

Identity and Access Management (IAM)

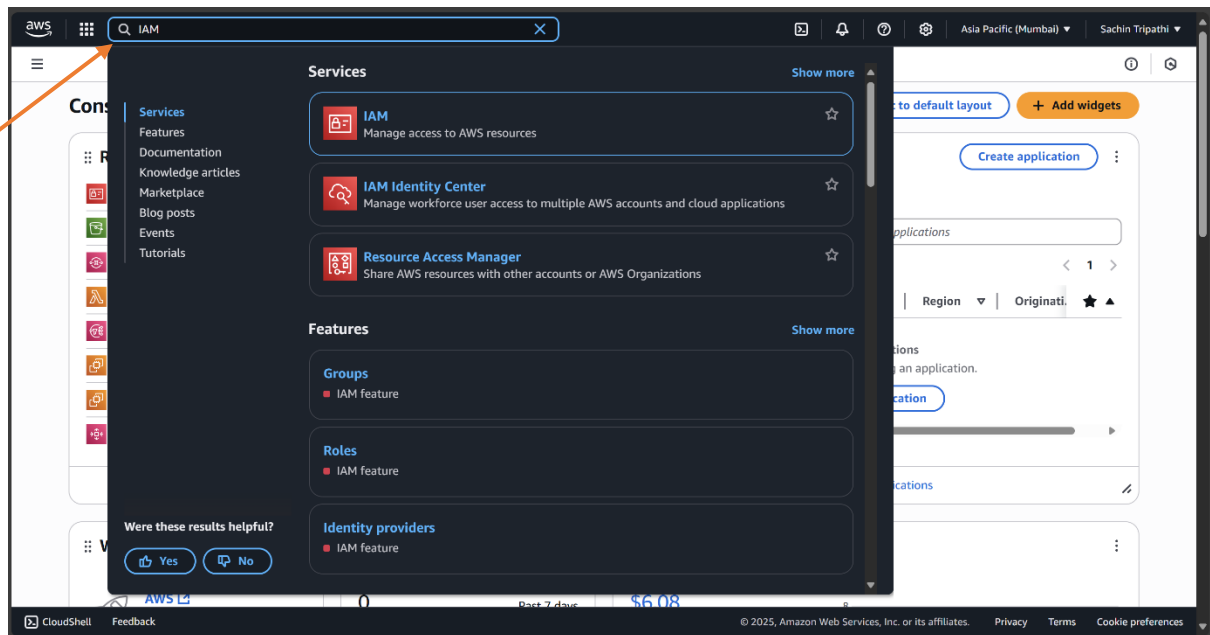
Identity and Access Management (IAM) is an AWS service used to manage who can access your AWS resources and what actions they can perform. It lets you create users, groups, and roles, and assign them specific permissions. IAM helps keep your account secure by allowing only authorized users to do certain tasks. For example, one user can only view files, while another can upload or delete them. It also supports multi-factor authentication (MFA) for extra security. IAM is free and essential for managing access in any AWS project.

Here are the key features of IAM (Identity and Access Management) in point-wise format:

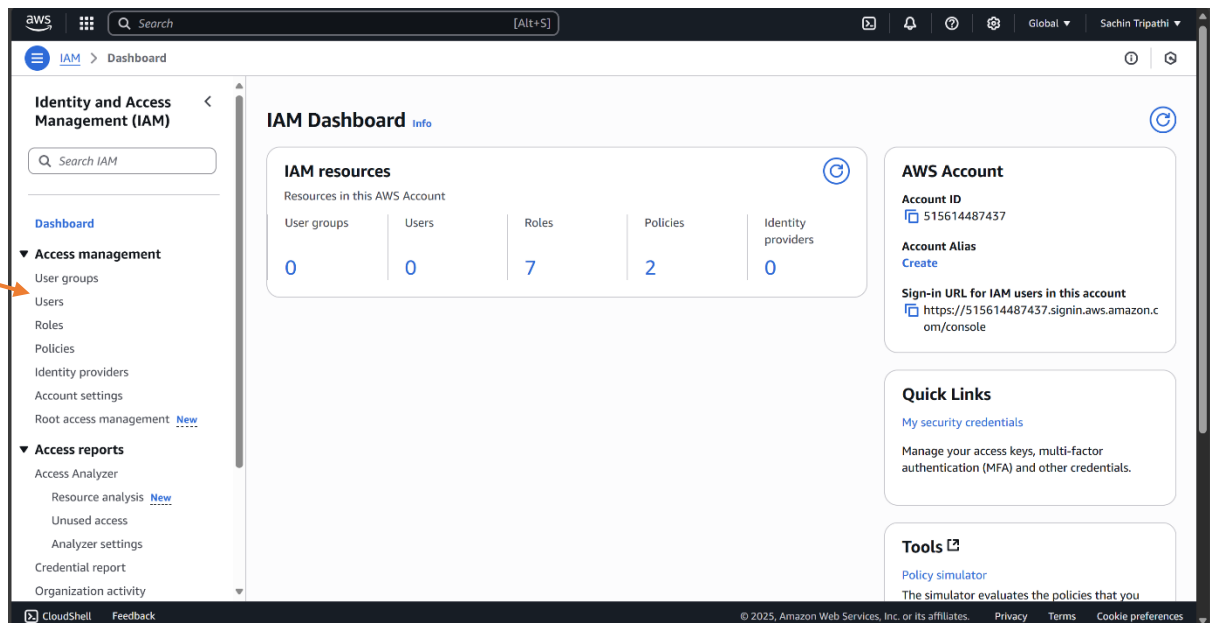
1. User Management – Create and manage individual users in your AWS account.
2. Group Management – Organize users into groups and apply permissions to the whole group.
3. Permissions Control – Define what users and groups can access and do using policies (read, write, delete, etc.).
4. Roles – Create roles with specific permissions that can be assumed by users, services, or applications.
5. Policy Management – Use JSON-based policies to allow or deny access to AWS resources.
6. Temporary Access – Grant time-limited access using IAM roles and AWS STS (Security Token Service).
7. Multi-Factor Authentication (MFA) – Add an extra layer of security to user sign-ins.
8. Audit and Logging – Monitor user activity using AWS CloudTrail for auditing and security analysis.
9. Cross-Account Access – Share resources securely between different AWS accounts using IAM roles.
10. Free to Use – IAM is a global service and is free of cost.

Step1:-

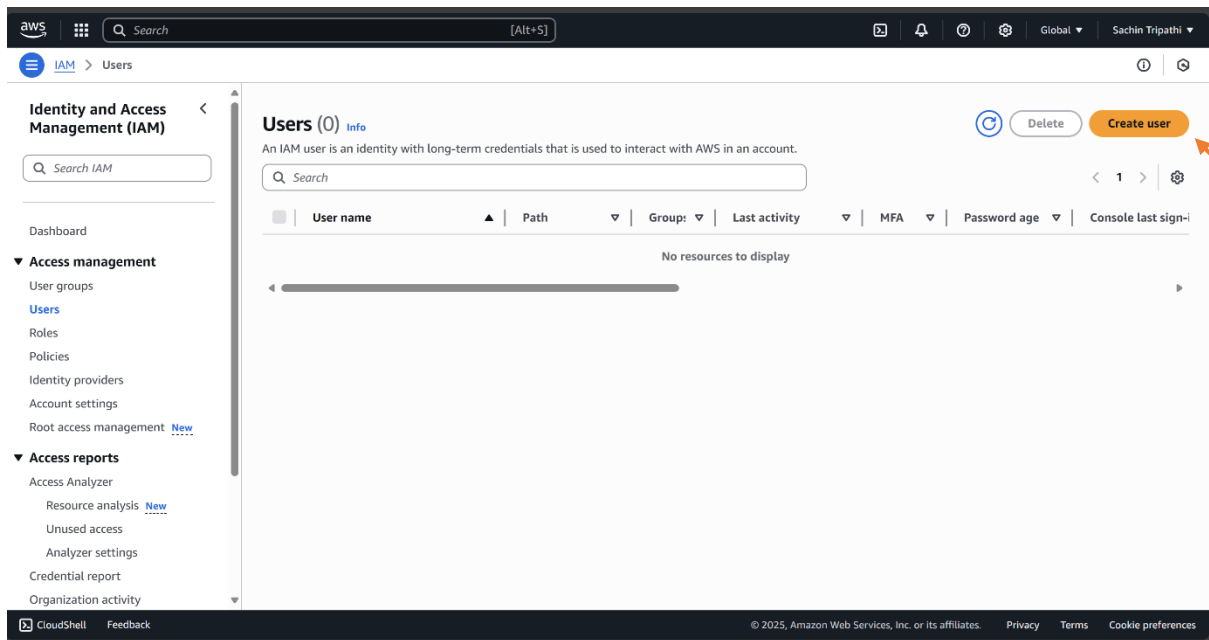
- Go to “AWS Management Console” and search “IAM” and click on “IAM”.



- Click on “Users”(left-side).



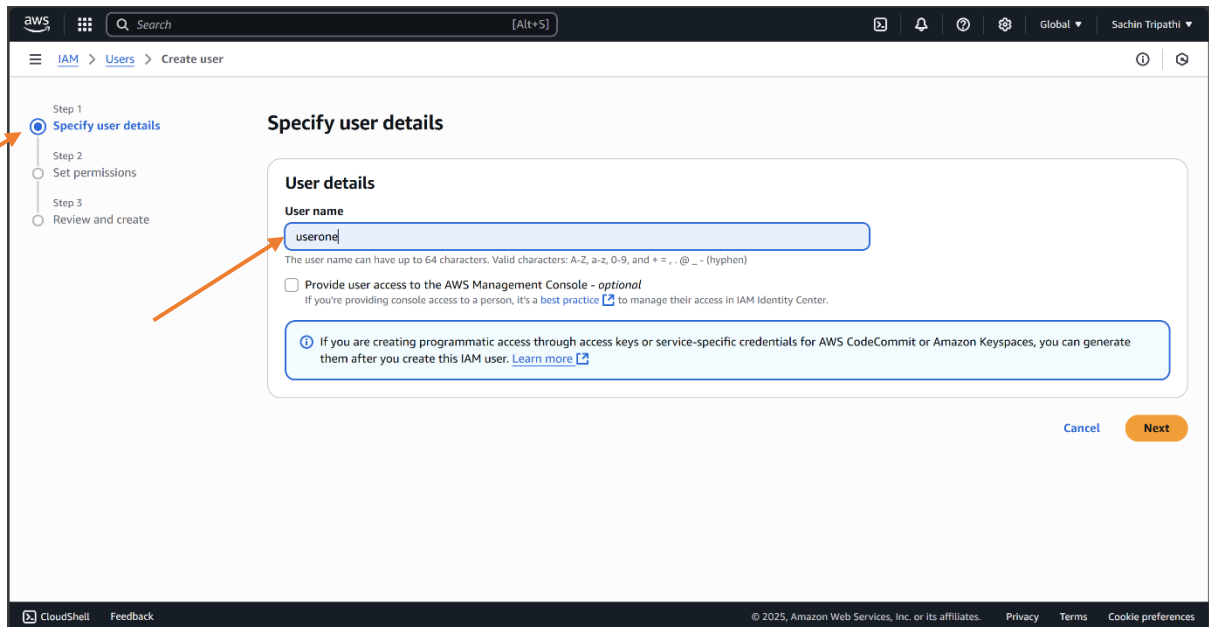
- Click on “Create User”.



Creating user using IAM:-

Step 2:-

- In “Specify user details”, write the “User name”.



Step 3:-

- Check the “Provide user access to the AWS Management Console”.
- Select “I want to Create an IAM user”.

☒ Provide user access to the AWS Management Console - *optional*
If you're providing console access to a person, it's a [best practice](#) to manage their access in IAM Identity Center.

Are you providing console access to a person?

User type

☐ Specify a user in Identity Center - Recommended

We recommend that you use Identity Center to provide console access to a person. With Identity Center, you can centrally manage user access to their AWS accounts and cloud applications.

☒ I want to create an IAM user

We recommend that you create IAM users only if you need to enable programmatic access through access keys, service-specific credentials for AWS CodeCommit or Amazon Keyspaces, or a backup credential for emergency account access.

Step 4:-

- In “Console password” click on “Custom password”. Ex:-User@123

Console password

☐ Autogenerated password

You can view the password after you create the user.

☒ Custom password

Enter a custom password for the user.

User@123


- Must be at least 8 characters long
- Must include at least three of the following mix of character types: uppercase letters (A-Z), lowercase letters (a-z), numbers (0-9), and symbols ! @ # \$ % ^ & * () _ + - (hyphen) = [] { } | ' "

☒ Show password

Step 5:-

- Uncheck the “User must create a new password at next sig-in”.
- Click on “Next”.

☐ Users must create a new password at next sign-in - Recommended
Users automatically get the [IAMUserChangePassword](#) policy to allow them to change their own password.

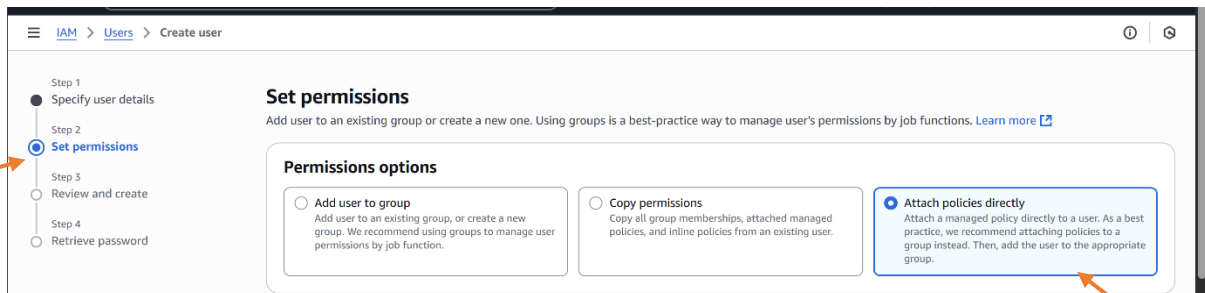
 If you are creating programmatic access through access keys or service-specific credentials for AWS CodeCommit or Amazon Keyspaces, you can generate them after you create this IAM user. [Learn more](#)

Cancel

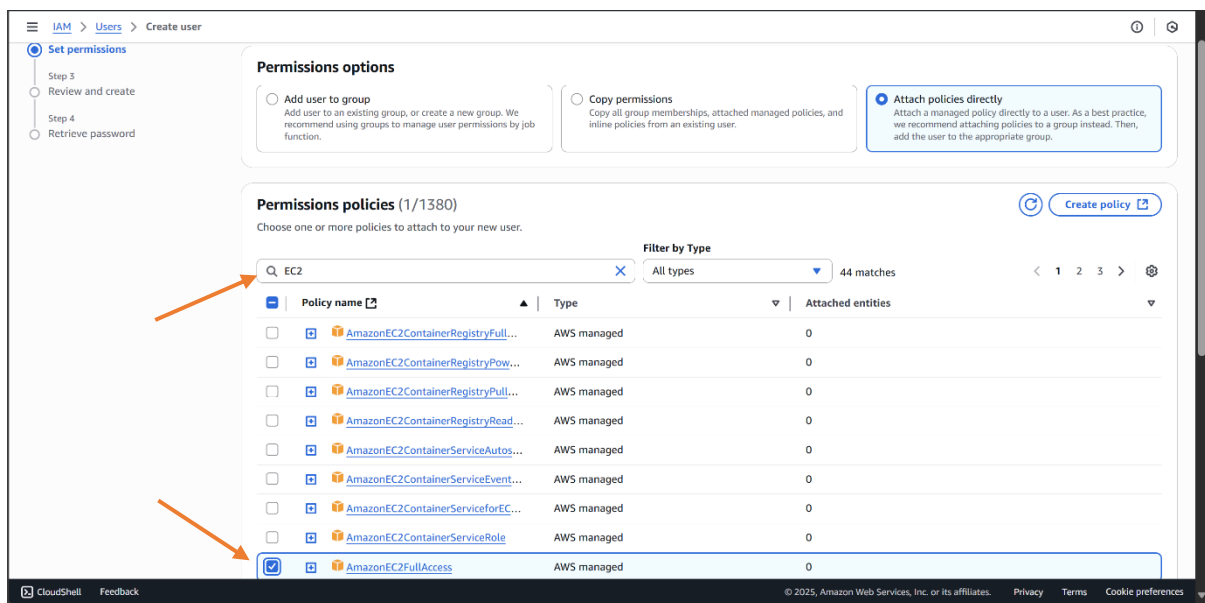
Next

Step 6:-

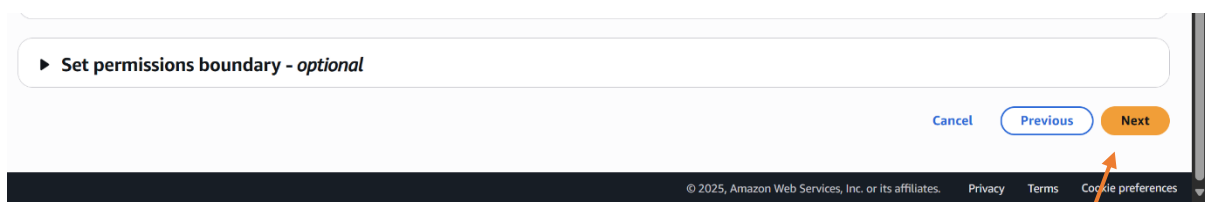
- In “Set permissions”, select “Attach policies directly” as “Permissions options”.



- Now select the “Permissions policies” that you want to add.
- Also you can add permission according to your need.



- Click on “Next”.



Step 7:-

- In “Review and create” click on “Create User”.

Review and create

Review your choices. After you create the user, you can view and download the autogenerated password, if enabled.

User details

User name userone	Console password type Custom password	Require password reset No
----------------------	--	------------------------------

Permissions summary

Name	Type	Used as
AmazonEC2FullAccess	AWS managed	Permissions policy

Tags - optional

Tags are key-value pairs you can add to AWS resources to help identify, organize, or search for resources. Choose any tags you want to associate with this user.

No tags associated with the resource.

[Add new tag](#)

You can add up to 50 more tags.

[Cancel](#) [Previous](#) [Create user](#)

- User is Created Successfully.
- Click on “Return to the Users list”

✔ **User created successfully** [View user](#) ✕

You can view and download the user's password and email instructions for signing in to the AWS Management Console.

Retrieve password

You can view and download the user's password below or email users instructions for signing in to the AWS Management Console. This is the only time you can view and download this password.

Console sign-in details [Email sign-in instructions](#)

Console sign-in URL
<https://s15614487437.signin.aws.amazon.com/console>

User name
userone

Console password
***** [Show](#)

[Cancel](#) [Download .csv file](#) [Return to users list](#)

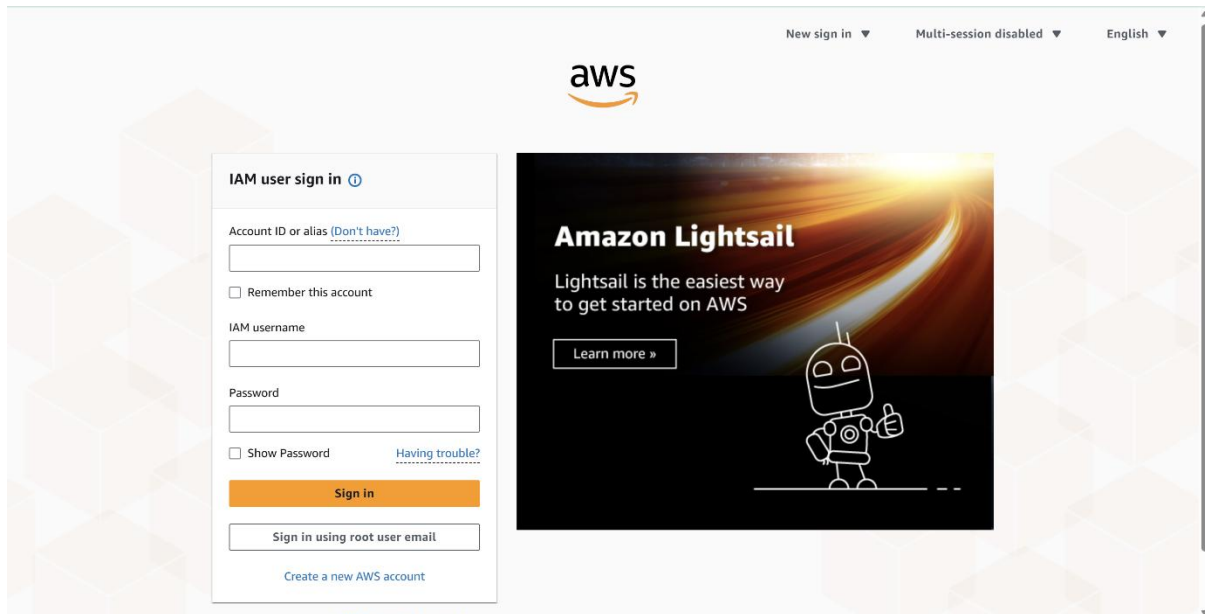
Users (1) [Info](#)

An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.

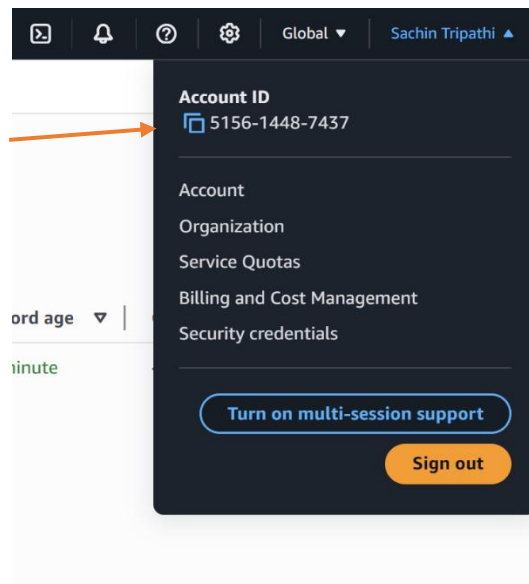
<input type="checkbox"/>	User name	Path	Group	Last activity	MFA	Password age	Console last sign-in	Access key
<input type="checkbox"/>	userone	/	0	-	-	1 minute	-	-

Step 8:-

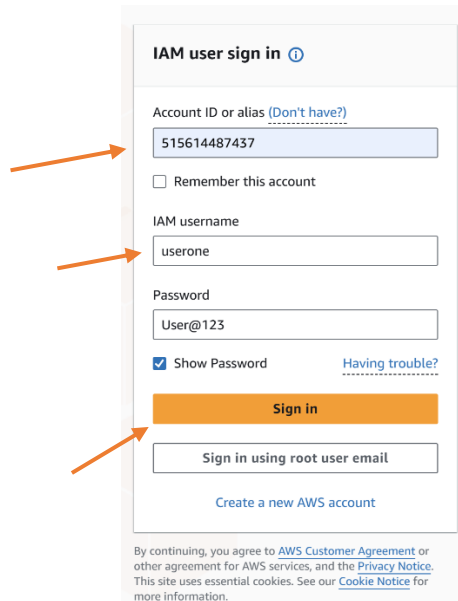
- Now go on another browser or incognito tab , open “AWS Management Console”.
- Click on sign in.
- Select “IAM user sign in”.



- Copy your root account ID in “Account ID or alias” box.



- Paste the copied “Account ID or alias”.
- Enter the “IAM username”. that you have created. Ex:-“userone”.
- Enter the password and click on “Sign in”.



IAM user sign in ⓘ

Account ID or alias (Don't have?)

515614487437

☐ Remember this account

IAM username

userone

Password

User@123

☒ Show Password [Having trouble?](#)

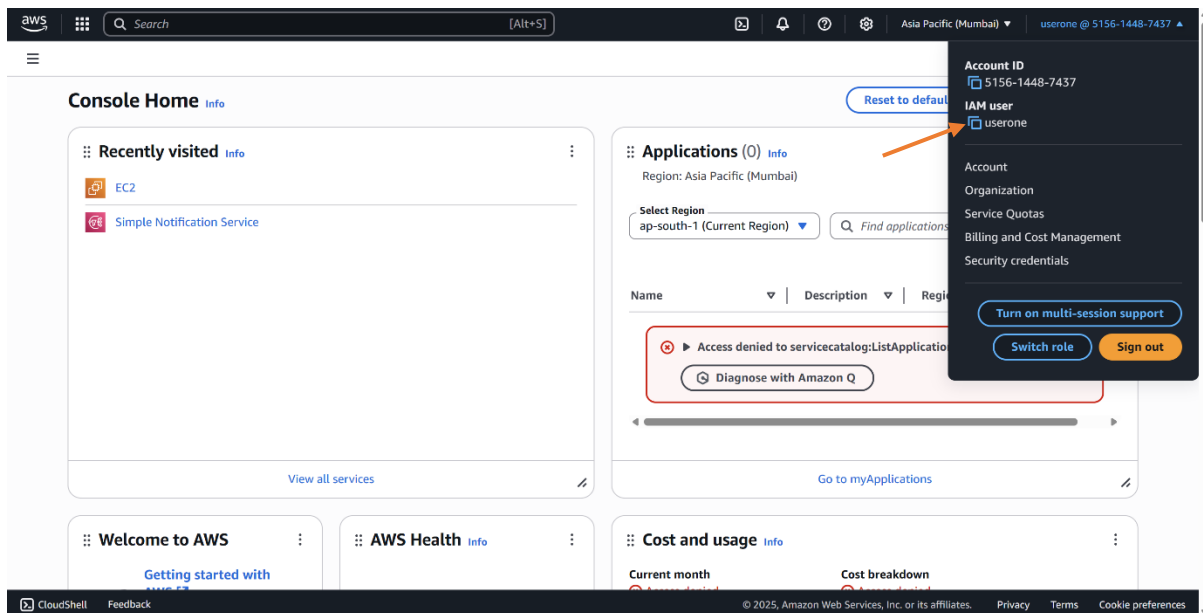
Sign in

Sign in using root user email

[Create a new AWS account](#)

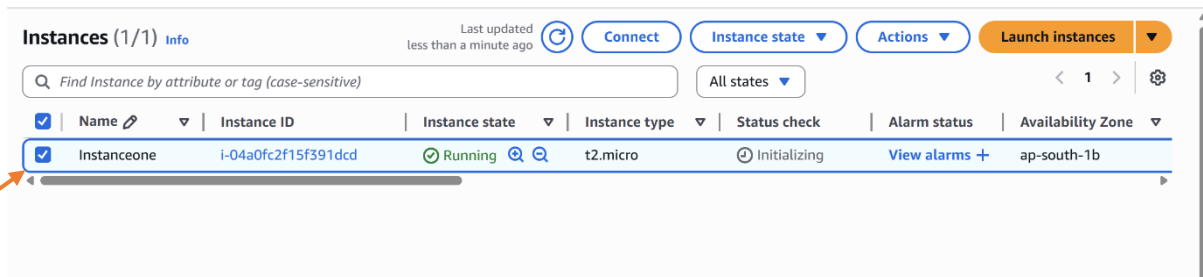
By continuing, you agree to [AWS Customer Agreement](#) or other agreement for AWS services, and the [Privacy Notice](#). This site uses essential cookies. See our [Cookie Notice](#) for more information.

- Now “userone” is signed in to the root user account.

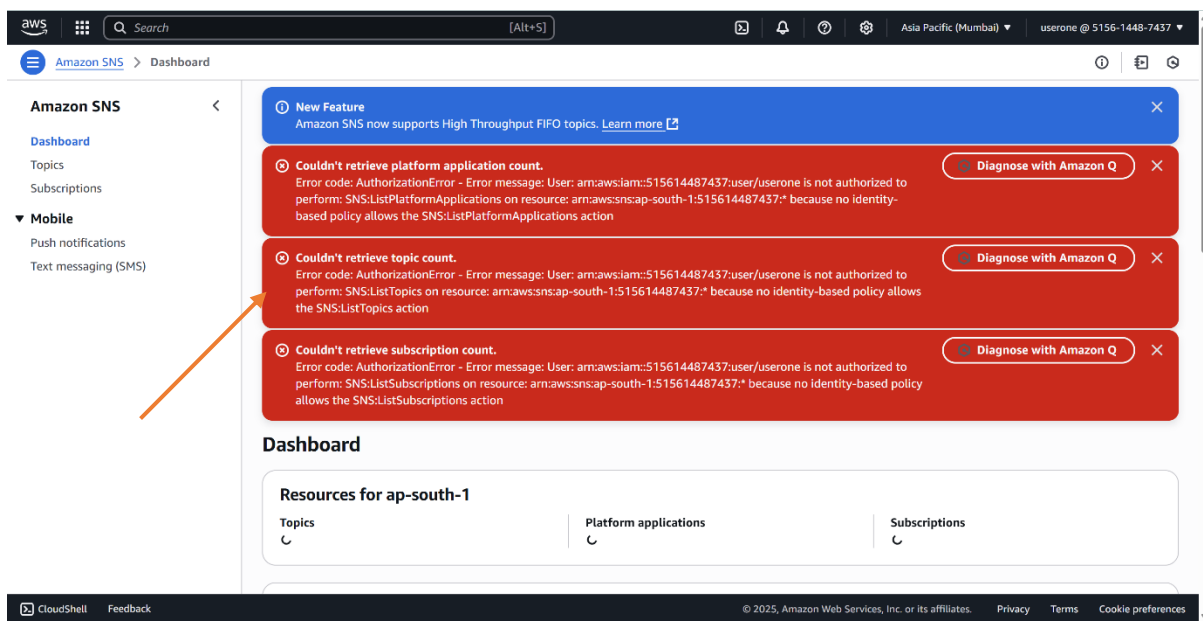


Step 9:-

- “userone” can easily access all the properties of EC2. But it cannot access other option access.
- For example, “user1” can easily launch an instance.

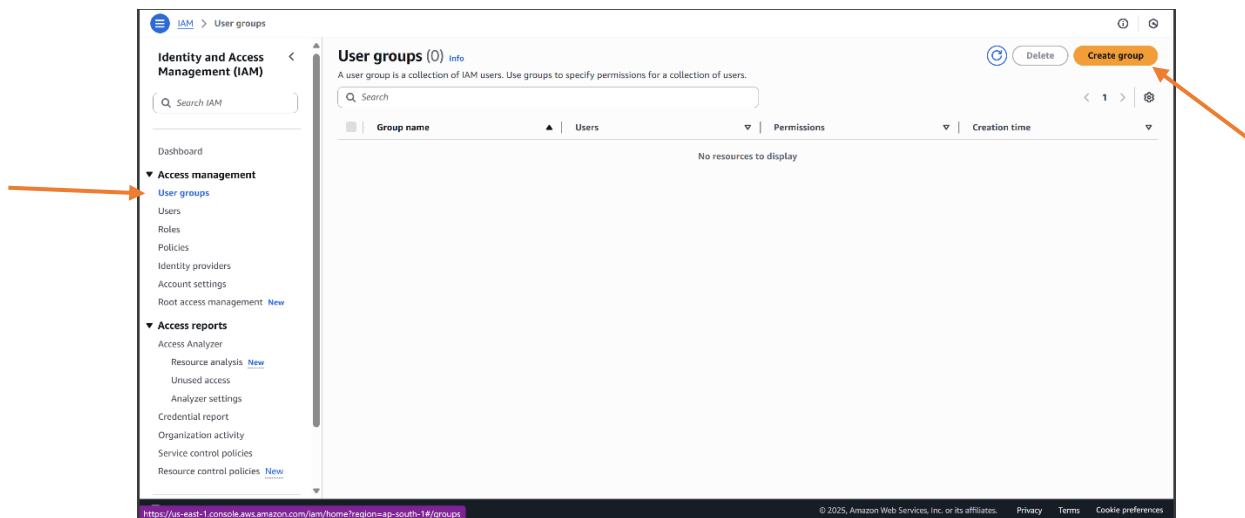


- But if “userone” tries to create a topic in SNS, it will be able to do anything or access.

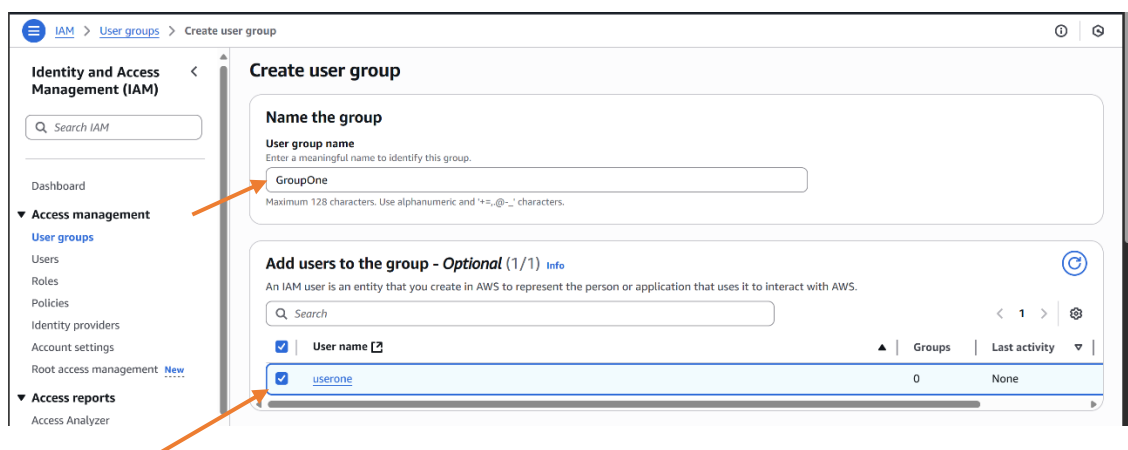


Step 10:-

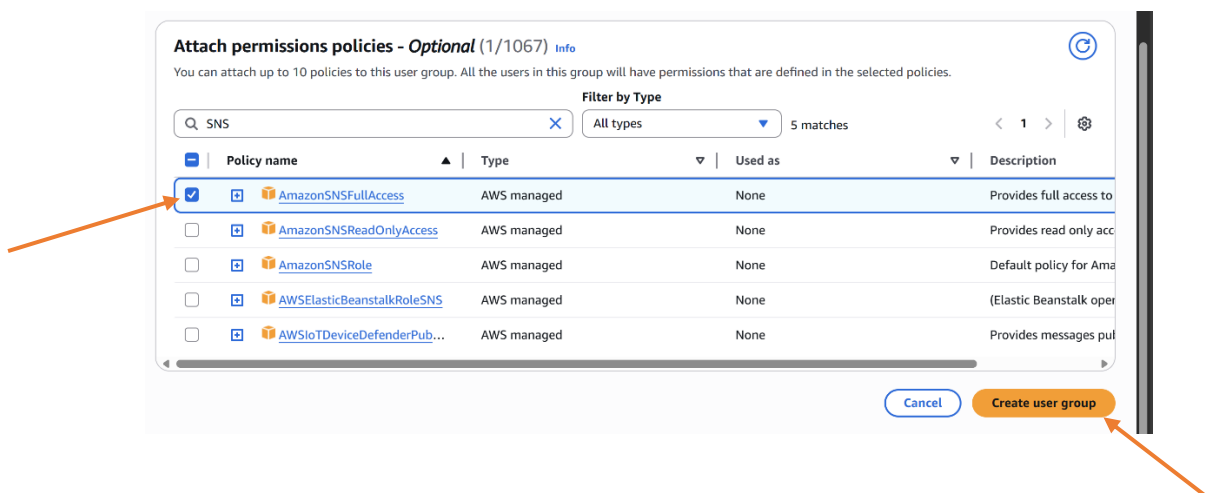
- In “Access management”, go to “User groups” and click on “Create group”.



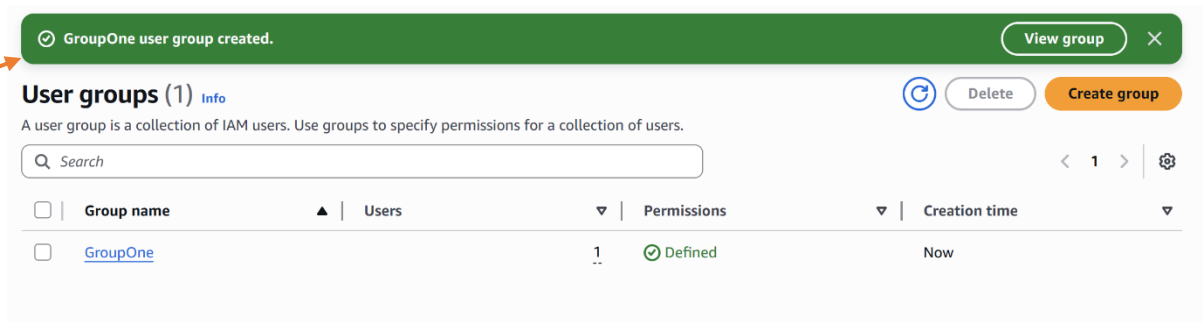
- Enter the “user group name”.
- Select the users whom you want to add to the group. Ex:-Add userone.



- “Attach permissions policies” to the group according to your need.
- Ex:- AmazonSNSFullAccess.
- Click on “Create user group”.



- User group is created.



GroupOne user group created. [View group](#) ✕

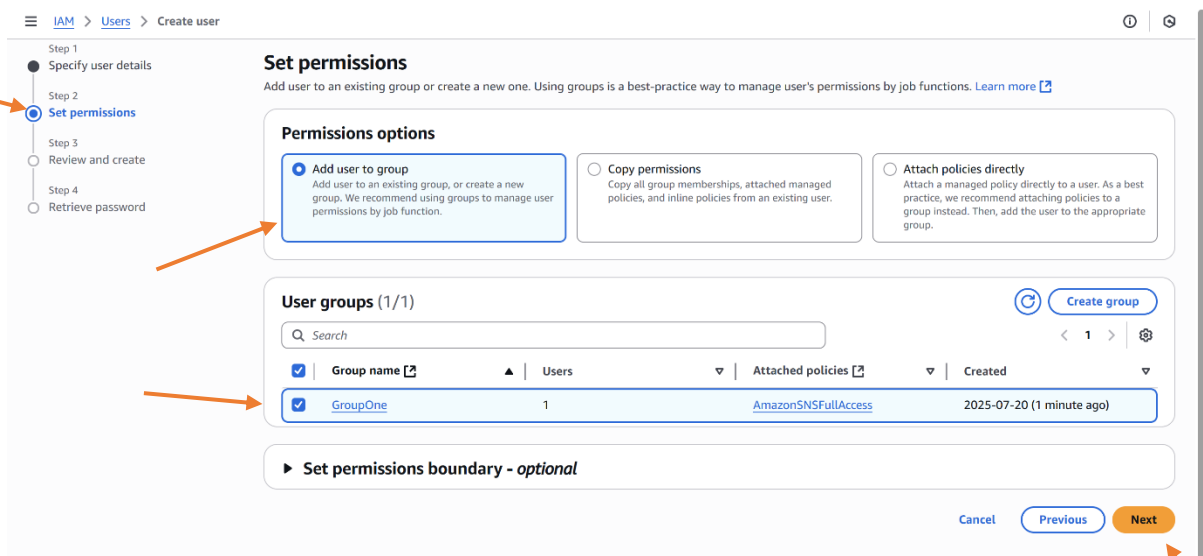
User groups (1) [Info](#) 🔄 [Delete](#) [Create group](#)

A user group is a collection of IAM users. Use groups to specify permissions for a collection of users.

<input type="checkbox"/>	Group name	Users	Permissions	Creation time
<input type="checkbox"/>	GroupOne	1	Defined	Now

Step 11:-

- Now, create another user (usertwo).
- In “Set permissions” select “Add user to group”.
- In this user is directly add to the group.
- Select on “GroupOne”.
- Click on “Next”.



Set permissions
Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. [Learn more](#)

Permissions options

- ☒ **Add user to group**
Add user to an existing group, or create a new group. We recommend using groups to manage user permissions by job function.
- ☐ **Copy permissions**
Copy all group memberships, attached managed policies, and inline policies from an existing user.
- ☐ **Attach policies directly**
Attach a managed policy directly to a user. As a best practice, we recommend attaching policies to a group instead. Then, add the user to the appropriate group.

User groups (1/1) 🔄 [Create group](#)

<input checked="" type="checkbox"/>	Group name	Users	Attached policies	Created
<input checked="" type="checkbox"/>	GroupOne	1	AmazonSNSFullAccess	2025-07-20 (1 minute ago)

▶ **Set permissions boundary - optional**

[Cancel](#) [Previous](#) [Next](#)

- Now there are two users (userone, usertwo) in “GroupOne”.
- Directly add user in the group by click on “Add userd”.

GroupOne Info [Delete](#)

Summary [Edit](#)

User group name: GroupOne | Creation time: July 20, 2025, 22:29 (UTC+05:30) | ARN: arn:aws:iam::515614487437:group/GroupOne

Users (2) | Permissions | Access Advisor

Users in this group (2/2) [Refresh](#) [Remove](#) [Add users](#)

An IAM user is an entity that you create in AWS to represent the person or application that uses it to interact with AWS.

Search

<input checked="" type="checkbox"/>	User name	Groups	Last activity	Creation time
<input checked="" type="checkbox"/>	userone	1	9 minutes ago	14 minutes ago
<input checked="" type="checkbox"/>	usertwo	1	None	Now

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Creating Policies:-

Step 12:-

- In “Access management” goto “Policies”.
- there are already 1380 policies.
- For creating new policies click on “Create policy”.

Identity and Access Management (IAM) <

Search IAM

Dashboard

▼ **Access management**

- User groups
- Users
- Roles
- Policies**
- Identity providers
- Account settings
- Root access management [New](#)

▼ **Access reports**

- Access Analyzer
- Resource analysis [New](#)
- Unused access
- Analyzer settings
- Credential report
- Organization activity

Policies (1380) Info [Refresh](#) [Actions](#) [Delete](#) [Create policy](#)

A policy is an object in AWS that defines permissions.

Search

Filter by Type: All types

	Policy name	Type	Used as	Description
<input type="radio"/>	AccessAnalyzerService...	AWS managed	None	-
<input type="radio"/>	AdministratorAccess	AWS managed - job function	None	Provides full access to AWS services an...
<input type="radio"/>	AdministratorAccess...	AWS managed	None	Grants account administrative permis...
<input type="radio"/>	AdministratorAccess...	AWS managed	None	Grants account administrative permis...
<input type="radio"/>	AIOpsAssistantPolicy	AWS managed	None	Provides ReadOnly permissions requir...
<input type="radio"/>	AIOpsConsoleAdmin...	AWS managed	None	Grants full access to Amazon AI Opera...
<input type="radio"/>	AIOpsOperatorAccess	AWS managed	None	Grants access to the Amazon AI Opera...
<input type="radio"/>	AIOpsReadOnlyAccess	AWS managed	None	Grants ReadOnly permissions to the A...
<input type="radio"/>	AlexaForBusinessDev...	AWS managed	None	Provide device setup access to AlexaFo...
<input type="radio"/>	AlexaForBusinessFull...	AWS managed	None	Grants full access to AlexaForBusiness ...
<input type="radio"/>	AlexaForBusinessGat...	AWS managed	None	Provide gateway execution access to A...

<https://us-east-1.console.aws.amazon.com/iam/home?region=ap-south-1#/policies> © 2025, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

- In “Specify permissions” click on “Select a service”.
- Click on “services”.

Step 1 **Specify permissions**

Step 2 Review and create

Specify permissions Info

Add permissions by selecting services, actions, resources, and conditions. Build permission statements using the JSON editor.

Policy editor Visual JSON Actions ▼ □

▼ **Select a service**
Specify what actions can be performed on specific resources in a service.

Service
Choose a service ▼

[+ Add more permissions](#)

[Cancel](#) [Next](#)

- Select “SNS”.

▼ **Select a service**
Specify what actions can be performed on specific resources in a service.

Service
Choose a service ▲

Q Filter services

Commonly used services

- Auto Scaling
- CloudFront
- EC2
- IAM
- Lambda
- RDS
- S3
- SNS**

Other services

- Access Analyzer
- Account

Step 13:-

- In “Action allowed”, select permission according to the need.
- Select from “List(7)”, “Read(10)”, “Write(19)”, “Permissions management (3)”, “Tagging (2)”.

Step 14:-

- In “Review and create”, Enter “Policy name”. Ex:-policy@123.

Step 1 Specify permissions
Step 2 **Review and create**

Review and create

Review the permissions, specify details, and tags.

Policy details
Policy name
Enter a meaningful name to identify this policy.

Maximum 128 characters. Use alphanumeric and '+=, @, _' characters.
Description - optional
Add a short explanation for this policy.

Maximum 1,000 characters. Use alphanumeric and '+=, @, _' characters.

- Click on “Create policy”.

Permissions defined in this policy

Permissions defined in this policy document specify which actions are allowed or denied. To define permissions for an IAM identity (user, user group, or role), attach a policy to it

Allow (1 of 446 services) ☐ Show remaining 445 services

Service	Access level	Resource	Request condition
SNS	Limited: List, Read, Write	All resources	None

Add tags - optional

Tags are key-value pairs that you can add to AWS resources to help identify, organize, or search for resources.

No tags associated with the resource.

[Add new tag](#)

You can add up to 50 more tags.

[Cancel](#) [Previous](#) [Create policy](#)

- Policy is created.

✓ Policy Policy@123 created. [View policy](#)

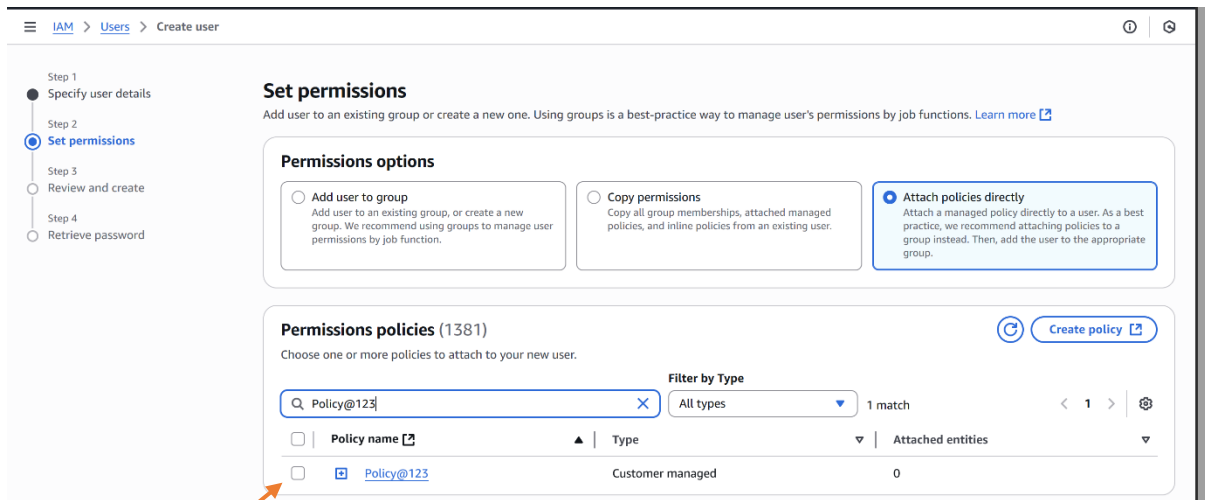
Policies (1/1381)

A policy is an object in AWS that defines permissions.

[Filter by Type](#) All types 1 match

Policy name	Type	Used as	Description
Policy@123	Customer managed	None	-

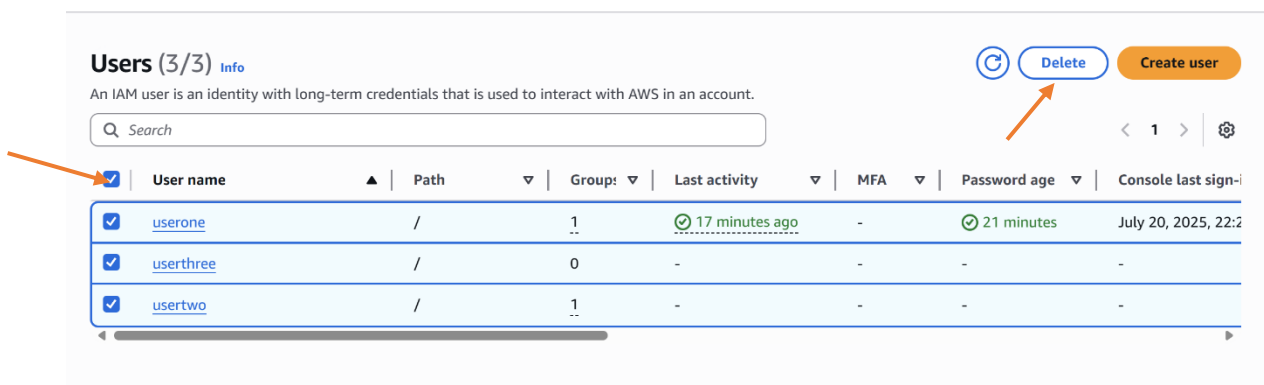
- Now, This Policy is used when we create user next time.



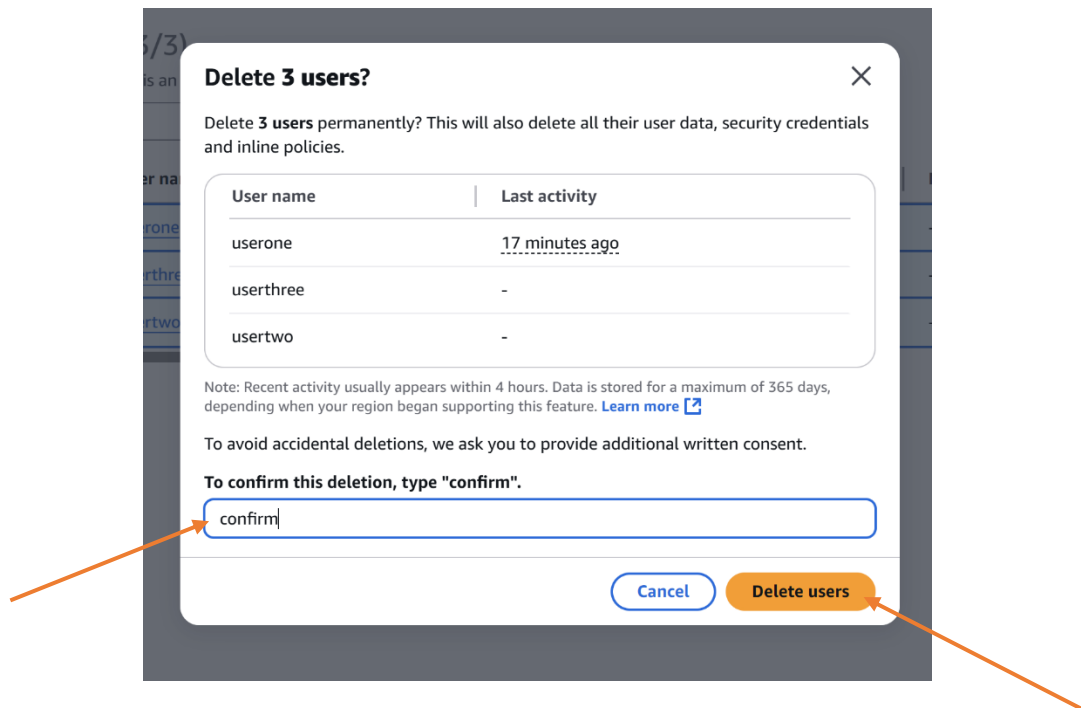
Delete user:

Step 15:-

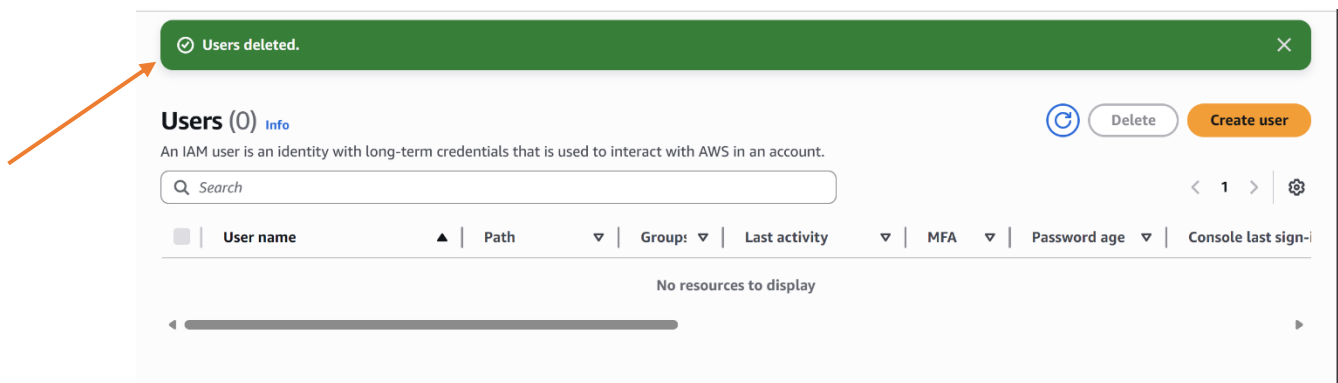
- Select the user which you want to delete. Ex:- userone, usertwo, userthree.
- Click on “Delete”.



- Enter “confirm”.
- Click on “Delete user”.



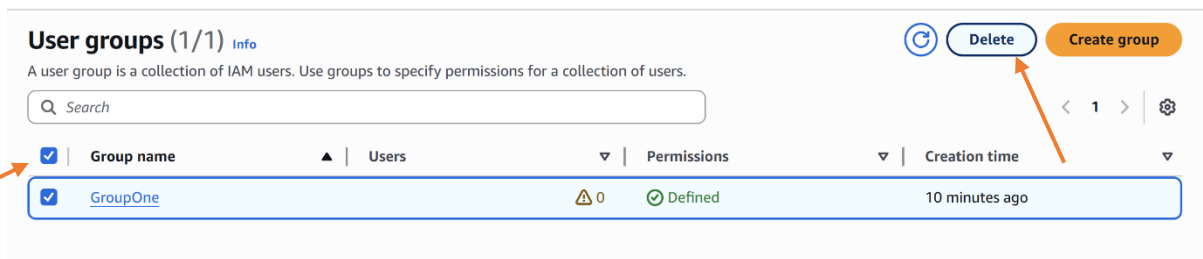
- User is deleted.



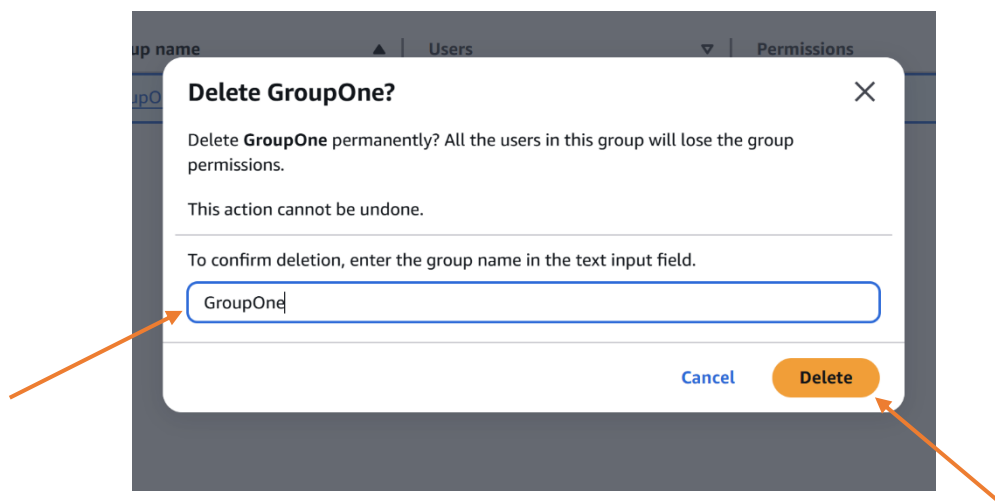
Delete user groups:

Step 16 :-

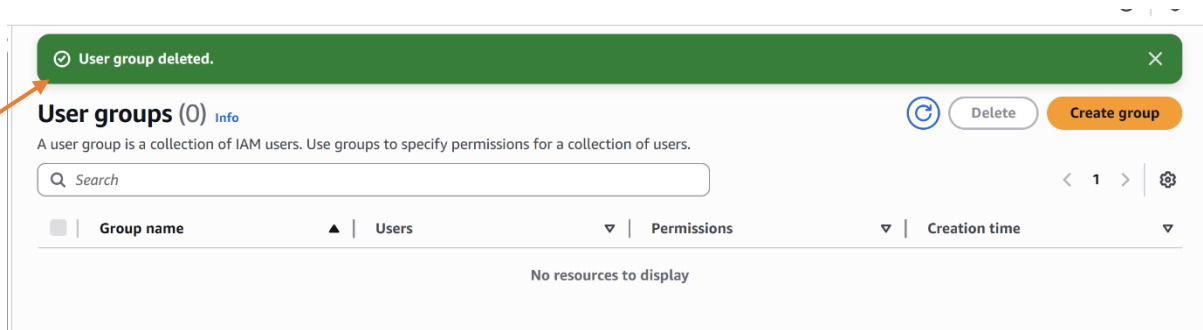
- Goto to the group.
- Select the group which you want to delete.
- Click on “Delete”.



- Enter “Group name”. Ex:- GroupOne.
- Click on “Delete”.



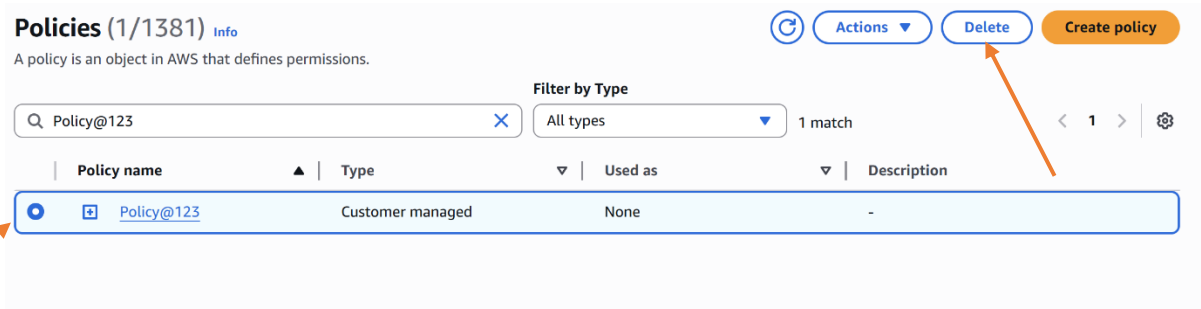
- User group is deleted.



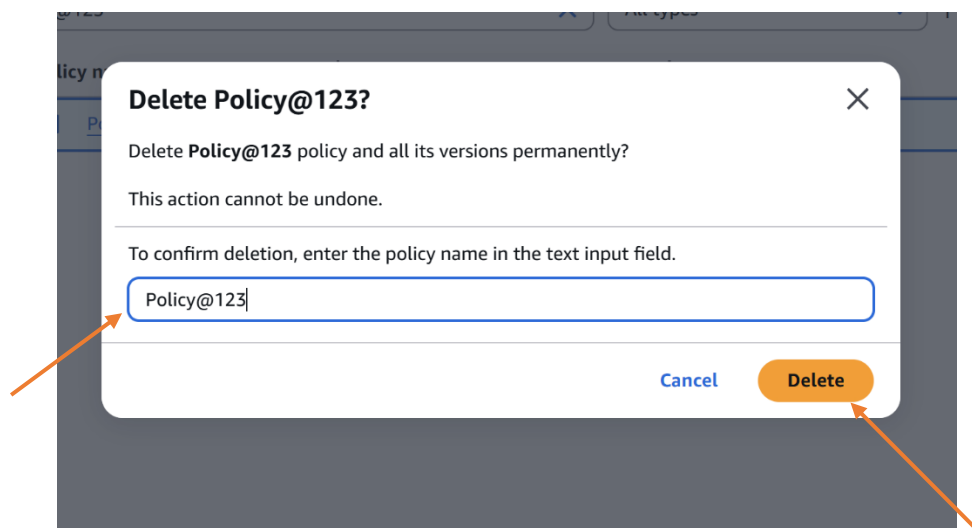
Delete policy:

Step 16 :-

- Goto policy.
- Search policy.
- Select policy.
- Click on “Delete”.



- Enter the “Policy name”. Ex:-Policy@123.
- Click on “Delete”.



- Policy is deleted

