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QNO.1: (a). Difference between open source software and application software?

Open source software:

Here original source code of the software is also given.

If required, the users can modify the source code and then compile the software to use it.

Thus, the source code is opened up.

Refers to applications developed in which the user can access and alter the “source” code itself.

Open: *collaboration is open to all*

Source: *source code is freely shared*

Application Software:

Application software consists of programs designed to make users more productive and assist with personal tasks.

To make business activities more efficient.

To assist with graphics and multimedia projects.

To support home, personal, and educational tasks.

(b). Write different features of system software?

ANS

Features of system software:

An important features of system software are given below:

System software is closer to the system.

Generally written in a low-level language.

The system software is difficult to design and understand.

Fast in speed.

Less interactive.

Smaller in size.

Hard to manipulate.

Q.2: (a). Discuss different functions of operating system?

ANS: Functions of an operating system

Process Management:

The process management module takes care of creation and deletion of processes, scheduling of the system resources to different processes requesting them, and providing mechanisms for synchronization and communication among processes.

Memory Management:

This module takes care of allocation and de-allocation of memory space to programs in need of this resource.

File Management:

The file management module takes care of file-related activities such as organizations, storage, retrieval, naming, sharing and protecting of files.

Device Management:

This module of an operating system controls all I/O devices. It keeps track of I/O requests from processes, issues commands to I/O devices, and ensures correct data transmission to/ from an I/O devices.

Security:

Security module protects the resources and information of a computer system against destruction and unauthorized access.

(b). File Transfer Protocol (FTP):

FTP service enables an internet user to move a file from one computer to another on the internet. A file may contain any type of digital information, text document, image, artwork, movie, sound, software etc. FTP has two basic services.

Downloading:

The process of moving a file from remote computer to one's own computer.

Uploading:

The process of moving a file from one's own computer to a remote computer.

In FTP service, a file transfer takes place in following manner:

A user executes ftp command on his local computer, specifying address of the remote computer.

An FTP process running on user's computer establishes a connection with an FTP process running on remote computer.

The system then ask the user to enter his login name and password on the remote computer to ensure that the user possess permission to access the remote computer.

After successful login, the user downloads or uploads the desired file.

Telnet services:

Telnet services enables an internet user to log in to another computer on the internet from his local computer. That is, a user can execute the telnet command on his local computer to start a login session on a remote computer. This action is also called "remote login".

To start a remote login session, a user types telnet command and address of the remote computer on his local computer.

The remote computer then authenticates the user by asking him to enter a login name and password. If the user specifies a correct login name and password, the remote computer logs in the user and telnet command then enters input mode.

From now onwards, anything that the user types on the local computer is sent to the remote computer for processing.

Some common uses of telnet service are:

For using computing power of a remote computer.

For using some software on a remote computer, which is not available in user's local computer.

For logging in to one's own computer from another computer.

QNo.3 (A) EXPLAIN METROPOLITAN AREA NETWORK? (MAN) WITH A SUITBLE EXAMPLE ?

ANS

The metropolitan area network explains in the following due to the designed to extend over a district council or even an entire city.

It may be a single network such as a cable television network, or it may be a means of connecting a number of LANs into a larger network so that resources may be shared LAN- to LAN as well as device - to device.

For Example

A company can use a MAN to connect the LANs in all of its offices throughout a city.

And another example of the metropolitan area network

EXAMPLE

*A bunch of students plying counter strikes in the same room.
MAN or metropolitan area network covers a larger area than
that of a LAN and smaller area as compared to WAN.*

*It connects two or more computers that are apart but resides in
the same or different cities .*

Wide area network

*Provide long- distance transmission of data , voice,
image and video information over large geographical areas
that may comprise a country, a continent, or even the whole
world.*

FOR EXAMPLE

*The best example of wide area network internet itself. A
network bank cash dispensers ; A company network with
several branch offices geographical distant.*

**(B) DEFINE TOPOLOGY? WHICH TOPOLOGY WOULD YOU
CHOOSE TO SETUP A LOCAL AREA NETWORK AND WHY?**

ANS

TOPOLOGY

They are the define in topology network is the arrangement of the elements ,links ,nodes, e t c . Of a communication network.

A wide variety of physical apologies have been used in LAN , including ring, bus ,mesh and star . Conversely, mapping the data determines flow between the components determines the logical topology of the network.

OR

The way computer are connected together in a network is called topology network.

They are network is laid out ,either physical or logically.

EXAMPLE

Network topology is the lay out of a network. It consists of two parts; physical and logical. The physical part describes the physical layout of a network while the logical part describes how the data flows in that network.

WHICH TOPOLOG WOULD YOU CHOOSE TO SETUP A LOCAL AREA NETWORK AND WHY?

They are the chose in the setup local area network from the star topology has become the determinant physical topology for LANs .

The star was first popularised by ARCNET and later adopted by Ethernet. Each node is connected directly to a central device such as hub or a switch, as shown .

QNO. 4: IN YOUR OPINION, WHAT ARE THE DIFFERENT TYPES OF COMMON MEDIA USED FOR STORAGE, ACCESS AND TRANSMISSION AND INFORMATION ? EXPLAIN EACH TYPE IN DETAIL?

Ans

In my opinion, common media for storage, access and TRANSMISSION of information are.

Text

Graphic

Animation

Audio

Video

Multimedia Computers system

Multimedia computers system is a computer having capabilities to integrate two or more types of media.

Multimedia computers system is required to

Faster CPU

Larger storage devices

Larger main memory

Good graphics terminal

I/o device to play any multimedia

TEXT MEDIA

Alphanumeric characters are used to present information in text processing. Keyboard, cord, computer screen, and picture are some commonly used hardware devices for processing text media.

Text editing, text searching, hypertext, and text importing are some highly desirable features of the multimedia computers system for better presentation and use of text information.

GRAPHIC MEDIA

Computer graphics deal with generation , representation, manipulation, and display of pictures with a computer.

Location device digitized, scanners, digital cameras, computer screen with graphic display capability, laser printer , and plotters are some common hardware devices for processing graphic media.

Some describe features of a multimedia computers system are painted or drawing software, screen capture software, clip art , graphics importing and software support for high resolution.

Animation Media:

Computer animation deals with generation, sequencing, and display of a set of images to create an effect of visual change or motion, similar to a movie film.

Animation is commonly used in those instances where video graphy is not possible or animation can better illustrate the concept than video.

Scanners, digital cameras, video capture board interfaced to a video camera or VCR, computer monitors with image display capability, and graphics accelerator board are some common hardware devices for processing animation media.

Audio Media:

Computer audio deals with synthesizing, recording, and playback of audio or sound with a computer.

Sound board, microphone, speaker, MIDI devices, sound synthesizer, sound editor and audio mixer are some commonly used hardware devices for processing audio media .

Some desirable features of a multimedia computer system are audio clips, audio file importing, software support for high quality sound, recording and playback capabilities, text conversion software, and voice recognition software.

Video Media:

Computer video deals with recording and display of a sequence of images at a reasonable speed to create an impression of movement. Each individual image of such a sequence is called a frame.

Video camera, video monitor, video board, and video editor are some of the commonly used hardware devices for processing video media.

Some desirable features of a multimedia computer system with video facility are video clips and recording and playback capabilities.