**Unit 7:**

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Reception alongside the file server. (Each PC has its own laser printer.) All users

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The Medical Center LAN system consists of 5 networked PCs, one in each of the 03 consulting rooms, one in the Practice Manager’s office and the other in Reception alongside the file server. (Each PC has its own laser printer.) All users have access to Microsoft Office. Doctors use the system to access a number of databases. The most important holds the records of all the patients in the practice. These files contain personal details and the medical history of the patient. The doctor can call up the appointments book prior to the consultation. By clicking on the patient’s name, they have immediate access to that patient’s records. At the end of each consultation, the doctor enters briefcase notes including the diagnosis and treatment. This database can also be used to produce statistics for research and reports. Doctors can also access a drugs database on CD-ROM which provides prescribing information on thousands of drugs including their suitability for different categories of patients. This is updated every month. Another database is a conditions dictionary which provides information on a wide range of problems. Reception staff use specially tailored software developed from a database to enter all appointment dates and times for each doctor. The program generates daily lists of appointments and can be accessed by the doctors. Reception use the patient database to identify children and old people who are due to have vaccinations. They then use mail-merging to create letters asking for appointments to be made. The practice manager uses a payroll package based on a spreadsheet to calculate salaries for each employee of the health center. She enters all income and expenditure to produce practice accounts. She uses a database to produce a monthly rota of which doctors are on call in evenings and at the weekends. This rota is available over the network to all users. Complete the gaps in these instructions for finding the records of all members of the Green family living in postcode WX14 3PH and registered with any doctor in the practice.

**Unit 8:**

The name comes from MPEG (pronounced EM-peg), which stands for the Motion Picture Experts Group. MPEG develops standards for audio and video compression. MP3 is actually MPEG Audio Layer 3. MP3 competes with another audio file format called WAV. The key difference is that MP3 files are much smaller than WAV files.

An MP3 file can store a minute of sound per megabyte, while a WAV file needs 11 or 12 megabytes to hold the same amount. How does MP3 achieve this compression? CDs and audio files don't reproduce every sound of a performance. Instead, they sample the performance and store a discrete code for each sampled note. A CD or WAV file may sample a song 44,000 times a second, creating a huge mass of information.

By stripping out sounds most people can't hear, MP3 significantly reduces the information stored. For instance, most people can't hear notes above a frequency of 16kHz, so it eliminates them from the mix. Similarly, it eliminates quiet sounds masked by noise at the same frequency. The result is a file that sounds very similar to a CD, but which is much smaller.

An MP3 file can contain spoken word performances, such as radio shows or audio books, as well as music. It can provide information about itself in a coded block called a tag. The tag may include the performer's name, a graphic such as an album cover, the song's lyrics, the musical genre, and a URL for more details.

Other MP3 features include:

Players:

Most standalone players have many features beyond Windows' default

Media Player. To control what music you play, players let you group

songs into playlists and randomize the selections. To control how the

music sounds, they offer spectrum analyzers, graphic equalizers, and

frequency displays.

Track info.

A track info button gives you the information on the MP3 file's tag. Other buttons may take you to a music library where you can organize your MP3 files by performer or genre.

Skins or themes.

These programs are designed to change the appearance of the most popular players. They're akin to the wallpaper that alters the look of the Windows desktop. With a skin, a player can become a jukebox, a car dashboard, or a Star Trek tricorder. Think of them as easily interchangeable faceplates.

Rippers and encoders.

A ripper is a program that rips songs from a CD in your CD-ROM drive and turns them into WAV files. An encoder converts WAV files into MP3 files or vice versa. Many MP3 players incorporate rippers and encoders and can do both steps in one.

Recorders.

With a writeable CD-ROM drive, a recorder program lets you create your own audio CDs.

**Unit 9:**

**Home Network**

The technology needed to set up a home network is here today. It is just a matter of connecting a number of PCs equipped with Ethernet adapters to a hub using twisted-pair cabling which uses sockets rather like phone sockets. Special isolation adapters can be fitted to allow existing mains lines to be used instead of twisted-pair cabling. Most future home networks, however, are likely to be wireless network systems, using tuned transmitter and receiver devices. The simplest networks allow basic file-sharing and multi-player gaming as well as sharing of peripherals such as printers. Most advanced home networks are likely to have a client/server structure, with low-cost terminals, or 'thin' clients, connected to a central server which maintains the system's storage capacity and, depending on whether the terminals are dumb or processor equipped network computers, its processing power. To make the most of such a network, it must become part of an integrated home entertainment and control system. To the user, the desktop becomes just one of many features accessible throughout the house. Tired of working in the study? Pop down to the living room and reload it into the terminal there. Before you start work, call up the hi-fi control program and have the music of your choice pumped through the living room speakers. Computer and entertainment networks can be separate but linked by the server to allow control of the latter from the terminals. Future home networks are more likely to have the entire system based on a single loop.

**Network Communication:**

The application layer is the only part of a communications process that a user sees, and even then, the user doesn't see most of the work that the application does to prepare a message for sending over a network. The layer converts a message's data from human-readable form into bits and attaches a header identifying the sending and receiving computers. The presentation layer ensures that the message is transmitted in a language that the receiving computer can interpret (often ASCII). This layer translates the language, if necessary, and then compresses and perhaps encrypts the data. It adds another header specifying the language as well as the compression and encryption schemes. The session layer opens communications and has the job of keeping straight the communications among all nodes on the network. It sets boundaries (called bracketing) for the beginning and end of the message and establishes whether the messages will be sent half-duplex, with each computer taking turns sending and receiving, or full-duplex, with both computers sending and receiving at the same time. The details of these decisions are placed into a session header. The transport layer protects the data being sent. It subdivides the data into segments, creates checksum tests - mathematical sums based on the contents of data - that can be used later to determine if the data was scrambled. It can also make backup copies of the data. The transport header identifies each segment's checksum and its position in the message. The network layer selects a route for the message. It forms data into packets, counts them, and adds a header containing the sequence of packets and the address of the receiving computer. The data-link layer supervises the transmission. It confirms the checksum, then addresses and duplicates the packets. This layer keeps a copy of each packet until it receives confirmation from the next point along the route that the packet has arrived undamaged.

Unit 10:

Computer-mediated communication (CMC)

Inside the lounge of the House of Language.

There is a television in the corner.

You see the following exits: east and north

Hank, Spartacus, Diana, Tony (resting)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | |  | | |
| Hank says, | | 'have any of you guys tried batmud?: )' | | | | | |
| Diana says, | | ' no' | | |  | | |
| Spartacus says, | | | | | 'what is it?' | | |
| Hank says, | | 'it's | | | a virtual reality game. you'll find it at: bat. org' | | |
| Diana | groans. | | | |  | | |
| Diana says, | |  | 'these things are addictive. You spend \*hours\*on them. ' | | | | |
| Rupert appears with a flash of lightning. | | | | | | | |
| Spartacus says, | | | | | 'we have a new participant. welcome Rupert!' | | |
| Rupert | says, | | 'Thanks. How do you get to the kitchen?' | | | | |
| Hank says, | | 'type 'go kitchen'. You can find the instructions on 'help topics' | | | | | |
| Rupert | says, | | 'Do you use Telnet?' | | | | |
| Diana says, | | 'use tf... it's much better. ' | | | | | |
| **Re: Star Wars** | | | | | **moviebelle** | | **3/10/00 3. 25 pm** |

What can I say? I enjoyed the three older films but the new one was so cheesy and so un-Star Wars that it didn't seem to fit in with the others. I mean, it was so commercial and so inane. Maybe he was trying to appeal to the younger generation.

**This is a Reply to: Msg 145 by pinkpanther**

|  |  |  |
| --- | --- | --- |
| **Re: Star Wars** | **cinemachick** | **3/10/00 4. 18 pm** |

you know, most of the star war fans I know are in their thirties. lol.

OH! and Unforgiven. that's a great western. it's so not the stereotypical western! I mean, there's no good guy. it's such a kick ass movie!

**This *is*a Reply to: Msg 146 by moviebelle.**

**From:**Allan Wind <allwind@ls. net>

**Newsgroups**: alt. fan. elvis-presley

**Sent:**3 November 2000 10. 51

**Subject: Re:**Latest all-time Top 10 albums

EG <eg@nospam. com>writes: >

>ONLINE VOTING >http://www.ultimatecharts.com

>

>lBeatles Revolver

>2 Beatles Sgt Pepper's Lonely Hearts Club Band >3 Elvis Presley The Sun Collection

>4 Beach Boys Pet Sounds

>5 Marvin Gaye What's Going On >6 Michael Jackson Thriller

>7 Sex Pistols Never Mind The Bollocks >8 Nirvana Nevermind

>9 Oasis (What's the Story) Morning Glory? >10 Beatles The Beatles (White Album)

>

>The voting is very close

I can't say what my top fave albums are but here are some artists I enjoy. ELVIS, ORION, Buddy Holly, Roy Orbison. Keep ELVIS #1 & Jimmy "ORION" Ellis king of the soundalikes, Allan.

**How TCP/IP Links Dissimilar Machines**

At the heart of the Internet Protocol (IP) portion of TCP/IP is a concept called the Internet address. This 32-bit coding system assigns a number to every node on the network. There are various types of addresses designed for networks of different sizes, but you can write every address with a series of numbers that identify the major network and the sub-networks to which a node is attached. Besides identifying a node, the address provides a path that gateways can use to route information from one machine to another. Although data-delivery systems like Ethernet or X.25 bring their packets to any machine electrically attached to the cable, the IP modules is must know each other's Internet addresses if they are to communicate. A machine acting as a gateway connecting different TCP/IP networks will have a different Internet address on each network. Internal look-up tables and software based on another standard - called Resolution Protocol - are used to route the data through a gateway between networks. Another piece of software works with the IP-layer programs to move information to the right application on the receiving system. This software follows a standard called the User Datagram Protocol (UDP). You can think of the UDP software as creating a data address in the TCP/IP message that states exactly what application the data block is supposed to contact at the address the IP software has described. The UDP software provides the final routing for the data within the receiving system. The Transmission Control Protocol (TCP) part of TCP/IP comes into operation once the packet is delivered to the correct Internet address and application port. Software packages that follow the TCP standard run on each machine, establish a connection to each other, and manage the communication exchanges. A data-delivery system like Ethernet doesn't promise to deliver a packet successfully. Neither IP nor UDP knows anything about recovering packets that aren't successfully delivered, but TCP structures and buffers the data flow, looks for responses and takes action to replace missing data blocks. This concept of data management is called reliable stream service. After TCP brings the data packet into a so computer, other high-level programs handle it. Some are enshrined in official US government standards, like the File Transfer Protocol (FTP) and the Simple Mail Transfer Protocol (SMTP). If you use these standard protocols on different kinds of computers, you will at least have ways of easily transferring files and other kinds of data. Conceptually, software that supports the TCP protocol stands alone. It can work with data received through a serial port, over a packet-switched network, or from a network system like Ethernet. TCP software doesn't need to use IP or UDP, it doesn't even have to know they exist. But in practice TCP is an integral part of the TCP/IP picture, and it is most frequently used with those two protocols.