Assignment 2 (5% of total grade)

Instructions

Turn in hard copy of your answers at the beginning of next class. Late submission of assignment will not be accepted, no exceptions!

Questions

1. In layered protocols, often each layer appends its own header to each message. Would it be more effective to append a single header to each message? Why or why not. (0.5%)

2. What type of middleware (communication style) would you use for the following scenarios? Briefly justify your answer.
   a. The communicating components are not aware of each other's locations. The components may not be available at the same time. (0.5%)
   b. The requesting component knows the location of the service providing component. Both the requesting and service providing components are available all the time. The requesting component needs the result before continuing. (0.5%)
   c. Requesting components know the location of the service providing component. Requesting component makes a direct request to the service providing component to receive periodic updates on a certain type of data. (0.5%)

3. Identify the participants in, and briefly describe the process of, resolving the name http://ise.gmu.edu/~smalek/classes/swe622.html (1%)

4. Consider broadcast-based discovery and directory based discovery.
   a. What is the difference between the two? (0.5%)
   b. In directory-based discovery, what mechanisms can be used to locate the directory? (0.5%)
   c. In broadcast-based discovery, how might a component obtain up-to-date knowledge of the available services? (0.5%)
   d. At what geographical (and networking) scale is broadcast-based discovery feasible? How about directory-based discovery? (0.5%)