

Lab 5

CST8912_011

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Submitted to :

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Lab Report Format

Title

Azure AD User and Group Management Lab

Introduction or Purpose

This lab offers hands-on experience applying essential identity and access management concepts in a cloud environment. It guides through creating and managing users, groups, and access policies using Azure Active Directory (Azure AD) while adhering to best security and automation practices. By completing this lab, it will help gain practical skills in managing identity and access controls in a cloud-based setting.

Steps covered in the lab

Task 1: Create and Configure Azure AD Users

1. Open the **Azure portal** and search for **Azure Active Directory**.
2. Create a **Microsoft Entra ID** tenant with the organization name, domain, and location set to **Canada**.
3. Once created, go to **Microsoft Entra ID** and review **User settings**.
4. Navigate to **Users**, then click **+ New user** and enter:
 - **User principal name:** 8912user1
 - **Display name:** 8912user1
 - **Job title:** IT Administrator
 - **Department:** IT
 - **Location:** Canada
5. Save the user and review assigned roles and permissions.
6. Invite an external user by selecting **Invite an external user**, entering their email, and sending an invite.
7. Confirm the new user appears in the list and the invitation email is sent.

Task 2: Create Groups and Add Members

1. In the **Azure portal**, search for **Groups** and create a new **Security** group:
 - **Group name:** IT Administrator
 - **Description:** Admins managing the IT lab
 - **Membership type:** Assigned
2. Add **yourself** as an owner.
3. Add **8912user1** and the invited external user as members.
4. Save and confirm the group was created successfully.

Task 3: Implement Management Groups

1. In **Azure portal**, go to **Microsoft Entra ID > Properties**.
2. Search for and select **Management groups** and click **+ Create**.
3. Enter:
 - **Management group ID:** 8912-mg1
 - **Display name:** 8912-mg1
4. Save and confirm the group appears in the list.

Task 4: Assign an Azure Role

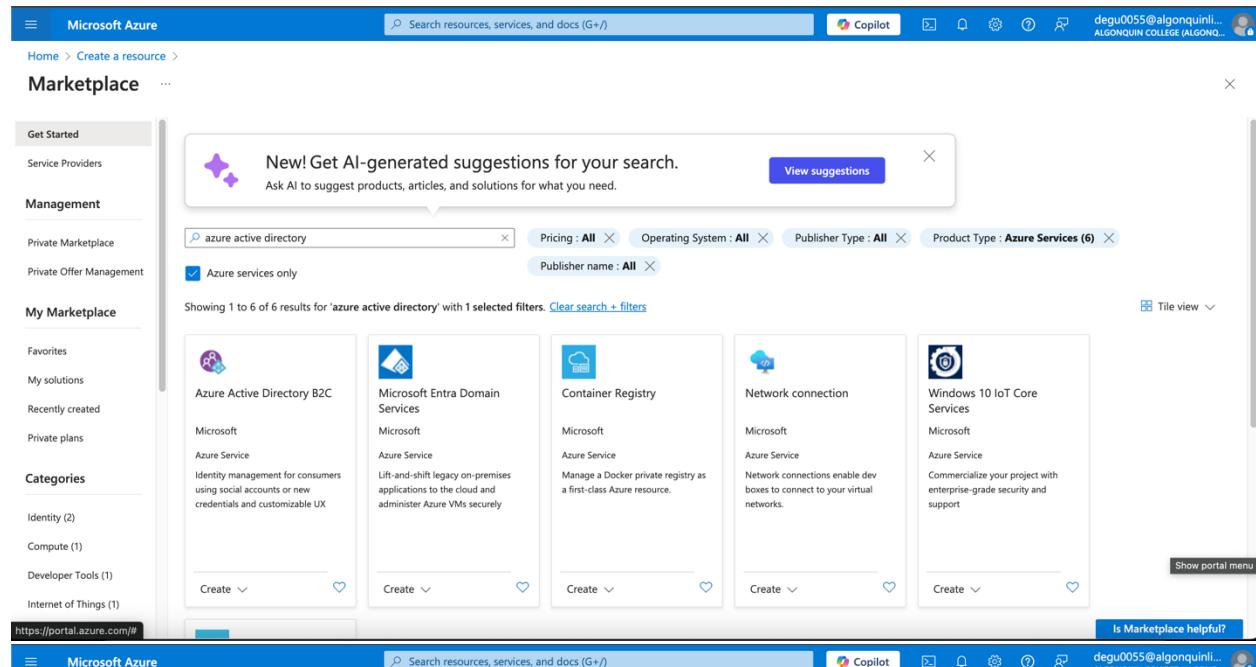
1. Select **8912-mg1** and go to **Access control (IAM) > Roles**.
2. Click **+ Add > Add role assignment**.
3. Assign **Virtual Machine Contributor** role to the **Help Desk** group.
4. Confirm the role assignment is applied.

Task 5: Clean Up

1. Remove all resources created during the lab.

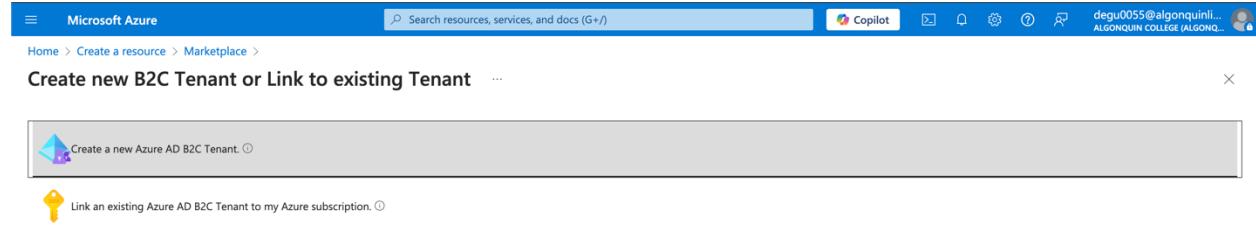
Results

Task 1: Create and Configure Azure AD Users



The screenshot shows the Microsoft Azure Marketplace search results for 'azure active directory'. The search bar at the top contains 'azure active directory'. Below the search bar, there are several filters: 'Pricing : All', 'Operating System : All', 'Publisher Type : All', 'Product Type : Azure Services (6)', and 'Publisher name : All'. A message box at the top says 'New! Get AI-generated suggestions for your search. Ask AI to suggest products, articles, and solutions for what you need.' with a 'View suggestions' button. The results list shows six items:

- Azure Active Directory B2C** (Microsoft): Identity management for consumers using social accounts or new credentials and customizable UX. Includes 'Create' and 'Heart' buttons.
- Microsoft Entra Domain Services** (Microsoft): Lift-and-shift legacy on-premises applications to the cloud and administer Azure VMs securely. Includes 'Create' and 'Heart' buttons.
- Container Registry** (Microsoft): Azure Service. Manage a Docker private registry as a first-class Azure resource. Includes 'Create' and 'Heart' buttons.
- Network connection** (Microsoft): Azure Service. Network connections enable dev boxes to connect to your virtual networks. Includes 'Create' and 'Heart' buttons.
- Windows 10 IoT Core Services** (Microsoft): Commercialize your project with enterprise-grade security and support. Includes 'Create' and 'Heart' buttons.



The screenshot shows the 'Create new B2C Tenant or Link to existing Tenant' page. At the top, there is a message: 'Create a new Azure AD B2C Tenant. ⓘ'. Below this, there is a note: 'Link an existing Azure AD B2C Tenant to my Azure subscription. ⓘ'. The page has a light gray background with a thin black border around the main content area.

Microsoft Azure Search resources, services, and docs (G+) Copilot ✉️ 🔍 ⚙️ 🌐 🌐 🌐 degu0055@algonquinli... ALGONQUIN COLLEGE (ALGONQ...

Home > Create a resource > Marketplace > Create new B2C Tenant or Link to existing Tenant > Create a tenant ...

*Basics *Configuration Review + create

Microsoft Entra ID and Azure AD B2C enable users to access applications published by your organization, and share same administration experiences. [Learn more](#)

Tenant type

Select a tenant type *

Microsoft Entra ID

Azure AD B2C

[Help me choose...](#)

[Review + create](#)

[< Previous](#)

[Next : Configuration >](#)

Microsoft Azure Search resources, services, and docs (G+) Copilot ✉️ 🔍 ⚙️ 🌐 🌐 🌐 degu0055@algonquinli... ALGONQUIN COLLEGE (ALGONQ...

Home > Create a resource > Marketplace > Create new B2C Tenant or Link to existing Tenant > Create a tenant ...

*Basics *Configuration Review + create

Directory details

Configure your new directory

Organization name *

feb12 lab5

✓

Initial domain name *

feb12lab5

Show portal menu

feb12lab5.onmicrosoft.com

Location

Canada

✓

Geographic location - United States

The location selected above will determine the geographic location where Microsoft Entra ID will store your Core Store data only. To determine where Microsoft will store or process your Microsoft Entra ID data, see [Microsoft Entra ID Data residency](#).

[Review + create](#)

[< Previous](#)

[Next : Review + create >](#)

<https://portal.azure.com/#>

Microsoft Azure Search resources, services, and docs (G+) Copilot deg0055@algonquinli... ALGONQUIN COLLEGE (ALGONQ...

Home > Create a resource > Marketplace > Create new B2C Tenant or Link to existing Tenant > Create a tenant ...

Validation passed.

* Basics * Configuration Review + create

Summary

Basics

Tenant type Microsoft Entra ID

Configuration

Organization name feb12 lab5

Initial domain name feb12lab5.onmicrosoft.com

Location Canada

Create < Previous Next >

Microsoft Azure Search resources, services, and docs (G+) Copilot deg0055@algonquinli... FEB12 LABS

Home > feb12 lab5 | Overview ...

Overview

+ Add Manage tenants What's new Preview features Got feedback? Multifactor authentication required

Microsoft Entra has a simpler, integrated experience for managing all your Identity and Access Management needs. Try the new Microsoft Entra admin center!

Overview Monitoring Properties Recommendations Setup guides

Search your tenant

Basic information

Name	feb12 lab5	Users	1
Tenant ID	d40aefcc-29e0-41b6-8029-881122b5b536	Groups	0
Primary domain	feb12lab5.onmicrosoft.com	Applications	0
License	Microsoft Entra ID Free	Devices	0

Alerts

MSOnline PowerShell Retirement Please migrate from any use of MSOnline PowerShell. This module is deprecated and will retire in April 2025. Temporary outages for MSOnline PowerShell will occur between January and March 2025. [Learn more](#)

Migrate to the converged Authentication methods policy Please migrate your authentication methods off the legacy MFA and SSPR policies by September 2025 to avoid any service impact. [Learn more](#)

Show portal menu

https://portal.azure.com/#

Microsoft Azure

Home > feb12 lab5

feb12 lab5 | User settings

Overview Refresh Got feedback?

Default user role permissions

Learn more

Users can register applications Yes No

Restrict non-admin users from creating tenants No Yes

Users can create security groups Yes No

Guest user access

Learn more

Guest user access restrictions Guest users have the same access as members (most inclusive) Guest users have limited access to properties and memberships of directory objects Guest user access is restricted to properties and memberships of their own directory objects (most restrictive)

Administration center

Learn more

Restrict access to Microsoft Entra admin center No Yes

LinkedIn account connections

Learn more

Allow users to connect their work or school account with LinkedIn Yes Selected group No

Show keep user signed in

Manage external collaboration settings

User features

Manage user feature settings

External users

Properties Security Monitoring Troubleshooting + Support

Save Cancel

Microsoft Azure

Home > feb12 lab5 | Users > Users

Romeo De Guzman II

User

Search Edit properties Delete Refresh Reset password Revoke sessions Manage view Got feedback?

Overview Monitoring Properties

Basic info

Romeo De Guzman II
degu0055.algonquinlive.com#EXT#@feb12lab5.onmicrosoft.com
Member

User principal name: degu0055.algonquinlive.com#EXT#@feb12lab5.onmicrosoft.com

Object ID: 19bd5fc7-d5e1-4621-91e1-6d874959de8c

Created date time: Feb 12, 2023, 4:46 PM

User type: Member

Identities: ExternalAzureAD

Group memberships: 0

Applications: 0

Assigned roles: 1

Assigned licenses: 0

My Feed

Account status: Enabled

B2B invitation

Convert to external user

B2B collaboration

Current user is external

Convert to internal user

Quick actions

Edit properties

Microsoft Azure

Home > feb12 lab5 | Users > Users >

Create new user

Create a new internal user in your organization

Basics Properties Assignments Review + create

Create a new user in your organization. This user will have a user name like alice@contoso.com. [Learn more](#)

Identity

User principal name * @ [Domain not listed? Learn more](#)

Mail nickname * Derive from user principal name

Display name *

Password * [Auto-generate password](#)

Account enabled

Review + create [Next: Properties >](#)

Microsoft Azure

Home > feb12 lab5 | Users > Users >

Create new user

Create a new internal user in your organization

Basics Properties Assignments Review + create

Identity

First name

Last name

User type

Authorization info [Edit Certificate user IDs](#)

Job Information

Job title

Company name

Department

Employee ID

Employee type

Employee hire date

Office location [+ Add manager](#)

Manager [+ Add manager](#)

Contact Information

Street address

City

State or province

ZIP or postal code

Country or region

Business phone

Mobile phone

Email

Other emails [+ Add or edit other emails](#)

Fax number

Parental controls

Age group

Consent provided for minor

Settings

Usage location

Review + create [Next: Properties >](#)

Microsoft Azure

Home > feb12 lab5 | Users > Users >

Create new user

Create a new internal user in your organization

Basics Properties Assignments Review + create

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

8912user1

User

Edit properties Delete Refresh Reset password Revoke sessions Manage view Got feedback?

Overview Monitoring Properties

Basic info

8912user1 8912user1@feb12lab5.onmicrosoft.com Member

User principal name: 8912user1@feb12lab5.onmicrosoft.com

Object ID: 03373e33-bd42-43cb-8a6a-1666896ba79d

Created date time: Feb 12, 2025, 4:56 PM

User type: Member

Identities: feb12lab5.onmicrosoft.com

Group memberships: 0

Applications: 0

Assigned roles: 0

Assigned licenses: 0

My Feed

Account status: Enabled

B2B invitation: Convert to external user

Trash

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

8912user1

Home > 8912user1

Properties

Refresh Got feedback?

All Identity Job Information Contact Information Parental controls Settings On-premises

This view only contains properties that can be updated. [Learn more](#)

Search "Job Information" ...

Showing 9 results under "Job Information"

Job title: IT Administrator

Company name:

Department: IT

Employee ID:

Employee type:

Employee hire date:

Office location:

Manager: + Add manager

Sponsors: + Add sponsors

Save Cancel

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

Home > Users

All users

Create new user

Invite external user

User principal name	User type	On-premises sync	Identities	Company name	Creation type
8912user1@feb12lab5.onmicrosoft.com	Member	No	feb12lab5.onmicrosoft.com		
degu0055@feb12lab5.onmicrosoft.com	Member	No	ExternalAzureAD		

Audit logs

Sign-in logs

Diagnose and solve problems

Deleted users

Password reset

User settings

Bulk operation results

New support request

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

Home > Users

Invite external user

Invite an external user to collaborate with your organization

Basics Properties Assignments Review + invite

Invite a new guest user to collaborate with your organization. The user will be emailed an invitation they can accept in order to begin collaborating. [Learn more](#)

Identity

Email

Display name

Invitation message

Send invite message

Message

Cc recipient

Invite redirect URL

Review + invite < Previous Next: Properties > Give feedback

Microsoft Azure

Home > Users > Invite external user

Invite an external user to collaborate with your organization

Basics Properties Assignments Review + invite

Identity

First name: Romeo
Last name: De Guzman
User type: Guest

Authorization info: + Edit Certificate user IDs

Job Information

Job title: IT Administrator
Company name:
Department: IT
Employee ID:
Employee type:
Employee hire date:
Office location:
Manager: + Add manager
Sponsors: + Add sponsors

Contact Information

Street address:
City:
State or province:
ZIP or postal code:
Country or region:

Review + invite < Previous Next: Assignments > 

Microsoft Azure

Home > Users > Invite external user

Invite an external user to collaborate with your organization

Basics Properties Assignments Review + invite

Basics

Email: rarrdeguzman@gmail.com
Display name: Romeo-Gmail
Send invite message: Yes
Message: Welcome to Azure and our group project
Cc recipient:
Invite redirect URL: <https://myapplications.microsoft.com/?tenantid=d40aefcc-29e0-41b6-8029-881122b5b536>

Properties

First name: Romeo
Last name: De Guzman
User type: Guest
Job title: IT Administrator
Department: IT
Usage location: Canada

Assignments

Invite < Previous Next > 

feb12 lab5 invited you to access applications within their organization ➤



Microsoft Invitations on behalf of feb12 lab5 <MSSecurity-noreply@microsoft.com>
to me ▾

17:40 (1 minute ago)



ⓘ Please only act on this email if you trust the organization represented below. In rare cases, individuals may receive fraudulent invitations from bad actors posing as legitimate companies. If you were not expecting this invitation, proceed with caution.

Organization: feb12 lab5
Domain: feb12lab5.onmicrosoft.com

This message was provided by the sender and is not from Microsoft Corporation.



Message from
feb12 lab5:

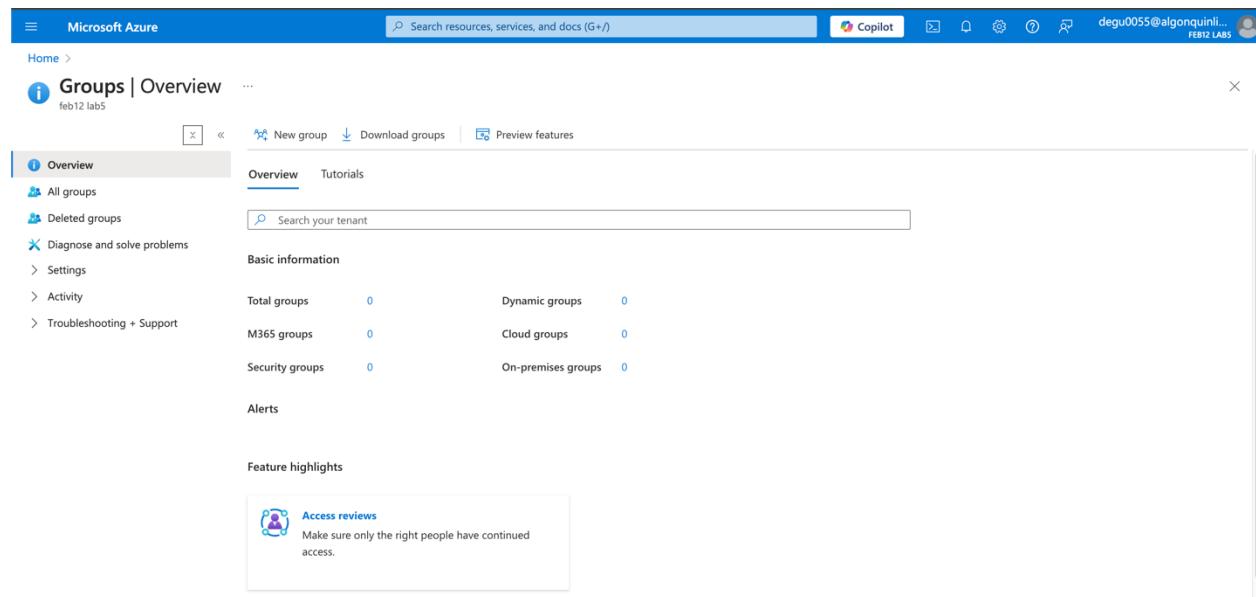
" Welcome to Azure and our group project "

If you accept this invitation, you'll be sent to <https://myapplications.microsoft.com/?tenantid=d40aefcc-29e0-41b6-8029-881122b5b536>.

[Accept invitation](#)

This invitation email is from feb12 lab5 (feb12lab5.onmicrosoft.com) and may include advertising content. feb12 lab5 has not provided a link to their privacy statement for you to review. Microsoft Corporation facilitated sending

Task 2: Create Groups and Add Members



The screenshot shows the Microsoft Azure Groups Overview page. The left sidebar contains navigation links: Home, Groups | Overview (selected), All groups, Deleted groups, Diagnose and solve problems, Settings (expanded), Activity, Troubleshooting + Support. The main content area displays basic information: Total groups (0), Dynamic groups (0), M365 groups (0), Cloud groups (0), Security groups (0), On-premises groups (0). Below this is an 'Access reviews' feature highlight: 'Make sure only the right people have continued access.' At the bottom are 'Quick actions' and a 'WhatsApp' button.

Groups | Overview

Overview Tutorials

Search your tenant

Basic information

Total groups	Dynamic groups
0	0

M365 groups	Cloud groups
0	0

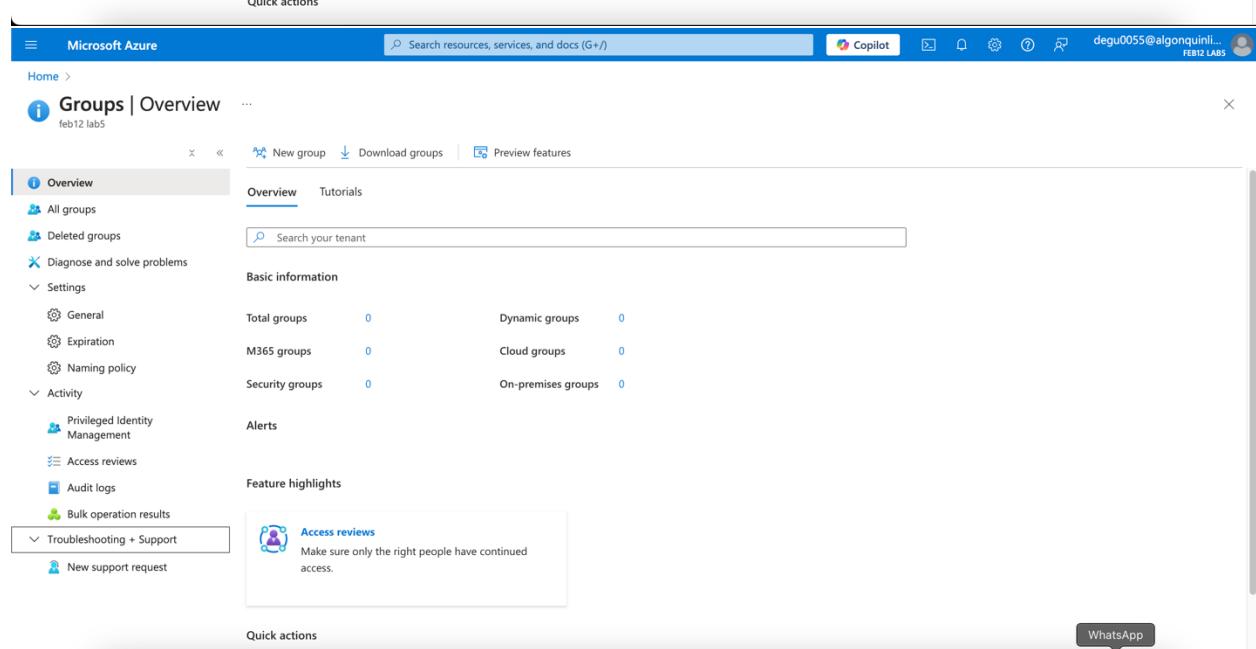
Security groups	On-premises groups
0	0

Access reviews

Make sure only the right people have continued access.

Quick actions

WhatsApp



The screenshot shows the Microsoft Azure Groups Overview page with expanded sections in the left sidebar: Settings (General, Expiration, Naming policy), Activity (Privileged Identity Management, Access reviews, Audit logs, Bulk operation results), and Troubleshooting + Support (New support request). The main content area remains the same as the first screenshot, displaying basic information and the 'Access reviews' feature highlight.

Groups | Overview

Overview Tutorials

Search your tenant

Basic information

Total groups	Dynamic groups
0	0

M365 groups	Cloud groups
0	0

Security groups	On-premises groups
0	0

Access reviews

Make sure only the right people have continued access.

Quick actions

Microsoft Azure

Home > Groups

Groups | Expiration

feb12 lab5

Save Discard Got feedback?

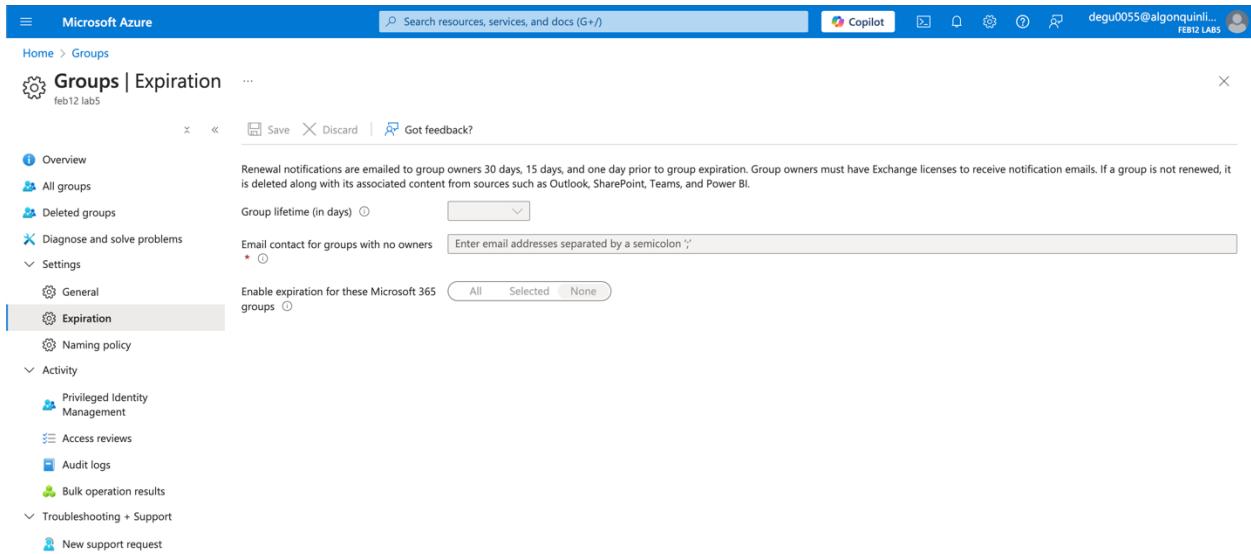
Overview All groups Deleted groups Diagnose and solve problems Settings General Expiration Naming policy Activity Privileged Identity Management Access reviews Audit logs Bulk operation results Troubleshooting + Support New support request

Renewal notifications are emailed to group owners 30 days, 15 days, and one day prior to group expiration. Group owners must have Exchange licenses to receive notification emails. If a group is not renewed, it is deleted along with its associated content from sources such as Outlook, SharePoint, Teams, and Power BI.

Group lifetime (in days):

Email contact for groups with no owners: Enter email addresses separated by a semicolon ;*

Enable expiration for these Microsoft 365 groups: All Selected None



Microsoft Azure

Home > Groups

Groups | Naming policy

feb12 lab5

Save Discard Delete policy Got feedback?

Overview All groups Deleted groups Diagnose and solve problems Settings General Expiration Naming policy Activity Privileged Identity Management Access reviews Audit logs Bulk operation results Troubleshooting + Support New support request

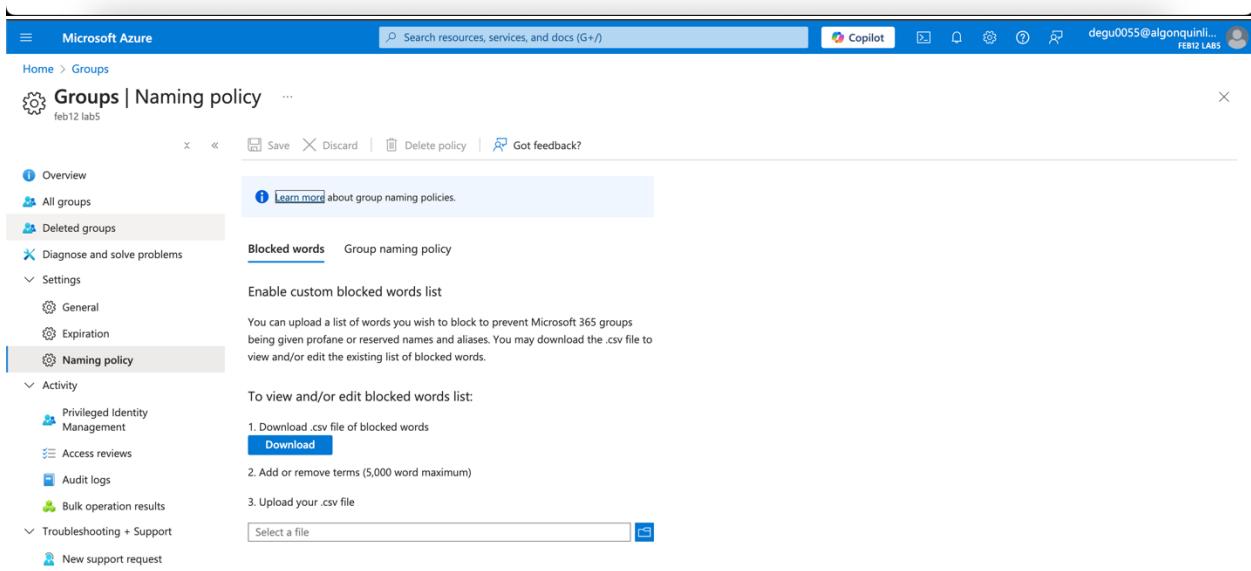
Blocked words Group naming policy

Enable custom blocked words list

You can upload a list of words you wish to block to prevent Microsoft 365 groups being given profane or reserved names and aliases. You may download the .csv file to view and/or edit the existing list of blocked words.

To view and/or edit blocked words list:

1. Download .csv file of blocked words [Download](#)
2. Add or remove terms (5,000 word maximum)
3. Upload your .csv file



https://portal.azure.com/#view/Microsoft_AAD_IAM/GroupsManagementMenuBlade/-/DeletedGroups

Microsoft Azure

Home > Groups | All groups >

New Group

Got feedback?

Group type * Security Other

Group name * ✓

Group description ✓

Membership type Assigned Delegated

Owners

No owners selected

Members

No members selected

[Create](#)

Search resources, services, and docs (G+)

Copilot

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Microsoft Azure

Home > Groups | All groups >

New Group

Got feedback?

Group type * Security Other

Group name * ✓

Group description ✓

Membership type Assigned Delegated

Owners

1 owner selected

Members

No members selected

[Create](#)

Add owners

Try changing or adding filters if you don't see what you're looking for.

Search Reset

3 results found

All Users

	Name	Type	Details
<input type="checkbox"/>	8912user1	User	8912user1@feb12lab5.onmicrosoft.com
<input type="checkbox"/>	Romeo De Guzman II	User	degul0055@feb12lab5.onmicrosoft.com
<input type="checkbox"/>	Romeo-Gmail	User	rarrdeguzman@gmail.com

Owners (0) Reset

No owners selected

[Select](#)

Search resources, services, and docs (G+)

Copilot

degul0055@algonquini... FEB12 LABS

Microsoft Azure

Home > Groups | All groups >

New Group

Got feedback?

Group type * Security

Group name * IT Administrator

Group description Administrators that manage the IT lab

Membership type Assigned

Owners 1 owner selected

Members No members selected

Create

Search Try changing or adding filters if you don't see what you're looking for.

3 results found

All Users

	Name	Type	Details
<input type="checkbox"/>	8912user1	User	8912user1@feb12lab5.onmicrosoft.com
<input checked="" type="checkbox"/>	Romeo De Guzman II	User	degu055@feb12lab5.onmicrosoft.com
<input type="checkbox"/>	Romeo-Gmail	User	rarrdeguzman@gmail.com

Select

Owners (1)

Romeo De Guzman II

Reset

Microsoft Azure

Home > Groups | All groups >

New Group

Got feedback?

Group type * Security

Group name * IT Administrator

Group description Administrators that manage the IT lab

Membership type Assigned

Owners 1 owner selected

Members No members selected

Create

Search Try changing or adding filters if you don't see what you're looking for.

31 results found

All Users Groups Devices Enterprise applications

	Name	Type	Details
<input type="checkbox"/>	8912user1	User	8912user1@feb12lab5.onmicrosoft.com
<input type="checkbox"/>	AAD Request Verification Service...	Enterprise application	c728155f-7b2a-4502-a08b-b8af9b269319
<input type="checkbox"/>	Romeo De Guzman II	User	degu055@feb12lab5.onmicrosoft.com
<input type="checkbox"/>	AADReporting	Enterprise application	1b912ec3-a9dd-4c4d-a53e-76aa7adb28d7
<input type="checkbox"/>	Romeo-Gmail	User	rarrdeguzman@gmail.com
<input type="checkbox"/>	Azure AD Notification	Enterprise application	fc03f97a-9db0-4627-a216-ec98ce54e018
<input type="checkbox"/>	Azure Credential Configuration E...	Enterprise application	ea890292-c8c8-4433-b5ea-b09d0668e1a6
<input type="checkbox"/>	Azure ESTS Service	Enterprise application	00000001-0000-0000-c000-000000000000

Select

Selected (0)

Reset

No items selected

Microsoft Azure

Home > Groups | All groups >

New Group

Got feedback?

Group type * Security

Group name * IT Administrator

Group description Administrators that manage the IT lab

Membership type Assigned

Owners
 1 owner selected

Members
 No members selected

[Create](#)

Search Try changing or adding filters if you don't see what you're looking for.

31 results found

All Users Groups Devices Enterprise applications

Name	Type	Details
8912user1	User	8912user1@feb12lab5.onmicrosoft.com
AAD Request Verification Service...	Enterprise ap...	c728155f-7b2a-4502-a08b-b8af9b269319
Romeo De Guzman II	User	degu0055@feb12lab5.onmicrosoft.com
AADReporting	Enterprise ap...	1b912ec3-a9dd-4c4d-a53e-76aa7adb28d7
<input checked="" type="checkbox"/> Romeo-Gmail	User	rarrdeguzman@gmail.com
Azure AD Notification	Enterprise ap...	fc03f97a-9db0-4627-a216-ec98ce54e018
Azure Credential Configuration E...	Enterprise ap...	ea890292-c8c8-4433-b5ea-b09d0668e1a6
Azure ESTS Service	Enterprise ap...	00000001-0000-0000-c000-000000000000

[Select](#)

Selected (2)

8912user1
8912user1@feb12lab5.onmicrosoft.com

Romeo-Gmail
rarrdeguzman@gmail.com

Microsoft Azure

Show portal menu [All groups](#) >

New Group

Got feedback?

Group type * Security

Group name * IT Administrator

Group description Administrators that manage the IT lab

Membership type Assigned

Owners
 1 owner selected

Members
 2 members selected

[Create](#)

https://portal.azure.com/#

Microsoft Azure

Home > Groups | All groups > IT Administrator

IT Administrator Group

Overview

Diagnose and solve problems

Manage

- Properties
- Members
- Owners
- Roles and administrators
- Administrative units
- Group memberships
- Applications
- Licenses
- Azure role assignments

Activity

- Privileged Identity Management
- Access reviews
- Audit logs
- Bulk operation results

Troubleshooting + Support

Delete | Got feedback?

IT Administrator Administrators that manage the IT lab

Basic information

Membership type	Assigned	Total direct members	2
Source	Cloud	User(s)	2
Type	Security	Group(s)	0
Object ID	147a3fa7-a703-4386-8b45-4dcff895d07b	Device(s)	0
Created on	2/12/2025, 7:11 PM	Other(s)	0

Feed

Group memberships: 0 [View group memberships](#)

Owners: 1 [View group owners](#)

Total members: 2 [View group members](#)

Messenger

Microsoft Azure

Home > Groups | All groups > IT Administrator

IT Administrator Group

Overview

Diagnose and solve problems

Manage

- Properties
- Members**
- Owners
- Roles and administrators
- Administrative units
- Group memberships
- Applications
- Licenses
- Azure role assignments

Activity

- Privileged Identity Management
- Access reviews
- Audit logs
- Bulk operation results

Troubleshooting + Support

+ Add members | Bulk operations | Refresh | Manage view | Remove | Got feedback?

Direct members All members

Search | Add filter

2 group members found

	Name	Type	Email	User type	Object Id	Device
<input type="checkbox"/>	8912user1	User		Member	03373e33-bd42-43cb-8a6a-1666896ba79d	
<input type="checkbox"/>	Romeo-Gmail	User	rarrdeguzman@gmail.com	Guest	841ffdf4-59db-4d5c-b94c-0c0e217bd4e2	

https://portal.azure.com/#view/Microsoft_AAD_IAM/GroupDetailsMenuBlade/-/Members/groupid/147a3fa7-a703-4386-8b45-4dcff895d07b/menuId/

Microsoft Azure

Home > Groups | All groups > IT Administrator

IT Administrator | Owners

Group

Add owners Refresh Manage view Remove Got feedback?

Overview Diagnose and solve problems

Manage

Properties Members Owners

Roles and administrators Administrative units Group memberships Applications Licenses Azure role assignments

Activity

Privileged Identity Management Access reviews Audit logs Bulk operation results

Troubleshooting + Support

Search Add filter

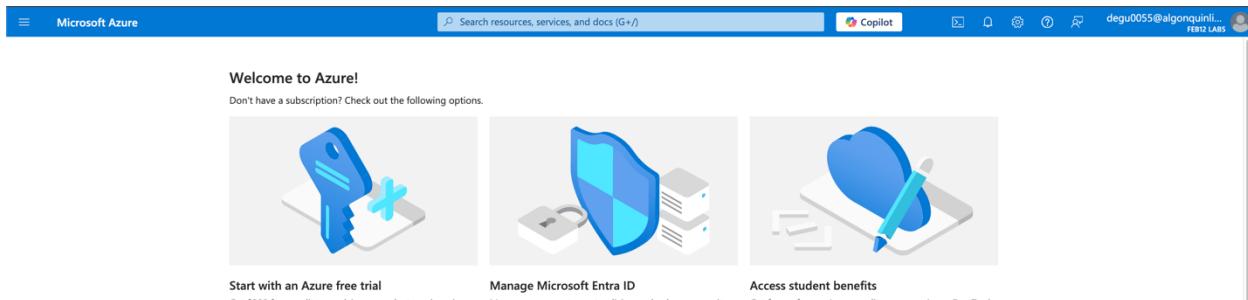
1 group owner found

Name	Type	Email	User type	Object Id
RD Romeo De Guzman II	User		Member	19bd5fc7-d5e1-4621-91e1-6d874959de8c

Show portal menu

<https://portal.azure.com/#>

Task 3: Implement Management Groups



Welcome to Azure!

Don't have a subscription? Check out the following options.

Start with an Azure free trial
Get \$200 free credit toward Azure products and services, plus 12 months of popular free services.

View **Start**

Manage Microsoft Entra ID
Manage access, set smart policies, and enhance security with Microsoft Entra ID.

View **Learn more**

Access student benefits
Get free software, Azure credit, or access Azure Dev Tools for Teaching after you verify your academic status.

Explore **Learn more**

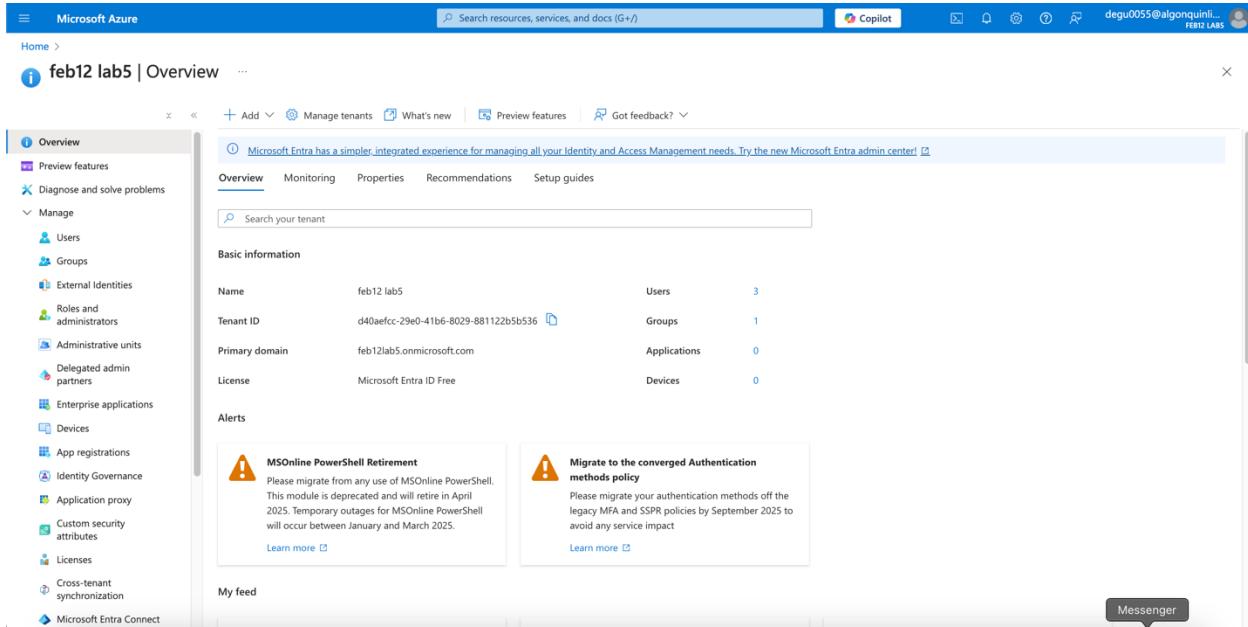
Azure services

Create a resource Microsoft Entra ID Groups Subscriptions All resources Quickstart Center Azure AI services Kubernetes services Virtual machines **More services**

Resources

Recent Favorite

Name Type Last Viewed



feb12 lab5 | Overview

Overview Add Manage tenants What's new Preview features Got feedback?

Microsoft Entra has a simpler, integrated experience for managing all your Identity and Access Management needs. Try the new Microsoft Entra admin center!

Overview Monitoring Properties Recommendations Setup guides

Search your tenant

Basic information

Name	feb12 lab5	Users	3
Tenant ID	d40aefcc-29e0-41b6-8029-881122b5b536	Groups	1
Primary domain	feb12lab5.onmicrosoft.com	Applications	0
License	Microsoft Entra ID Free	Devices	0

Alerts

MSOnline PowerShell Retirement
Please migrate from any use of MSOnline PowerShell. This module is deprecated and will retire in April 2025. Temporary outages for MSOnline PowerShell will occur between January and March 2025.

[Learn more](#)

Migrate to the converged Authentication methods policy
Please migrate your authentication methods off the legacy MFA and SSPR policies by September 2025 to avoid any service impact.

[Learn more](#)

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feb12 lab5 | Properties

Name: feb12 lab5

Country or region: Canada

Data location: United States datacenters

Notification language: English

Tenant ID: d40aefcc-29e0-41b6-8029-881122b5b536

Technical contact: degu0055@algonquinlive.com

Global privacy contact: []

Privacy statement URL: []

Access management for Azure resources

Romeo De Guzman II (deguy0055@algonquinlive.com) can manage access to all Azure subscriptions and management groups in this tenant.

Learn more [\[\]](#)

No

Security defaults

Security defaults are basic identity security mechanisms recommended by Microsoft. When enabled, these recommendations will be automatically enforced in your organization. Administrators and users will be better protected from common identity-related attacks.

Learn more [\[\]](#)

Your organization is protected by security defaults.

Manage security defaults

Save Discard Show portal menu

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Management groups

feb12 lab5

Search

Overview

Get started

Settings

Use management groups to group subscriptions. Click on an existing group to drill in, view details and govern resources. Right-click on any subscription or management group to launch quick actions. Click the "Get Started" tab to learn more.

You are registered as a directory admin but do not have the necessary permissions to access the root management group. [Click here for more info.](#)

No management groups to display

Organize your subscriptions into groups called "management groups" to help you manage access, policy and compliance across your subscriptions. Management groups give you enterprise-grade management at a large scale no matter what type of subscriptions you might have. [Learn more](#)

Start using management groups

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FE012 LABS

Home > Management groups

feb12 lab5

Search

Management group ID (Cannot be updated after creation) *

8912-mg1

Management group display name

8912-mg1

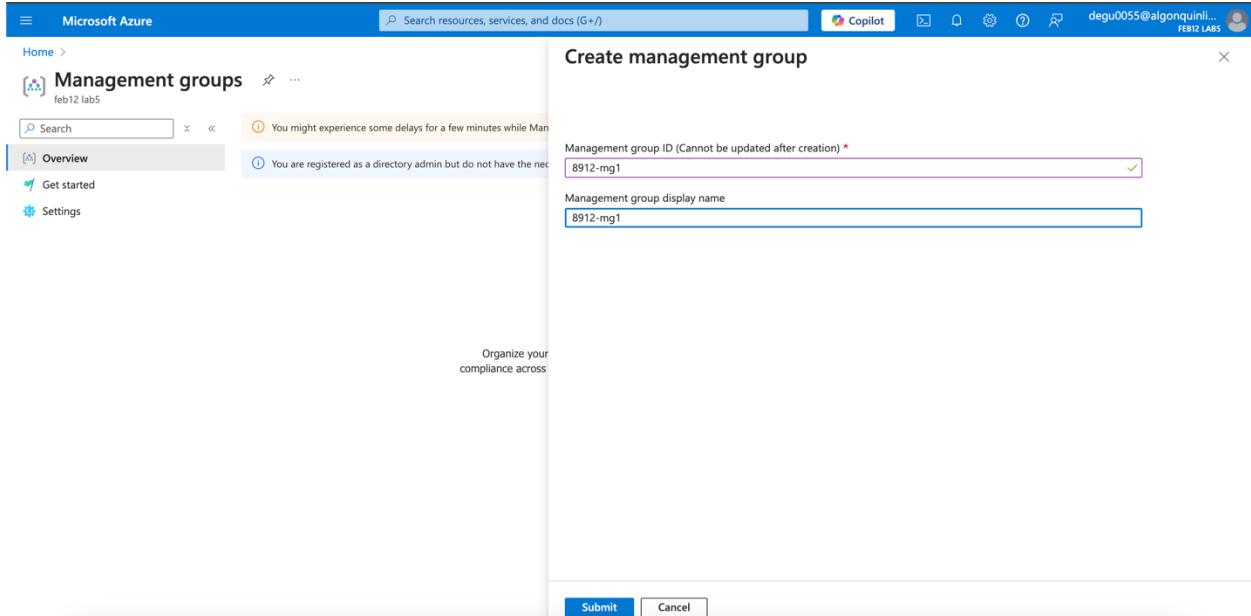
Submit Cancel

Overview

Get started

Settings

Organize your compliance across



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FE012 LABS

Home > Management groups

feb12 lab5

Search

+ Create + Add subscription ⏪ Refresh ⏪ Expand / Collapse all ⏪ Export to CSV ⏪ Feedback

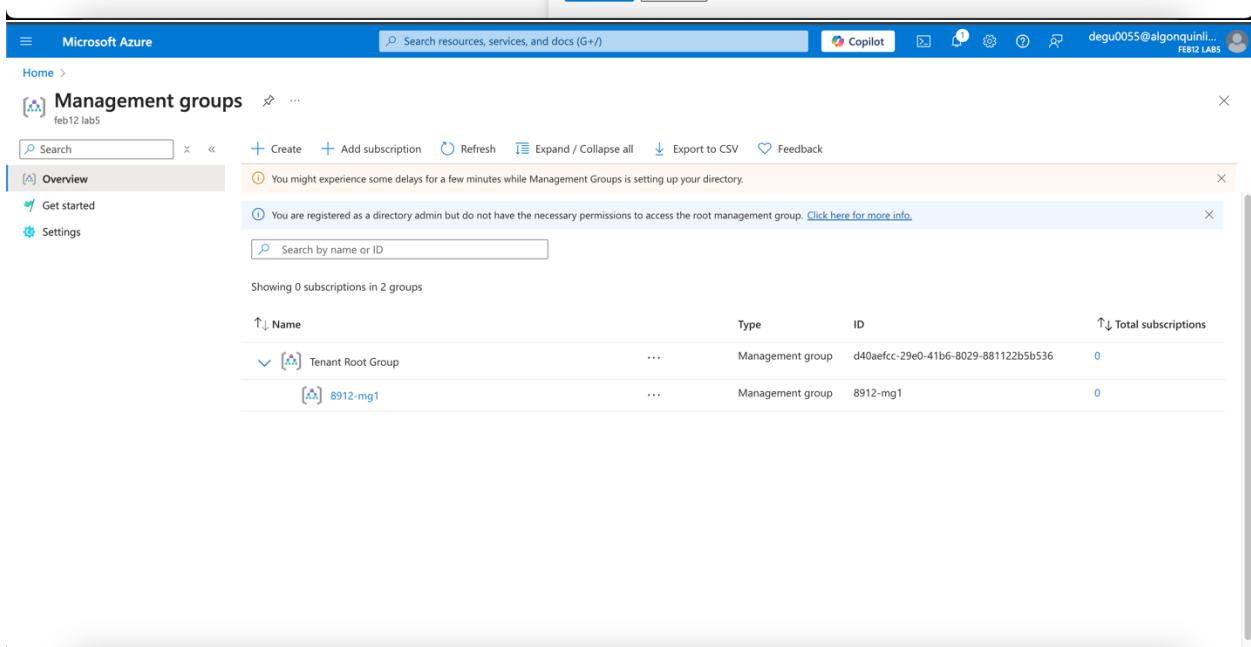
You might experience some delays for a few minutes while Management Groups is setting up your directory.

You are registered as a directory admin but do not have the necessary permissions to access the root management group. [Click here for more info.](#)

Search by name or ID

Showing 0 subscriptions in 2 groups

Name	Type	ID	Total subscriptions
Tenant Root Group	Management group	d40aefcc-29e0-41b6-8029-881122b5b536	0
8912-mg1	Management group	8912-mg1	0



Task 4: Assign an Azure Role

Screenshot 1: Azure Management Groups Overview

The screenshot shows the Azure Management Groups overview for the management group '8912-mg1'. The 'Overview' tab is selected. Key details shown include:

- Name:** 8912-mg1
- ID:** 8912-mg1
- Access Level:** Owner
- Path:** Tenant Root Group / 8912-mg1
- Parent management group:** Tenant Root Group
- Child management groups:** 0
- Total subscriptions:** 0

The 'Subscriptions' section shows 0 subscriptions in 1 group. The 'Activity Log' and 'Access control (IAM)' sections are also visible.

Screenshot 2: Azure Management Groups Access Control (IAM)

The screenshot shows the 'Access control (IAM)' section for the management group '8912-mg1'. The 'Roles' tab is selected. Key details shown include:

- Check access:** Role assignments
- Role definition description:** A role definition is a collection of permissions. You can use the built-in roles or you can create your own custom roles. [Learn more](#)
- Discover, monitor and remediate unused permissions in your Azure environment with Microsoft Entra Permissions Management.**

The 'Roles' table lists built-in roles:

Name	Description	Type	Category	Details
Owner	Grants full access to manage all resources, including the ability to assign roles in A...	BuiltInRole	General	View ...
Contributor	Grants full access to manage all resources, but does not allow you to assign roles i...	BuiltInRole	General	View ...
Reader	View all resources, but does not allow you to make any changes.	BuiltInRole	General	View ...
Access Review Operator Service...	Lets you grant Access Review System app permissions to discover and revoke acce...	BuiltInRole	None	View ...
AcrDelete	acr delete	BuiltInRole	Containers	View ...
AcrImageSigner	acr image signer	BuiltInRole	Containers	View ...
AcrPull	acr pull	BuiltInRole	Containers	View ...
AcrPush	acr push	BuiltInRole	Containers	Messenger ...

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8912-mg1 | Access control (IAM)

Management group

Owner

BuiltInRole

Permissions JSON Assignments

Description: Grants full access to manage all resources, including the ability to assign roles in Azure RBAC.

Type: All

Permission Type: Actions

Showing 500 of 17910 permissions [View all](#) (will take a moment to load)

Type	Permissions	Description
Other	Subscription Registration Action	Subscription Registration Action
Other	Unregister Domain Service	Unregister Domain Service
Other	Register Domain Service	Register Domain Service
Read	--	--
Read	--	--
Read	Read Domain Service	Read Domain Services
Write	Write Domain Service	Write Domain Service
Delete	Delete Domain Service	Delete Domain Service
Read	Get the network endpoints of all outbound dependencies	Get the network endpoints of all outbound dependencies
Read	Read diagnostic setting for Domain Service	Gets the diagnostic setting for Domain Service

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Home > Management groups > 8912-mg1

8912-mg1 | Access control (IAM)

Management group

Owner

BuiltInRole

Permissions JSON Assignments

```
1 {
2   "id": "/providers/Microsoft.Authorization/roleDefinitions/8e3af657-a8ff-443c-a75c-2fe8c4bcb635",
3   "properties": {
4     "roleName": "Owner",
5     "description": "Grants full access to manage all resources, including the ability to assign roles in Azure RBAC.",
6     "assignableScopes": [
7       "/"
8     ],
9     "permissions": [
10       {
11         "actions": [
12           "#"
13         ],
14         "notActions": [],
15         "dataActions": [],
16         "notDataActions": []
17       }
18     ]
19   }
20 }
```

soft Azure

Home > Management groups > 8912-mg1

8912-mg1 | Access control (IAM)

Management group

Owner

BuiltInRole

Permissions JSON Assignments

+ Add assignment

Name	Type	Scope	Remove
Romeo De Guzman II degu0055@feb12lab5.onmicrosoft.com	User	This resource	

Search assignments by name

RD

All Job function roles

Permissions

Name ↑

Owner

Contributor

Reader

Access Reviewer

AcrDelete

AcrImageSigner

AcrPull

AcrPush

AcrQuarantineReader

AcrQuarantineWriter

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Home > Management groups > 8912-mg1 | Access control (IAM)

Add role assignment

Role * Members * Conditions Review + assign

A role definition is a collection of permissions. You can use the built-in roles or you can create your own custom roles. [Learn more](#)

Job function roles **Privileged administrator roles**

Grant access to Azure resources based on job function, such as the ability to create virtual machines.

Search by role name, description, permission, or ID

Type : All Category : All

Name ↑↓	Description ↑↓	Type ↑↓	Category ↑↓	Details
Reader	View all resources, but does not allow you to make any changes.	BuiltInRole	General	View
AcrDelete	acr delete	BuiltInRole	Containers	View
AcrImageSigner	acr image signer	BuiltInRole	Containers	View
AcrPull	acr pull	BuiltInRole	Containers	View
AcrPush	acr push	BuiltInRole	Containers	View
AcrQuarantineReader	acr quarantine data reader	BuiltInRole	Containers	View
AcrQuarantineWriter	acr quarantine data writer	BuiltInRole	Containers	View
Advisor Recommendations Contributor (Assess...	View assessment recommendations, accepted review recommendations, and manage the recommendations lifecycle (ma...	BuiltInRole	None	View
Advisor Reviews Contributor	View reviews for a workload and triage recommendations linked to them.	BuiltInRole	None	View

Review + assign Previous Next

Trash Feedback

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Home > Management groups > 8912-mg1 | Access control (IAM) > Add role assignment ...

Grant access to Azure resources based on job function, such as the ability to create virtual machines.

Virtual Machine Type: All Category: All

Name ↑	Description ↑↓	Type ↑↓	Category ↑↓	Details
Azure Stack HCI Connected InfraVMs	Role of Arc Integration for Azure Stack HCI Infrastructure Virtual Machines.	BuiltinRole	None	View
Classic Virtual Machine Contributor	Lets you manage classic virtual machines, but not access to them, and not the virtual network or storage account they're ...	BuiltinRole	Compute	View
Desktop Virtualization Power On Contributor	Provide permission to the Azure Virtual Desktop Resource Provider to start virtual machines.	BuiltinRole	None	View
Desktop Virtualization Power Off Contributor	Provide permission to the Azure Virtual Desktop Resource Provider to start and stop virtual machines.	BuiltinRole	None	View
Desktop Virtualization Virtual Machine Contrib...	This role is in preview and subject to change. Provides permission to the Azure Virtual Desktop Resource Provider to creat...	BuiltinRole	None	View
Dev/Test Labs User	Lets you connect, start, restart, and shutdown your virtual machines in your Azure Dev/Test Labs.	BuiltinRole	DevOps	View
Service Fabric Cluster Contributor	Manage your Service Fabric Cluster resources. Includes clusters, application types, application type versions, applications,...	BuiltinRole	None	View
Virtual Machine Administrator Login	View Virtual Machines in the portal and login as administrator	BuiltinRole	Compute	View
Virtual Machine Contributor	Lets you manage virtual machines, but not access to them, and not the virtual network or storage account they're conne...	BuiltinRole	Compute	View
Virtual Machine Data Access Administrator (pre...)	Manage access to Virtual Machines by adding or removing role assignments for the Virtual Machine Administrator Login...	BuiltinRole	None	View
Virtual Machine Local User Login	View Virtual Machines in the portal and login as a local user configured on the arc server	BuiltinRole	None	View
Virtual Machine User Login	View Virtual Machines in the portal and login as a regular user.	BuiltinRole	Compute	View

Showing 1 - 12 of 12 results.

[Review + assign](#) [Previous](#) [Next](#) [Feedback](#)

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Home > Management groups > 8912-mg1 | Access control (IAM) > Add role assignment ...

Add role assignment ...

Role Members * Conditions Review + assign

Selected role: Virtual Machine Contributor

Assign access to: User, group, or service principal Managed identity

Members: [+ Select members](#)

Name	Object ID	Type
No members selected		

Description:

[Review + assign](#) [Previous](#) [Next](#) [WhatsApp](#) [Feedback](#)

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Add role assignment

Role **Members*** Conditions Review + assign

Selected role Virtual Machine Contributor

Assign access to User, group, or service principal Managed identity

Members + Select members

Name	Object ID	Type
No members selected		

Description Optional

Review + assign Previous Next

Select members

Search by name or email address

8912user1	8912user1@feb12lab5.onmicrosoft.com
IT Administrator	Administrators that manage the IT lab
IA	Romeo De Guzman II
RD	degu0055@feb12lab5.onmicrosoft.com
Romeo-Gmail(Guest)	romeo-deguzman@gmail.com

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 Trash

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Home > 8912-mg1 | Access control (IAM) >

Add role assignment

Role **Members*** Conditions Review + assign

Selected role Virtual Machine Contributor

Assign access to User, group, or service principal Managed identity

Members + Select members

Name	Object ID	Type
No members selected		

Description Optional

Review + assign Previous Next

Select members

Search by name or email address

8912user1	8912user1@feb12lab5.onmicrosoft.com
Help Desk	Support team responsible for IT assistance
HD	
IT Administrator	Administrators that manage the IT lab
IA	Romeo De Guzman II
RD	degu0055@feb12lab5.onmicrosoft.com
Romeo-Gmail(Guest)	romeo-deguzman@gmail.com

Selected members:

HD Help Desk Support team responsible for IT assistance

Select Close WhatsApp

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Home > 8912-mg1 | Access control (IAM) > Add role assignment

Role **Members** Conditions Review + assign

Selected role Virtual Machine Contributor

Assign access to User, group, or service principal Managed identity

Members + Select members

Name	Object ID	Type
Help Desk	3491daac-9eba-4dd0-bf72-cac53ee099...	Group

Description Optional

Review + assign Previous Next

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Home > 8912-mg1 | Access control (IAM) ...

8912-mg1 | Access control (IAM) Management group

+ Add Download role assignments Edit columns Refresh Delete Feedback

Overview Subscriptions Resource Groups Resources Activity Log Access control (IAM)

All Job function roles Privileged administrator roles

Search by role name, description, permission, or ID Type: All Category: All

Name	Description	Type	Category	Details
Owner	Grants full access to manage all resources, including the ability to assign roles in A...	BuiltInRole	General	View ...
Contributor	Grants full access to manage all resources, but does not allow you to assign roles i...	BuiltInRole	General	View ...
Reader	View all resources, but does not allow you to make any changes.	BuiltInRole	General	View ...
Access Review Operator Service...	Lets you grant Access Review System app permissions to discover and revoke acce...	BuiltInRole	None	View ...
AcrDelete	acr delete	BuiltInRole	Containers	View ...
AcrImageSigner	acr image signer	BuiltInRole	Containers	View ...
AcrPull	acr pull	BuiltInRole	Containers	View ...
AcrPush	acr push	BuiltInRole	Containers	View ...
AcrQuarantineReader	acr quarantine data reader	BuiltInRole	Containers	View ...

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Added Role assignment

Help Desk was added as Virtual Machine Contributor for 8912-mg1.

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Home > 8912-mg1

8912-mg1 | Access control (IAM)

Management group

Overview Subscriptions Resource Groups Resources Activity Log Access control (IAM)

Check access Role assignments Roles Deny assignments

Privileged 1

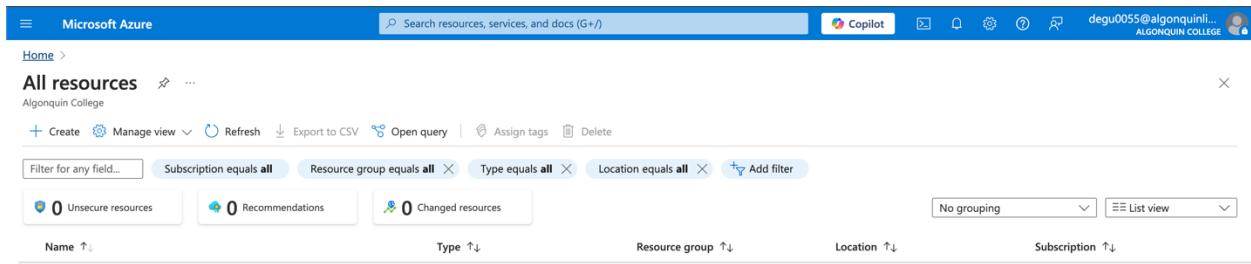
View assignments

All Job function (1) Privileged (1)

Search by name or email Type : All Role : All Scope : All scopes Group by : Role

Name	Type	Role	Scope	Condition
Owner (1)				
RD Romeo De Guzman II	User	Owner	This resource	Add
Virtual Machine Contributor (1)				
Help Desk	Group	Virtual Machine Contributor	This resource	Add

Task 5: Clean Up



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All resources

Algonquin College

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[Create](#) [Manage view](#) [Refresh](#) [Export to CSV](#) [Open query](#) [Assign tags](#) [Delete](#)

Filter for any field... Subscription equals all Resource group equals all Type equals all Location equals all Add filter

0 Unsecure resources 0 Recommendations 0 Changed resources

No grouping List view

Name ↑ Type ↑ Resource group ↑ Location ↑ Subscription ↑

No resources match your filters

Try changing or clearing your filters.

[Create resources](#) [Clear filters](#)

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Portal settings | Directories + subscriptions

Search menu

Directories + subscriptions

Default subscription filter: All subscriptions

Advanced filters

Appearance + startup views

Language + region

My information

Signing out + notifications

Directories

Switching directories will reload the portal. The directory you choose will impact the subscription, resource group, and region filters that are available in the portal. [Learn more about directories](#).

Current directory: Algonquin College

Startup directory: Last visited

Favorites: All Directories

Search

Directory name ↑	Domain ↑↓	Directory ID ↑↓
Algonquin College	Current	AlgonquinLivecom.onmicrosoft.com
		ec1bd924-0a6a-4aa9-aa89-c980316c0449

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