CIS232 –Homework - Active Directory

- I have placed a stand-alone Windows 20016 server in your CIS232 class folder.   The administrator's password on the server is Microsoft!
- I have placed a Centos machine in your CIS232 folder. The root and existing user's password is novell.
    - Server: You must statically configure the network adapter with an IP address on your private network; you pick the number. Active directory must be installed; use cis232-#.bcc as the domain name (replace # with your student number)
    - Centos: Should receive its IP settings from your DHCP server
- To complete this assignment you will need the following 4 of your virtual operating systems: Linux Server (15.1), Linux Client (15.1), Centos client and Windows 2016 Server.
- Objective of the assignment: When done, your Windows 2016 server will be a Domain Controller. It will be the preferred DNS server for clients on the network. Your Original Linux server will be the alternate DNS server for clients on your network and it will continue to serve as the NAT and DHCP servers. You can but don't have to add it to the domain. User accounts will be stored in Active Directory. An Active Directory user account must be able to authenticate at both the OpenSuse Linux Client as well as at the Centos client.

- **Requirements of the assignment**
    - Add both the OpenSuse 15.1 and Centos clients to the Windows 2016 Domain.
    - Users must be able to change their own password at the client.
    - Domain Administrators should have full rights at the client.
    - Create a container in the Domain named CIS232Class.
    - Create a user in the CIS232Class container named Mickey Mouse. The user's login name must be mmouse. You can obviously create more users but this is the user that I'll expect you to have tested on the client.
    - All TCP/IP settings at the client must come from your DHCP server.
    - When a domain user logs in at the Linux machine, his/her local "home folder" must be created at login.
    - Offline authentication must be configured

After you have successfully configured and tested everything, answer the following questions and provide screenshots where appropriate.   Each of the below questions should be answered only AFTER you've successfully added the client to the domain AND tested the login of a Domain user at the domain client.

Windows Server
1. Display the output of the ipconfig /all command.
2. Within Active Directory Users and Computers, display the contents of the Computers container.
3. Within Active Directory Users and Computers, display the contents of the cis232class container.
4. What is Mickey Mouse's password?
5. Ping google. Include the command and its output as your answer.

Linux Server
6. Display the contents of the /etc/dhcpd.conf file
7. Display the IP address(es) of the server

OpenSuse Client

8. Provide a screenshot of the "Windows Domain Membership" Screen within Yast's Samba Client (Windows Domain Membership).
9. Display the contents of the /home folder.
10. Display the contents of the /home/CIS232-# folder.
11. Display the IP address of the client
12. Display the contents of the /etc/resolv.conf file
13. Use the wicked command to show the network information for the ethernet adapter.
14. Display the contents of the /etc/sudoers file (I need to see anything that you've changed in this file – *highlight* what you've added in the image)
15. While logged in as mmouse, execute the *whoami* command. Include a screenshot of the command and its output.
16. While logged in as mmouse, execute the *id* command. Include a screenshot of the command and its output.
17. While logged in as mmouse, change his password. Provide a screenshot that confirms you were successful.
18. Ping google (3 times). Include the command and its output as your answer.
19. Test Offline Authentication. Explain how you tested it and how you confirmed that it worked.
20. Confirm that the domain administrator has root privileges at the OpenSuse Client.

Centos Client

21. Provide a screenshot of the "Identity and Authentication" tab within *System / Administration / authentication*. In addition include a screenshot of the "advanced options tab"
22. Display the contents of the /home folder.
23. Display the contents of the /home/CIS232 folder.
24. Display the IP address of the client
25. Display the contents of the /etc/resolv.conf file
26. Display the contents of the /var/lib/dhclient/dhclient-*adaptername*.leases file
27. Display the contents of the /etc/sudoers file (I need to see anything that you've changed in this file – *highlight* what you've added in the image)
28. While logged in as mmouse, execute the whoami command. Include a screenshot of the command and its output.
29. While logged in as mmouse, execute the *id* command. Include a screenshot of the command and its output.
30. While logged in as mmouse, change his password. Provide a screenshot that confirm you were successful.
31. Ping google (3 times). Include the command and its output as your answer.
32. Explain *exactly* what you would do if this Centos machine was a server and you did not want regular domain users to be able to login at this machine; only domain administrators.

Extra Credit – 20 points on final exam.
  o In addition to all of the above requirements, configure your Windows users with home folders that are accessible from the client via a mount point. The share name of the home folder share must be *home*. Security must be such that only administrators can browse into the share and only Administrators and the individual user has rights to his/her own home folder.
  o In addition, configure the system such that whenever an Active Directory user authenticates at the OpenSuse client, his/her home folder is mounted at the client. The user must have convenient access to the mounted folder on his/her desktop. The process MUST BE SECURE. In other words, don't give your users rights to things they should not have rights to and make sure the user has full rights to his home folder at the client when it is mounted.
  o To receive credit you must complete the above requirements and document the process. I must be able to replicate the process with your instructions for you to receive credit.