Scope	Build a Domain Controller and a SQL Server for a culinary department with up to 20 users, three supervisors and two network administrators using two Windows 2012 Servers. The computers will have two 2 TB hard drives setup using RAID 1. The client computers will use Windows XP, Vista and Windows 7 and connect to the machines by 100 Mbps Ethernet cable. The servers have two network interface cards.
Active Directory	All 20 users will be loaded in Active Directory and they can only read and write to the database. Supervisors will have their own accounts and have full permissions to read and write to all parts of the database. Administrators will have their own accounts and have full permissions to read and write to all folders. Administrators will have rights to change and update the database.
SQL Database	The SQL database will be setup to allow the users to order supplies for their kitchen using the list provided by the culinary department.
Security	Username and passwords will conform to institution rules used in other departments.
Roles	Active Directory, DNS, DHCP, NAT, VPN, Print, SQL
Documentation	Create an installation manual showing every step to build the two servers for disaster recovery purposes. 1. Title page 2. Table of contents 3. Hardware requirements 4. BIOS settings 5. Windows 2012 installation 6. Drivers load 7. Updates and service packs 8. Security settings and audit policies 9. Active Directory setup 10. DNS setup 11. VPN and NAT setup 12. Load groups and users 13. Use file redirection for home folders 14. Establish RAID 1 backup 15. Installation procedure for the SQL Server 16. Setup database 17. Database manual 18. Testing 19. LAN Diagram 20. Index 21. Disk with Windows 2012 Server, drivers and documents

Procedures are at: http://www.worldclasscad.com/active_directory_2012.htm

Specifics:
Installation will be Windows 2012 Server Standard edition
All critical updates installed
All drivers installed (check your drivers before you reinstall)

- Refer to manufacturer' website

All password, account and audit policies set
Servers will have 2 NICs with the external card on the 192.168.10.0 network (use IP assigned)
Router address is 192.168.10.1
External IP address will be 192.168.10.2 and 192.168.10.3 (successive addresses per your IP address sheet)

Internal IP address is unique to your system.

Install SNMP feature
The server will be a Domain Controller (AD load)

- Domain name will be the company your group is emulating
- Primary DC name is server1
- SQL server name is server2

DNS forwarders will be:

        8.8.8.8
        8.8.4.4
        209.18.47.61
        209.18.47.62
        74.202.52.145
        216.136.95.2
        64.132.94.250
        206.222.120.186

Setup A host for your client computer
Setup a Reverse Lookup Zone
Setup a WINS server
Setup VPN and open the firewall for VPN
Setup printer and print server for network printer at 192.168.10.100
Synchronize your server with US Navy NTP server
Load yourself as an administrator with a user folder
Load your instructor as an administrator (email your instructor their username and password)

Create accounts for 20 culinary user with a shared folders
Create accounts for two instructors with a shared folders
Create accounts for two administrators (one for yourself and the other for your partner)
Setup Windows recommended file sizes for the server log

Install Windows 2012 SQL server on the application server

Setup a SQL database

Logon on the server from the client computer as administrator

Add a record to the SQL database