# CECS 327 Assignment 1 - Introduction to Distributed Systems

## 20 points

**Assignment Description.** Answer the following questions from the Chapter 1 reading from your text-book. Be through and complete with your answers. You *may* work on these questions with a partner (no more than two working together), but **both** students must submit the document individually on Beachboard Dropbox along with both students' names on each submission.

1. Name two advantages and two disadvantages of distributed systems over centralized systems.

2. Describe what is meant by a scalable system.

3. Executing nested transactions requires some form of coordination. Explain what a coordinator should be doing in a scenario like this.

4. What is the role of middleware in a distributed system?

5. Explain what is meant by a virtual organization and give an example on how such organizations could be implemented.

6. What is the difference between multiprocessor and multicomputer?

7. Why is it sometimes so hard to hide the occurrence and recovery from failures in a distributed system?

8. In class, I discussed why having transparency isn't always a good thing. Do you agree with me? Explain your reasoning.

9. Scalability in distributed systems can be achieved by applying different techniques. What are these techniques?

10. When a transaction is aborted, the computing system has to be restored to its previous state as if the transaction never happened. This is actually a lie. Give an example where resetting the computing system is practically impossible.

**Deliverables.** Submit the answers to the questions on **Beachboard Dropbox** by the indicated due date and time. Acceptable file submission formats are: .txt, .rtf, .odt, .doc, .docx, or .pdf.