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# TDDI41 Lab report

Högskoleingenjörsutbildning i datateknik, 180 hp

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# DNS

### 1-2

a) A name server which answers queries about names in a zone.

b) A domain is a subtree of the namespace, and a zone is a part of the namespace of which a NS is authoritative. Zone $\subseteq$ Domain

c) A recursive query will not return until it has a complete answer, whereas the non-recursive can return a "partial" answer—i.e. "I don't know, but ask this other guy ...".

Recursive resolving should foremost be used to focus the caching to specific machines rather than having entire subnets' hosts handle their own caching.

Iterative resolving is always found on authorative name servers.

d) The purpose of delegation is to delegate administration of DNS zones, effectively limiting the branching factor for each NS.

e) A RR consists of node name (NAME), record type (TYPE), class code (CLASS), TTL, length of the RDATA field (RDLENGTH), and data of type-specific relevance (RDATA) such as IP address and hostname.

f) "Answer" lists the answer to the query (Address record, Canonical name record).

"Authority" lists the authorities for the query.

"Additional" lists other relevant info related to the query, such as addresses of the name servers.

g) In the header:

Authorative name server answer: [AA]
Recursive query: [RD]

h) Glue records are [A] records, held higher in the tree, for delegated zone name servers.

### 1-3

### 1-4