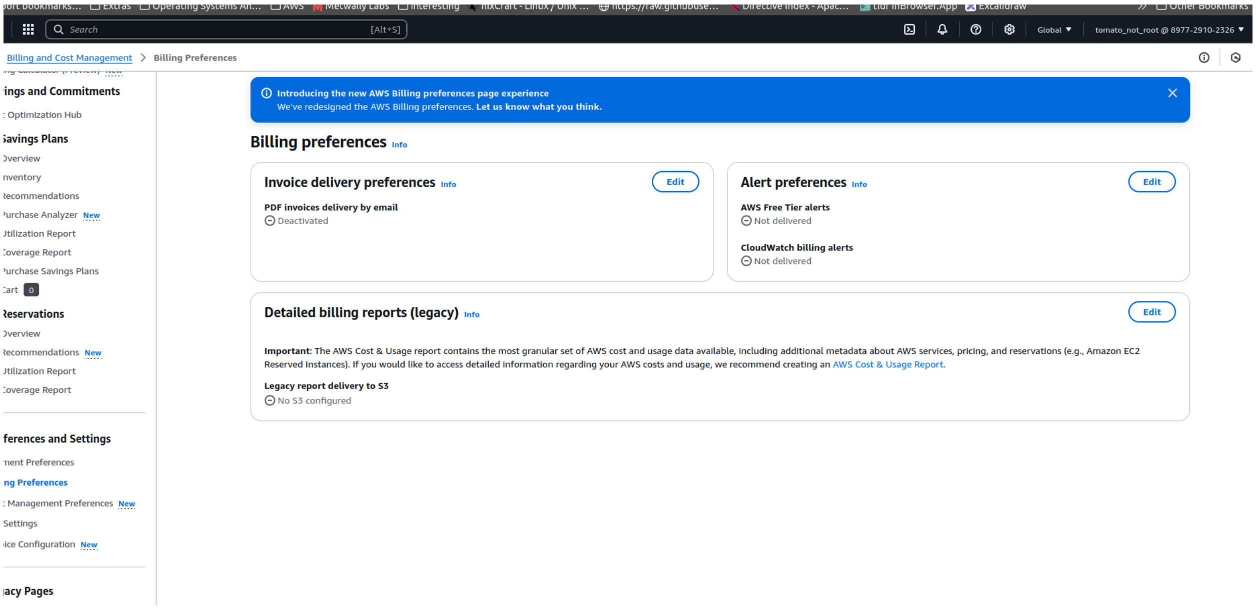
Q1 - Creating an aws account



Introducing the new AWS Billing preferences page experience
We've redesigned the AWS Billing preferences. **Let us know what you think.**

Billing preferences

Invoice delivery preferences

PDF invoices delivery by email
Deactivated

Alert preferences

AWS Free Tier alerts
Not delivered

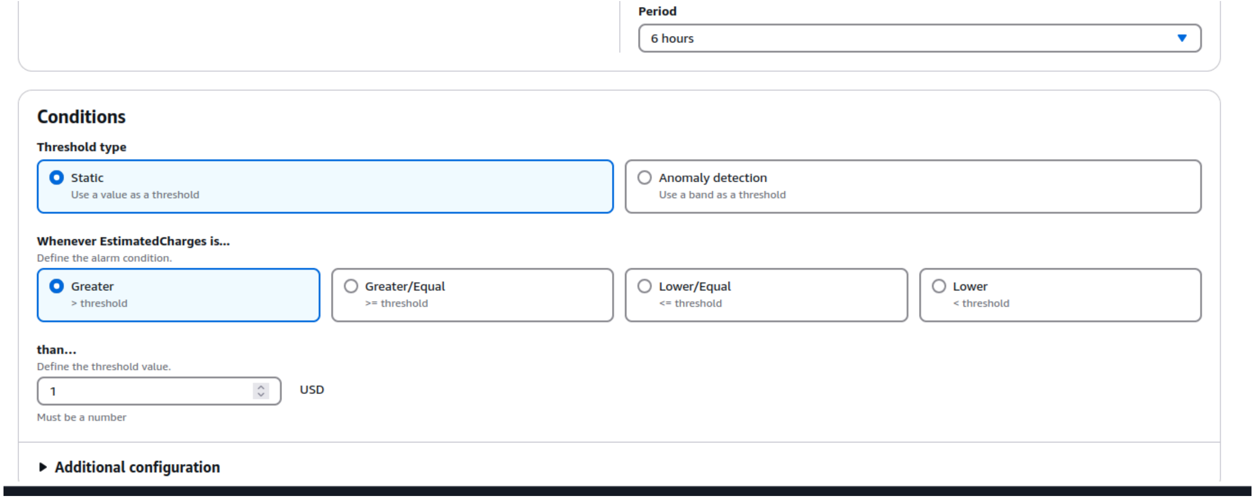
CloudWatch billing alerts
Not delivered

Detailed billing reports (legacy)

Important: The AWS Cost & Usage report contains the most granular set of AWS cost and usage data available, including additional metadata about AWS services, pricing, and reservations (e.g., Amazon EC2 Reserved Instances). If you would like to access detailed information regarding your AWS costs and usage, we recommend creating an AWS Cost & Usage Report.

Legacy report delivery to S3
No S3 configured

Editing the Alert preference to enable the Cloudwatch notifications on the account
And accessing billing and creating an alarm by creating a cloudwatch alarm



Period
6 hours

Conditions

Threshold type

● Static
Use a value as a threshold

○ Anomaly detection
Use a band as a threshold

Whenever EstimatedCharges is...
Define the alarm condition.

● Greater
> threshold

○ Greater/Equal
>= threshold

○ Lower/Equal
<= threshold

○ Lower
< threshold

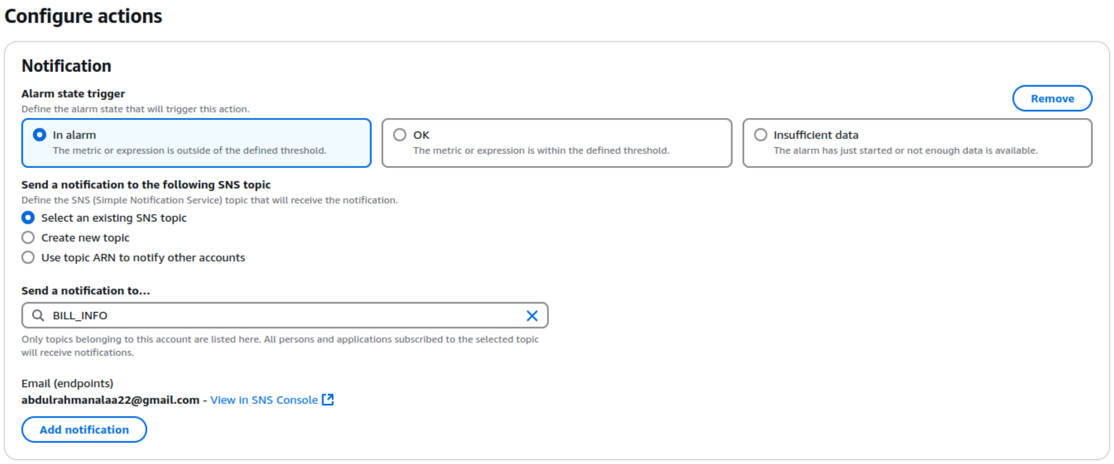
than...
Define the threshold value.

1 USD

Must be a number

▶ **Additional configuration**

Create an Alaram on 1$ estimated usage



Configure actions

Notification

Alarm state trigger
Define the alarm state that will trigger this action.

● In alarm — The metric or expression is outside of the defined threshold.
○ OK — The metric or expression is within the defined threshold.
○ Insufficient data — The alarm has just started or not enough data is available.

Send a notification to the following SNS topic
Define the SNS (Simple Notification Service) topic that will receive the notification.

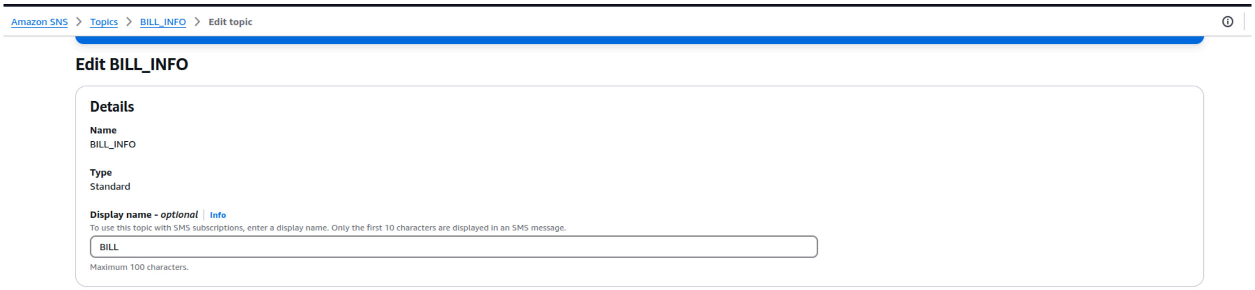
● Select an existing SNS topic
○ Create new topic
○ Use topic ARN to notify other accounts

Send a notification to...
BILL_INFO

Only topics belonging to this account are listed here. All persons and applications subscribed to the selected topic will receive notifications.

Email (endpoints)
abdulrahmanalaa22@gmail.com - View in SNS Console

Next create an SNS to publish to and attach an email subscriber at the other end



Edit BILL_INFO

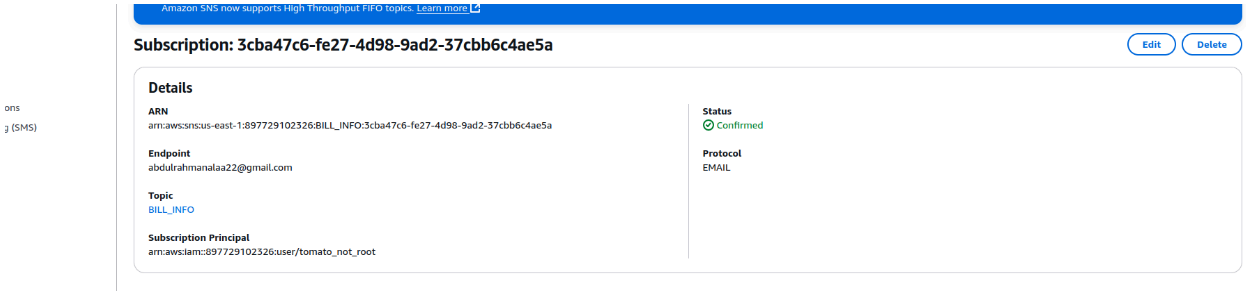
Details

Name
BILL_INFO

Type
Standard

Display name - *optional* | Info
To use this topic with SMS subscriptions, enter a display name. Only the first 10 characters are displayed in an SMS message.
BILL
Maximum 100 characters.

Subscribe to the topic using your account



Amazon SNS now supports High Throughput FIFO topics. Learn more
ons
g (SMS)
Edit
Delete

Subscription: 3cba47c6-fe27-4d98-9ad2-37cbb6c4ae5a

Details

ARN
arn:aws:sns:us-east-1:897729102326:BILL_INFO:3cba47c6-fe27-4d98-9ad2-37cbb6c4ae5a

Endpoint
abdulrahmanalaa22@gmail.com

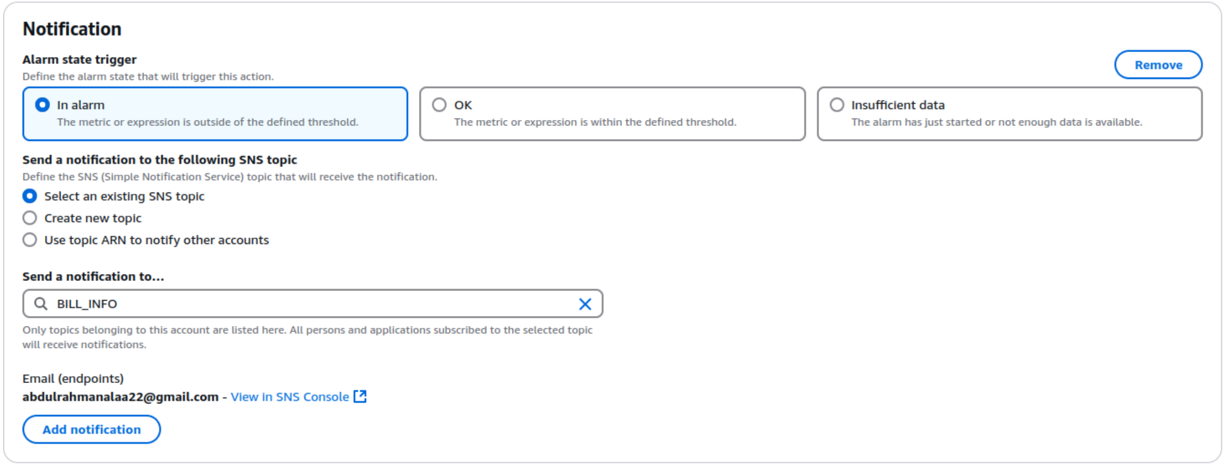
Topic
BILL_INFO

Subscription Principal
arn:aws:iam::897729102326:user/tomato_not_root

Status
✓ Confirmed

Protocol
EMAIL

Finally attach the topic to the alarm



Notification

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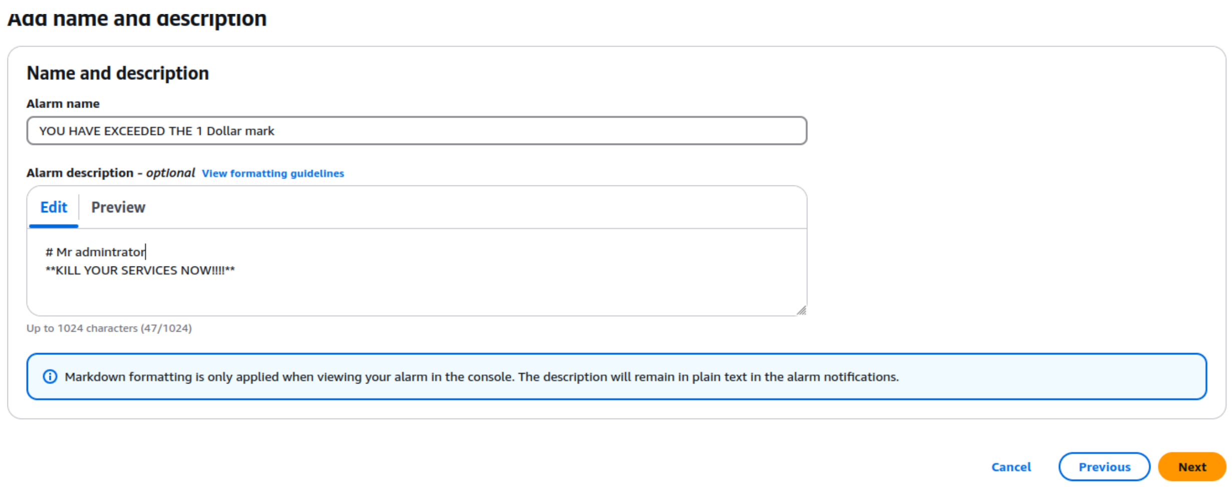


Add name and description

Name and description

Alarm name

YOU HAVE EXCEEDED THE 1 Dollar mark

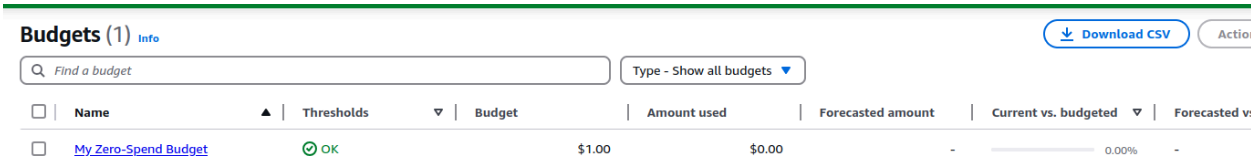
Alarm description - *optional* View formatting guidelines

```
# Mr admintrator
**KILL YOUR SERVICES NOW!!!!**
```

Up to 1024 characters (47/1024)

ⓘ Markdown formatting is only applied when viewing your alarm in the console. The description will remain in plain text in the alarm notifications.

Create a message for your alarm
Or simply create a zero-spend budget from a budget template



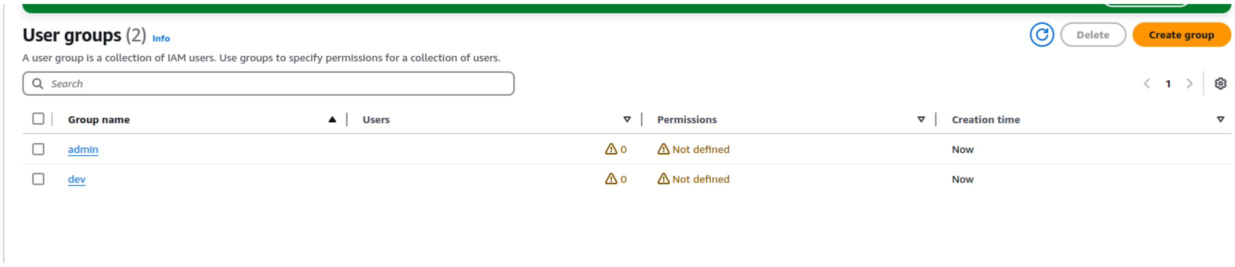
Budgets (1) Info

Find a budget

Type - Show all budgets

☐	Name	Thresholds	Budget	Amount used	Forecasted amount	Current vs. budgeted	Forecasted v:
☐	My Zero-Spend Budget	✓ OK	$1.00	$0.00	-	0.00%	-

Q2: create 2 groups and make 1 admin and one dev group



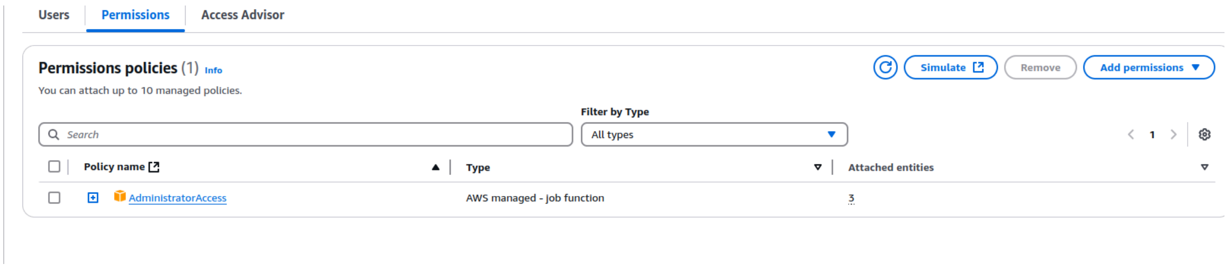
User groups (2) Info

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

Search

☐	Group name	Users	Permissions	Creation time
☐	admin	⚠ 0	⚠ Not defined	Now
☐	dev	⚠ 0	⚠ Not defined	Now

Q3: give the admin group administrative access by attaching admin policy



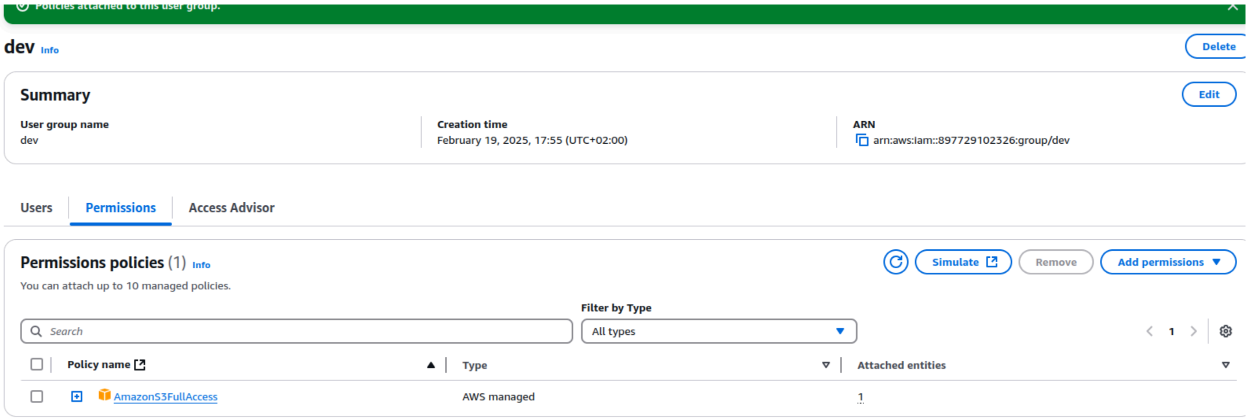
Permissions policies (1) Info

You can attach up to 10 managed policies.

Search

Filter by Type: All types

☐	Policy name	Type	Attached entities
☐	⊞ AdministratorAccess	AWS managed - job function	3



Policies attached to this user group.

dev Info

Summary

User group name	Creation time	ARN
dev	February 19, 2025, 17:55 (UTC+02:00)	arn:aws:iam::897729102326:group/dev

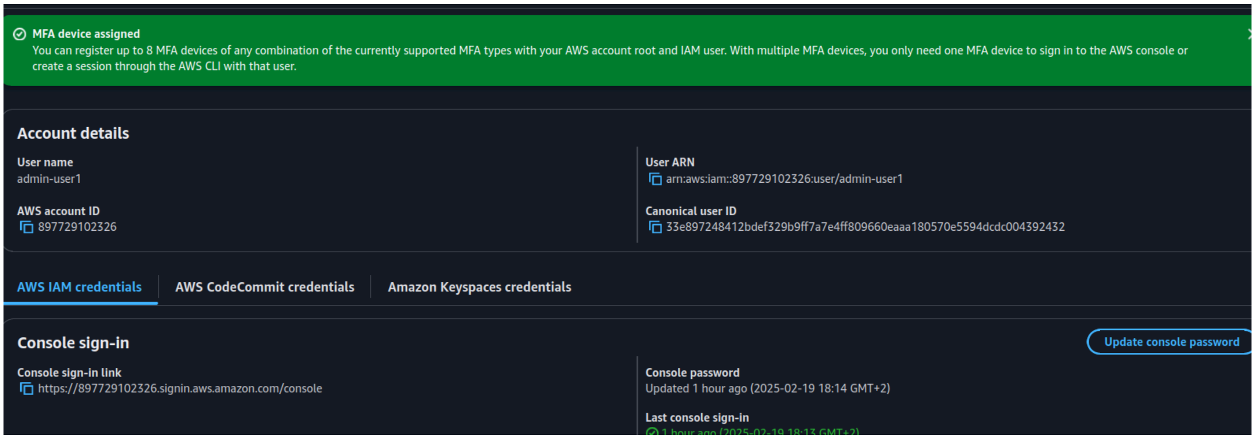
Permissions policies (1) Info

You can attach up to 10 managed policies.

Filter by Type: All types

☐	Policy name	Type	Attached entities
☐	AmazonS3FullAccess	AWS managed	1

Q4: add mfa to the admin user 1



MFA device assigned

You can register up to 8 MFA devices of any combination of the currently supported MFA types with your AWS account root and IAM user. With multiple MFA devices, you only need one MFA device to sign in to the AWS console or create a session through the AWS CLI with that user.

Account details

User name: admin-user1

AWS account ID: 897729102326

User ARN: arn:aws:iam::897729102326:user/admin-user1

Canonical user ID: 33e897248412bdef329b9ff7a7e4ff809660eaaa180570e5594dcdc004392432

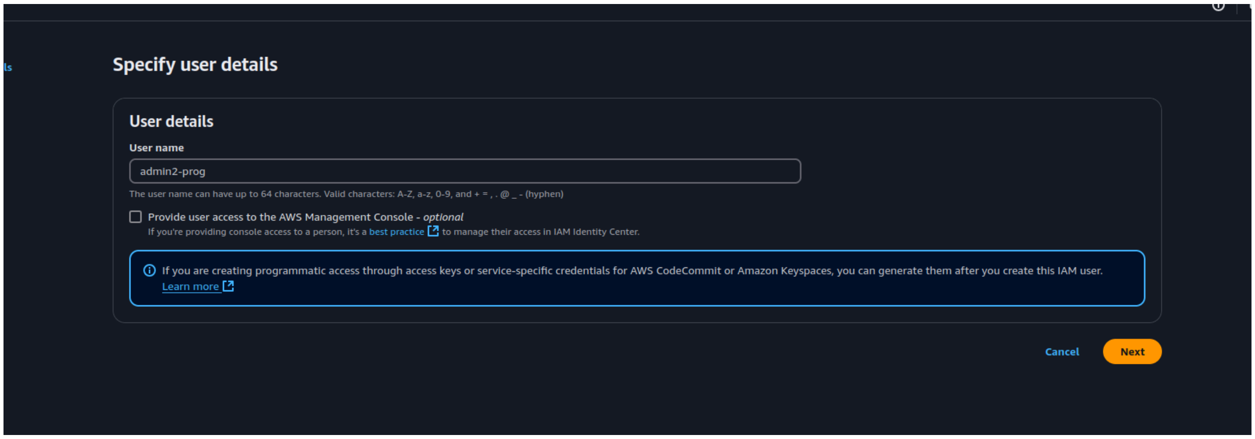
Console sign-in

Console sign-in link: https://897729102326.signin.aws.amazon.com/console

Console password: Updated 1 hour ago (2025-02-19 18:14 GMT+2)

Last console sign-in: 1 hour ago (2025-02-19 18:13 GMT+2)

Q5: add admin2-prog and access with the aws cli



Specify user details

User details

User name: admin2-prog

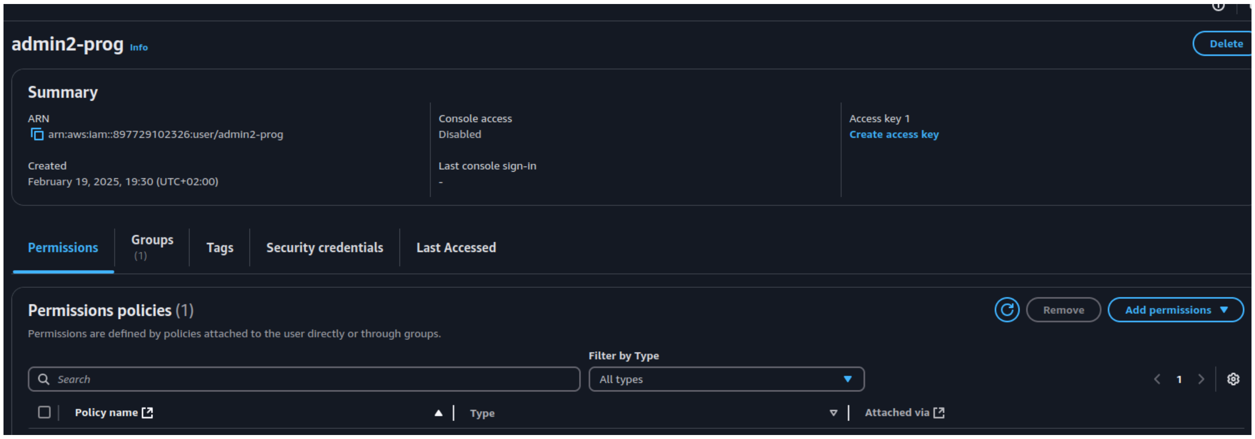
The user name can have up to 64 characters. Valid characters: A-Z, a-z, 0-9, and + = , . @ _ - (hyphen)

☐ 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.

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

First add an access key to the created user



admin2-prog Info

Summary

ARN
arn:aws:iam::897729102326:user/admin2-prog

Created
February 19, 2025, 19:30 (UTC+02:00)

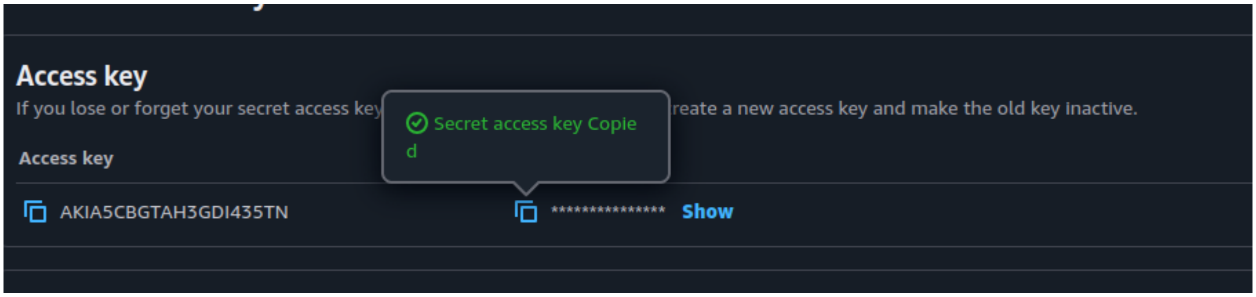
Console access
Disabled

Last console sign-in
-

Access key 1
Create access key

Permissions policies (1)
Permissions are defined by policies attached to the user directly or through groups.

Filter by Type
All types



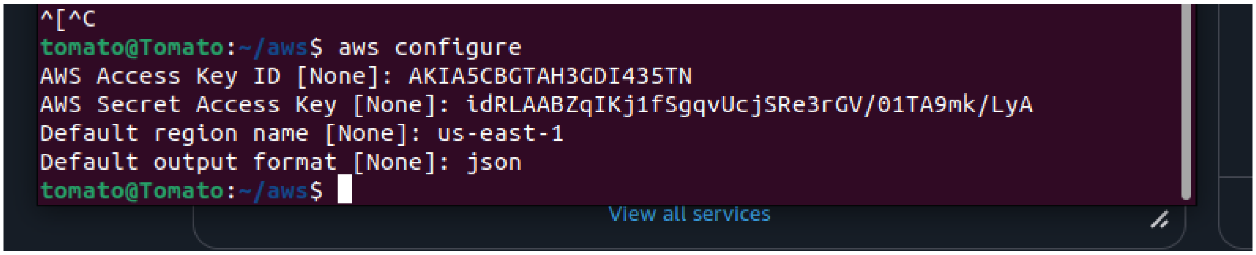
Access key

If you lose or forget your secret access key reate a new access key and make the old key inactive.

Secret access key Copied

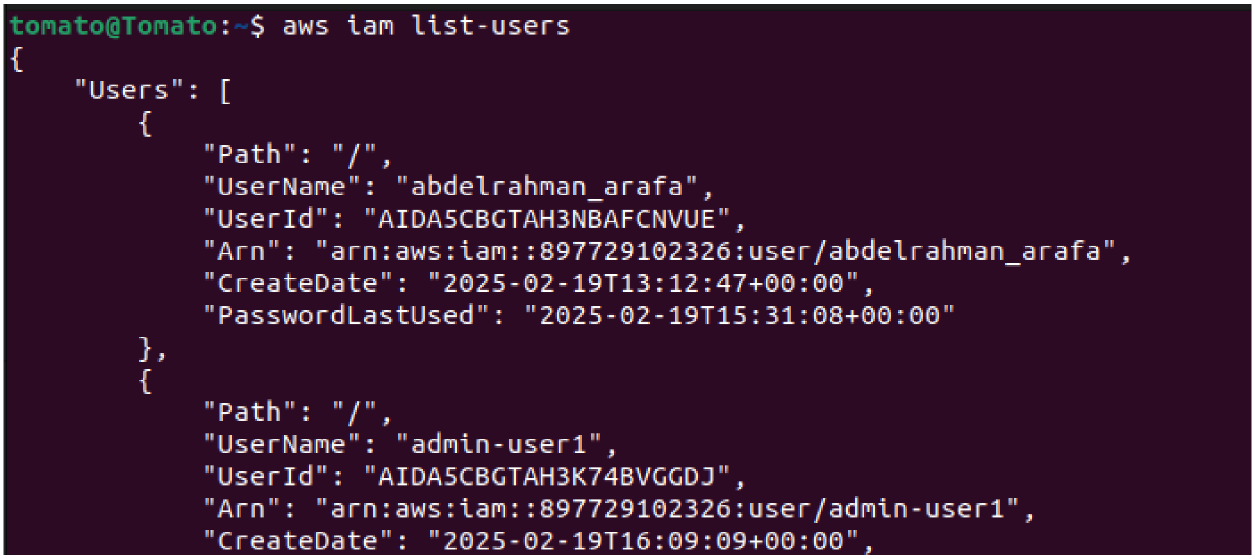
Access key	
AKIA5CBGTAH3GDI435TN	***************

Using aws configure to add my secret access key



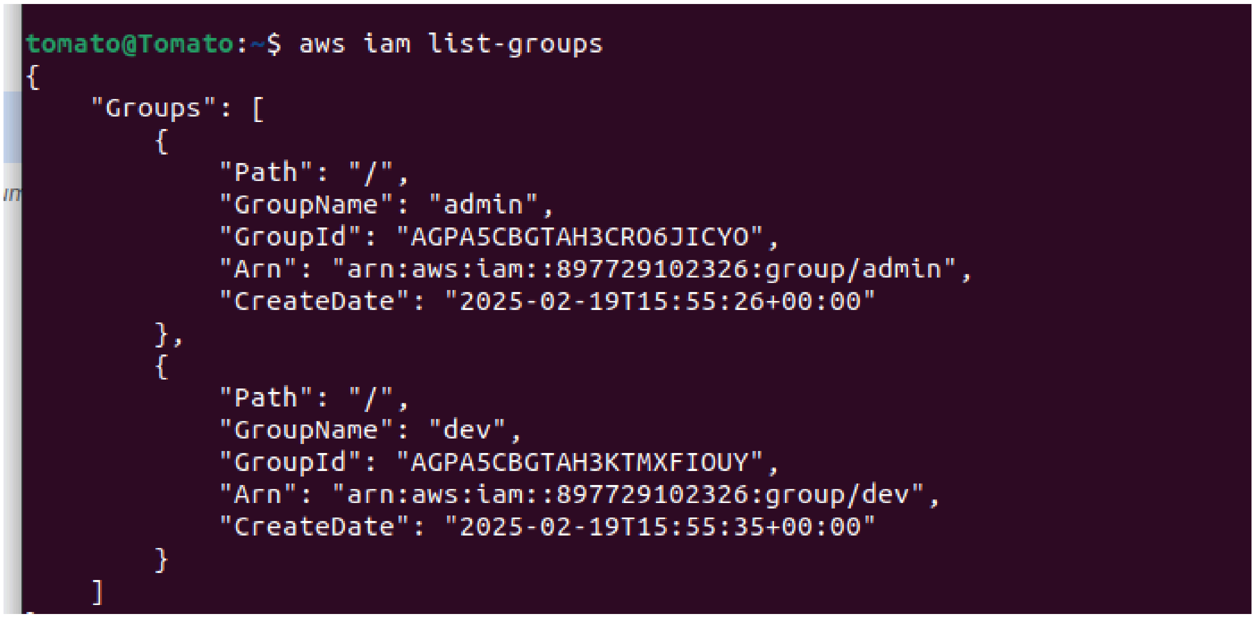
```
^[^C
tomato@Tomato:~/aws$ aws configure
AWS Access Key ID [None]: AKIA5CBGTAH3GDI435TN
AWS Secret Access Key [None]: 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
Default region name [None]: us-east-1
Default output format [None]: json
tomato@Tomato:~/aws$ 
```

Using aws cli to list-users



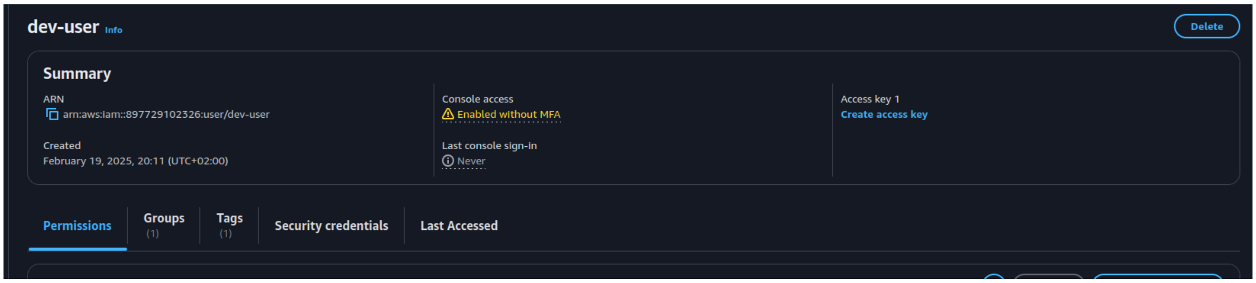
```
tomato@Tomato:~$ aws iam list-users
{
    "Users": [
        {
            "Path": "/",
            "UserName": "abdelrahman_arafa",
            "UserId": "AIDA5CBGTAH3NBAFCNVUE",
            "Arn": "arn:aws:iam::897729102326:user/abdelrahman_arafa",
            "CreateDate": "2025-02-19T13:12:47+00:00",
            "PasswordLastUsed": "2025-02-19T15:31:08+00:00"
        },
        {
            "Path": "/",
            "UserName": "admin-user1",
            "UserId": "AIDA5CBGTAH3K74BVGGDJ",
            "Arn": "arn:aws:iam::897729102326:user/admin-user1",
            "CreateDate": "2025-02-19T16:09:09+00:00",
```

Using aws cli to list-groups



```
tomato@Tomato:~$ aws iam list-groups
{
    "Groups": [
        {
            "Path": "/",
            "GroupName": "admin",
            "GroupId": "AGPA5CBGTAH3CRO6JICYO",
            "Arn": "arn:aws:iam::897729102326:group/admin",
            "CreateDate": "2025-02-19T15:55:26+00:00"
        },
        {
            "Path": "/",
            "GroupName": "dev",
            "GroupId": "AGPA5CBGTAH3KTMXFIOUY",
            "Arn": "arn:aws:iam::897729102326:group/dev",
            "CreateDate": "2025-02-19T15:55:35+00:00"
        }
    ]
```

Q6: Create dev user



dev-user Info

Summary

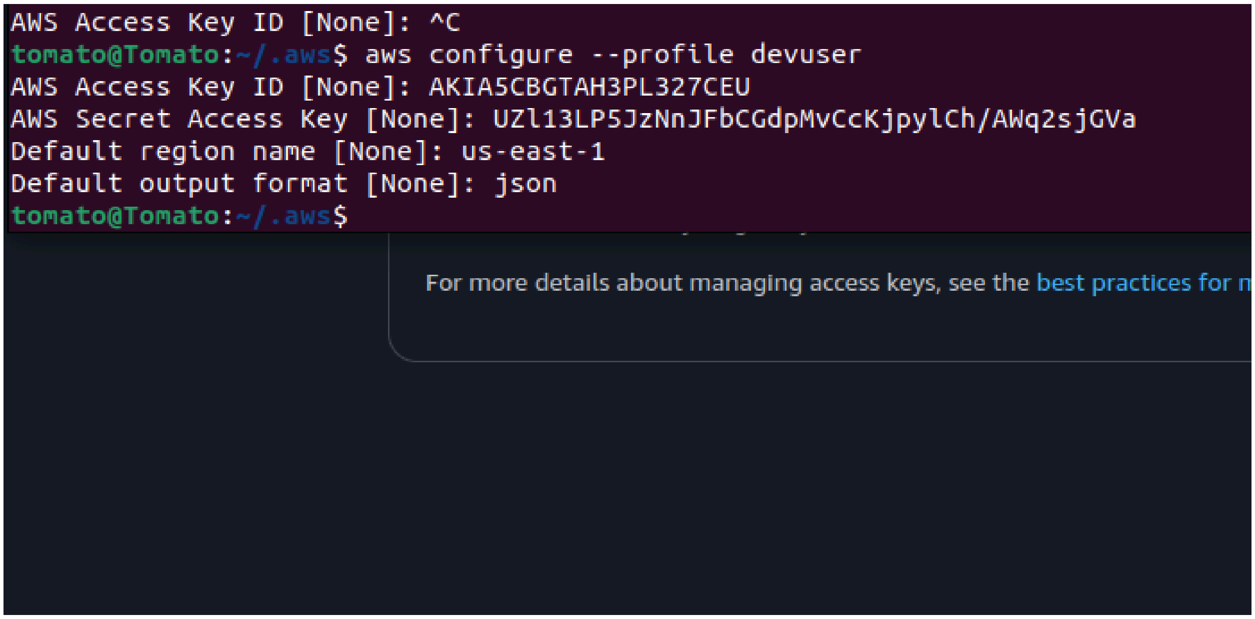
ARN
arn:aws:iam::897729102326:user/dev-user

Created
February 19, 2025, 20:11 (UTC+02:00)

Console access
⚠ Enabled without MFA

Last console sign-in
ⓘ Never

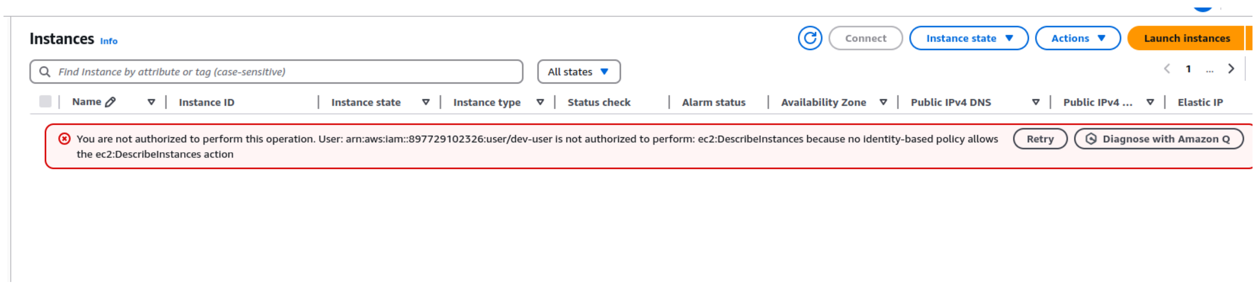
Access key 1
Create access key



```
AWS Access Key ID [None]: ^C
tomato@Tomato:~/.aws$ aws configure --profile devuser
AWS Access Key ID [None]: AKIA5CBGTAH3PL327CEU
AWS Secret Access Key [None]: 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
Default region name [None]: us-east-1
Default output format [None]: json
tomato@Tomato:~/.aws$
```

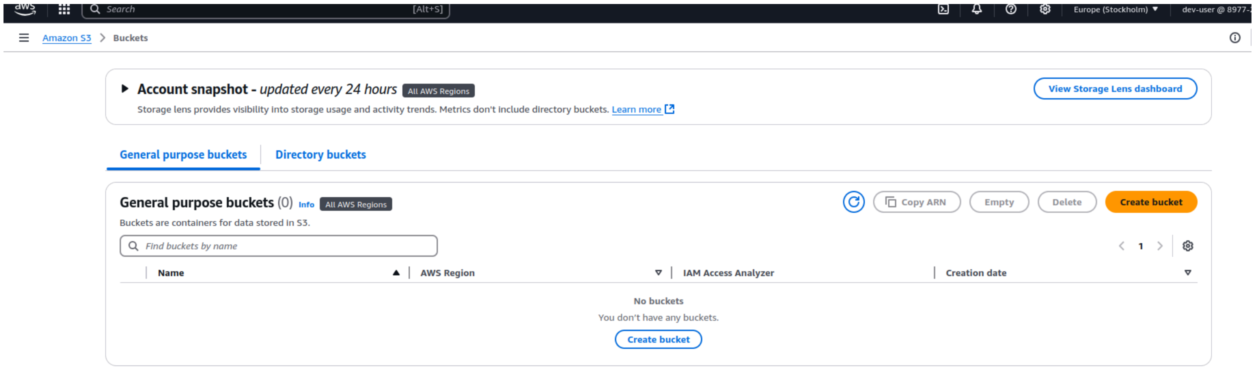
For more details about managing access keys, see the best practices for m

checking the ec2 instance



You are not authorized to perform this operation. User: arn:aws:iam::897729102326:user/dev-user is not authorized to perform: ec2:DescribeInstances because no identity-based policy allows the ec2:DescribeInstances action

Checking s3



Account snapshot - *updated every 24 hours* All AWS Regions

Storage lens provides visibility into storage usage and activity trends. Metrics don't include directory buckets. Learn more

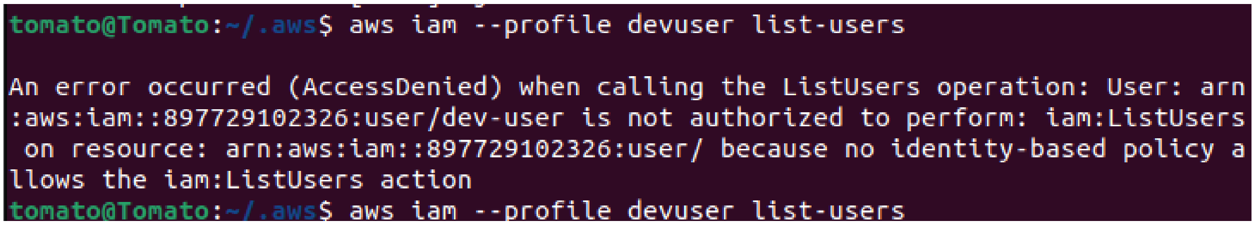
General purpose buckets (0)

Buckets are containers for data stored in S3.

No buckets

You don't have any buckets.

Q9: we can see that the devuser doesnt have access for the iam users



```
tomato@Tomato:~/.aws$ aws iam --profile devuser list-users

An error occurred (AccessDenied) when calling the ListUsers operation: User: arn
:aws:iam::897729102326:user/dev-user is not authorized to perform: iam:ListUsers
 on resource: arn:aws:iam::897729102326:user/ because no identity-based policy a
llows the iam:ListUsers action
tomato@Tomato:~/.aws$ aws iam --profile devuser list-users
```