San Jose State University
Department of Computer Science
Distributed Systems (CS 249), Section 1
Homework #1 (4 pts)

Questions on Introduction to Distributed Systems (Chapters 1, 2):

Please answer the following questions:

- Q1: Compare and contrast cloud computing with traditional Client-Server Computing? What is novel about cloud computing as a concept? [1 pt]?

- Q2: Suppose that the operations of the BLOB object are separated into two categories – public operations that are available to all users and protected operations that are available only to certain named users. State all of the problems involved in ensuring that only the named users can use a protected operation. Suppose that access to a protected operation provides information that should not be revealed to all users, what further problems arise [1 Pt]?

- Q3: Consider a simple server that carries out client requests without accessing other servers. Explain why it is generally not possible to set a limit on the time taken by such a server to respond to a client request. What would need to be done to make the server able to execute requests within a bounded time? Is this a practical option [1 pt]?

- Q4: Define the integrity property of reliable communication and list all the possible threats to integrity from users and from system components. What measures can be taken to ensure the integrity property in the face of each of these sources of threats [1 Pt]?