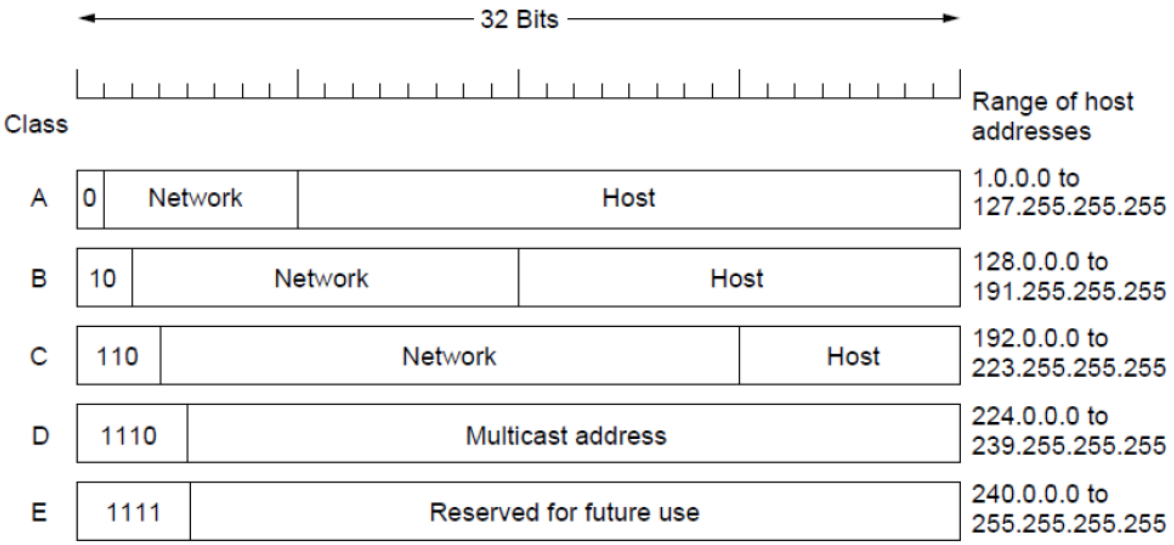
COMP90007 Internet Technologies

Week 9 Workshop

Semester 2, 2018

Question 1

The IP address of the domain name www.cs.mu.oz.au is 128.250.37.78. Is this address on a Class A, B or C subnetwork?



Question 2

According to the information given Fig. 7-4 (5th edition), is little-sister.cs.vu.nl on a class A, B or C network?

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; Authoritative data for cs.vu.nl
cs.vu.nl.     86400        IN          SOA         star boss (9527,7200,7200,241920,86400)
cs.vu.nl.     86400        IN          MX          1 zephyr
cs.vu.nl.     86400        IN          MX          2 top
cs.vu.nl.     86400        IN          NS          star

star          86400        IN          A           130.37.56.205
zephyr        86400        IN          A           130.37.20.10
top           86400        IN          A           130.37.20.11
www           86400        IN          CNAME       star.cs.vu.nl
ftp           86400        IN          CNAME       zephyr.cs.vu.nl

flits         86400        IN          A           130.37.16.112
flits         86400        IN          A           192.31.231.165
flits         86400        IN          MX          1 flits
flits         86400        IN          MX          2 zephyr
flits         86400        IN          MX          3 top

rowboat                    IN          A           130.37.56.201
                           IN          MX          1 rowboat
                           IN          MX          2 zephyr

little-sister              IN          A           130.37.62.23
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Question 3

In Fig. 7-4, there is no period after rowboat? Why not?

Question 4

There has been huge growth in the number of websites in the .com domain. This creates an enormous load on the root DNS server for the .com domain. What solutions can you propose to solve this load problem, without requiring changes to names in the .com domain?

Question 5

DNS uses UDP instead of TCP. If a DNS packet is lost, there is no automatic recovery. Does this cause a problem, and if so, how is it resolved?

Question 6

Can a machine with a single DNS name have multiple IP addresses? How could this occur?

Question 7

An alternative form for a URL is to use the IP address instead of its DNS name. An example of using an IP address is http://192.31.231.66/index.html.

How does the browser know whether the name following the scheme is a DNS name or an IP address?