Microsoft Entra ID – Cloud Identity Management

Lab Overview

This lab delivers a practical demonstration of how to create and manage users and groups within Microsoft Entra ID. SOA Enterprises is a managed service provider (MSP) and technology consultancy that has recently transitioned from a fully on-premises IT environment to a hybrid identity model. The company has adopted Microsoft Entra ID for cloud-based authentication, web applications and security controls while maintaining on-premises Active Directory for internal systems. As a Tier 1 Helpdesk Technician supporting users at SOA Enterprises, some of the tasks performed will include:

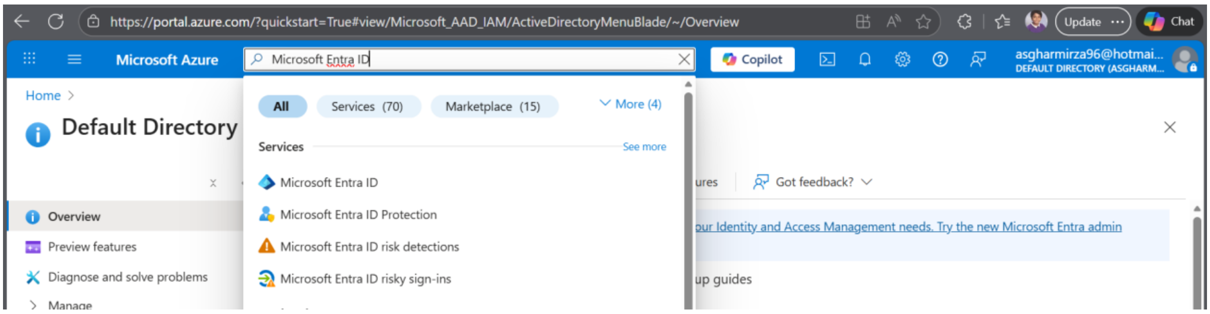
- Creating and managing users and groups
- Resetting passwords and unlocking accounts
- Assigning users to the correct groups
- Assigning Role-based Access Controls
- Assisting with multi-factor authentication (MFA)
- Registering an application
- Reviewing sign-in logs

Lab Environment Requirements

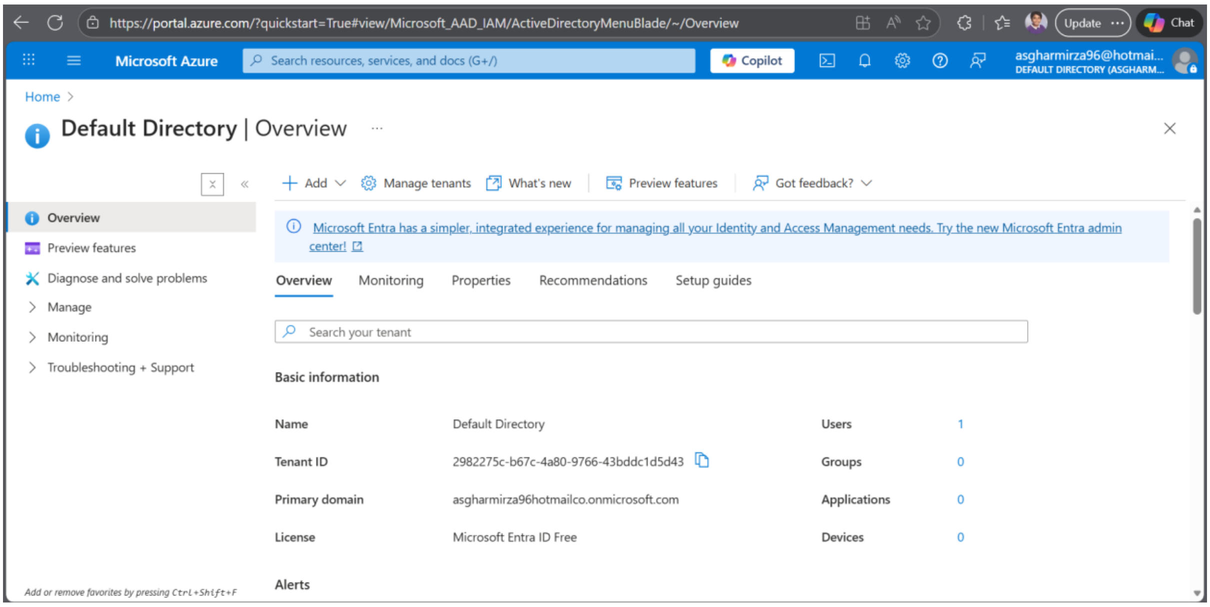
- Azure account (free tier)
- Global Administrator access (lab environment)
- Web browser
- Microsoft Entra ID tenant (Default Directory)

1. Verifying Microsoft Entra ID Directory

Step one) Login to https://portal.azure.com and enter 'Microsoft Entra ID' into the search box.


https://portal.azure.com/?quickstart=True#view/Microsoft_AAD_IAM/ActiveDirectoryMenuBlade/~/Overview
Update
Chat
Microsoft Azure
Microsoft Entra ID
Copilot
asgharmirza96@hotmai...
DEFAULT DIRECTORY (ASGHARM...
Home
Default Directory
All
Services (70)
Marketplace (15)
More (4)
Services
See more
Microsoft Entra ID
Microsoft Entra ID Protection
Microsoft Entra ID risk detections
Microsoft Entra ID risky sign-ins
Overview
Preview features
Diagnose and solve problems
Manage
ures
Got feedback?
our Identity and Access Management needs. Try the new Microsoft Entra admin
up guides

Step two) Confirm the directory name as 'Default Directory.'


https://portal.azure.com/?quickstart=True#view/Microsoft_AAD_IAM/ActiveDirectoryMenuBlade/~/Overview
Update
Chat
Microsoft Azure
Search resources, services, and docs (G+/)
Copilot
asgharmirza96@hotmai...
DEFAULT DIRECTORY (ASGHARM...
Home
Default Directory | Overview
Add
Manage tenants
What's new
Preview features
Got feedback?
Overview
Preview features
Diagnose and solve problems
Manage
Monitoring
Troubleshooting + Support
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
Alerts
Add or remove favorites by pressing Ctrl+Shift+F

Basic information

Name	Default Directory	Users	1
Tenant ID	2982275c-b67c-4a80-9766-43bddc1d5d43	Groups	0
Primary domain	asgharmirza96hotmailco.onmicrosoft.com	Applications	0
License	Microsoft Entra ID Free	Devices	0

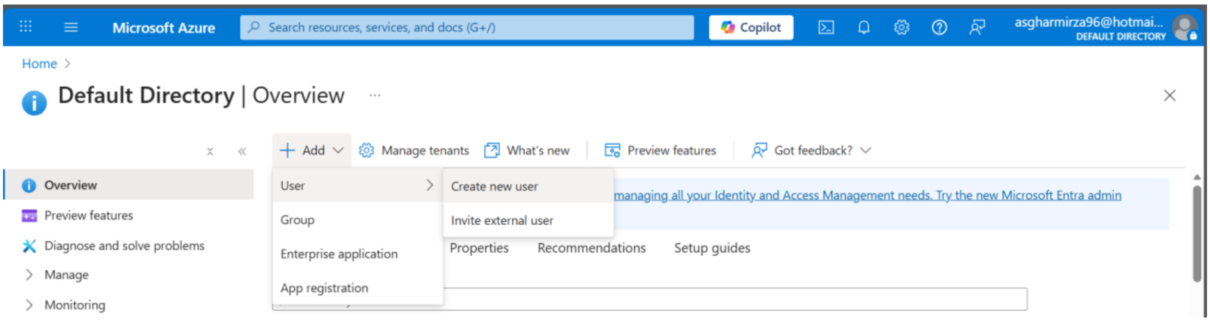
Expected Outcome:

For this demonstration, default directory in Microsoft Entra ID was used to perform cloud-based identity management.

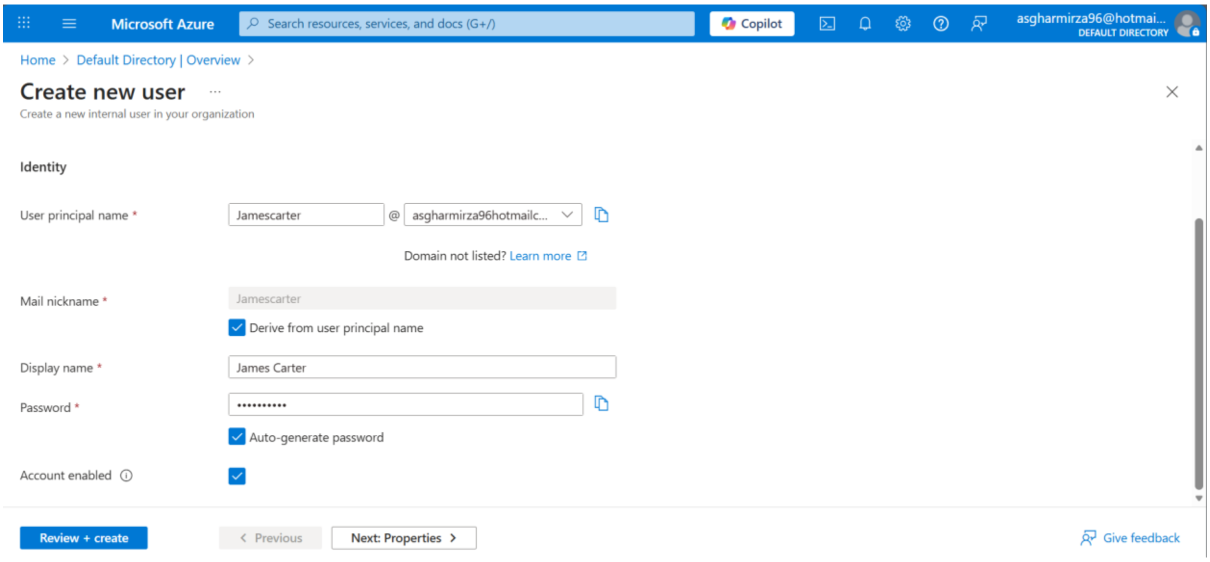
2. Creating and Managing User Accounts

A new employee, James Carter has recently joined the sales department within SOA Enterprises. This exercise will demonstrate how to create and manage user accounts as well as update user details and enforce password reset at the first login.

Step one) Navigate to the Overview page in Default Directory and click the 'Add' button. Select User > Create new user.

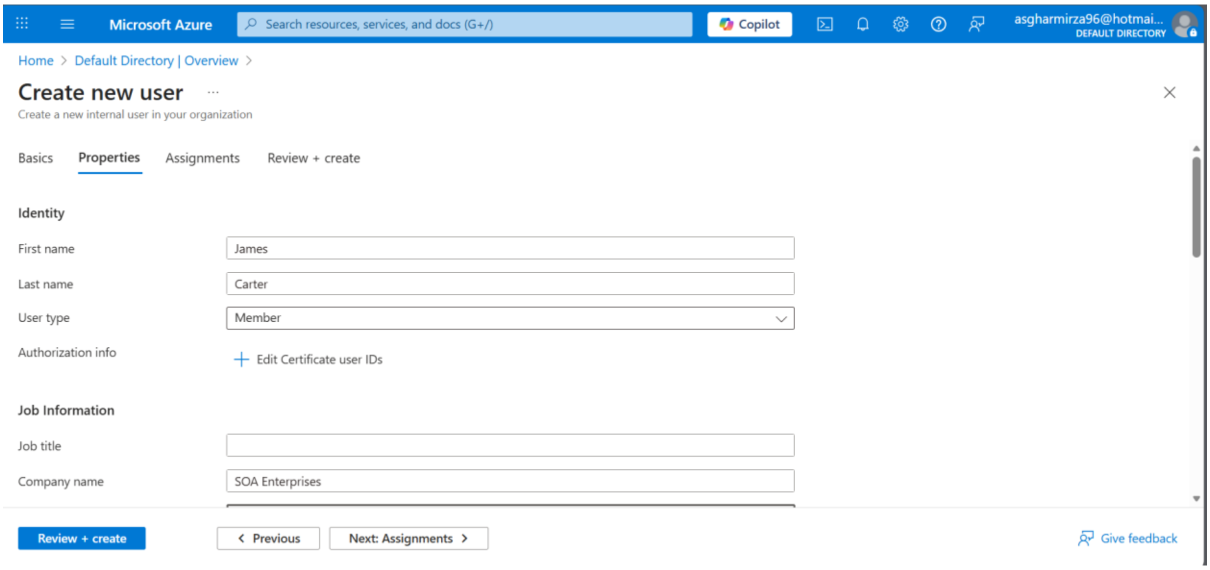


Step two) In 'Create new user' enter 'Jamescarter' in user principal name and check 'Auto-generate password' and 'Account enabled'. This ensures that the user can reset their password at the first login and their account has been enabled.


Microsoft Azure
Search resources, services, and docs (G+/)
Copilot
asgharmirza96@hotmai...
DEFAULT DIRECTORY
Home > Default Directory | Overview >
Create new user
Create a new internal user in your organization
Identity
Domain not listed? Learn more
Review + create
< Previous
Next: Properties >
Give feedback

User principal name *	Jamescarter @ asgharmirza96hotmailc...
Mail nickname *	Jamescarter ☑ Derive from user principal name
Display name *	James Carter
Password *	•••••••••• ☑ Auto-generate password
Account enabled	☑

Step three) Select the 'Properties' tab and enter the name and job information for the user then click 'Review + Create.'



Microsoft Azure
Search resources, services, and docs (G+/)
Copilot
asgharmirza96@hotmai...
DEFAULT DIRECTORY
Home > Default Directory | Overview >

Create new user

Create a new internal user in your organization

Identity

First name: James

Last name: Carter

User type: Member

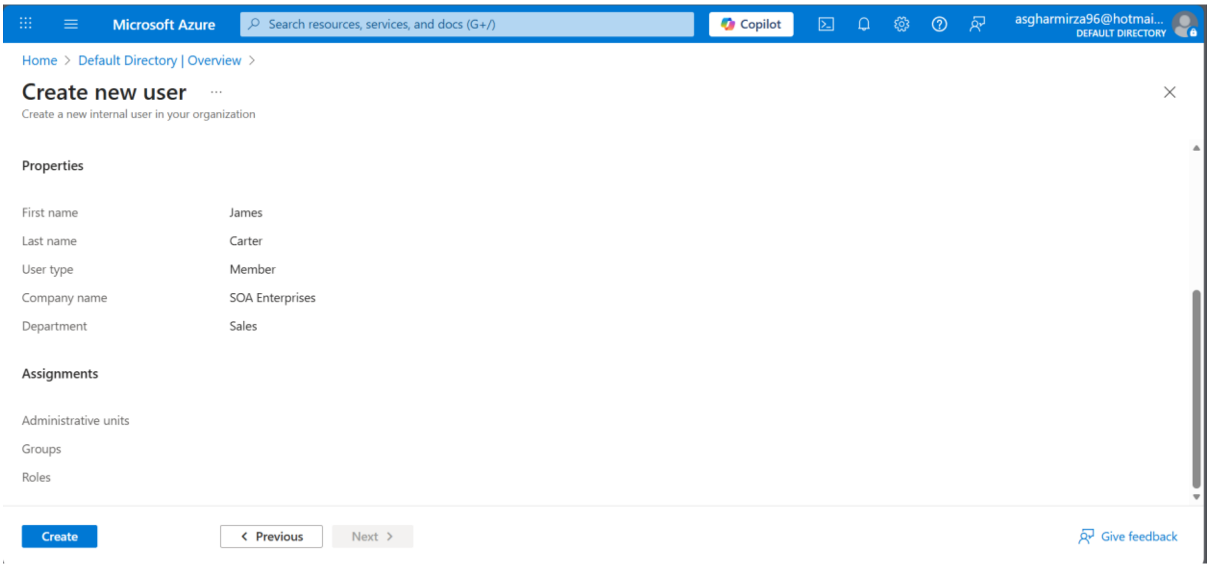
Authorization info: + Edit Certificate user IDs

Job Information

Job title:

Company name: SOA Enterprises

Step four) Verify the new user information and click 'Create.'



Microsoft Azure
Search resources, services, and docs (G+/)
Copilot
asgharmirza96@hotmai...
DEFAULT DIRECTORY
Home > Default Directory | Overview >

Create new user

Create a new internal user in your organization

Properties

First name	James
Last name	Carter
User type	Member
Company name	SOA Enterprises
Department	Sales

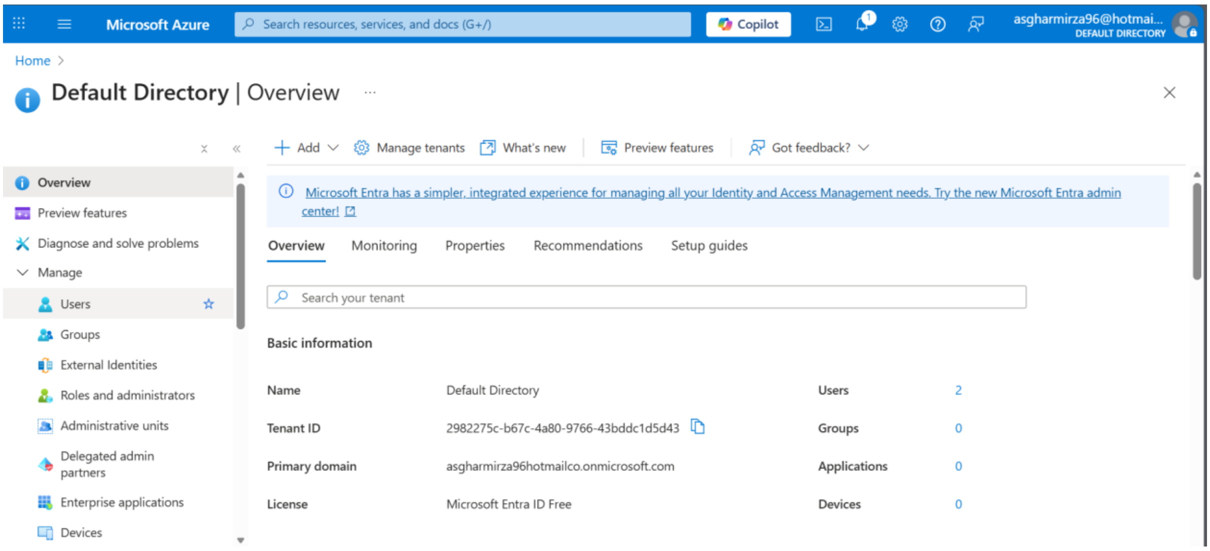
Assignments

Administrative units

Groups

Roles

Step 5) Click on 'Manage > Users' under the Overview ribbon within the Default Directory.

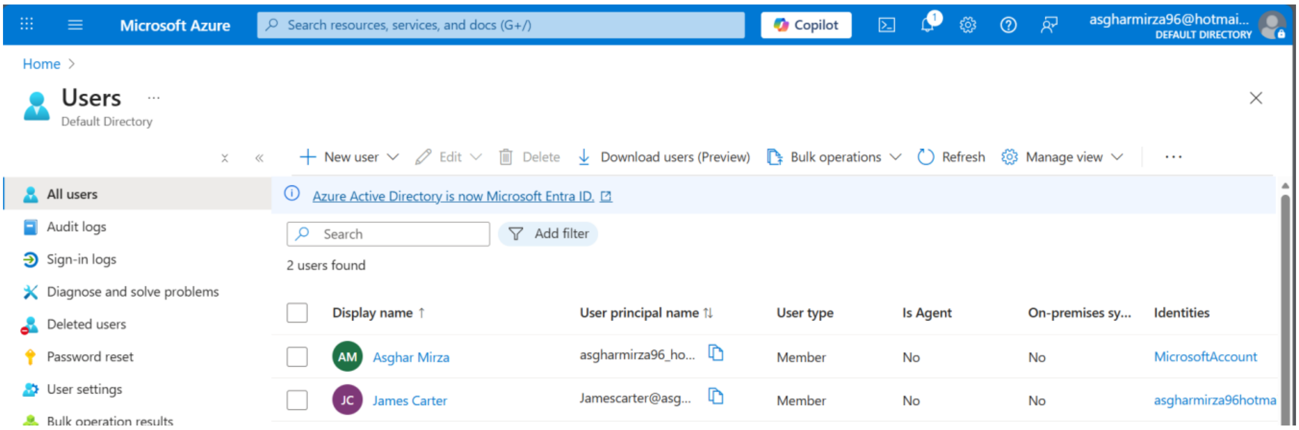


Microsoft Entra has a simpler, integrated experience for managing all your Identity and Access Management needs. Try the new Microsoft Entra admin center!

Basic information

Name	Default Directory	Users	2
Tenant ID	2982275c-b67c-4a80-9766-43bddc1d5d43	Groups	0
Primary domain	asgharmirza96hotmailco.onmicrosoft.com	Applications	0
License	Microsoft Entra ID Free	Devices	0

Step 6) This confirms that the new user 'James Carter' has been created and can be viewed under 'All users.' In addition to this, all other users can be seen, and new users can be created by clicking on 'Add user.'



Azure Active Directory is now Microsoft Entra ID.

2 users found

	Display name ↑	User principal name ↑↓	User type	Is Agent	On-premises sy...	Identities
□	AM Asghar Mirza	asgharmirza96_ho...	Member	No	No	MicrosoftAccount
□	JC James Carter	Jamescarter@asg...	Member	No	No	asgharmirza96hotma

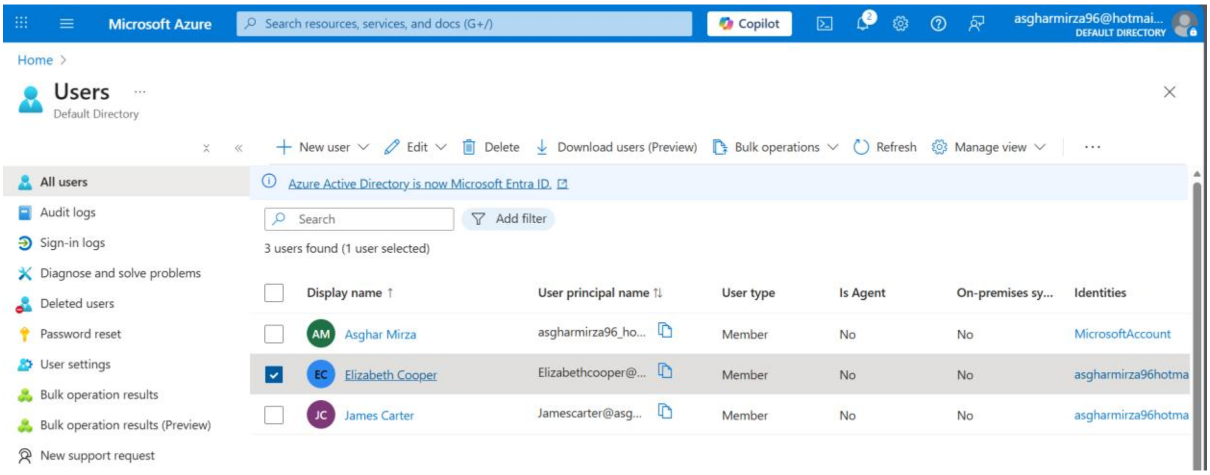
Expected Outcome:

A new user account 'James Carter' has successfully been created within the default directory and can be viewed within users.

3. Resetting a User’s Password and Block Sign-in

An employee, Elizabeth Cooper reported being locked out of her user account after multiple failed logins attempts and has submitted a request to helpdesk to reset her password and re-enable her account. This exercise will show how to reset a user’s password and assist users locked out of their accounts.

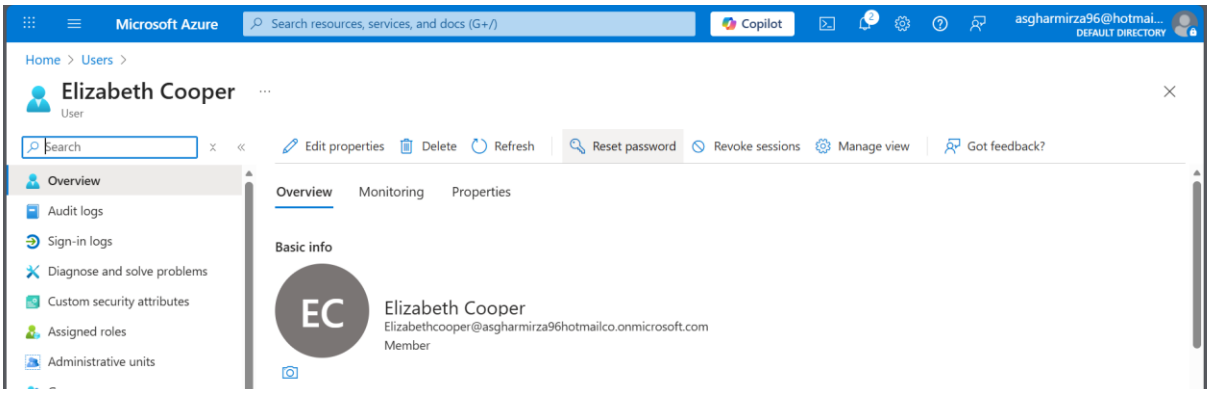
Step one) Click on ‘Elizabeth Cooper’ from the ‘All users’ list.



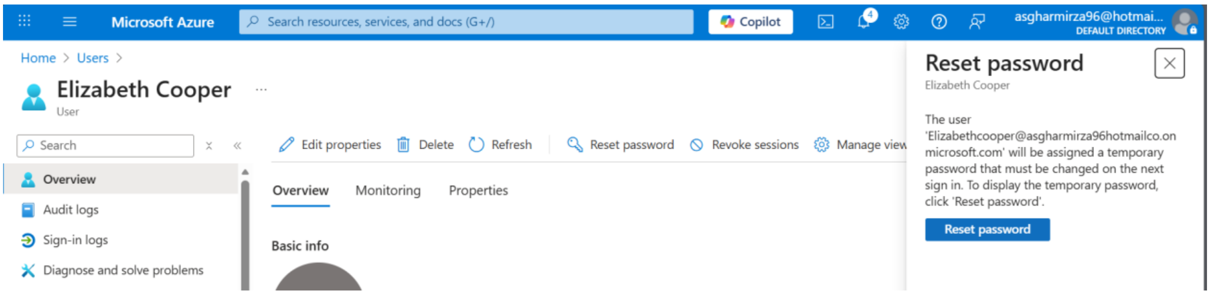
3 users found (1 user selected)

☐	Display name ↑	User principal name ↑↓	User type	Is Agent	On-premises sy...	Identities
☐	AM Asghar Mirza	asgharmirza96_ho...	Member	No	No	MicrosoftAccount
☑	EC Elizabeth Cooper	Elizabethcooper@...	Member	No	No	asgharmirza96hotma
☐	JC James Carter	Jamescarter@asg...	Member	No	No	asgharmirza96hotma

Step two) This displays information about the selected user account. Click ‘Rest password.’ This informs that a temporary password will be assigned to the user account that would need to be changed in the next sign-in. Click the ‘Reset password’ button.

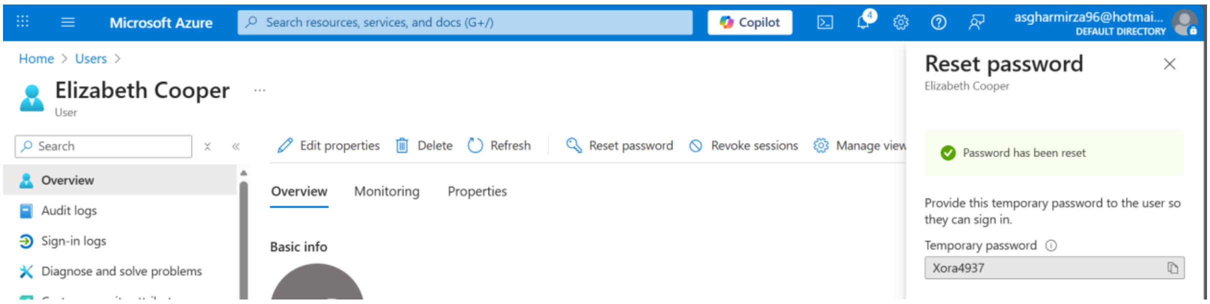


Elizabeth Cooper
Elizabethcooper@asgharmirza96hotmailco.onmicrosoft.com
Member



The user 'Elizabethcooper@asgharmirza96hotmailco.onmicrosoft.com' will be assigned a temporary password that must be changed on the next sign in. To display the temporary password, click 'Reset password'.

Step three) This will provide a temporary password that the user must enter to reset their password at the next sign-in. This temporary password was emailed to Elizabeth Cooper allowing her to reset her password.



Reset password

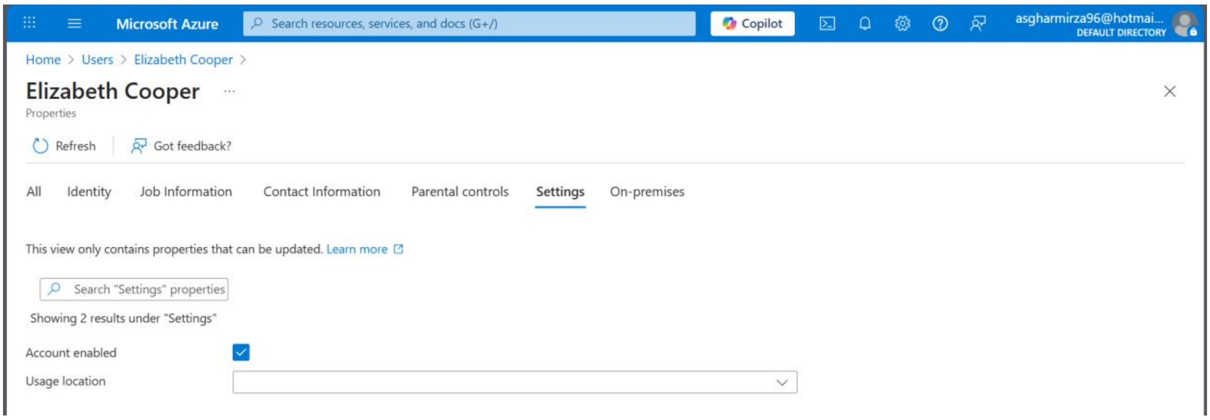
Elizabeth Cooper

Password has been reset

Provide this temporary password to the user so they can sign in.

Temporary password: Xora4937

Step four) In 'Settings' check 'Account enabled' to ensure the user can access their account.



This view only contains properties that can be updated. Learn more

Showing 2 results under "Settings"

Account enabled ☑

Usage location

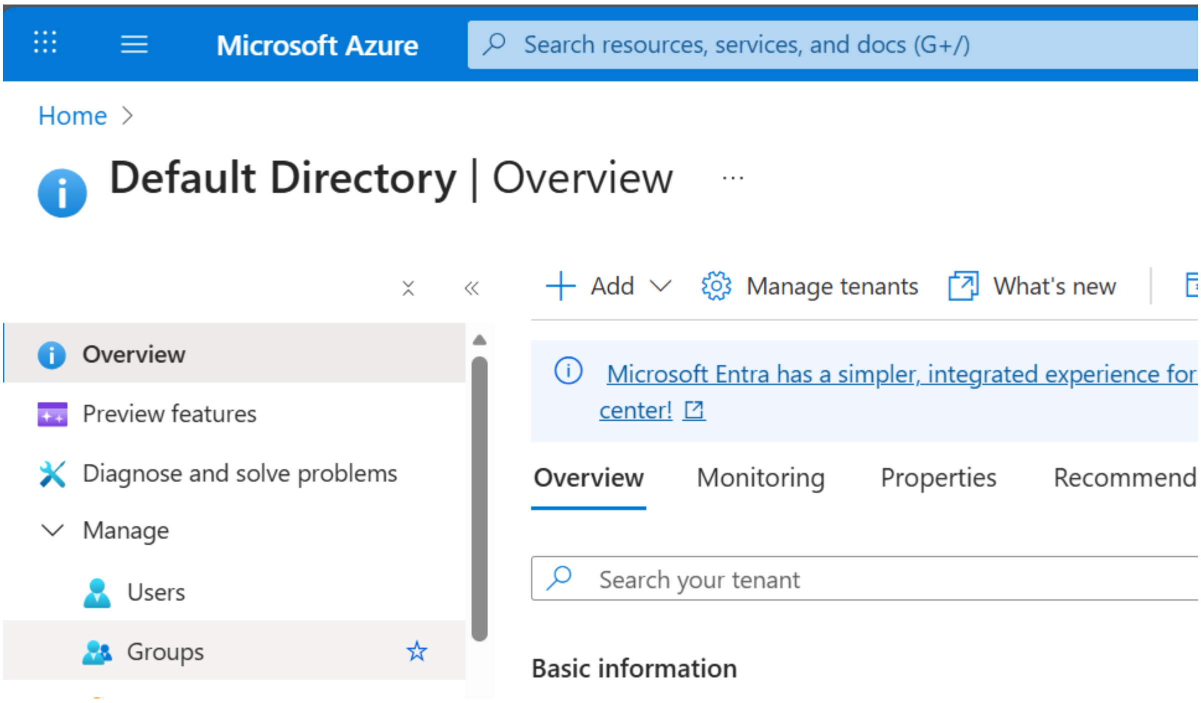
Expected Outcome:

The user account has been unlocked, and Elizabeth Cooper can reset her password at the next sign-in using the temporary password provided.

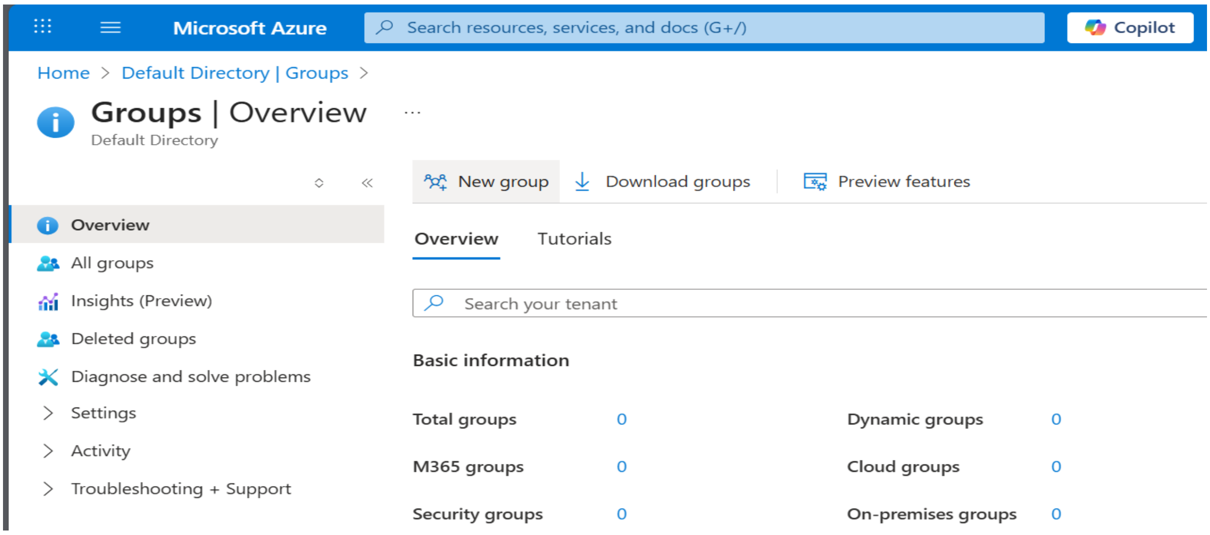
4. Creating and Assigning Security Groups

A new employee, Felix Jones as joined the IT department and must be assigned the correct group. This exercise demonstrates how to create security groups and assign users to them. Each group is assigned access control right and privileges to enforce the security principle of least privilege access. This ensures that members within each group have necessary permissions to perform their job role.

Step one) Click on ‘Groups’ from the Overview ribbon.

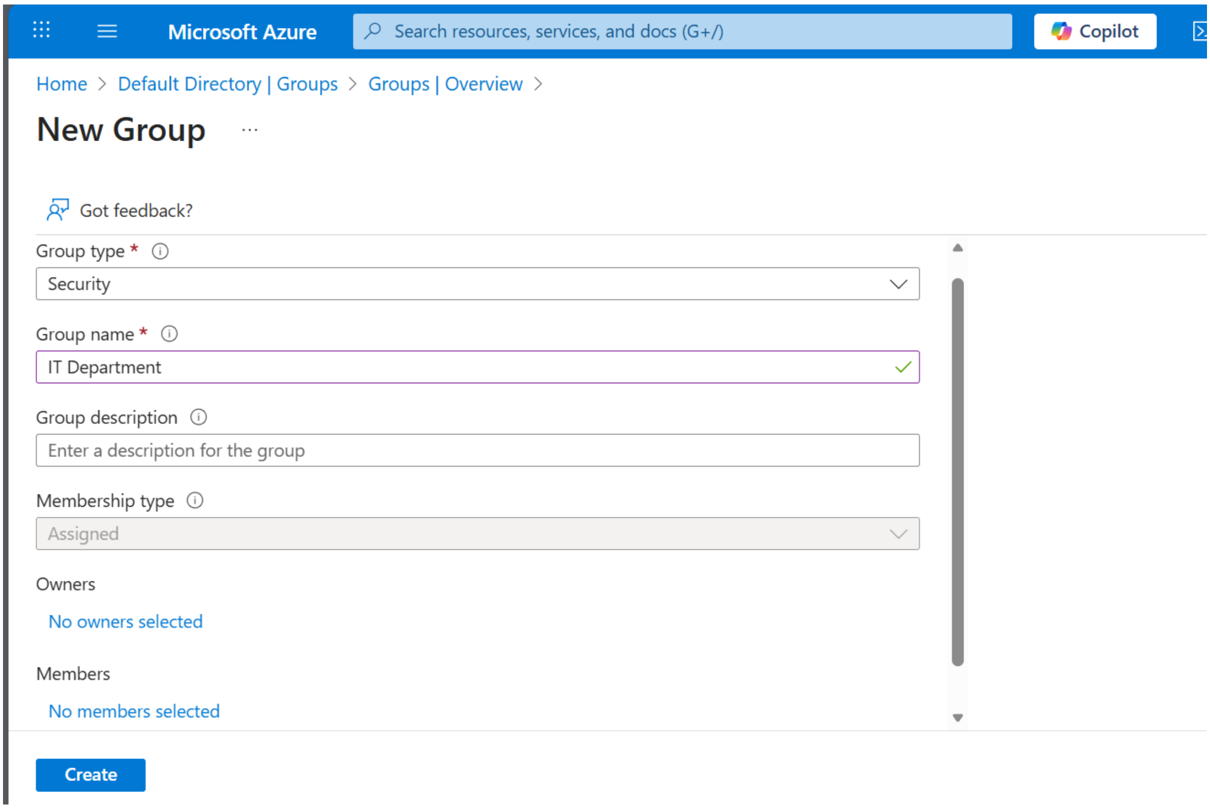


Step two) Select ‘New group’ within ‘Groups | Overview’ to create a new security group.



Total groups	0	Dynamic groups	0
M365 groups	0	Cloud groups	0
Security groups	0	On-premises groups	0

Step three) Type 'IT Department' under group name and select 'Security' for group type. Click on 'No members selected' under 'Members' to start adding users to the group.


Microsoft Azure
Search resources, services, and docs (G+/)
Copilot
Home > Default Directory | Groups > Groups | Overview >
New Group ...
Got feedback?
Create

Group type * Security

Group name * IT Department

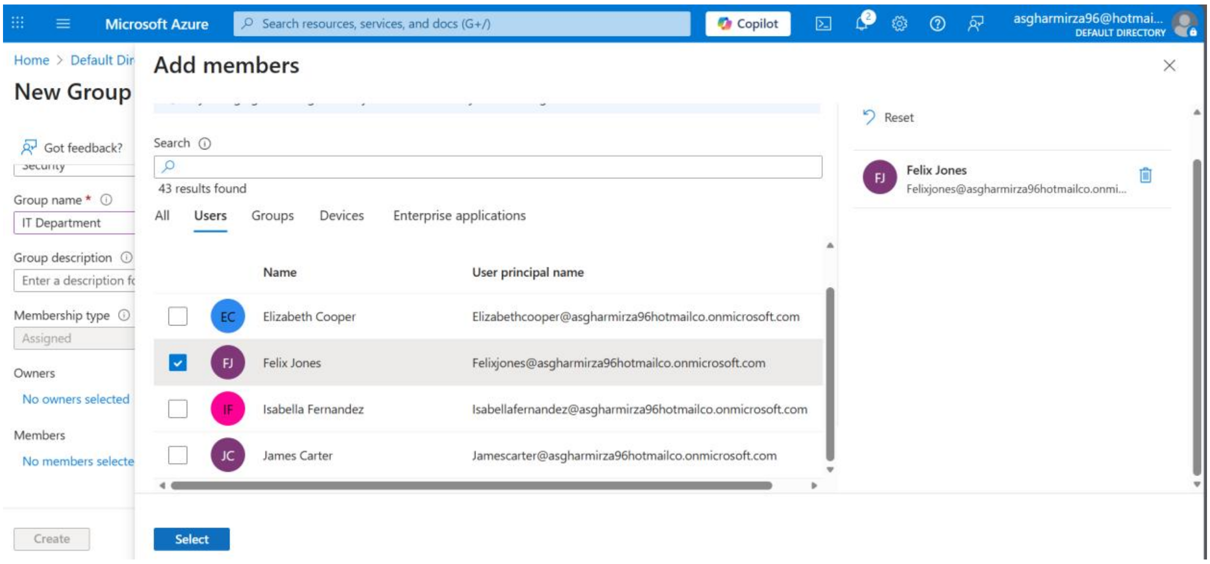
Group description: Enter a description for the group

Membership type: Assigned

Owners: No owners selected

Members: No members selected

Step four) Click on the 'Users' tab in 'Add members' and select 'Felix Jones.' Click the 'select' button to continue.



Group name * IT Department

Group description: Enter a description fo

Membership type: Assigned

Owners: No owners selected

Members: No members selecte

Search

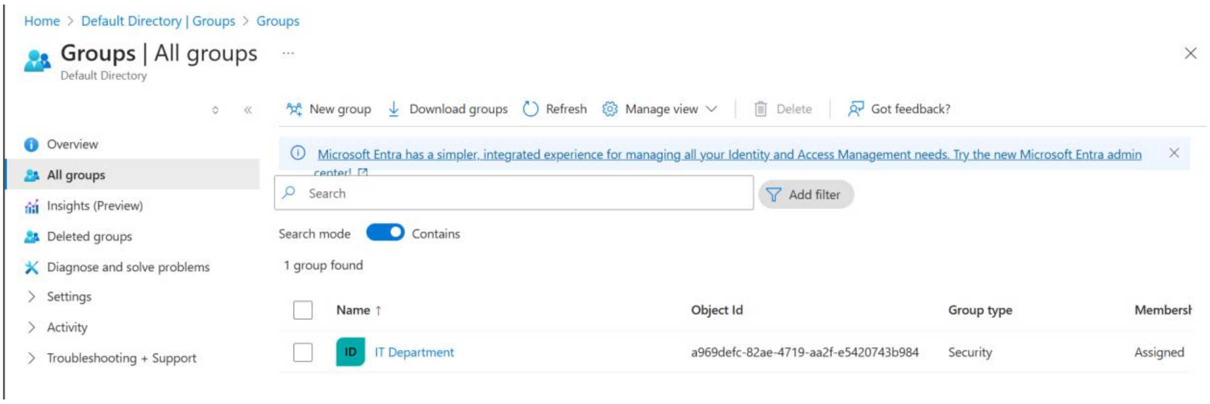
43 results found

All | Users | Groups | Devices | Enterprise applications

		Name	User principal name
□	EC	Elizabeth Cooper	Elizabethcooper@asgharmirza96hotmailco.onmicrosoft.com
☑	FJ	Felix Jones	Felixjones@asgharmirza96hotmailco.onmicrosoft.com
□	IF	Isabella Fernandez	Isabellafernandez@asgharmirza96hotmailco.onmicrosoft.com
□	JC	James Carter	Jamescarter@asgharmirza96hotmailco.onmicrosoft.com

Selected: FJ Felix Jones, Felixjones@asgharmirza96hotmailco.onmi...

Step five) Navigate to 'Groups' in the default directory overview and click on 'All groups' to display the group that was created. Click on 'IT Department' to view information about the group.

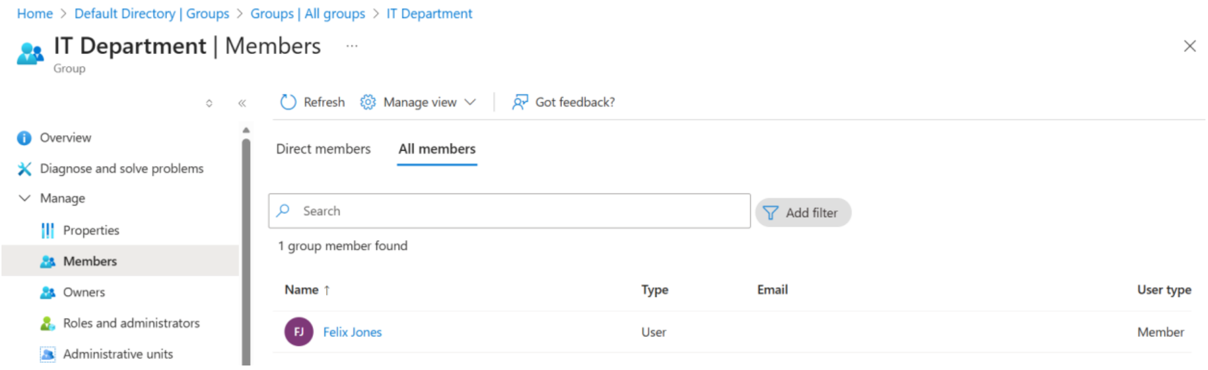


Microsoft Entra has a simpler, integrated experience for managing all your Identity and Access Management needs. Try the new Microsoft Entra admin center!

1 group found

Name ↑	Object Id	Group type	Membersh
ID IT Department	a969defc-82ae-4719-aa2f-e5420743b984	Security	Assigned

Step six) Select 'Members > All members' to view all the users added to the group. This confirms that Felix Jones has been added to the IT department group. Likewise, new users can be added to this group by clicking on the 'Add members' button and selecting the user accounts.



1 group member found

Name ↑	Type	Email	User type
FJ Felix Jones	User		Member

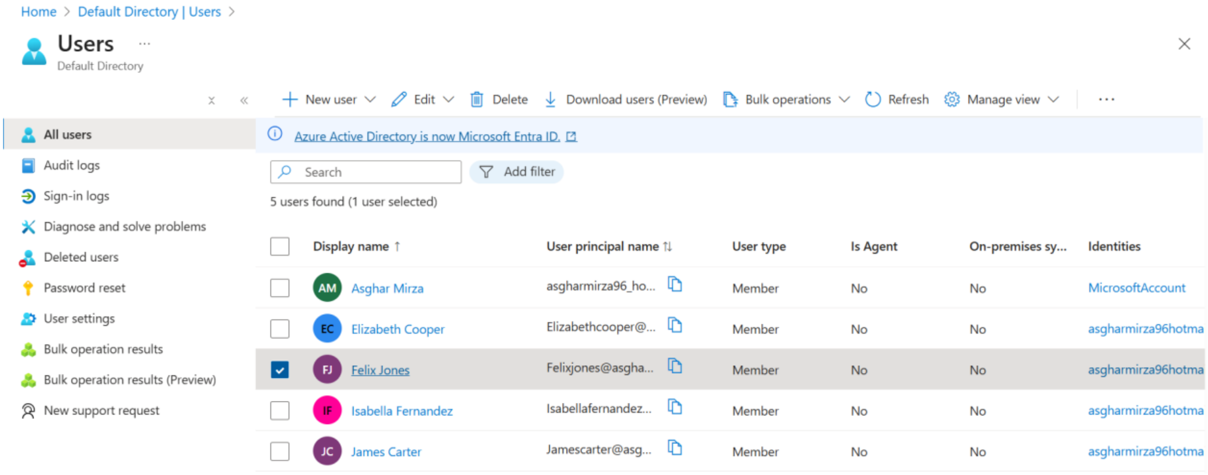
Expected Outcome:

The security group called IT department has been created and the user, Felix Jones has been added to the group.

5. Assigning Role-based Access Control to Users

As a member of the IT Department, Felix Jones has been promoted to IT Helpdesk Technician and would need to be assigned to the Helpdesk Administrator role. This exercise demonstrates how to assign roles to users within Microsoft Entra ID and enforce the security principle of least privilege access. This ensure that employees are given the access control right and permission to perform their job role and restricts unauthorised access to confidential files and information.

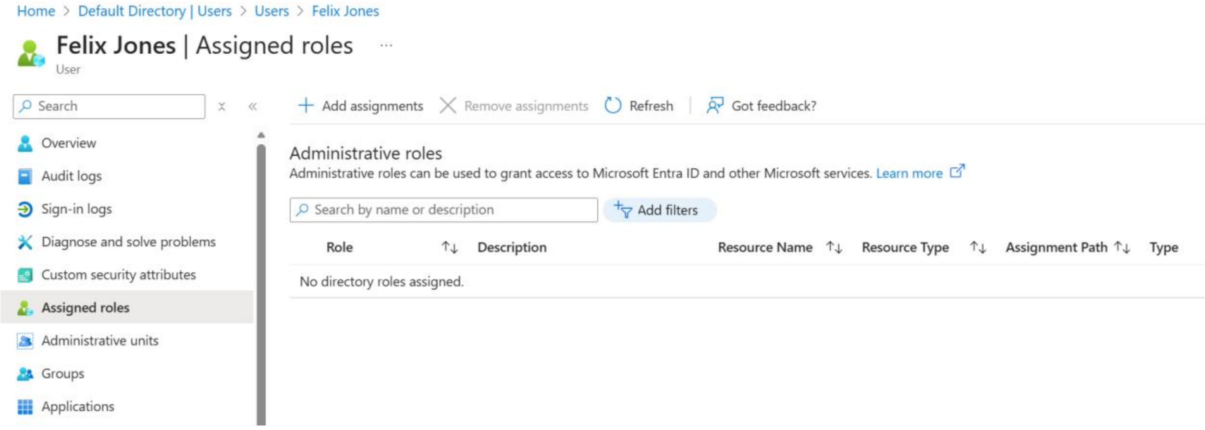
Step one) Navigate to 'Users > All users' and click on Felix Jones.



5 users found (1 user selected)

	Display name ↑	User principal name ↑↓	User type	Is Agent	On-premises sy...	Identities
□	AM Asghar Mirza	asgharmirza96_ho...	Member	No	No	MicrosoftAccount
□	EC Elizabeth Cooper	Elizabethcooper@...	Member	No	No	asgharmirza96hotma
☑	FJ Felix Jones	Felixjones@asgha...	Member	No	No	asgharmirza96hotma
□	IF Isabella Fernandez	Isabellafernandez...	Member	No	No	asgharmirza96hotma
□	JC James Carter	Jamescarter@asg...	Member	No	No	asgharmirza96hotma

Step two) Select 'Assigned roles' to view the roles assigned to the user account. There are currently no administrative roles assigned to Felix Jones. Click on 'Add assignments.'

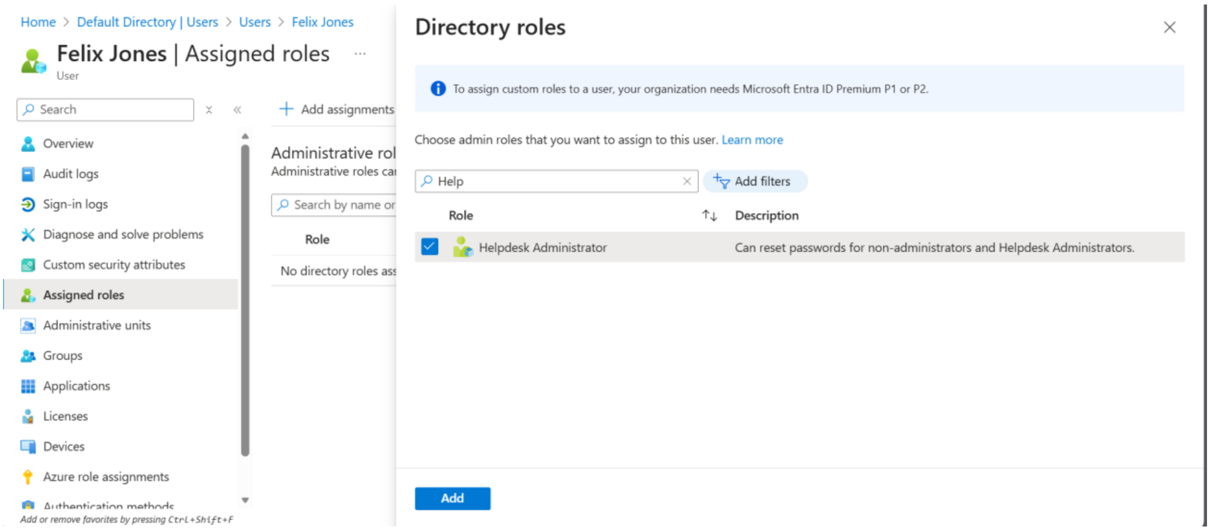

Home > Default Directory | Users > Users > Felix Jones
Felix Jones | Assigned roles
User
Search
Add assignments
Remove assignments
Refresh
Got feedback?
Overview
Audit logs
Sign-in logs
Diagnose and solve problems
Custom security attributes
Assigned roles
Administrative units
Groups
Applications
Search by name or description
Add filters

Administrative roles

Administrative roles can be used to grant access to Microsoft Entra ID and other Microsoft services. Learn more

Role ↑↓	Description	Resource Name ↑↓	Resource Type ↑↓	Assignment Path ↑↓	Type
No directory roles assigned.					

Step three) There are several custom roles within Microsoft Entra ID that can be assigned to users. In the search filter type 'Helpdesk Administrator' and select the relevant role. Click the 'Add' button below to continue.



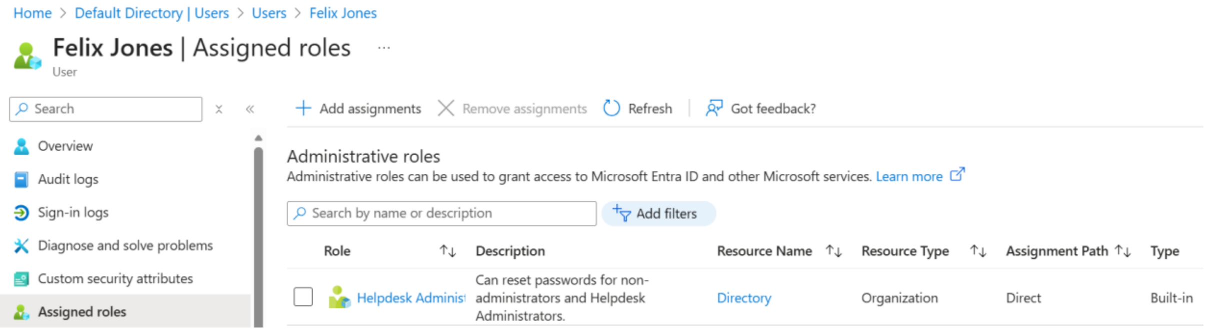
To assign custom roles to a user, your organization needs Microsoft Entra ID Premium P1 or P2.

Choose admin roles that you want to assign to this user. Learn more

Help

	Role	Description
☑	Helpdesk Administrator	Can reset passwords for non-administrators and Helpdesk Administrators.

Step four) This confirms that Felix Jones has been assigned the 'Helpdesk Administrator' roles and can perform duties necessary to his job role.


Home > Default Directory | Users > Users > Felix Jones
Felix Jones | Assigned roles ...
User
Search
Overview
Audit logs
Sign-in logs
Diagnose and solve problems
Custom security attributes
Assigned roles
+ Add assignments
Remove assignments
Refresh
Got feedback?
Search by name or description
Add filters

Administrative roles

Administrative roles can be used to grant access to Microsoft Entra ID and other Microsoft services. Learn more

	Role	Description	Resource Name	Resource Type	Assignment Path	Type
☐	Helpdesk Adminis	Can reset passwords for non-administrators and Helpdesk Administrators.	Directory	Organization	Direct	Built-in

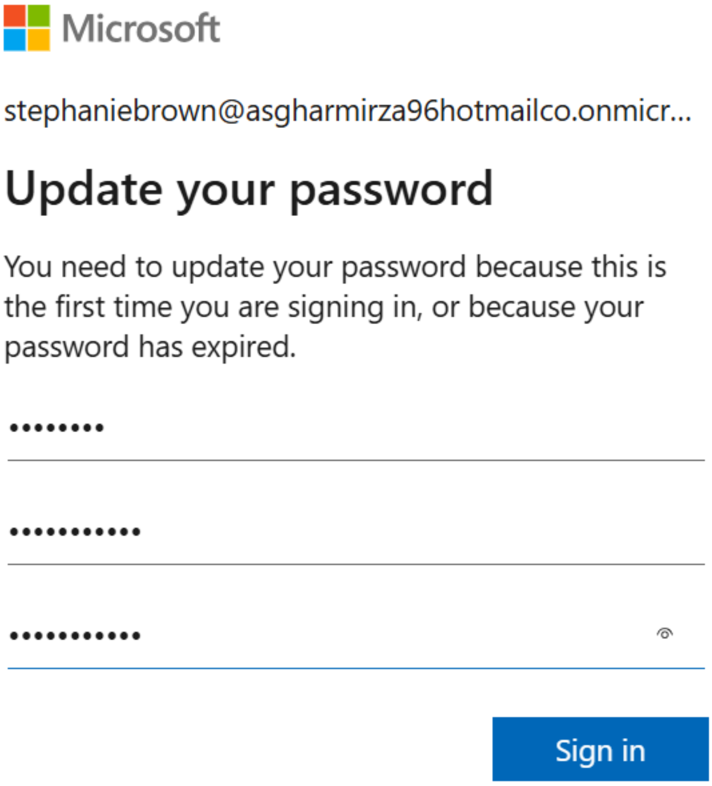
Expected Outcome:

The 'Helpdesk Administrator' role has successfully been assigned to Felix Jones who now has relevant permissions to perform his job as an IT helpdesk technician.

6. Assisting with Multifactor Authentication (MFA)

An employee, Stephanie Brown has recently joined the sales department and has contacted the helpdesk to assist her with setting up multifactor authentication on her user account. Multifactor authentication requires two or more methods of authentication to confirm and users' identity and grant them access to systems or applications. This exercise will demonstrate how helpdesk assists with multifactor authentication enrolment. This prevents unauthorised access to systems through compromised login credentials.

Step one) Once Stephanie has entered her username and temporary password provided by the helpdesk, she's then required to update her password.



stephaniebrown@asgharmirza96hotmailco.onmicr...

Update your password

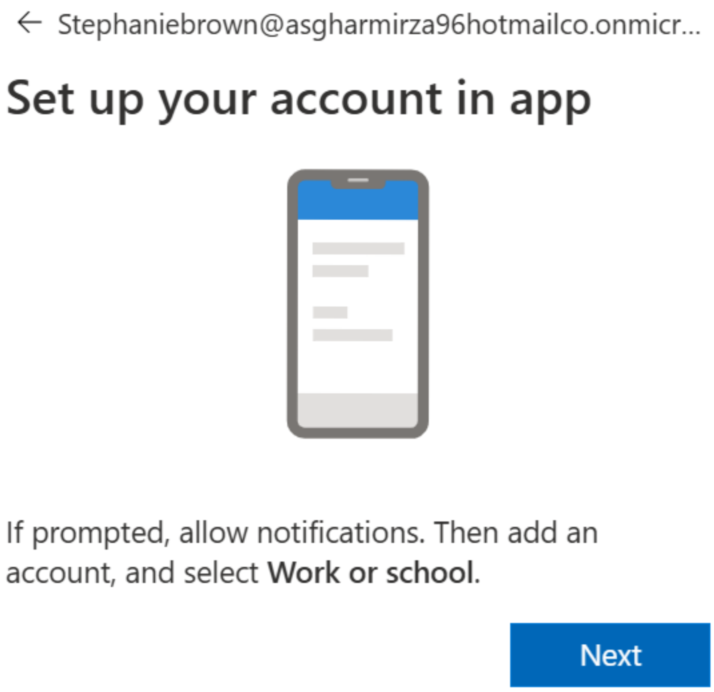
You need to update your password because this is the first time you are signing in, or because your password has expired.

••••••••

•••••••••••

•••••••••••

Step two) The next step is to use multiple methods to authenticate herself. This can be done setting the Microsoft Authenticator app on her mobile device to verify her identity.

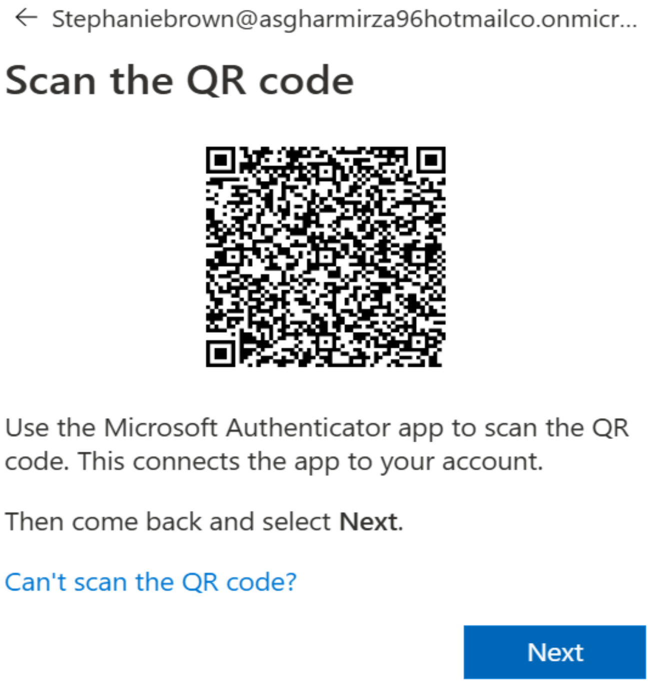


← Stephaniebrown@asgharmirza96hotmailco.onmicr...

Set up your account in app

If prompted, allow notifications. Then add an account, and select **Work or school**.

Step three) Once the authenticator app has been installed, she is then required to scan the QR code with her device. This will prompt her to enter a code into the authenticator app to approve the sign-in request.



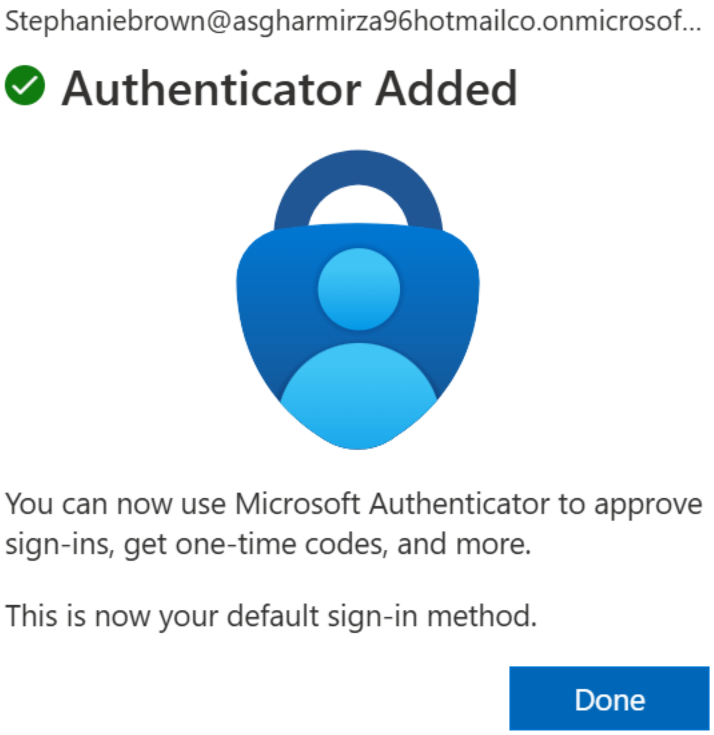
← Stephaniebrown@asgharmirza96hotmailco.onmicr...

Scan the QR code

Use the Microsoft Authenticator app to scan the QR code. This connects the app to your account.

Then come back and select **Next**.

Step four) Once the sign-in request has been approved, this method can be used along with the username and password to access the user account.



Stephaniebrown@asgharmirza96hotmailco.onmicrosof...

✓ Authenticator Added

You can now use Microsoft Authenticator to approve sign-ins, get one-time codes, and more.

This is now your default sign-in method.

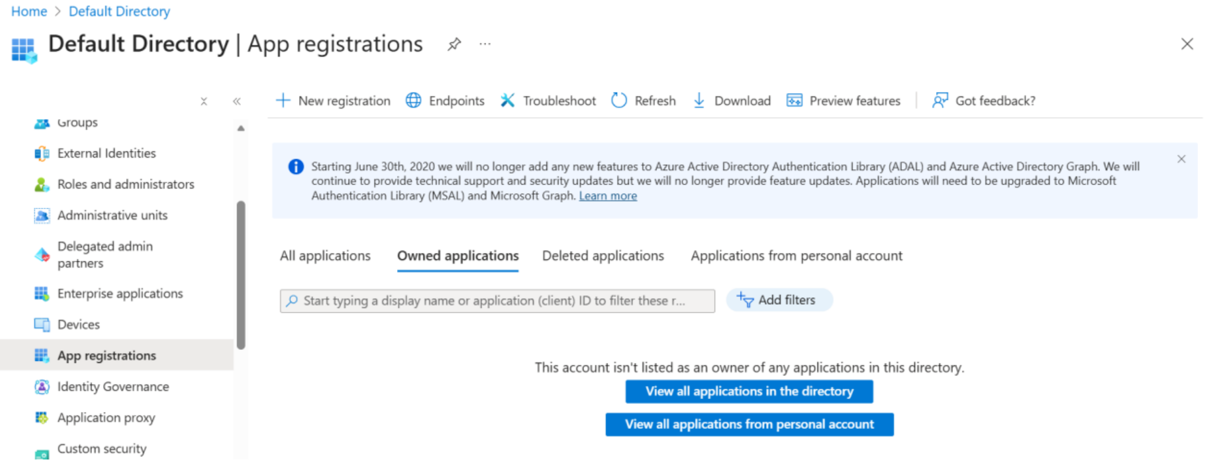
Expected Outcome:

The multifactor authentication feature has successfully been set up for the user account, Stephanie Brown and can now use the Microsoft Authenticator app along with login credentials to access her account.

7. Registering an application

This exercise demonstrates how to register an application within Microsoft Entra ID

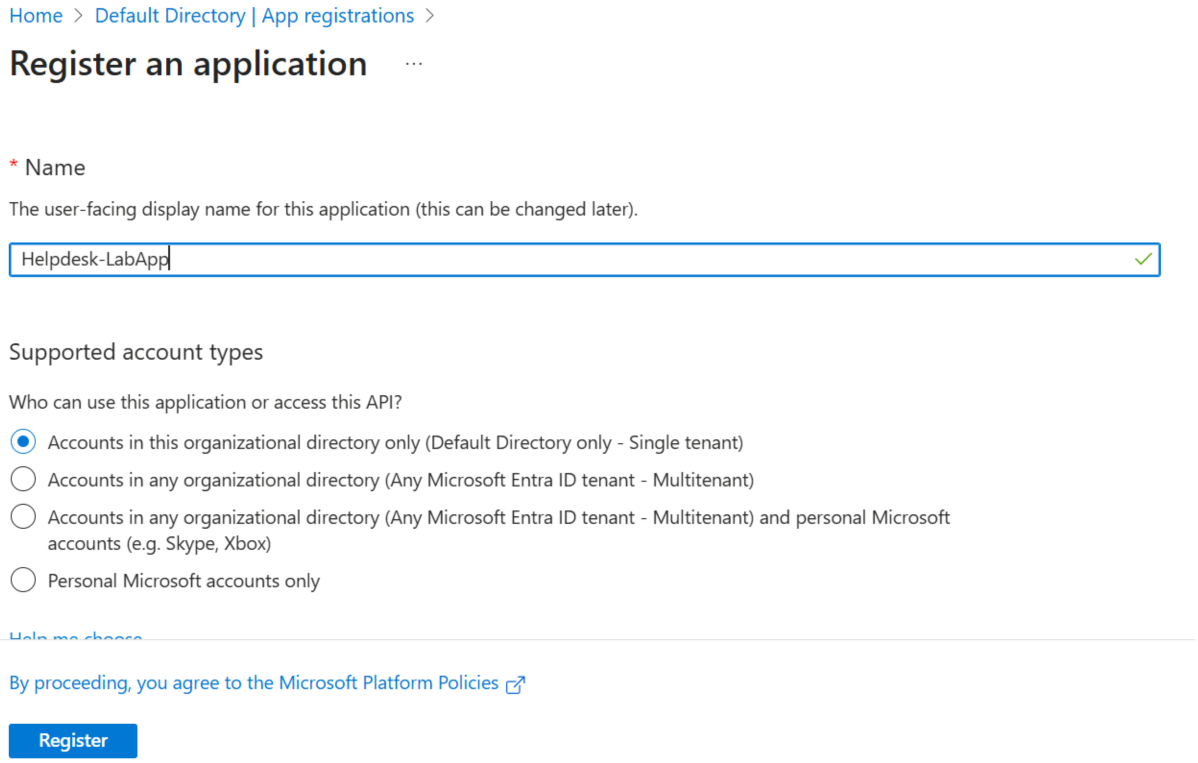
Step one) Select 'App registration' from the 'Overview' ribbon. There are currently no applications registered on the default directory. Click on 'New registration.'



Starting June 30th, 2020 we will no longer add any new features to Azure Active Directory Authentication Library (ADAL) and Azure Active Directory Graph. We will continue to provide technical support and security updates but we will no longer provide feature updates. Applications will need to be upgraded to Microsoft Authentication Library (MSAL) and Microsoft Graph. Learn more

This account isn't listed as an owner of any applications in this directory.

Step two) Enter the name of the application and select 'Accounts in this organisational directory only.' This ensures that only user accounts in the default directory can access the application. Click the 'Register' button to continue.



* Name

The user-facing display name for this application (this can be changed later).

Helpdesk-LabApp

Supported account types

Who can use this application or access this API?

● Accounts in this organizational directory only (Default Directory only - Single tenant)

○ Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant)

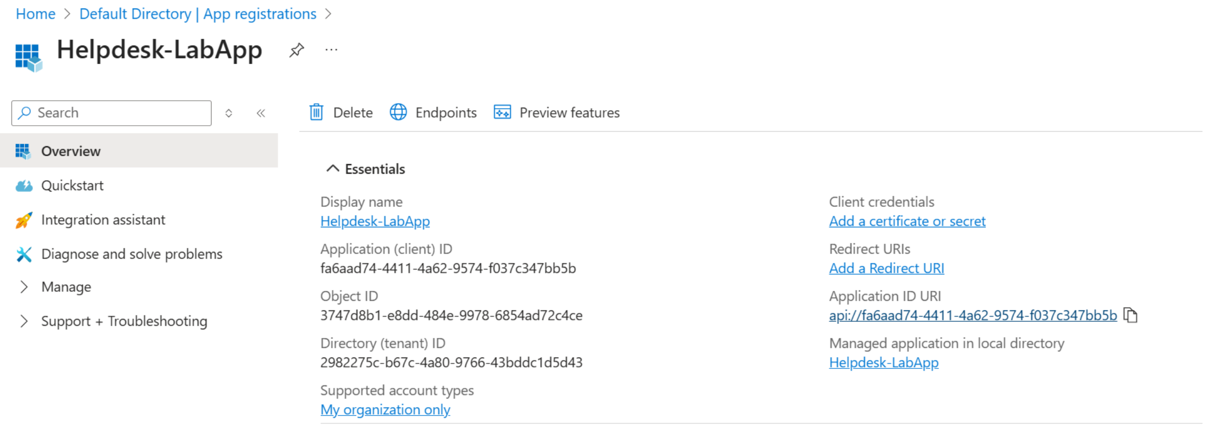
○ Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)

○ Personal Microsoft accounts only

Help me choose

By proceeding, you agree to the Microsoft Platform Policies

Step three) The app has been created and can be viewed by selecting 'App registration > All applications' and clicking on 'Helpdesk-LabApp.' This displays information about the app, including the name, tenant ID, application ID and the date it was created.



Display name
Helpdesk-LabApp

Application (client) ID
fa6aad74-4411-4a62-9574-f037c347bb5b

Object ID
3747d8b1-e8dd-484e-9978-6854ad72c4ce

Directory (tenant) ID
2982275c-b67c-4a80-9766-43bddc1d5d43

Supported account types
My organization only

Client credentials
Add a certificate or secret

Redirect URIs
Add a Redirect URI

Application ID URI
api://fa6aad74-4411-4a62-9574-f037c347bb5b

Managed application in local directory
Helpdesk-LabApp

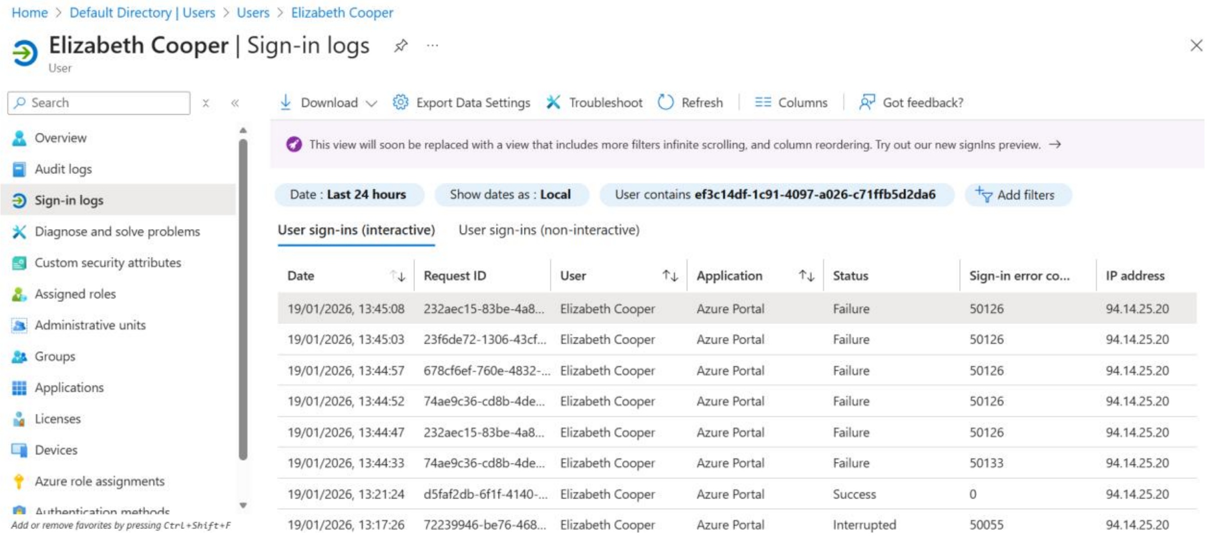
Expected Outcome:

The helpdesk app has successfully been registered on Microsoft Entra ID and can be viewed in App registration.

8. Reviewing Sign-in Logs

An employee, Elizabeth Cooper has reported that she is unable to access web applications and continues to receive authentication error messages after attempting to sign-in multiple times. This exercise will investigate the cause of the failed login attempts by reviewing the Microsoft Entra ID sign-in logs and determine the steps required to resolve the issue.

Step one) Click on Elizabeth Cooper from 'Users' and select 'Sign-in logs.' This displays a list of all logins attempts to the Azure portal in the last 24 hours, including the date and time, and the status.

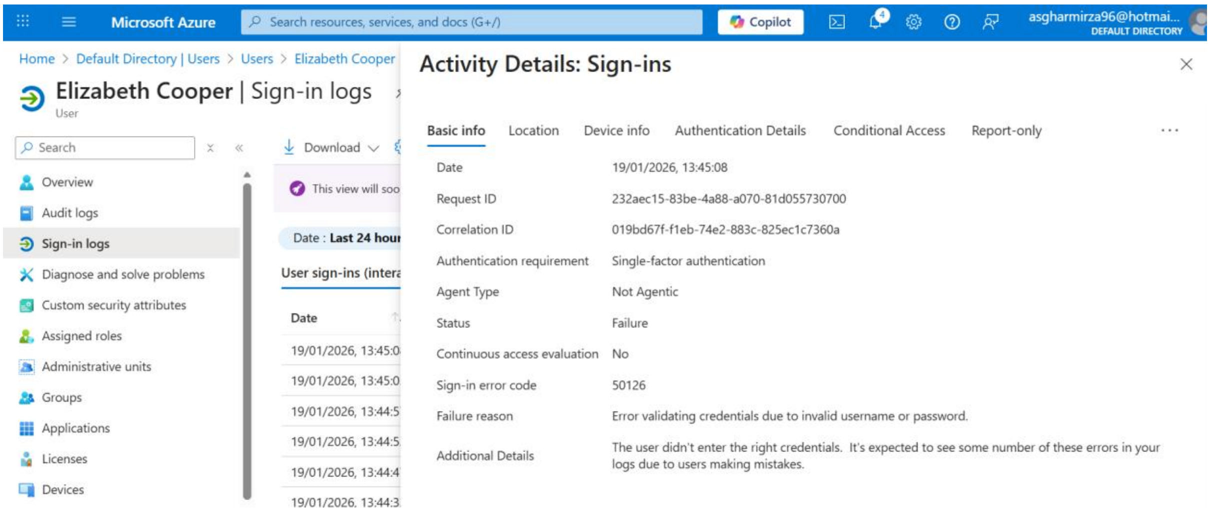

Home > Default Directory | Users > Users > Elizabeth Cooper
Elizabeth Cooper | Sign-in logs
User
Search
Overview
Audit logs
Sign-in logs
Diagnose and solve problems
Custom security attributes
Assigned roles
Administrative units
Groups
Applications
Licenses
Devices
Azure role assignments
Authentication methods
Add or remove favorites by pressing Ctrl+Shift+F
Download
Export Data Settings
Troubleshoot
Refresh
Columns
Got feedback?
User sign-ins (interactive)
User sign-ins (non-interactive)

This view will soon be replaced with a view that includes more filters infinite scrolling, and column reordering. Try out our new signIns preview. →

Date : **Last 24 hours** Show dates as : **Local** User contains **ef3c14df-1c91-4097-a026-c71ffb5d2da6** Add filters

Date	Request ID	User	Application	Status	Sign-in error co...	IP address
19/01/2026, 13:45:08	232aec15-83be-4a8...	Elizabeth Cooper	Azure Portal	Failure	50126	94.14.25.20
19/01/2026, 13:45:03	23f6de72-1306-43cf...	Elizabeth Cooper	Azure Portal	Failure	50126	94.14.25.20
19/01/2026, 13:44:57	678cf6ef-760e-4832-...	Elizabeth Cooper	Azure Portal	Failure	50126	94.14.25.20
19/01/2026, 13:44:52	74ae9c36-cd8b-4de...	Elizabeth Cooper	Azure Portal	Failure	50126	94.14.25.20
19/01/2026, 13:44:47	232aec15-83be-4a8...	Elizabeth Cooper	Azure Portal	Failure	50126	94.14.25.20
19/01/2026, 13:44:33	74ae9c36-cd8b-4de...	Elizabeth Cooper	Azure Portal	Failure	50133	94.14.25.20
19/01/2026, 13:21:24	d5faf2db-6f1f-4140-...	Elizabeth Cooper	Azure Portal	Success	0	94.14.25.20
19/01/2026, 13:17:26	72239946-be76-468...	Elizabeth Cooper	Azure Portal	Interrupted	50055	94.14.25.20

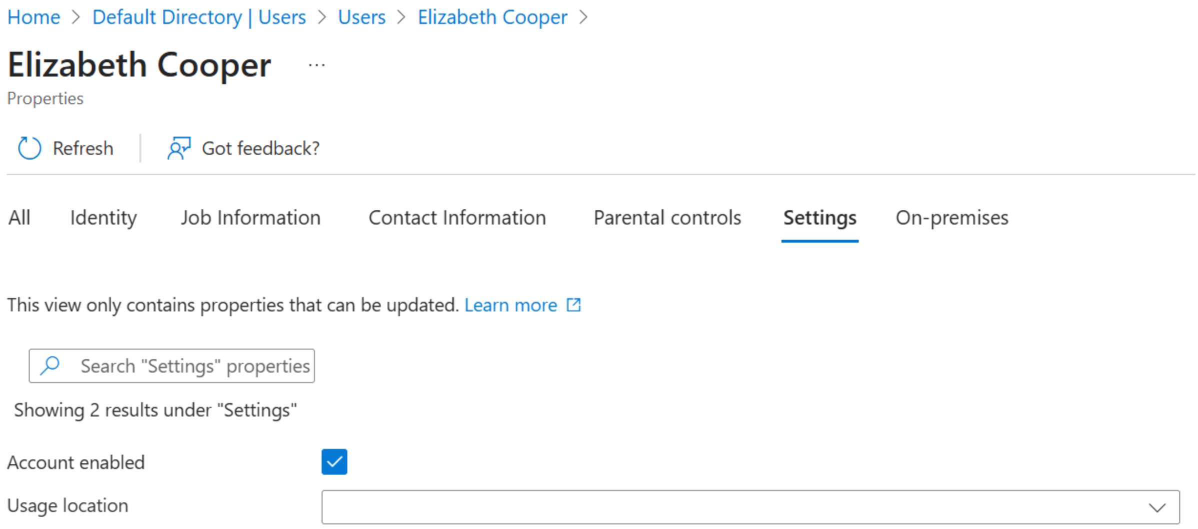
Step two) After clicking on one of the events, this reveals further information about the failed login attempt. The reason for the unsuccessful login was due to the user entering invalid credentials.



Activity Details: Sign-ins

Date	19/01/2026, 13:45:08
Request ID	232aec15-83be-4a88-a070-81d055730700
Correlation ID	019bd67f-f1eb-74e2-883c-825ec1c7360a
Authentication requirement	Single-factor authentication
Agent Type	Not Agentic
Status	Failure
Continuous access evaluation	No
Sign-in error code	50126
Failure reason	Error validating credentials due to invalid username or password.
Additional Details	The user didn't enter the right credentials. It's expected to see some number of these errors in your logs due to users making mistakes.

Step three) Additionally, the user account status was verified as ‘Account enabled’ and has not been blocked by an administrator. This issue was resolved by resetting the user’s password and requiring them to change the password at the next sign-in. The user was then advised to sign-in after the password reset.



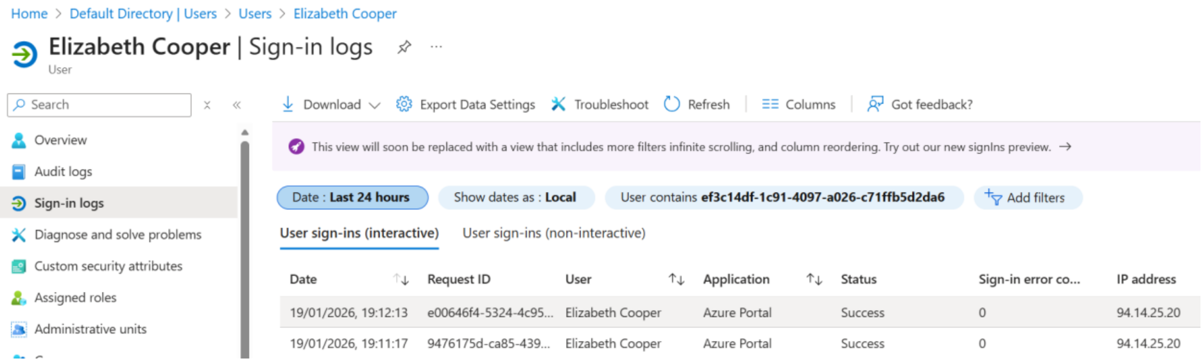
This view only contains properties that can be updated. Learn more

Showing 2 results under "Settings"

Account enabled ☑

Usage location

Step four) Once the user’s password had been reset, the sign-in attempt was successful, and the user was able to access their account. This can be displayed in the sign-in logs as ‘successful’ status.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Date : **Last 24 hours** Show dates as : **Local** User contains **ef3c14df-1c91-4097-a026-c71ffb5d2da6**

Date	Request ID	User	Application	Status	Sign-in error co...	IP address
19/01/2026, 19:12:13	e00646f4-5324-4c95...	Elizabeth Cooper	Azure Portal	Success	0	94.14.25.20
19/01/2026, 19:11:17	9476175d-ca85-439...	Elizabeth Cooper	Azure Portal	Success	0	94.14.25.20

Expected Outcome:

The failed login attempts were the result of the user entering incorrect login credentials. This issue was identified by reviewing the sign-in logs for unsuccessful login attempts to determine the cause. The user was then informed of the issue and was able to reset their password and access their account.