

## CIS231 – Homework – DNS

1. Provide a screenshot which displays all A records that currently exist in the CIS231.bcc forward lookup zone.
2. Create a reverse lookup zone for your 192.168.# network and create a PTR record for your server's A record (internal address). Test your results to ensure that the PTR record works.
  - a. Provide a screenshot which shows the PTR records that exist within your reverselookup zone.
  - b. At any of the Windows Clients, use the nslookup command to confirm the PTR record works. Your answer must identify which client you used as well as the nslookup command and its output .
3. Create an alias record for your server's A record (internal address). You make up the alias name. Test your results.
  - a. Provide a screenshot which shows all the records in the cis231.bcc forward lookup zone. Make sure your alias record is in the screenshot.
  - b. At any of the Windows clients, use the ping command to ping the alias record. Your answer must identify which client you used as well the ping command and its output.
4. Configure a forwarder on your DNS server. Use either one of the college's DNS server's or your ISP's DNS server. (This is a forwarder, NOT a conditional forwarder)
  - a. Provide a screenshot which confirms you've configured a forwarder.
  - b. How did you determine what IP address to use as the forwarder's address? Include a screenshot that shows where you got the IP address.
  - c. Explain at least one benefit to using a forwarder.
5. Assume your server is configured to use a forwarder. Also assume that each of the below queries are sent to *your* server. Identify which ones would use the forwarder to help resolve the query?
  - a. Ping [www.microsoft.com](http://www.microsoft.com)
  - b. Ping mypc.cis231.bcc
  - c. Ping [www.cis231.bcc](http://www.cis231.bcc)
  - d. Ping google.com
6. Configure a conditional forwarder for the bristolcc.edu domain.
  - a. Provide a screenshot which confirms you've configured a conditional forwarder. I need to see the domain name as well as the IP address configured within the conditional forwarder setting.
  - b. Provide all commands (and their output) that were used to determine the IP address of the authoritative server for the bristolcc.edu domain
  - c. Provide an example of when it would be practical to configure a conditional forwarder.

7. What are root hints and what are they used for?
8. Are root hints configured on your DNS Server? Provide a screenshot which confirms your answer.
9. Assume your company's DNS server is authoritative for the MyCompany.Com DNS Zone and is not configured with a forwarder. Also assume that each computer in your company is configured to use the company's DNS server as its preferred DNS Server and your ISP's DNS server as its alternate DNS server.  
Assume [www.bristol.com](http://www.bristol.com) is entered into a client computer's web browser. Explain, in detail, how this would be resolved.
10. If a client is configured with a preferred DNS server as well as two alternate DNS servers, when would the client send a query to the second alternate DNS?
11. Is your Windows 10 client configured to 'register this connection's address in DNS'. Provide a screenshot which confirms your answer.