

Instructions for the Assignment 2 : ACCA 5023

Task 1 Word Limit: 2500 words or less, as screenshots are essential.

Here, we used the same network topology we designed for Assignment 1. However, in Assignment 2, we focused on Active Directory domain services, routing, and Remote access for the server side of Windows and Linux. It also addresses the IIS service and DHCP.

1.1 to 1.10 and 4,5,6, we have used a Windows Client Server machine.

For 2.1 to 3, the same experiments with Linux Debian Focus on some Linux commands/theories and screenshots.

If the connection/ping is unsuccessful, don't worry. Use screenshots of configuration and explanations.

Resources:

For active directory services creating a domain and adding a client machine, see the week 2 active directory 1,2,3 videos.

For Routing and remote access, share drive, IIS, and Linux see the General Section (At the beginning of Moodle)

In Swansea Network

- 1.1. Install Routing and Remote access Service and modify firewall rules to allow ICMP Traffic. (Theory/explain and then Run Routing and Remote access Service and Use 1 or 2 screenshots)
- 1.2. Configure Site-to-Site VPN to London Network. Set the connection type to "persistent connection". (Theory/explain and Show VPN service has been configured and take one screenshot of Running)
- 1.3. Create a forest named your name.acca (For example: nitheesh.acca) (Theory/explain and Show one /two screenshots that your forest (domain has been created), for example, my business.local.
- 1.4. Create all appropriate A records for all servers on 10.1.1.0/24 and 172.16.1.0/24 (Theory/explain and use any screenshot)
- 1.5. Create a reverse lookup zone creating PTR records for all servers. (discuss theory any use any screenshot)

- 1.6. Create user accounts for yourname.acca domain with all the parameters defined in the users_list_updated.xlsx document. Your lecturer will share this document. You must use first letter from first name with a dot and last name as SAM Account Name. Eg: First Name: Nitheesh Last Name: Kaliyamurthy. → n.kaliyamurthy. (Theory/explain and Use 1 or 2 screenshots that user accounts have been created)
- 1.7. Mount second disk drive to D:\SwanseaFiles. (Theory/explain and use 1 or 2 screenshots that any drive has been shared)
- 1.8. Configure DHCP Services. The range is 172.16.1.10 – 172.16.1.20. Determine other DHCP options as per the infrastructure.(discuss DHCP and use any screenshots)
- 1.9. Join the ClientS1 to yourname.acca domain.(Theory/explain and Show 1 or 2 screenshots that clien machine has been added in server)
- 1.10. Assign ClientS1 with DHCP IP Address.(Theory/explain and Show IP address of Client machine)

In Cardiff Network

(Same activities like Swansea just theory/command for Linux)

2.1. Install Routing and Remote access Service and modify firewall rules to allow ICMP Traffic. (Theory/explain/Command for linux and then Run Routing and Remote access Service and Use 1 or 2 screenshots)

2.2. Configure Site-to-Site VPN to Swansea Network. Set the connection type to “persistent connection”. (Theory/Command for Linux and then Run Routing and Remote access Service and Use 1 or 2 screenshots)

2.3. Create a child domain named car.yourname.acca in yourname.acca tree (Eg: car.nitheesh.acca) (Theory/Command for Linux and then Run Routing and Remote access Service and Use 1 or 2 screenshots)

2.4. Configure DHCP Services. The range is 10.1.1.10 – 10.1.1.20. Determine other DHCP options as per the infrastructure. (Theory/Command for Linux and then Run Routing and Remote access Service and Use 1 or 2 screenshots)

2.5. Join the CleintC1 to caryourname.acca and assign DHCP IP address.
(Theory/Command for Linux and then Run Routing and Remote access Service and Use 1 or 2 screenshots)

3. Test the network for Connectivity. Note that at this stage, the Swansea and Cardiff networks are connected and fully operational. If not, Troubleshoot.

(From No. 4, you need to complete on your own. This is designed to reflect on your knowledge, understanding and cognitive skills)

We will implement these task on Swansea:

4. Sharing Disk Drive: To the earlier created D:\SwanseaFiles, set access permissions to allow users in the users_list_updated.xlsx has full control permissions and other network users have only read access. Share the drive to both Cardiff and Swansea network. (Theory/Explain and then Use 1 or 2 screenshots)

5. Configure IIS Server (Theory/explain and then Run IIS Service and Use 1 or 2 screenshots)

5.1. Create https://webs.yourname.acca website and enable windows internal authentication. (Theory/explain for IIS Service and Use 1 or 2 screenshots)

5.2. All the users can be authenticated. (Theory/explain for IIS Service and Use 1 or 2 screenshots)

5.3. All authenticated users should be presented a text “Welcome to Swansea Website”. (Theory/explain for IIS Service and Use 1 or 2 screenshots)

6. Remote Desktop Services: Configure remote access for S-DC from any other machines in the network. Make sure that the Remote Desktop Services login page. should be accessed via https://rds.ld.yourname.acca and necessary certificates are signed.

(Theory/explain for Remote access Service and Use 1 or 2 screenshots)