

CS438/538, Dr Hong. DNS Class Activity. Spring 2025.

Description:

You are the admin of the new startup called "Network Uptopia" (you should name yours differently). The company has a few work units, each may have a couple of servers hosting services that are accessed through Internet. Suppose you have done the following:

1. Plan the domain to be `networkutopia.com`, use a computer (named *dns1*) as an authoritative DNS server for the company. The computer has an IP address `212.212.212.1`.
2. Register the domain `networkutopia.com` at a *DNS registrar* (say, Network Solutions) through the following steps:
 - 2.1 Provide the name, IP address of the authoritative name server to the *registrar*.
 - 2.2 The *registrar* inserts the following resource records (RRs) into `.com` TLD server:
 - (`networkutopia.com`, `dns1.networkutopia.com`, NS)
 - (`dns1.networkutopia.com`, `212.212.212.1`, A)

Now you are to work out the following two cases:

Case 1: Your company will use a computer called *server1* within your domain, i.e., `networkutopia.com`, as the webserver of the company. Its IP address is `212.212.212.15`. The web server is visited as `www.networkutopia.com`. You are to insert corresponding DNS records to the authoritative DNS server. (hint, you may need types of CNAME and A).

Case 2: In addition, your company also has a server running Linux for code developments from home. This computer is called *code* within your domain (so accessed using `code.networkutopia.com`). Its IP address is `212.212.212.100`. Insert corresponding DNS records to the authoritative server.

To summarize, the work is to set up the authoritative DNS server for your company, by adding the DNS records regarding the two servers within the domain of your company.

Submission:

In ONE page of PPT, (a) show your network architecture (how computers are connected), (b) show the resource records at your authoritative server. (c) include your group members' names.

All the PPTs will be shown in a following class, be reviewed by the class.