CS 3.1.1-3.1.5

Standards are very important. Imagine all the different cables and ports

LAN: a network connecting computer systems that are within a limited geographical area such as a room, an office building or a school

- WLAN: wireless connection
- VLAN: set up a LAN for every department. Isolated network.
- WAN: connects computer systems within a large geographical area
- SAN: large storage devices can be accessible from servers in a convenient and easy way.
- VPN: allow client from remote locations to connect the network and appear to be inside the LAN. More secure than extranet

- Internet: a global WAN connecting millions of computer systems
- PAN A LAN that supports only one person
- P2P: all computer systems are both clients and servers at the same time, consuming and supplying.

VPN Types
- Site-to-site: connects the entire networks and facilitates secure data interchange between different sites
- Remote-access: Connects individual hosts to private networks

Different layers
- OSI: seven layers
- TCP/IP describe functions that take place at each layer of protocols within the TCP/IP suite

Server: a computer system or a software application providing a service to the other computer systems connected to the same network
Store and share files for example

Client: request a service from a server connected to the same network

Hub: when a network device wishes to send data to some other device on the network, it sends data to the hub. The hub copies the data and sends it to all devices connected to its port

Switch: when a network device wishes to send data to some other device on the network, it sends the data to the switch and the switch sends data to the appropriate receiver rather than all the ports and devices

Router: A router is used to connect a home network to the Internet

Secure VPN: Internet protocol security protocols: transport and tunnel mode

SSL