LAB 15
CREATING AND MANAGING ACTIVE DIRECTORY GROUPS AND ORGANIZATIONAL UNITS

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This lab contains the following exercises and activities:

Exercise 15.1   Creating Organizational Units

Exercise 15.2   Creating Domain Local Groups

Exercise 15.3   Creating Global Groups

Lab Challenge   Nesting Groups

Exercise 15.4   Delegating Administration

BEFORE YOU BEGIN

The lab environment consists of three servers connected to a local area network, which you will configure to function as the domain controller for a domain called *adatum.com*. The computers required for this lab are listed in Table 15-1.

Table 15-1
Computers Required for Lab 15

Computer	Operating System	Computer Name
Domain controller 1	Windows Server 2016	SERVERA
Member server 2	Windows Server 2016	SERVERB
Member server 3	Windows Server 2016	SERVERC

In addition to the computers, you also require the software listed in Table 15-2 to complete Lab 15.

Table 15-2
Software Required for Lab 15

Software	*Location*
Lab 15 student worksheet	Lab15_worksheet.docx (provided by instructor)

Working with Lab Worksheets

Each lab in this manual requires that you answer questions, take screen shots, and perform other activities that you will document in a worksheet named for the lab, such as Lab15_worksheet.docx. It is recommended that you use a USB flash drive to store your worksheets, so you can submit them to your instructor for review. As you perform the exercises in each lab, open the appropriate worksheet file, fill in the required information, and save the file to your flash drive.

After completing this lab, you will be able to:

■ Create AD DS organizational unit objects

■ Create AD DS group objects

■ Nest groups

■ Delegate authority over OUs

Estimated lab time: 55 minutes

Exercise 15.1	Creating Organizational Units
Overview	In this exercise, you create new organizational units in the adatum.com domain, named for the cities in which your company has offices.
Mindset	Under what conditions is it necessary to create a new organizational unit?
Completion time	10 minutes

1. Log on to the **SERVERA** computer as the **domain administrator** with the Pa$$w0rd password. On the Server Manager console, select **Tools** > **Active**

Directory Users and Computers. The *Active Directory Users and Computers* console appears.

2. In the left pane, expand the **adatum.com** node.

3. Right-click the adatum.com node and, from the context menu, click **New** > **Organizational Unit**. The *New Object – Organizational Unit Wizard* appears (see Figure 15-1).
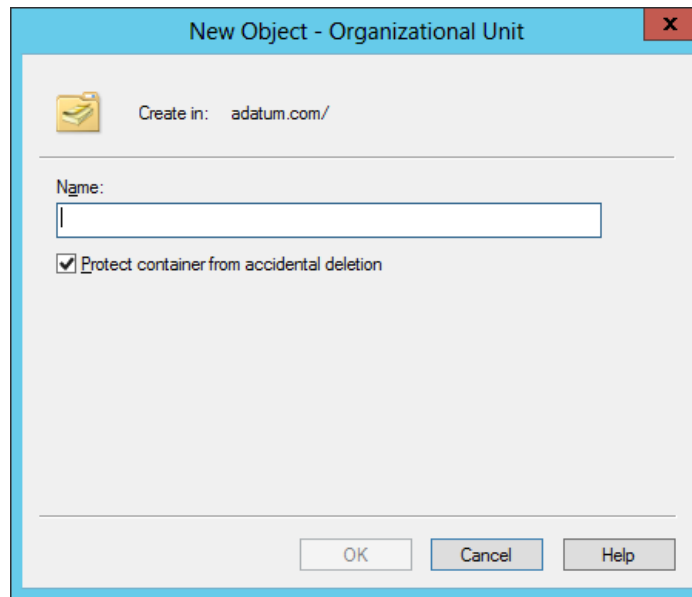

Figure 15-1
The New Object – Organizational Unit Wizard

4. In the Name text box, type **Rome**.

5. Click OK. The wizard creates the Rome OU object.

6. In Server Manager, click **Tools** > **Active Directory Administrative Center**. The Active Directory Administrative Center console appears.

7. In the left pane, select the **adatum (local)** node and, in the right pane under Tasks > adatum (local), select **New** > **Organizational Unit**. The Create Organizational Unit dialog box appears (see Figure 15-2).
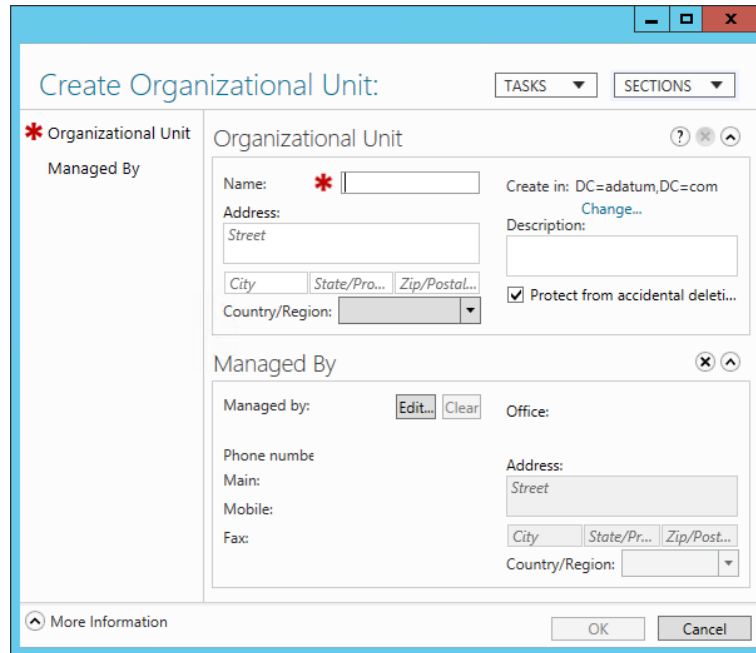
Figure 15-2
The Create Organizational Unit dialog box

8. In the Name text box, type **London** and click **OK**. The new OU appears in the center pane.

9. On the Taskbar, click **Start** > **Windows PowerShell** icon. The Administrator: Windows PowerShell window appears.

10. At the command prompt, type **New-ADOrganizationalUnit -Name Paris** and press Enter.

Question 1	*What must you do to assign the same Group Policy settings to the systems in all three of the OUs you just created?*

11. In the Active Directory Users and Computers console, press F5 to refresh the console until the Paris OU appears.

12. **[SCREEN SHOT 1]** Take a screen shot of the adatum.com domain in the Active Directory Users and Computers console, showing the OU objects you created, by pressing Alt+Prt Scr, and then paste the resulting image into the Lab 15 worksheet file in the page provided by pressing Ctrl+V.

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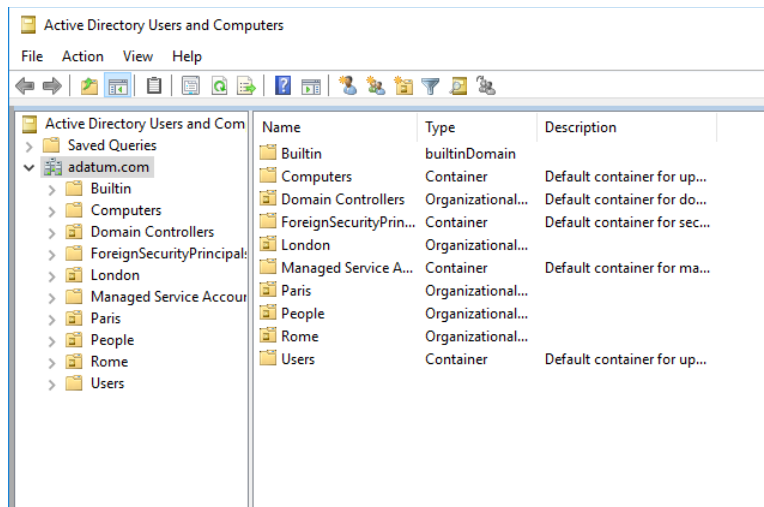
End of exercise. You can leave the windows open for the next exercise.

Exercise 15.2	Creating Domain Local Groups
Overview	In this exercise, you create domain local groups using the Active Directory Users and Computers console.
Mindset	What is the function of the domain local groups in a group nesting arrangement?
Completion time	10 minutes

1. On the **SERVERA** computer, in the *Active Directory Users and Computers* console, select the **Rome** OU you created in Exercise 15.1.

2. Right-click the Rome OU and, from the context menu, click **New** > **Group**. The New Object - Group dialog box appears (see Figure 15-3).
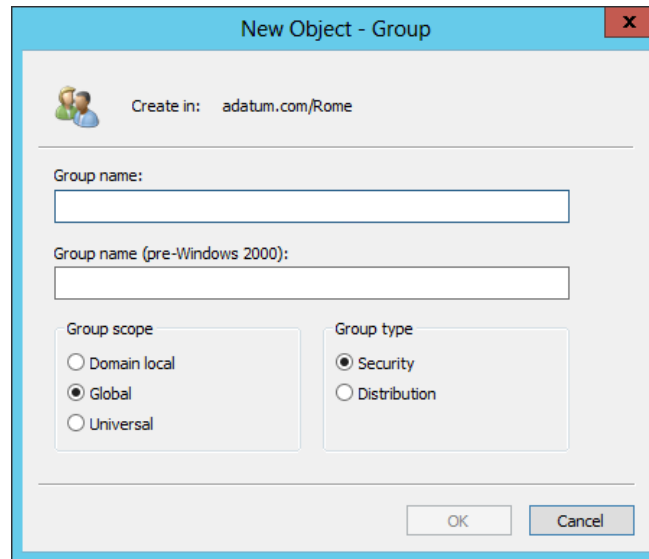
Figure 15-3
The New Object – Group Wizard

3. In the Group name text box, type **Rome Backup**.

4. Under *Group scope*, select the *Domain local* option and click OK. The new group object appears in the Rome OU.

Question 2	*What must you do to enable the members of the Rome Backup group to perform backup operations on the local system?*

5. Repeat steps 2 to 4 to create a domain local group called **Rome Printing**.

Question 3	*What must you do to enable the members of the Rome Printing group to manage the queued print jobs on selected printers?*

End of exercise. You can leave the windows open for the next exercise.

| Exercise 15.3	Creating Global Groups
Overview	In this exercise, you create global groups using the Active Directory Administrative Center console.
Mindset	What is the function of the global groups in a group nesting arrangement?
Completion time	10 minutes

1. On the **SERVERA** computer, in the *Active Directory Administrative Center* console, click the adatum (local) node in the left pane and click the **Rome** OU you created in Exercise 15.1 in the middle pane.

2. In the right pane, under Rome, select **New** > **Group**. The Create Group dialog box appears (see Figure 15-4).

Figure 15-4
The Create Group dialog box

3. In the *Group name* text box, type **Backup Managers**.

4. Under *Group scope*, select Global and click OK. The new group appears in the Rome OU.

5. Repeat steps 2 to 4 to create a global group called **Print Managers** in the Rome OU.

6. Repeat steps 2 to 4 to create a global group called **Rome Managers** in the Rome OU.

7. Double click **Rome** OU to see the groups you just created.

8. **[SCREEN SHOT 2]** Take a screen shot of the Adatum (local) in Active Directory Administrative Center, showing the groups you created, by pressing Alt+Prt Scr, and then paste the resulting image into the Lab 15 worksheet file in the page provided by pressing Ctrl+V.
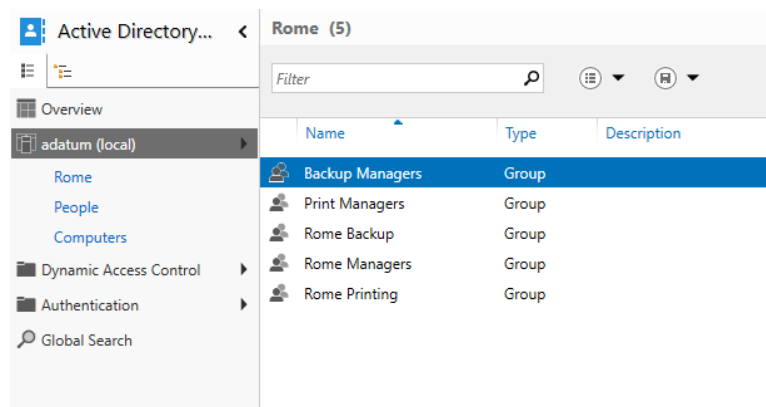
End of exercise. You can leave the windows open for the next exercise.

Lab Challenge	Nesting Groups
Overview	By nesting groups in AD DS, you can create a system per privileges that allows any number of personnel changes.
Completion time	15 minutes

To complete this challenge, you must nest the groups you created previously in this lab so that the members of the Print Managers group will receive the privileges assigned to the Rome Printing group, and the Backup Managers group will receive the privileges assigned to the Rome Backup group.

List the changes you must make to complete the challenge.

End of exercise. You can leave the windows open for the next exercise.

Exercise 15.4	Delegating Administration
Overview	In this exercise, you use the Delegation of Control Wizard to grant Active Directory permissions to specific groups.
Mindset	How do you delegate administrative privileges to users without giving them full control?
Completion time	10 minutes

1. On the **SERVERA** computer, in the *Active Directory Users and Computers* console, right-click the **Rome** OU and, from the context menu, select **Delegate Control**. The Delegation of Control Wizard appears, displaying the Welcome page.

    If the Rome OU doesn't appear under adatum.com domain, click the Refresh icon on the toolbar.

2. Click Next. The Users or Groups page appears.

3. Click **Add**, The Select Users, Computers, or Groups dialog box appears.

4. In the *Enter the object names to select* box, type **Rome Managers** and click OK. The group appears on the Users or Groups list.

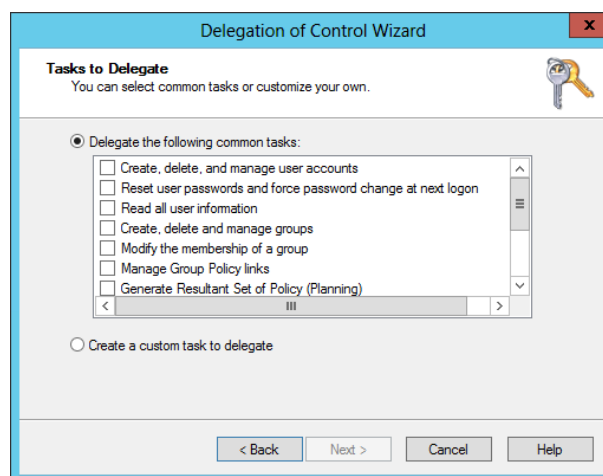5. Click Next. The Tasks to delegate page appears (see Figure 15-5).

Figure 15-5
The Delegation of Control Wizard

6. In the *Delegate the following common tasks* list, select the following check boxes:

   - Create, delete, and manage user accounts

   - Create, delete, and manage groups

   - Modify the membership of a group

7. Click Next. The *Completing the Delegation of Control Wizard* page appears.

8. Click Finish.

9. **I**n *Active Directory Users and Computers* console, click menu **View** > **Advanced Features**. This enables advanced features view.

10. Right click **Rome** OU, select **Properties**.

11. Click **Security** tab, than select **Advanced** button. In **Permissions** tab (other name is Discretionary Access Control List - DACL), you can see **ACEs** lists. Rome Managers have permissions of create/delete group/user objects.

12. **[SCREEN SHOT 3]** Take a screen shot of the Advanced Security Settings for Rome, showing Rome Managers in ACE list, by pressing Alt+Prt Scr, and then paste the resulting image into the Lab 15 worksheet file in the page provided by pressing Ctrl+V.
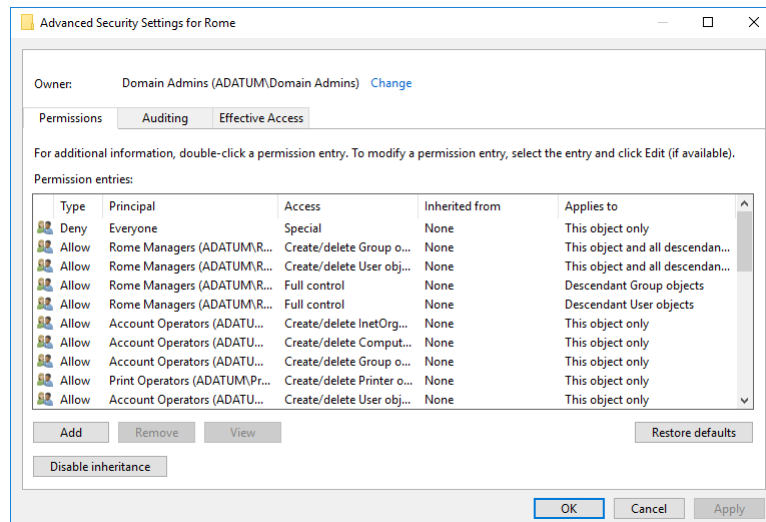
End of lab. You can log off or start a different lab. If you want to restart this lab, you'll need to click the End Lab button in order for the lab to be reset.