



Microsoft ADC Cybersecurity Skilling Program

Week 6 Lab Assignment

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Introduction

Lab 01: Role-Based Access Control

Student lab manual

Lab scenario

You have been asked to create a proof of concept showing how Azure users and groups are created. Also, how role-based access control is used to assign roles to groups. Specifically, you need to:

- Create a Senior Admins group containing the user account of Joseph Price as its member.
- Create a Junior Admins group containing the user account of Isabel Garcia as its member.
- Create a Service Desk group containing the user account of Dylan Williams as its member.
- Assign the Virtual Machine Contributor role to the Service Desk group.

For all the resources in this lab, we are using the **East US** region. Verify with your instructor this is the region to use for class.

Lab objectives

In this lab, you will complete the following exercises:

- Exercise 1: Create the Senior Admins group with the user account Joseph Price as its member (the Azure portal).
- Exercise 2: Create the Junior Admins group with the user account Isabel Garcia as its member (PowerShell).
- Exercise 3: Create the Service Desk group with the user Dylan Williams as its member (Azure CLI).
- Exercise 4: Assign the Virtual Machine Contributor role to the Service Desk group.

Instructions

Exercise 1: Create the Senior Admins group with the user account Joseph Price as its member.

Estimated timing: 10 minutes

In this exercise, you will complete the following tasks:

- Task 1: Use the Azure portal to create a user account for Joseph Price.
- Task 2: Use the Azure portal to create a Senior Admins group and add the user account of Joseph Price to the group.

Task 1: Use the Azure portal to create a user account for Joseph Price

In this task, you will create a user account for Joseph Price.

The screenshot shows the Azure portal interface. The main pane displays the 'Users' blade for the 'LODS-Prod-MCA' tenant. The 'New user' button is highlighted. Below it, a list of existing users is shown with columns for 'User principal name', 'User type', and 'On-premises sy...'. The right sidebar contains instructions for creating a user, including a warning that the user 'Joseph Price' has already been created. The sidebar also shows a table with settings for the user 'Joseph Price'.

Setting	Value
User name	T Joseph
Name	T Joseph Price

Task2: Use the Azure portal to create a Senior Admins group and add the user account of Joseph Price to the group.

In this task, you will create the *Senior Admins* group, add the user account of Joseph Price to the group, and configure it as the group owner.

The screenshot displays the Microsoft Azure portal interface for creating a new group. The main window shows the 'New Group' blade with the following details:

- Group name:** Senior Admins51124344
- Group description:** Enter a description for the group
- Membership type:** Assigned
- Owners:** 1 owner selected
- Members:** 1 member selected
- Create button:** A blue button at the bottom left.

The right sidebar shows a 'Role-Based Access Control' progress bar with '59 Minutes Remaining' and a search bar. Below the progress bar, there are tabs for 'Instructions', 'Resources', and 'Help'. A table lists settings and values:

Setting	Value
Group type	Security
Group name	Senior Admins51124344
Membership type	Assigned

Below the table, there are numbered instructions:

4. Click the **No owners selected** link, on the **Add owners** blade, select **Joseph Price**, and click **Select**.
5. Click the **No members selected** link, on the **Add members** blade, select **Joseph Price**, and click **Select**.
6. Back on the **New Group** blade, click **Create**.

At the bottom of the sidebar, it shows '25% Tasks Complete' and navigation buttons for '< Previous' and 'End >'.

Exercise 2: Create a Junior Admins group containing the user account of Isabel Garcia as its member.

In this exercise, you will complete the following tasks:

- Task 1: Use PowerShell to create a user account for Isabel Garcia.
- Task 2: Use PowerShell to create the Junior Admins group and add the user account of Isabel Garcia to the group.

Task 1: Use PowerShell to create a user account for Isabel Garcia.

In this task, you will create a user account for Isabel Garcia by using PowerShell.

Role-Based Access Control — Mozilla Firefox

https://labclient.labondemand.com/LabClient/1b809cfa-c61d-4325-b4c7-7e0461214283

Groups - Microsoft Azure

https://portal.azure.com/#view/Microsoft_AAD_IAM/...

Microsoft Azure

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LODS-Prod-MCA

New group

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Preview features

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New session

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MOTD: SqlServer has been updated to Version 22!

VERBOSE: Authenticating to Azure ...

WARNING: You're using Az version 13.4.0. The latest version of Az is 13.5.0. Upgrade your Az modules using the following commands:

Update-PSResource Az -WhatIf -- Simulate updating your Az modules.

Update-PSResource Az -- Update your Az modules.

VERBOSE: Building your Azure drive ...

PS /home/labuser-51124344> \$passwordProfile = New-Object -TypeName Microsoft.Open.AzureAD.Model.PasswordProfile

PS /home/labuser-51124344> \$passwordProfile.Password = "Pa55w.rd1234"

PS /home/labuser-51124344> Connect-AzureAD

Role-Based Access Control

48 Minutes Remaining

100%

Instructions Resources Help

4. In the PowerShell session within the Cloud Shell pane, run the following to set the value of the password within the profile object:

powershell

\$passwordProfile.Password = "Pa55w.rd1234"

5. In the PowerShell session within the Cloud Shell pane, run the following to connect to Microsoft Entra ID:

powershell

Connect-AzureAD

6. In the PowerShell session within the Cloud Shell pane, run the following to identify the name of your Microsoft Entra tenant:

powershell

\$domainName = ((Get-AzureAdTenantDe

36% Tasks Complete

< Previous End >

N

Role-Based Access Control — Mozilla Firefox

https://labclient.labondemand.com/LabClient/1b809cfa-c61d-4325-b4c7-7e0461214283

Groups - Microsoft Azure

https://portal.azure.com/#view/Microsoft_AAD_IAM/...

Microsoft Azure

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Editor

PS /home/labuser-51124344> Connect-AzureAD

PS /home/labuser-51124344> \$domainName = ((Get-AzureAdTenantDetail).VerifiedDomains)[0].Name

PS /home/labuser-51124344> New-AzureADUser -DisplayName 'Isabel Garcia' -PasswordProfile \$passwordProfile -UserPrincipalName "Isabel@\$domainName" -AccountEnabled \$true -MailNickName 'Isabel'

New-AzureADUser: Error occurred while executing NewUser

Code: Authorization_RequestDenied

Message: Insufficient privileges to complete the operation.

RequestId: 6b7dea70-e2e9-4582-a094-4c9ef2ac273d

DateTimeStamp: Fri, 09 May 2025 08:12:13 GMT

HttpStatusCode: Forbidden

HttpStatusCodeDescription: Forbidden

HttpResponseStatus: Completed

PS /home/labuser-51124344>

Role-Based Access Control

47 Minutes Remaining

100%

Instructions Resources Help

7. In the PowerShell session within the Cloud Shell pane, run the following to create a user account for Isabel Garcia:

powershell

\$domainName = ((Get-AzureAdTenantDe

Step 7 is for reference only, and can be skipped as this user has already been created for you. If you wish, you may run the command but you will receive the error **New-AzureADUser: Error occurred while executing NewUser**. This is expected in this CloudSlice lab and you may proceed to the next Step.

powershell

New-AzureADUser -DisplayName 'Isabel

8. In the PowerShell session within the Cloud Shell pane, run the following to list Microsoft Entra ID users (the accounts of Joseph and Isabel should appear on the listed):

39% Tasks Complete

< Previous End >

The accounts of Joseph and Isabel should appear on the listed

Role-Based Access Control — Mozilla Firefox

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Microsoft Azure

Groups | Overview

LODS-Prod-MCA

Switch to Bash

```
HttpStatusCode: Completed
PS /home/labuser-51124344> Get-AzureADUser -All $true | Where-Object {$_.UserPrincipalName -like "*51124344@LODS*"}

ObjectId                DisplayName              UserPrincipalName
-----
9429646f-d9aa-4e3b-bd15-4b8417ec0fee Dylan-51124344          Dylan-51124344@LODSPRODMDCA.onmicrosoft.c...
077f7e58-2cd4-4de3-96d5-48fedb8331bd Isabel-51124344         Isabel-51124344@LODSPRODMDCA.onmicrosoft...
adddde88-31a0-4e4d-8ffa-7eaf7b862dcc Joseph-51124344         Joseph-51124344@LODSPRODMDCA.onmicrosoft...
ca9983a2-92ad-4f29-81c0-c9f8effe7b17 LabUser-51124344       LabUser-51124344@LODSPRODMDCA.onmicrosoft...
```

PS /home/labuser-51124344>

PS /home/labuser-51124344>

Role-Based Access Control

44 Minutes Remaining

Instructions Resources Help

8. In the PowerShell session within the Cloud Shell pane, run the following to list Microsoft Entra ID users (the accounts of Joseph and Isabel should appear on the listed):

```
powershell
Get-AzureADUser -All $true | Where-
```

Task2: Use PowerShell to create the Junior Admins group and add the user account of Isabel Garcia to the group.

In this task, you will create the Junior Admins group and add the user account of Isabel Garcia to the group by using PowerShell.

1. In the same PowerShell session within the Cloud Shell pane, run the following to create a new security group named Junior Admins:

```
powershell
New-AzureADGroup -DisplayName 'Juni
```

41% Tasks Complete

< Previous End >

Task2: Use PowerShell to create the Junior Admins group and add the user account of Isabel Garcia to the group.

In this task, you will create the Junior Admins group and add the user account of Isabel Garcia to the group by using PowerShell.

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Microsoft Azure

Groups | Overview

LODS-Prod-MCA

Switch to Bash

```
077f7e58-2cd4-4de3-96d5-48fedb8331bd Isabel-51124344 Isabel-51124344@LODSPRODMDCA.onmicrosoft...
adddde88-31a0-4e4d-8ffa-7eaf7b862dcc Joseph-51124344 Joseph-51124344@LODSPRODMDCA.onmicrosoft...
ca9983a2-92ad-4f29-81c0-c9f8effe7b17 LabUser-51124344 LabUser-51124344@LODSPRODMDCA.onmicrosoft...
```

```
PS /home/labuser-51124344>
PS /home/labuser-51124344> New-AzureADGroup -DisplayName 'Junior Admins51124344' -MailEnabled $false -SecurityEnabled $true -MailNickName JuniorAdmins

ObjectId                DisplayName              Description
-----
4f3bd3dc-271d-42ee-8c13-f35a32944e54 Junior Admins51124344
```

PS /home/labuser-51124344>

Role-Based Access Control

43 Minutes Remaining

Instructions Resources Help

Task2: Use PowerShell to create the Junior Admins group and add the user account of Isabel Garcia to the group.

In this task, you will create the Junior Admins group and add the user account of Isabel Garcia to the group by using PowerShell.

1. In the same PowerShell session within the Cloud Shell pane, run the following to create a new security group named Junior Admins:

```
powershell
New-AzureADGroup -DisplayName 'Juni
```

43% Tasks Complete

< Previous End >

2.

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Groups | Overview

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New group Download groups Preview features

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```
01091fed-2f67-4d80-9d51-11a039645460 az104-mg141737289 az104-mg1417372...
010a8e24-d794-4ad0-a0a2-0c85b54ca5b0 Marketing-RG-KeyVaultContributor-37943522 tests
010a9133-7c59-4b56-9bd9-eee660133af0 tests
010d9e67-0024-4a7e-84ac-888ea47e2c04 Service Desk41139521 Marketing
0110085d-f5c8-4d5b-8c1f-22e02a401c92 38874909_Marketing Marketing
011204fc-4deb-4b7e-9d20-562a622f5c5f IT Team Accounting1
0113b1ae-c40e-406a-9185-a8fb97ec7fe7 Accounting1 Accounting Secu...
0115c9a7-8580-4df9-913b-e102d1dc0484 36586748-AppLogExaminers
0117258e-6efc-4f53-8dc7-e7570e5cc188 36322226-AppLogExaminers
011ab416-a747-420b-91f6-ba211030050b IT-User-Group-RG group for users...
011b6abc-6d18-4301-ba8a-b60d8d1187b0 The Marketing Department Director The Marketing D...
```

PS /home/labuser-51124344>

Role-Based Access Control

42 Minutes Remaining

Instructions Resources Help

1. In the same PowerShell session within the Cloud Shell pane, run the following to create a new security group named Junior Admins:

```
powershell
New-AzureADGroup -DisplayName 'Junior Admins'
```

2. In the PowerShell session within the Cloud Shell pane, run the following to list the groups in your Microsoft Entra tenant (the list should include the Senior Admins51124344 and Junior Admins51124344 groups):

```
powershell
Get-AzureADGroup
```

3. In the PowerShell session within the Cloud Shell pane, run the following to obtain a reference to the user account of Isabel Garcia:

```
powershell
$user = Get-AzureADUser -Filter "UserPrincipalName eq 'Isabel-51124344@LODS-Prod-MCA.onmicrosoft.com'"
```

44% Tasks Complete

< Previous End >

Role-Based Access Control — Mozilla Firefox

https://labclient.labondemand.com/LabClient/1b809cfa-c61d-4325-b4c7-7e0461214283

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```
PS /home/labuser-51124344> $user = Get-AzureADUser -Filter "UserPrincipalName eq 'Isabel-51124344@LODS-Prod-MCA.onmicrosoft.com'"
PS /home/labuser-51124344> Add-AzADGroupMember -MemberUserPrincipalName $user.userPrincipalName -TargetGroupDisplayName "Junior Admins51124344"
WARNING: This cmdlet is using a preview API version and is subject to breaking change in a future release.
PS /home/labuser-51124344> Get-AzADGroupMember -GroupDisplayName "Junior Admins51124344"
WARNING: This cmdlet is using a preview API version and is subject to breaking change in a future release.
```

```
AccountEnabled : True
AgeGroup       :
ApproximateLastSignInDateTime :
BusinessPhone  : {}
City           :
CompanyName    :
ComplianceExpirationDateTime :
ConsentProvidedForMinor      :
Country        :
```

Role-Based Access Control

40 Minutes Remaining

Instructions Resources Help

4. In the PowerShell session within the Cloud Shell pane, run the following to add the user account of Isabel to the Junior Admins51124344 group:

```
powershell
Add-AzADGroupMember -MemberUserPrincipalName $user.userPrincipalName -TargetGroupDisplayName "Junior Admins51124344"
```

5. In the PowerShell session within the Cloud Shell pane, run the following to verify that the Junior Admins51124344 group contains the user account of Isabel:

```
powershell
Get-AzADGroupMember -GroupDisplayName "Junior Admins51124344"
```

Result: You used PowerShell to create a user and a group account, and added the user account to the group account.

Exercise 3: Create a Service Desk group containing the user account of Dylan Williams as its member.

50% Tasks Complete

< Previous End >

Used PowerShell to create a user and a group account, and added the user account to the group account.

Exercise 3: Create a Service Desk group containing the user account of Dylan Williams as its member.

Estimated timing: 10 minutes

In this exercise, you will complete the following tasks:

- Task 1: Use Azure CLI to create a user account for Dylan Williams.
- Task 2: Use Azure CLI to create the Service Desk group and add the user account of Dylan to the group.

Task 1: Use Azure CLI to create a user account for Dylan Williams.

In this task, you will create a user account for Dylan Williams.

The screenshot shows a web-based lab environment titled "Role-Based Access Control — Mozilla Firefox". The main window displays a terminal session within the Microsoft Azure portal. The terminal output shows the successful creation of a Cloud Shell session and the execution of the command `DOMAINNAME=$(az ad signed-in-user show --query 'userPrincipalName' | cut -d '@' -f 2 | sed 's/\/\\\\/\\/')`. The right-hand panel contains a task list for "Role-Based Access Control" with 39 minutes remaining. The tasks are:

1. In the drop-down menu in the upper-left corner of the Cloud Shell pane, select **Bash**, and, when prompted, click **Confirm**.
2. In the Bash session within the Cloud Shell pane, run the following to identify the name of your Microsoft Entra tenant:

```
cli
DOMAINNAME=$(az ad signed-in-user show --query 'userPrincipalName' | cut -d '@' -f 2 | sed 's/\/\\\\/\\/')
```

3. In the Bash session within the Cloud Shell pane, run the following to create a user, Dylan Williams. Use `yourdomain`.

A warning message states: "Step 3 is for reference only, as this user has already been created for you. If you wish, you may run the command but you will receive the error **Insufficient privileges to complete the operation**. This is expected in this Cloudslice lab and you may proceed to the next Step."

The bottom of the right panel shows a progress bar at 55% Tasks Complete and navigation buttons for "Previous" and "End".

Role-Based Access Control — Mozilla Firefox

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Microsoft Azure

Switch to PowerShell Restart Manage files New session Editor

```
Requesting a Cloud Shell.Succeeded.
Connecting terminal...

Subscription used to launch your CloudShell 9457c7dd-2e73-4c59-9583-ee82a8d4b813 is not
registered to Microsoft.CloudShell Namespace. Please follow these instructions "http
s://aka.ms/RegisterCloudShell" to register. In future, unregistered subscriptions will
have restricted access to CloudShell service.

Your Cloud Shell session will be ephemeral so no files or system changes will persist
beyond your current session.
labuser-51124344 [ ~ ]$ DOMAINNAME=$(az ad signed-in-user show --query 'userPrincipalN
ame' | cut -d '@' -f 2 | sed 's/\//')
labuser-51124344 [ ~ ]$ az ad user create --display-name "Dylan Williams" --password "
Pa55w.rd1234" --user-principal-name Dylan@$DOMAINNAME
Insufficient privileges to complete the operation.
labuser-51124344 [ ~ ]$
```

Role-Based Access Control

38 Minutes Remaining

Instructions Resources Help

3. In the Bash session within the Cloud Shell pane, run the following to create a user, Dylan Williams. Use yourdomain.

Step 3 is for reference only, as this user has already been created for you. If you wish, you may run the command but you will receive the error **Insufficient privileges to complete the operation**. This is expected in this CloudSlice lab and you may proceed to the next Step.

```
cli
T az ad user create --display-name "Dylan Williams" --password "Pa55w.rd1234" --user-principal-name Dylan@$DOMAINNAME
```

4. In the Bash session within the Cloud Shell pane, run the following to list Microsoft Entra ID user accounts (the list should include user accounts of Joseph, Isabel, and Dylan)

```
cli
T az ad user list --output table | grep 51124344
```

55% Tasks Complete

< Previous End >

Role-Based Access Control — Mozilla Firefox

https://labclient.labondemand.com/LabClient/1b809cfa-c61d-4325-b4c7-7e0461214283

Microsoft Azure

Switch to PowerShell Restart Manage files New session Editor

```
t registered to Microsoft.CloudShell Namespace. Please follow these instructions "http
s://aka.ms/RegisterCloudShell" to register. In future, unregistered subscriptions will
have restricted access to CloudShell service.

Your Cloud Shell session will be ephemeral so no files or system changes will persist
beyond your current session.
labuser-51124344 [ ~ ]$ DOMAINNAME=$(az ad signed-in-user show --query 'userPrincipalN
ame' | cut -d '@' -f 2 | sed 's/\//')
labuser-51124344 [ ~ ]$ az ad user create --display-name "Dylan Williams" --password "
Pa55w.rd1234" --user-principal-name Dylan@$DOMAINNAME
Insufficient privileges to complete the operation.
labuser-51124344 [ ~ ]$ az ad user list --output table | grep 51124344

Dylan-51124344          Dylan-51124344@L0DSPRODMCA.onmicrosoft.com
Isabel-51124344         Isabel-51124344@L0DSPRODMCA.onmicrosoft.com
Joseph-51124344         Joseph-51124344@L0DSPRODMCA.onmicrosoft.com
LabUser-51124344        LabUser-51124344@L0DSPRODMCA.onmicrosoft.com
labuser-51124344 [ ~ ]$
labuser-51124344 [ ~ ]$
```

Role-Based Access Control

28 Minutes Remaining

Instructions Resources Help

4. In the Bash session within the Cloud Shell pane, run the following to list Microsoft Entra ID user accounts (the list should include user accounts of Joseph, Isabel, and Dylan)

```
cli
T az ad user list --output table | grep 51124344
```

Task 2: Use Azure CLI to create the Service Desk group and add the user account of Dylan to the group.

In this task, you will create the Service Desk group and assign Dylan to the group.

1. In the same Bash session within the Cloud Shell pane, run the following to create a new security group named Service Desk.

```
cli
T az group create --name ServiceDesk --location westus
```

56% Tasks Complete

< Previous End >

Task 2: Use Azure CLI to create the Service Desk group and add the user account of Dylan to the group.

In this task, you will create the Service Desk group and assign Dylan to the group.

Role-Based Access Control — Mozilla Firefox

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Microsoft Azure

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```
Isabel-51124344 Isabel-51124344@LODSPRODMCA.onmicrosoft.com
Joseph-51124344 Joseph-51124344@LODSPRODMCA.onmicrosoft.com
LabUser-51124344 LabUser-51124344@LODSPRODMCA.onmicrosoft.com
labuser-51124344 [ ~ ]$
labuser-51124344 [ ~ ]$ az ad group create --display-name "Service Desk51124344" --mail-nickname "ServiceDesk"
{
  "@odata.context": "https://graph.microsoft.com/v1.0/$metadata#groups/$entity",
  "classification": null,
  "createdDateTime": "2025-05-09T08:32:55Z",
  "creationOptions": [],
  "deletedDateTime": null,
  "description": null,
  "displayName": "Service Desk51124344",
  "expirationDateTime": null,
  "groupTypes": [],
  "id": "a00741be-7b63-4563-9bce-fd65d994b8d0",
  "isAssignableToRole": null,
  "mail": null,
  "mailEnabled": false,
```

Role-Based Access Control

26 Minutes Remaining

Instructions Resources Help

Task 2: Use Azure CLI to create the Service Desk group and add the user account of Dylan to the group.

In this task, you will create the Service Desk group and assign Dylan to the group.

1. In the same Bash session within the Cloud Shell pane, run the following to create a new security group named Service Desk.

```
cli
az ad group create --display-name "
```

2. In the Bash session within the Cloud Shell pane, run the following to list the Microsoft Entra ID groups (the list should include Service Desk51124344, Senior Admins51124344, and Junior Admins51124344 groups):

```
cli
az ad group list -o table
```

3. In the Bash session within the Cloud Shell pane, run

58% Tasks Complete

< Previous End >

Role-Based Access Control — Mozilla Firefox

https://labclient.labondemand.com/LabClient/1b809cfa-c61d-4325-b4c7-7e0461214283

Microsoft Azure

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```
labuser-51124344 [ ~ ]$ USER=$(az ad user list --filter "UserPrincipalName eq 'Dylan-51124344@LODSPRODMCA.onmicrosoft.com'")
labuser-51124344 [ ~ ]$ OBJECTID=$(echo $USER | jq '.[].id' | tr -d '"')
labuser-51124344 [ ~ ]$ az ad group member add --group "Service Desk51124344" --member-id $OBJECTID
labuser-51124344 [ ~ ]$ az ad group member list --group "Service Desk51124344"
{
  "@odata.type": "#microsoft.graph.user",
  "businessPhones": [],
  "displayName": "Dylan-51124344",
  "givenName": null,
  "id": "9429646f-d9aa-4e3b-bd15-4b8417ec0fee",
  "jobTitle": null,
  "mail": null,
  "mobilePhone": null,
  "officeLocation": null,
  "preferredLanguage": null,
  "surname": null,
  "userPrincipalName": "Dylan-51124344@LODSPRODMCA.onmicrosoft.com"
}
```

Role-Based Access Control

11 Minutes Remaining

Instructions Resources Help

5. In the Bash session within the Cloud Shell pane, run the following to add the user account of Dylan to the Service Desk51124344 group:

```
cli
az ad group member add --group "Ser
```

6. In the Bash session within the Cloud Shell pane, run the following to list members of the Service Desk51124344 group and verify that it includes the user account of Dylan:

```
cli
az ad group member list --group "Se
```

7. Close the Cloud Shell pane.

Result: Using Azure CLI you created a user and a group accounts, and added the user account to the group.

67% Tasks Complete

< Previous End >

Exercise 4: Assign the Virtual Machine Contributor role to the Service Desk group.

Estimated timing: 10 minutes

In this exercise, you will complete the following tasks:

- Task 1: Create a resource group.
- Task 2: Assign the Service Desk Virtual Machine Contributor permissions to the resource group.

Task 1: Create a resource group

The screenshot shows the Azure portal interface in a Mozilla Firefox browser. The main window displays the 'Create a resource group' page with the following details:

- Subscription:** MOC Subscription-lod50551992
- Resource group name:** AZ500Lab01
- Region:** (US) East US

The right sidebar contains a 'Role-Based Access Control' panel with a progress bar at 100% and a task list for 'Task 1: Create a resource group':

1. In the Azure portal, in the **Search resources, services, and docs** text box at the top of the Azure portal page, type **Resource groups** and press the **Enter** key.
2. On the **Resource groups** blade, click **+ Create** and specify the following settings:

Setting	Value
Subscription name	the name of your Azure subscription
Resource group name	AZ500Lab01
Location	East US
3. Click **Review + create** and then **Create**.

Below the task list, a notification states: 'Wait for the resource group to deploy. Use the **Notification** icon (top right) to track progress of the deployment status.' A progress bar indicates '72% Tasks Complete'. Navigation buttons for 'Previous' and 'End' are at the bottom.

May 9 11:49 AM

Role-Based Access Control — Mozilla Firefox

https://labclient.labondemand.com/LabClient/1b809cfa-c61d-4325-b4c7-7e0461214283

Resource groups - Microsoft Azure

https://portal.azure.com/#view/HubsExtension/Brow...

Microsoft Azure

Search resources, services, and docs (G+)

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Resource groups

LODS-Prod-MCA (LODSPRODPCA.onmicrosoft.com)

+ Create Manage view Refresh Export to CSV Open query Group by none

You are viewing a new version of Browse experience. Some features may be missing. Click here to access the old experience.

Filter for any field...

Subscription equals all Location equals all Add filter

Name	Subscription	Location
AZ500Lab01	MOC Subscription-lod...	East US

75% Tasks Complete

Previous End

Role-Based Access Control

54 Minutes Remaining

Instructions Resources Help

Subscription name the name of your Azure subscription

Resource group name **AZ500Lab01**

Location **East US**

3. Click **Review + create** and then **Create**.

Wait for the resource group to deploy. Use the **Notification** icon (top right) to track progress of the deployment status.

4. Back on the **Resource groups** blade, refresh the page and verify your new resource group appears in the list of resource groups.

Task 2: Assign the Service Desk Virtual Machine Contributor permissions.

1. On the **Resource groups** blade, click the **AZ500LAB01** resource group entry.

Task 2: Assign the Service Desk Virtual Machine Contributor permissions.

May 9 11:50 AM

Role-Based Access Control — Mozilla Firefox

https://labclient.labondemand.com/LabClient/1b809cfa-c61d-4325-b4c7-7e0461214283

AZ500Lab01 - Microsoft Azure

https://portal.azure.com/#@LODSPRODPCA.onmicr...

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

Home > Resource groups > AZ500Lab01

AZ500Lab01 | Access control (IAM)

Resource group

+ Add Download role assignments Edit columns Refresh Delete Feedback

Add role assignment Add custom role Add role assignment Roles Deny assignments Classic administrators

Looking for the previous check access view? Click here.

Check access

Review the level of access a user, group, service principal, or managed identity has to this resource. Learn more

Check access

Assignments

Active Eligible Deny

1

79% Tasks Complete

Previous End

Role-Based Access Control

53 Minutes Remaining

Instructions Resources Help

3. Click **review + create** and then **Create**.

Wait for the resource group to deploy. Use the **Notification** icon (top right) to track progress of the deployment status.

4. Back on the **Resource groups** blade, refresh the page and verify your new resource group appears in the list of resource groups.

Task 2: Assign the Service Desk Virtual Machine Contributor permissions.

1. On the **Resource groups** blade, click the **AZ500LAB01** resource group entry.

2. On the **AZ500Lab01** blade, click **Access control (IAM)** in the middle pane.

3. On the **AZ500Lab01 | Access control (IAM)** blade, click + **Add** and then, in the drop-down menu, click **Add role assignment**.

4. On the **Add role assignment** blade, specify the following settings and click **Next** after each step:

Setting	Value
	79% Tasks Complete

May 9 11:52 AM

Role-Based Access Control — Mozilla Firefox

https://labclient.labondemand.com/LabClient/1b809cfa-c61d-4325-b4c7-7e0461214283

Microsoft Azure

Select members

Service Desk51124344

Selected members:

No members selected. Search for and add one or more members you want to assign to the role for this resource.

Learn more about RBAC

Select Close

Review + assign

Role-Based Access Control

51 Minutes Remaining

Instructions Resources Help

3. On the AZ500Lab01 | Access control (IAM) blade, click + Add and then, in the drop-down menu, click Add role assignment.

4. On the Add role assignment blade, specify the following settings and click Next after each step:

Setting	Value
Role in the search tab	Virtual Machine Contributor
Assign access to (Under Members Pane)	User, group, or service principal
Select (+Select Members)	Service Desk51124344

5. Click Review + assign twice to create the role assignment.

6. From the Access control (IAM) blade, select Check access

82% Tasks Complete

Previous End

Clean up resources

Remember to remove any newly created Azure resources that you no longer use. Removing unused resources ensures you will not incur unexpected costs.

May 9 11:59 AM

Role-Based Access Control — Mozilla Firefox

https://labclient.labondemand.com/LabClient/1b809cfa-c61d-4325-b4c7-7e0461214283

Microsoft Azure

Add role assignment

Role	Description	BuiltInRole	Storage
Avere Contributor	Can create and manage an Avere vFXT cluster.	BuiltInRole	Storage
Avere Operator	Used by the Avere vFXT cluster to manage the cluster	BuiltInRole	Storage
AVS on Fleet VIS Role	Do not remove this role from your resource because it is ...	BuiltInRole	None
AVS Orchestrator Role	Do not remove this role from your resource group becaus...	BuiltInRole	None

Switch to Bash Restart Manage files New session Editor

Your Cloud Shell session will be ephemeral so no files or system changes will persist beyond your current session.

MOTD: Azure Cloud Shell now includes Predictive IntelliSense! Learn more: https://aka.ms/CloudShell/IntelliSense

VERBOSE: Authenticating to Azure ...

VERBOSE: Building your Azure drive ...

PS /home/labuser-51124344> Remove-AzResourceGroup -Name "AZ500LAB01" -Force -AsJob

Id	Name	PSJobTypeName	State	HasMoreData	Location
1	Long Running O...	AzureLongRunni...	Running	True	localhost

PS /home/labuser-51124344>

Role-Based Access Control

45 Minutes Remaining

Instructions Resources Help

Clean up resources

Remember to remove any newly created Azure resources that you no longer use. Removing unused resources ensures you will not incur unexpected costs.

1. In the Azure portal, open the Cloud Shell by clicking the first icon in the top right of the Azure Portal.

2. In the drop-down menu in the upper-left corner of the Cloud Shell pane, select PowerShell, and, when prompted, click Confirm.

3. In the PowerShell session within the Cloud Shell pane, run the following to remove the resource group you created in this lab:

```
Remove-AzResourceGroup -Name "AZ500LAB01" -Force -AsJob
```

4. Close the Cloud Shell pane.

Congratulations

You have successfully completed this lab. Click End to mark the lab as Complete.

100% Tasks Complete

Previous End

SUMMARY

IN THIS LAB I:

Used PowerShell to create a user and a group account, and added the user account to the group account.

Created the Senior Admins group with the user account Joseph Price as its member (the Azure portal).

Created the Junior Admins group with the user account Isabel Garcia as its member (PowerShell).

Create the Service Desk group with the user Dylan Williams as its member (Azure CLI).

Assigned the Virtual Machine Contributor role to the Service Desk group.