webStrake

12TH COMPUTER APPLICATIONS
CHAPTER 14 OPEN SOURCE CONCEPTS
PART- I

Short Answers

1. Explain the History of open source software

The new term they chose was "**open source**", which was soon adopted by Bruce Perens, publisher Tim O'Reilly, Linus Torvalds, and others. The **Open Source** Initiative was **founded** in February 1998 to encourage use of the new term and evangelize **open-source** principles.

2. What is meant by network simulator?

- A **network simulator** is a software program that replicates the functioning of a **computer network**.
- **Network simulation** is a method whereby a **software program** models the activities of a **network** by calculating the communication between the different **network** objects such as (routers, nodes,
- switches, access points, links etc.).

3. What is trace file?

Trace files can document every incident that happened in the simulation and are used for examination. A significant output of simulation is the trace files

4. Write short notes on NS2.

NS2 is the abbreviation of **NETWORK SIMULATOR version 2**.

It was considered explicitly for exploration in network communication and eventdriven open-source simulator in computer.

5. Explain NRCFOSS.

National Resource Centre for Free and Open Source Software an Institution of Government of India. To help in development of FOSS in India.

6. Write short note on Open NMS?

Open NMS (Network Management System) is a free and open-source initiative grade network monitoring and network management platform.

PART – II

Explain in Brief Answer

1. What are the uses of Open source Network Software?

- Open NMS (Network Management System) is a free and open-source initiative grade network monitoring and management platform.
- It is established and maintained by a community of users ,developers and by the Open NMS Group, it offering services, training and support.
- we need Network Software to Control , Analysis the Server, System, protocol, Network, Traffic flow and reports about ups and downs of network parts.
- Alert message give details of faults, where and when it happens.

2. Explain Free software.

- 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 non-profit Free Software Foundation.
- These “four freedoms” emphasize the ability of users to use and enjoy software as they see fit.

3. List out the Popular open source software. ANY SEVEN

- Mozilla's Firefox web browser.
- Thunderbird email client.
- PHP scripting language.
- Python programming language.
- Apache HTTP web server.
- LibreOffice. Platforms: Windows, Mac, Linux.
- Krita. Platforms: Windows, Mac, Linux.
- Notepad++ Platforms: Windows.
- TestDisk & PhotoRec. Platforms: Windows, Mac, Linux.
- stud.io. Platforms: Windows, Mac.
- GIMP. Platforms: Windows, Mac, Linux.
- Dia. Platforms: Windows, Mac, Linux.
- Search Everything. Platforms: Windows

4. Write note on open source hardware.

Open source hardware technology helps in such threats. In this technique we get the components of the hardware and its circuit diagram, so that we can remove suspicious spyware if found.

List of Open Source Hardware

- Remix
- Remake
- Remanufacture
- Redistribute
- Resell
- Study and Learn

5. What are the main functional areas of Open NMS?

● Service monitoring, where a number of monitor modules can govern if network-based services (ICMP, HTTP, DNS, etc.) are accessible.
● Data Gathering by using SNMP and JMX.
● Event management and notifications, which comprises of alarm reduction and a robust announcement system with accelerations and duty schedules.

6. Explain Types of Organisations related to Open Source.

● Apache Software Foundation
● The Document Foundation
● The Eclipse Foundation
● Free Software Foundation
● Linux Foundation
● Open Course Ware Consortium
● Open Source Initiative

PART – III

Explain in detail

1. Differentiate Proprietary and open source software.

PROPRIETARY SOFTWARE	OPEN SOURCE SOFTWARE
User may pay to get the proprietary software	User may get open software for free of charge
Proprietary software is owned by an organization or individual.	Open source software is usually created by many programmers around the world
proprietary software have not allowed the users or other developers to view or edit the source code.	Open source software is usually created and updated by many programmers around the world and made freely accessible.
Advantage of the proprietary software is that it gives more control, support, training, security and stability for user making the software reliable to the users	Disadvantage of the open source software is that it have less control, no support, no training for user to software
There is a very limited scope of innovation with the restrictions and all	It provides better flexibility which means more freedom which encourages innovations
Example: Windows , macOS, iTunes, Google earth, etc.,	Example: Android, Firefox, Libreoffice, Ubuntu, FreeBSD, etc.,

2. List out the Benefits of Open Source Software

● There are many open source softwares. so, we can select and use any software that suits our needs.
● The complete options of the software can be used without any cost and restrictions.
● We can share our ideas with the team, write the required code and share it with many.
● As we can identify the programming techniques of group members, we can learn many ideas and make our program writing skills more efficient.
● The coding in open source softwares are being groomed by many enthusiastical members of the group. So if we report problems that we have in the program they are quickly mended by the group's effort.
● As we can make changes to the open source softwares, we can add the most required features in the software
● Many open source software are very user friendly.

3. Explain various Open Source License.

Types of open source license

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