



On Mid Term Exam (Elec6861 – Fall 2015)



Procedure

- Correct answers / Discussions
- Copies / grades back to students (10 minutes)
- Copies back to course instructor
- More explanations about the grades during the office hours



Question 1 (5 points)

- Give two examples of issues that need to be addressed at every layer of a protocol stack



Motivation, concepts and design issues

- Design issues for the layers
 - Addressing
 - Error control
 - Flow control
 - Routing



Question 2 (5 points)

Give two examples of implementation approaches for cross layer design and for each one of them give an example of architectural approach that can be implemented using it.



Question 2

- Architectural approaches and implementation approaches are not the same thing
- All implementation approaches cannot be used to implement all architectural approaches



Implementation approaches

1. Direct communications between the layers
2. Shared data bases
3. New abstractions (e.g. heap)

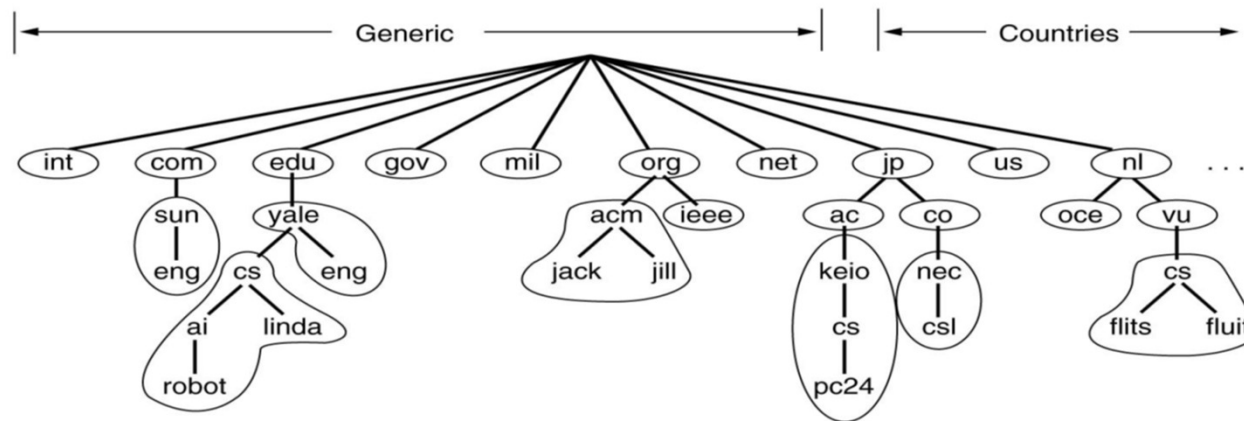


Architectural approaches

1. Design of new interfaces
2. Merging of adjacent layers
3. Design coupling without new interfaces
4. Vertical calibration



Question 3 (5 points)



- In the figure above let us assume that eng.sun.com is the originator. Draw a sequence diagram for an iterative look up of the symbolic name Alice@cs.vu.nl



Question 3

- Iterative approach and recursive approach are not the same thing (i.e. you will get nil if you draw a recursive approach instead of the iterative approach)



Question 4 (5 points)

Give an example of similarity and an example of difference between Skype and Freenet P2P overlays.



Question 4

Note: Skype is not an unstructured P2P



Question 5 (5 points)

Give an example of similarity and an example of difference between a browser plug-in and a browser helper application.

Note: Most people got the correct answer



Question 6 (5 points)

What are the two main categories of methods for generating dynamic web pages? Give an example of method for each category.



Question 6

The main categories are client side and server side (and not CGI and servlet)