movement</b>                     |
| <b>Open source has a distribution of licence</b>            | <b>Freedom to run program for any purpose</b>                 |
| <b>Open source just has the availability of source code</b> | <b>Free software gives freedom to study about there code</b>  |
| <b>Open source can be distributed freely</b>                | <b>It allows user to distribute the copies</b>                |
| <b>Open source have an integrity of authors source code</b> | <b>Freedom to modify the program and distribute in public</b> |