PURPOSE: You have been subcontracted by the legal firm of Dewey, Cheathim, and Howe to provide them with a bid for a modern network system. Be sure to consider all hardware, software, and cabling elements. Some sections (1,2,5) require items must be costed out in dollars and sense. You will not be responsible for estimating labor. The preferred network hardware vendor has already been selected. Choose your cabling and related hardware from `http://www.datacommwarehouse.com/`

The partners are very skeptical and will reject any part of the proposal not backed by a solid line of reasoning. The instructor is obliged to agree with their judgement and withhold points accordingly. For maximum clarity, the client prefers typewritten answers (with the computer of course!)

DATA: Currently the firm is in an old two-story Victorian era house in the historical district. There are three workstations on the top floor and three workstations on the bottom floor.   No networking pieces are in existence. Currently, individual workstations have modems that they use to send email via AOL.

Please answer the following sections to complete the bid (each section can be answered independently of other sections):

1. NT: the CEOs nephew is a computer nerd and has convinced them that only DELL or COMPAQ are suitable. SQLServer will be run on the machine. The database is large so performance may be an issue. Go to the appropriate website to cost out the NT Server and provide screendump prints (or cut/paste) to show the line items in the machine **and tell why you chose each.   Include cost of each component if possible.**
    A. Memory (RAM)
    B. Disk drives (Assume 40GB needed)
        SCSI or EIDE?
    C. CPU(s) (at least 600Mhz)
    D. NIC
    E. OS (NT Workstation, NT Server, NT Advanced Server) incl. version

2. Fault Tolerance: the CEO wants 99% uptime. He does not want to spend TOO MUCH money, which of the following technologies will help him and why or why not? Include cost of each component if possible
    A. SMP
    B. RAID, Level (1 or 5)
    C. UPS
    D. 100BaseT network
    E. Second NIC

3. Cabling: select the following items and tell why you chose each
    A. Cabling media (Coax, UTP, STP, Fiber)
    B. Media type (Cat1, RG-58, etc.)
    C. Hubs, Bridge, or Router
    D. NICs (10Mbit, 100Mbit, etc.)

4. Network: select a protocol (TCP/IP, NetBEUI, NWLink) and tell why.

5. Fill in the diagram on page 2 with as much detail as you think is reasonable with arrows, text, etc. Be sure to show actual connections between machines.

Summary of Network Item Costs:

Item	Make/Model	Number	Cost Each	Total
NICs				
Hubs				
Cabling (15′ lengths)				
Other				
Other				
			Grand Total:	

NOT TO SCALE!

Floor 1

Win95 box

Win98 box

New Machine

NT 3.51 box

Floor 2

Win95 box

Win98 box

Win95 box