

CECS 327 Assignment 5 - Naming

20 points

Assignment Description. Answer the following questions from the Chapter 5 reading from your textbook. Be thorough 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. Would you consider a URL such as `http://www.acme.org/index.html` to be location independent? What about `http://www.acme.co.uk/index.html`?
2. Is an identifier allowed to contain information on the entity it refers to? Why?
3. Consider the Chord system and assume that a node 7 has just joined the network. What would its finger table be and would there be any changes to other finger tables?
4. If we insert a node into a Chord system, do we need to instantly update all the finger tables? Why?
5. Suppose that it is known that a specific mobile entity will almost never move outside domain D , and if it does, it can be expected to return soon. How can this information be used to speed up the lookup operation in a hierarchical location service?
6. Consider an entity moving from location A to B , while passing several intermediate locations where it will reside for only a relatively short time. When arriving at B , it settles down for a while. Changing an address in a hierarchical location service may still take a relatively long time to complete, and should therefore be avoided when visiting an intermediate location. How can the entity be located at an intermediate location?
7. Give an example of how the closure mechanism for a URL could work.
8. Explain the difference between a hard link and a soft link in UNIX systems. Are there things that can be done with a hard link that cannot be done with a soft link or vice versa?
9. Explain how DNS can be used to implement a home-based approach to locating mobile hosts.
10. Considering DNS. To refer to a node N in a subdomain implemented as a different zone than the current domain, a name server for that zone needs to be specified. Is it always necessary to include a resource record for that server's address, or is it sometimes sufficient to provide only its domain name?

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.