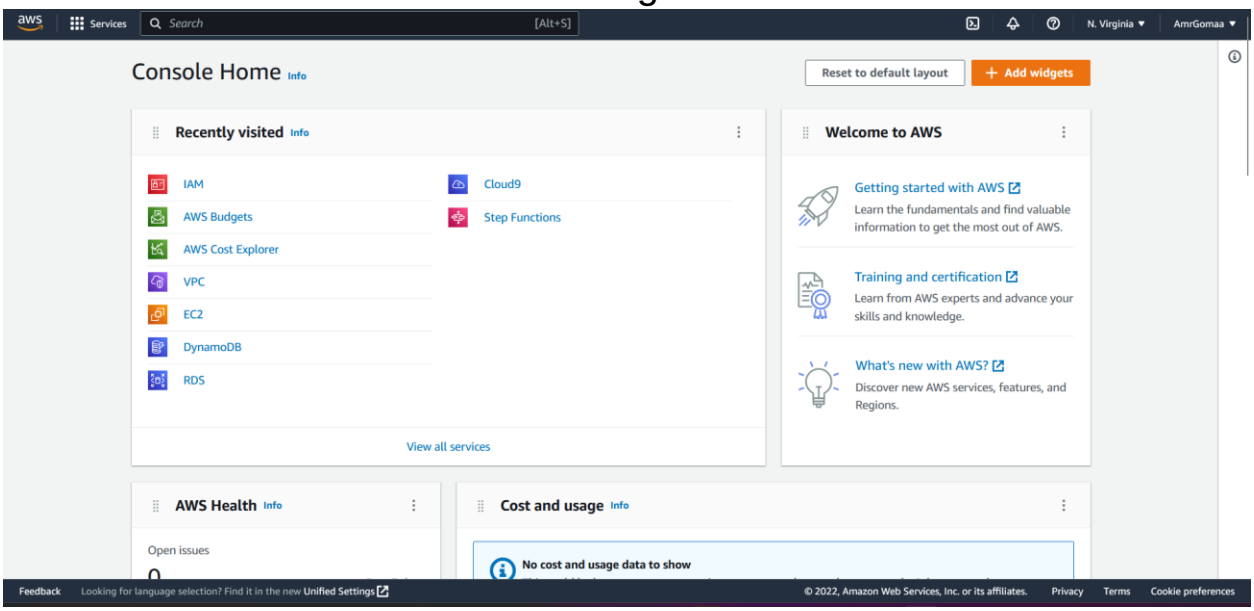
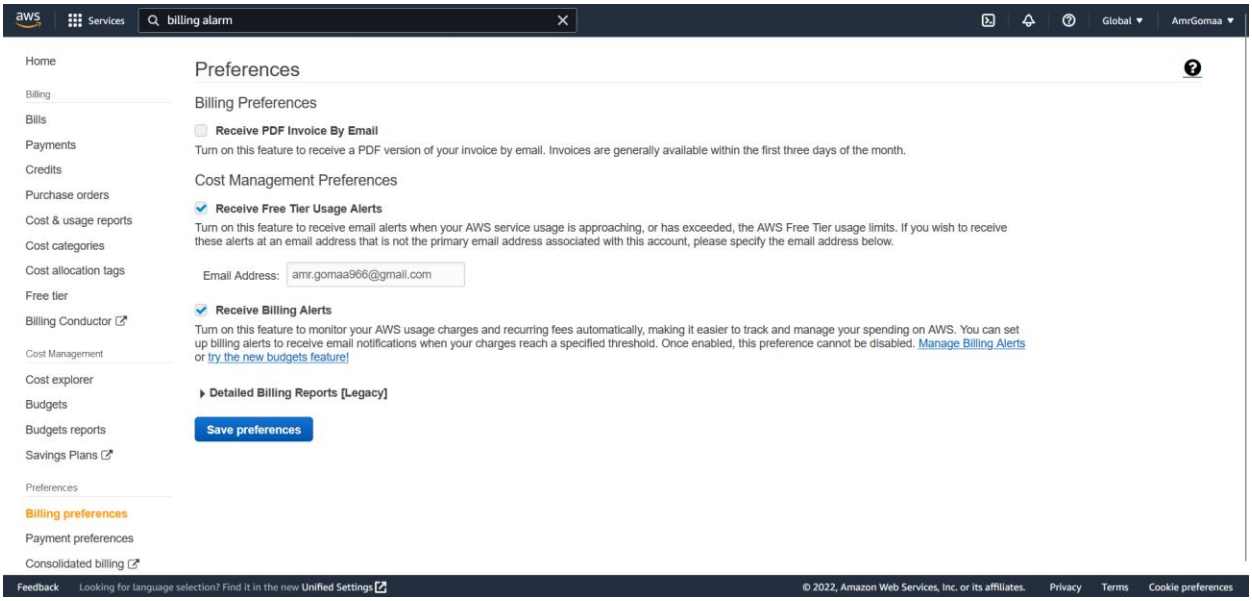
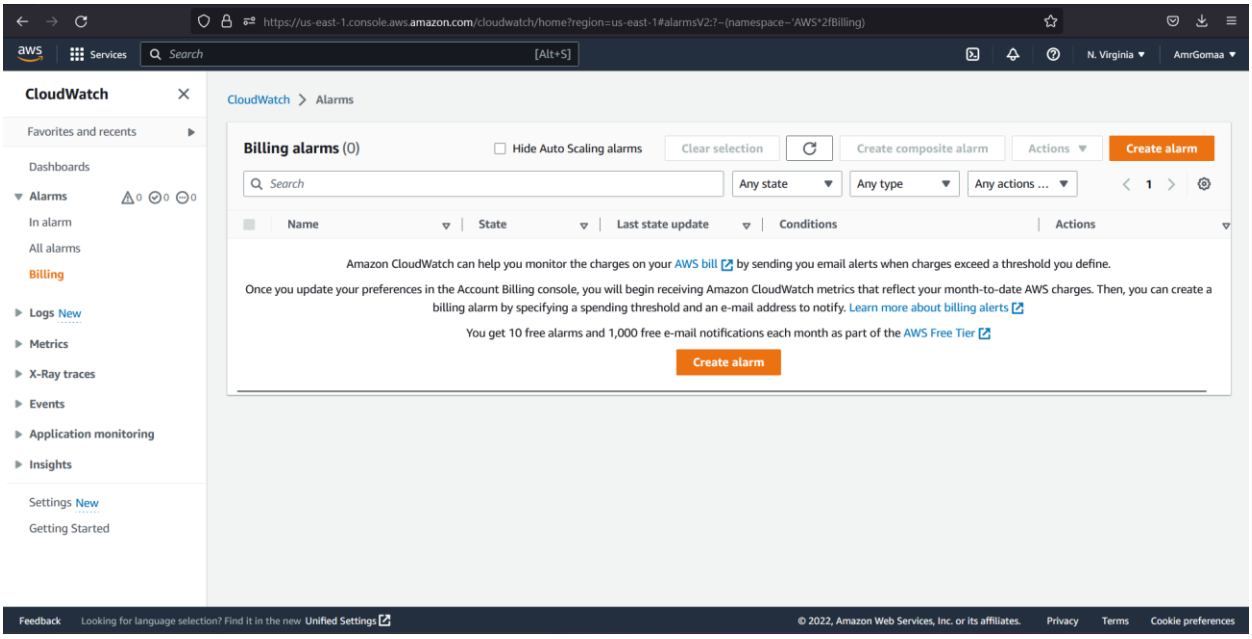
AWS LAB1:

1- Create aws account and set billing alarm




https://us-east-1.console.aws.amazon.com/cloudwatch/home?region=us-east-1#alarmsV2:?~(namespace~'AWS*2fBilling)
aws
Services
Search
[Alt+S]
N. Virginia
AmrGomaa
CloudWatch
Favorites and recents
Dashboards
Alarms
In alarm
All alarms
Billing
Logs New
Metrics
X-Ray traces
Events
Application monitoring
Insights
Settings New
Getting Started
CloudWatch > Alarms
Billing alarms (0)
Hide Auto Scaling alarms
Clear selection
Create composite alarm
Actions
Create alarm
Search
Any state
Any type
Any actions ...
Name
State
Last state update
Conditions
Actions
Amazon CloudWatch can help you monitor the charges on your AWS bill by sending you email alerts when charges exceed a threshold you define.
Once you update your preferences in the Account Billing console, you will begin receiving Amazon CloudWatch metrics that reflect your month-to-date AWS charges. Then, you can create a billing alarm by specifying a spending threshold and an e-mail address to notify. Learn more about billing alerts
You get 10 free alarms and 1,000 free e-mail notifications each month as part of the AWS Free Tier
Create alarm
Feedback
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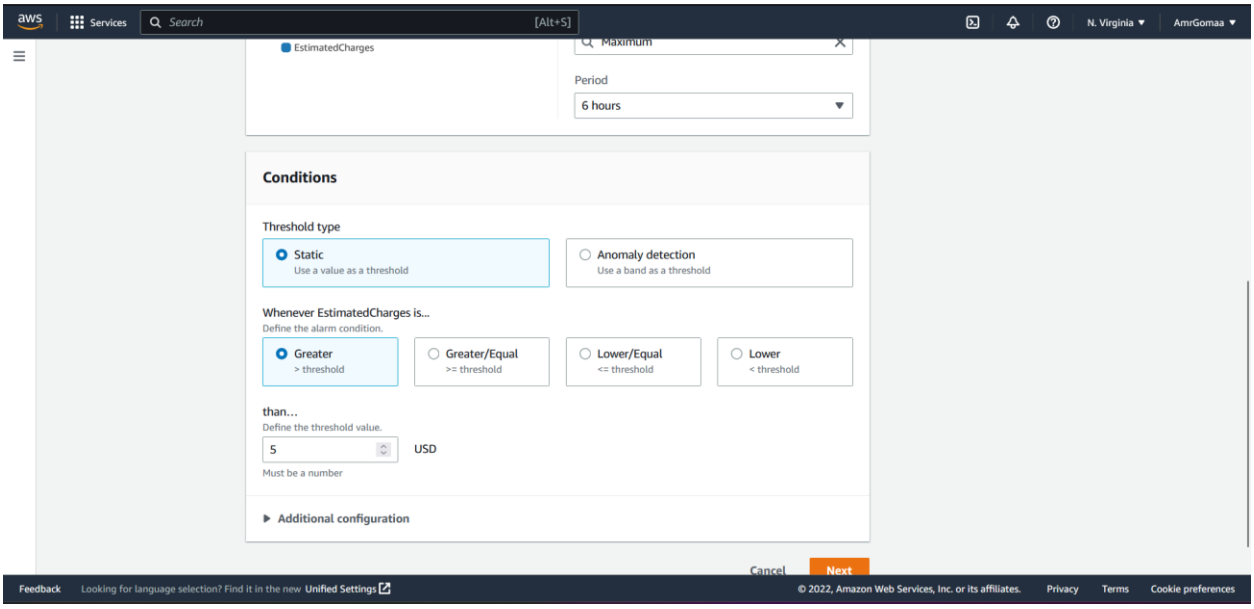
aws
Services
Search
[Alt+S]
N. Virginia
AmrGomaa
EstimatedCharges
Maximum
Period
6 hours
Conditions
Threshold type
Static
Use a value as a threshold
Anomaly detection
Use a band as a threshold
Whenever EstimatedCharges is...
Define the alarm condition.
Greater
> threshold
Greater/Equal
>= threshold
Lower/Equal
<= threshold
Lower
< threshold
than...
Define the threshold value.
5
USD
Must be a number
Additional configuration
Cancel
Next
Feedback
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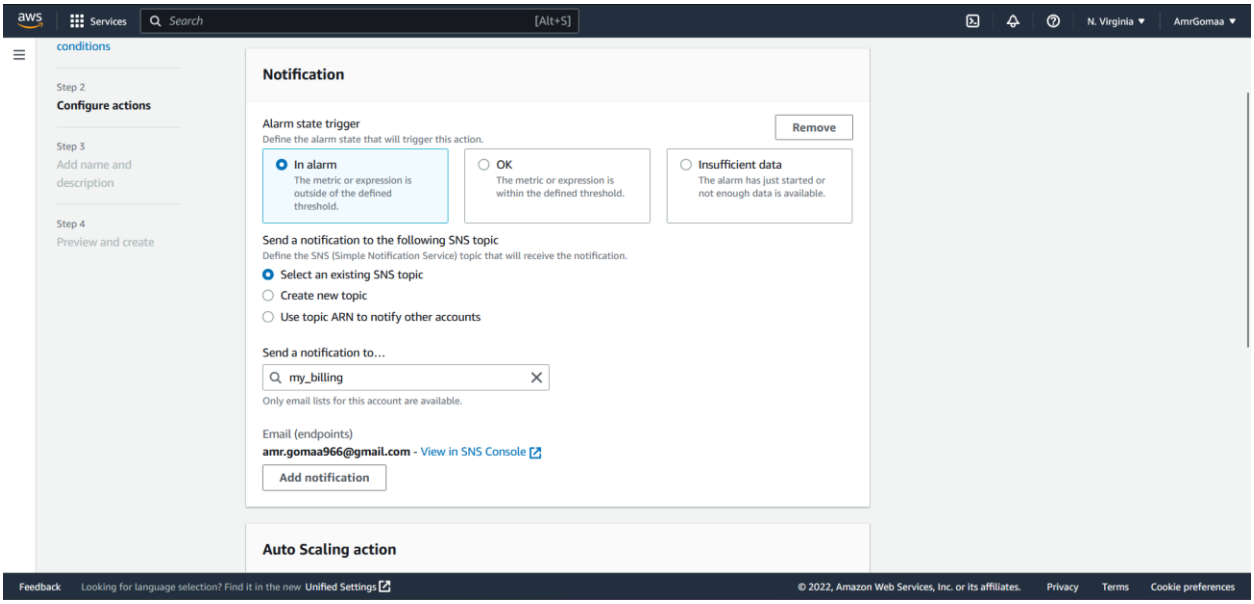
aws
Services
Search
[Alt+S]
N. Virginia
AmrGomaa
conditions
Step 2
Configure actions
Step 3
Add name and description
Step 4
Preview and create
Notification
Alarm state trigger
Define the alarm state that will trigger this action.
Remove
In alarm
The metric or expression is outside of the defined threshold.
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...
my_billing
Only email lists for this account are available.
Email (endpoints)
amr.gomaa966@gmail.com - View in SNS Console
Add notification
Auto Scaling action
Feedback
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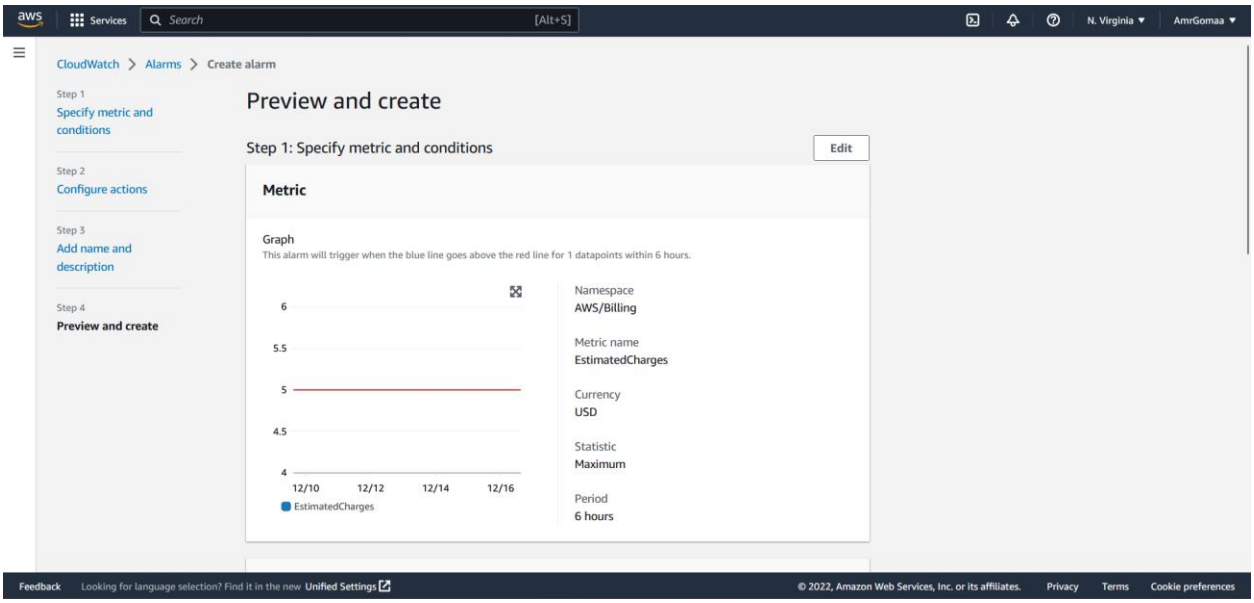
aws
Services
Search
[Alt+S]
N. Virginia
AmrGomaa
CloudWatch > Alarms > Create alarm
Step 1
Specify metric and conditions
Step 2
Configure actions
Step 3
Add name and description
Step 4
Preview and create
Preview and create
Step 1: Specify metric and conditions
Edit
Metric
Graph
This alarm will trigger when the blue line goes above the red line for 1 datapoints within 6 hours.
6
5.5
5
4.5
4
12/10
12/12
12/14
12/16
EstimatedCharges
Namespace
AWS/Billing
Metric name
EstimatedCharges
Currency
USD
Statistic
Maximum
Period
6 hours
Feedback
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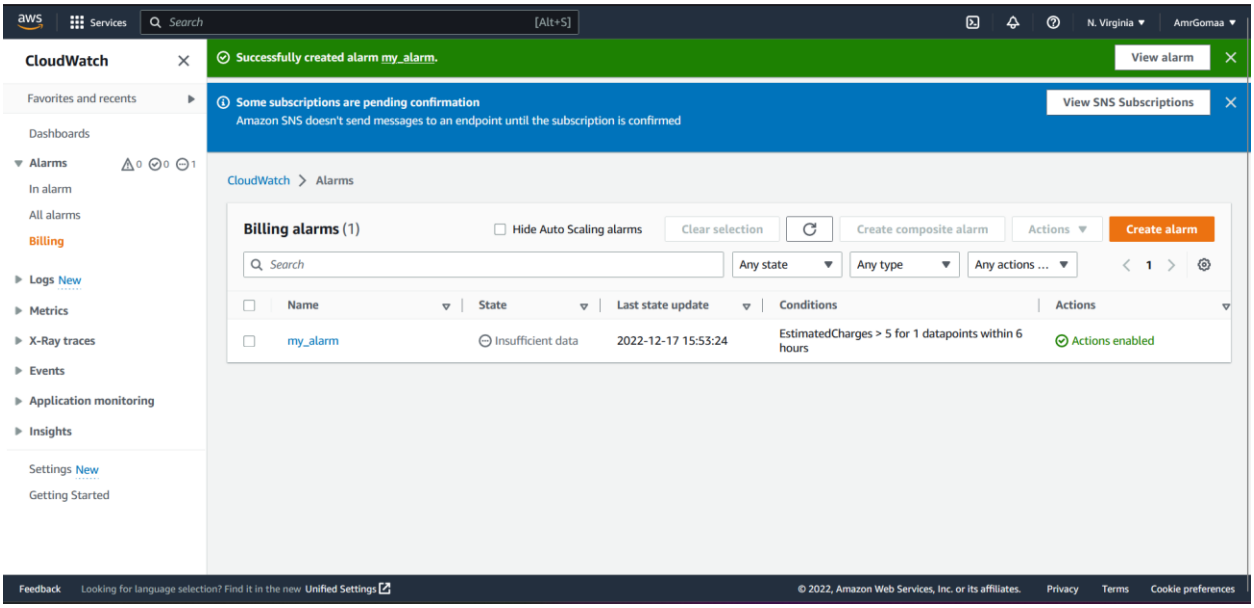
aws
Services
Search
[Alt+S]
N. Virginia
AmrGomaa
CloudWatch
Favorites and recents
Dashboards
Alarms
In alarm
All alarms
Billing
Logs New
Metrics
X-Ray traces
Events
Application monitoring
Insights
Settings New
Getting Started
Successfully created alarm my_alarm.
View alarm
Some subscriptions are pending confirmation
Amazon SNS doesn't send messages to an endpoint until the subscription is confirmed
View SNS Subscriptions
CloudWatch > Alarms
Billing alarms (1)
Hide Auto Scaling alarms
Clear selection
Create composite alarm
Actions
Create alarm
Search
Any state
Any type
Any actions ...
Name
State
Last state update
Conditions
Actions
my_alarm
Insufficient data
2022-12-17 15:53:24
EstimatedCharges > 5 for 1 datapoints within 6 hours
Actions enabled
Feedback
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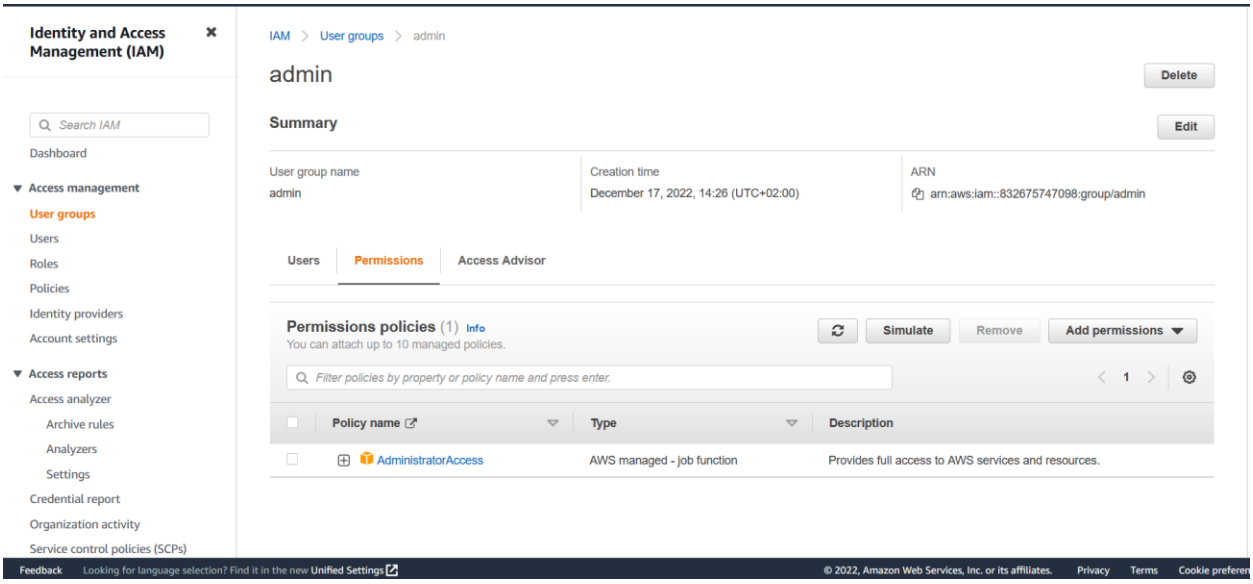
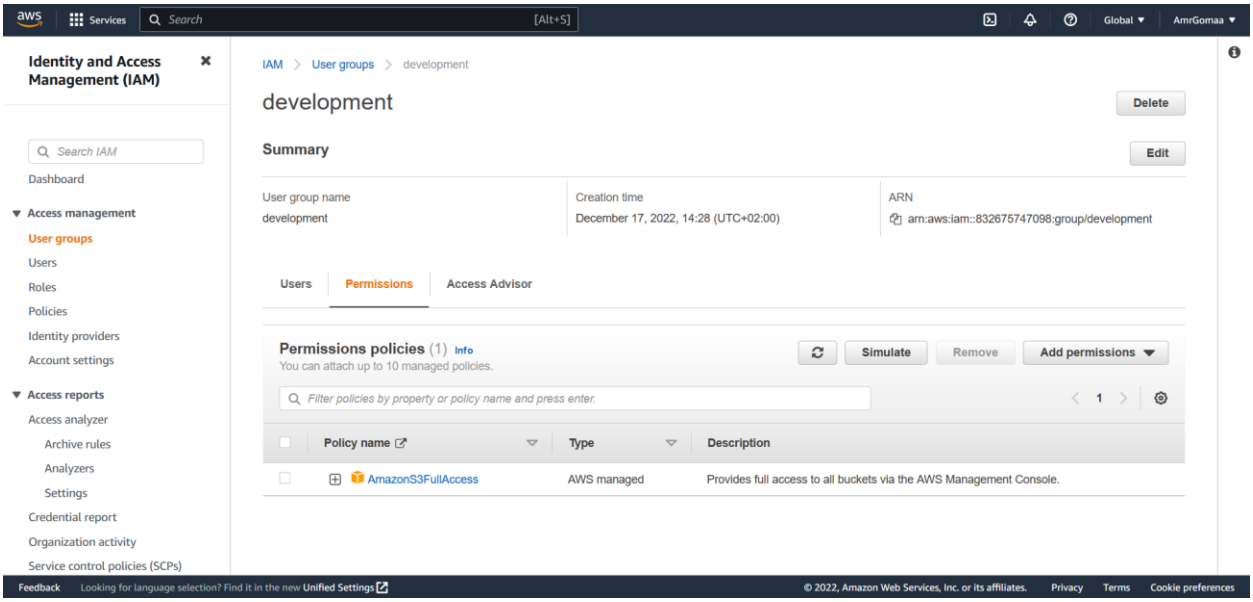
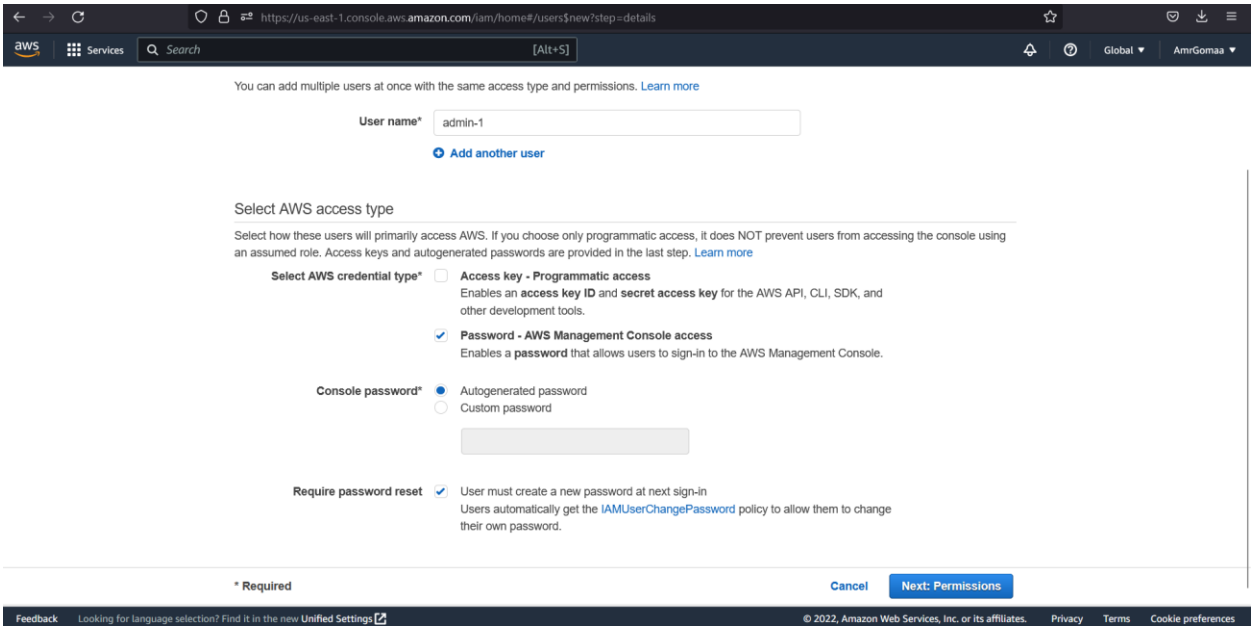
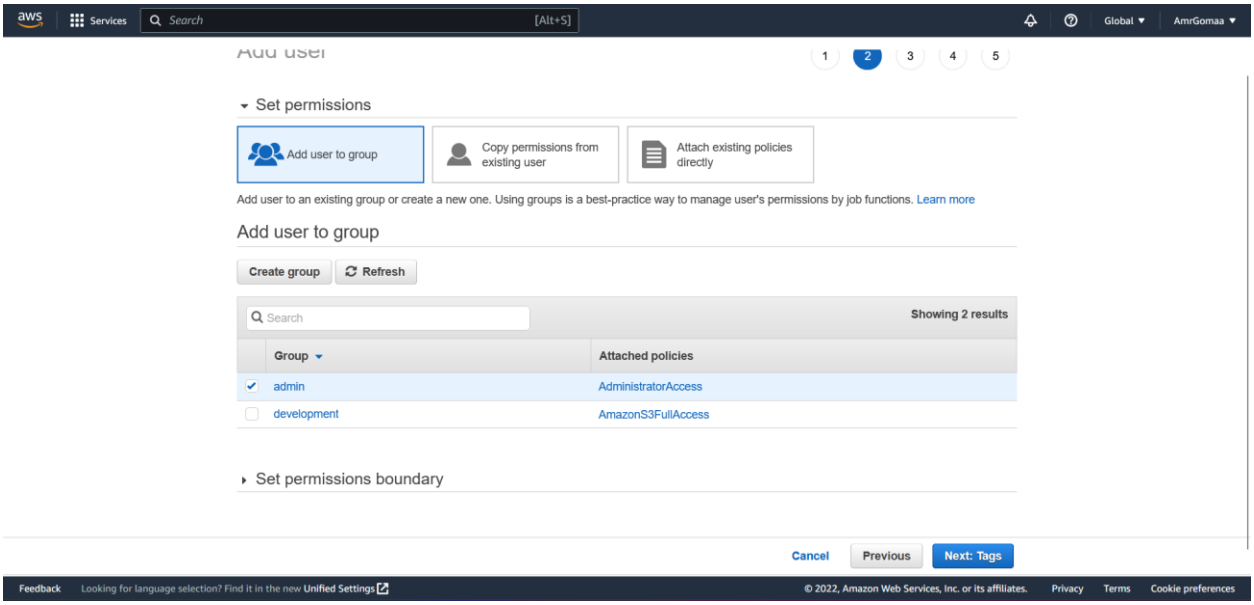
- create 2 groups one admin and one for development
- in the admin group it has admin permission , and in the development only access to
s3

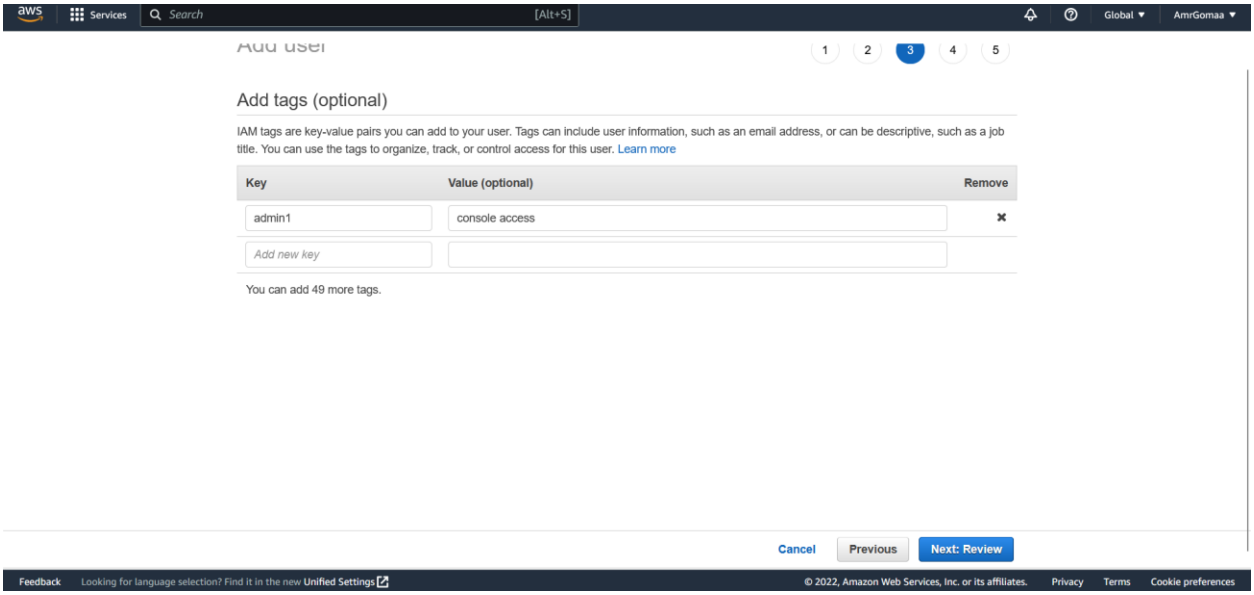


- create admin-1 user console access and mfa enabled




Services
Search
[Alt+S]
Global
AmrGomaa
Add user
1 2 3 4 5
Add tags (optional)
IAM tags are key-value pairs you can add to your user. Tags can include user information, such as an email address, or can be descriptive, such as a job title. You can use the tags to organize, track, or control access for this user. Learn more
Key
Value (optional)
Remove
admin1
console access
Add new key
You can add 49 more tags.
Cancel
Previous
Next: Review
Feedback
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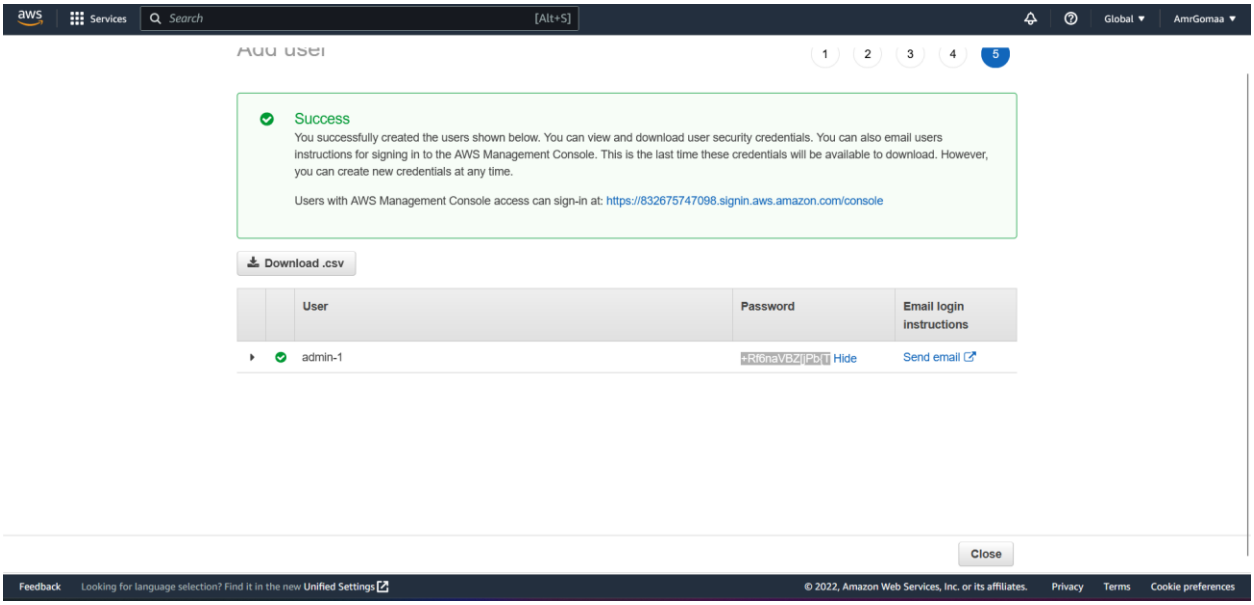
Services
Search
[Alt+S]
Global
AmrGomaa
Add user
1 2 3 4 5
Success
You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.
Users with AWS Management Console access can sign-in at: https://832675747098.signin.aws.amazon.com/console
Download .csv
User
Password
Email login instructions
admin-1
+Rf6naVBZ[PbT Hide
Send email
Close
Feedback
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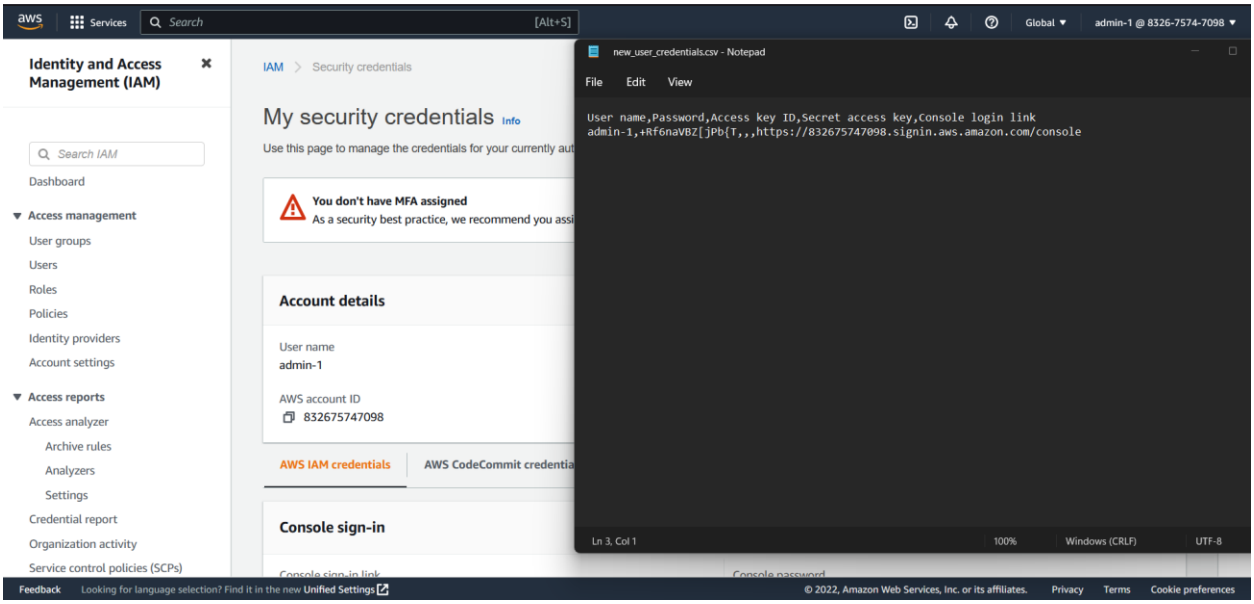
aws
Services
Search
[Alt+S]
Global
admin-1 @ 8326-7574-7098
Identity and Access Management (IAM)
IAM > Security credentials
My security credentials Info
Use this page to manage the credentials for your currently aut
You don't have MFA assigned
As a security best practice, we recommend you assi
Account details
User name
admin-1
AWS account ID
832675747098
AWS IAM credentials
AWS CodeCommit credentia
Console sign-in
Search IAM
Dashboard
Access management
User groups
Users
Roles
Policies
Identity providers
Account settings
Access reports
Access analyzer
Archive rules
Analyzers
Settings
Credential report
Organization activity
Service control policies (SCPs)
new_user_credentials.csv - Notepad
File Edit View
User name,Password,Access key ID,Secret access key,Console login link
admin-1,+Rf6naVBZ[jPb{T,,,https://832675747098.signin.aws.amazon.com/console
Ln 3, Col 1
100%
Windows (CRLF)
UTF-8
Feedback
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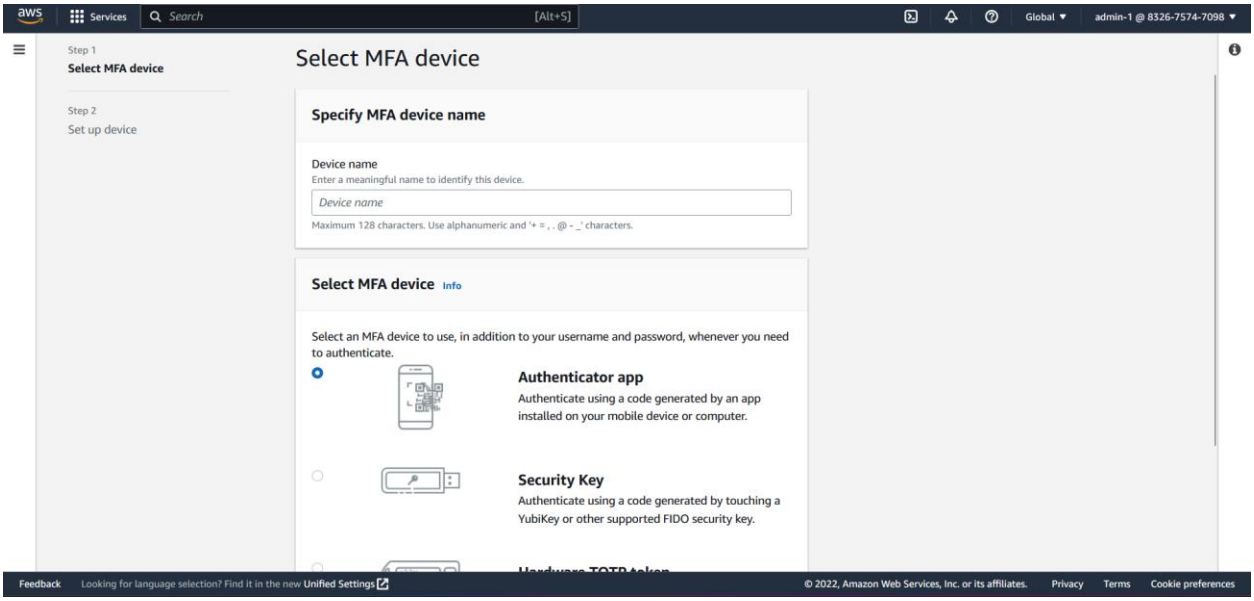
aws
Services
Search
[Alt+S]
Global
admin-1 @ 8326-7574-7098
Step 1
Select MFA device
Step 2
Set up device
Select MFA device
Specify MFA device name
Device name
Enter a meaningful name to identify this device.
Device name
Maximum 128 characters. Use alphanumeric and '+ = , . @ - _' characters.
Select MFA device Info
Select an MFA device to use, in addition to your username and password, whenever you need to authenticate.
Authenticator app
Authenticate using a code generated by an app installed on your mobile device or computer.
Security Key
Authenticate using a code generated by touching a YubiKey or other supported FIDO security key.
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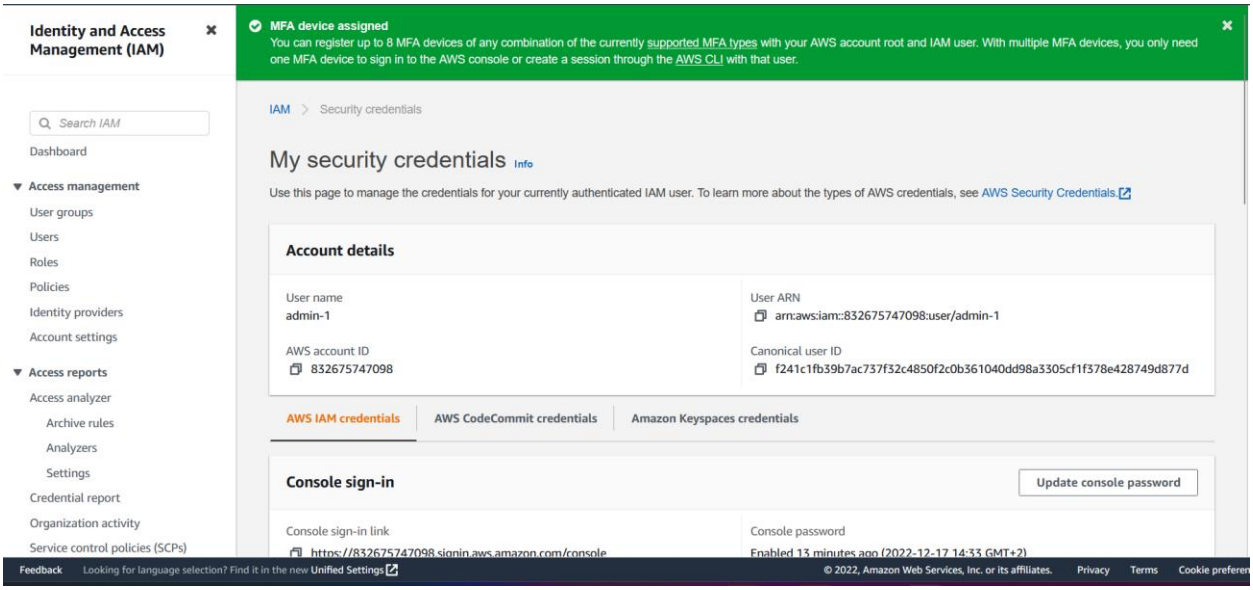
Identity and Access Management (IAM)
MFA device assigned
You can register up to 8 MFA devices of any combination of the currently supported MFA types with your AWS account root and IAM user. With multiple MFA devices, you only need one MFA device to sign in to the AWS console or create a session through the AWS CLI with that user.
Search IAM
Dashboard
Access management
User groups
Users
Roles
Policies
Identity providers
Account settings
Access reports
Access analyzer
Archive rules
Analyzers
Settings
Credential report
Organization activity
Service control policies (SCPs)
IAM > Security credentials
My security credentials Info
Use this page to manage the credentials for your currently authenticated IAM user. To learn more about the types of AWS credentials, see AWS Security Credentials.
Account details
User name
admin-1
User ARN
arn:aws:iam::832675747098:user/admin-1
AWS account ID
832675747098
Canonical user ID
f241c1fb39b7ac737f32c4850f2c0b361040dd98a3305cf1f378e428749d877d
AWS IAM credentials
AWS CodeCommit credentials
Amazon Keyspaces credentials
Console sign-in
Update console password
Console sign-in link
https://832675747098.signin.aws.amazon.com/console
Console password
Enabled 13 minutes ago (2022-12-17 14:33 GMT+2)
Feedback
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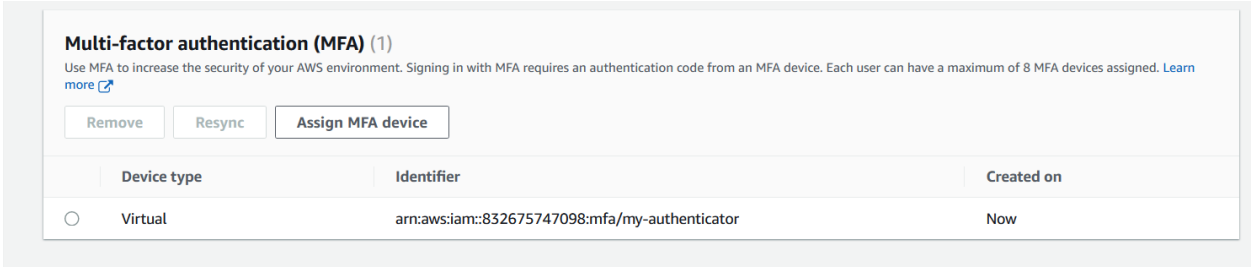
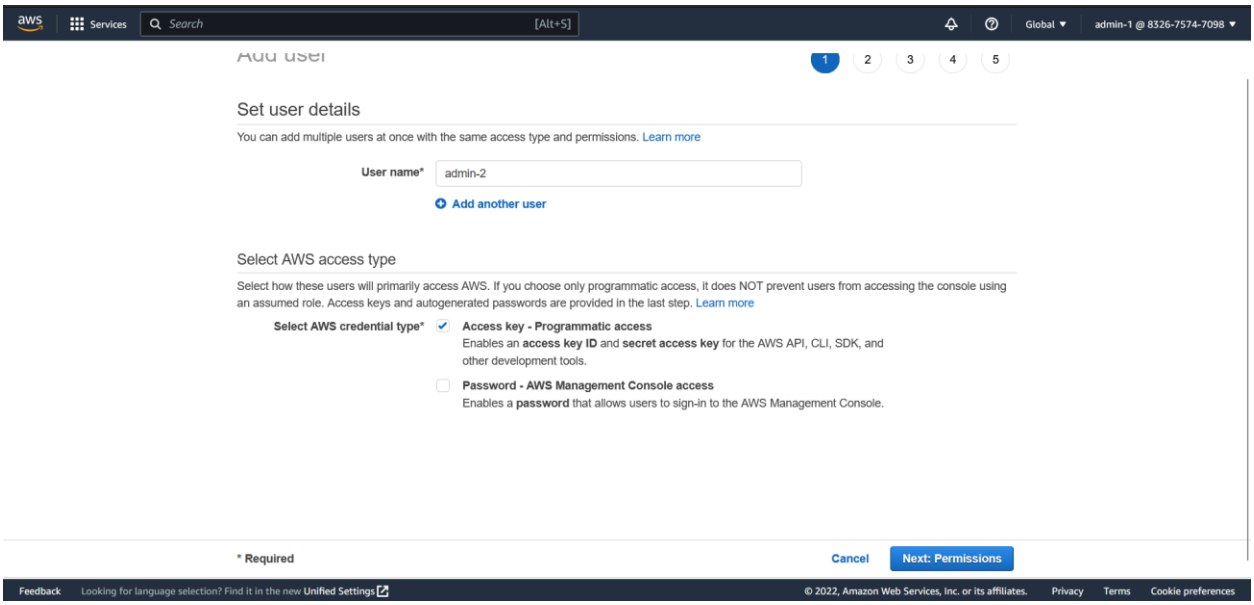
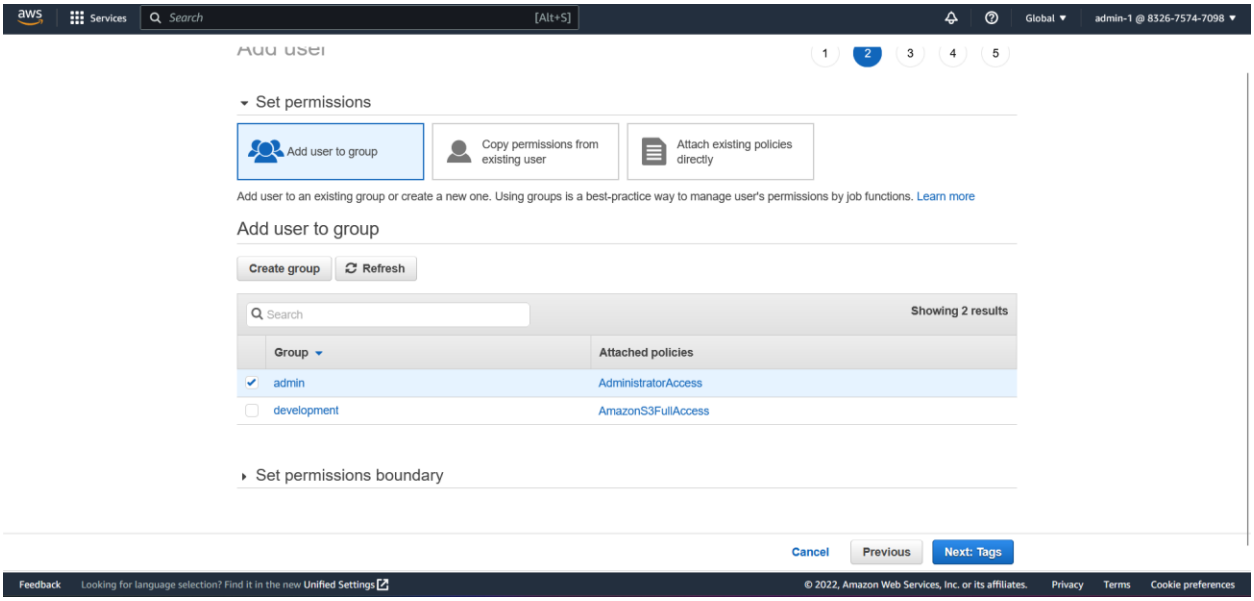
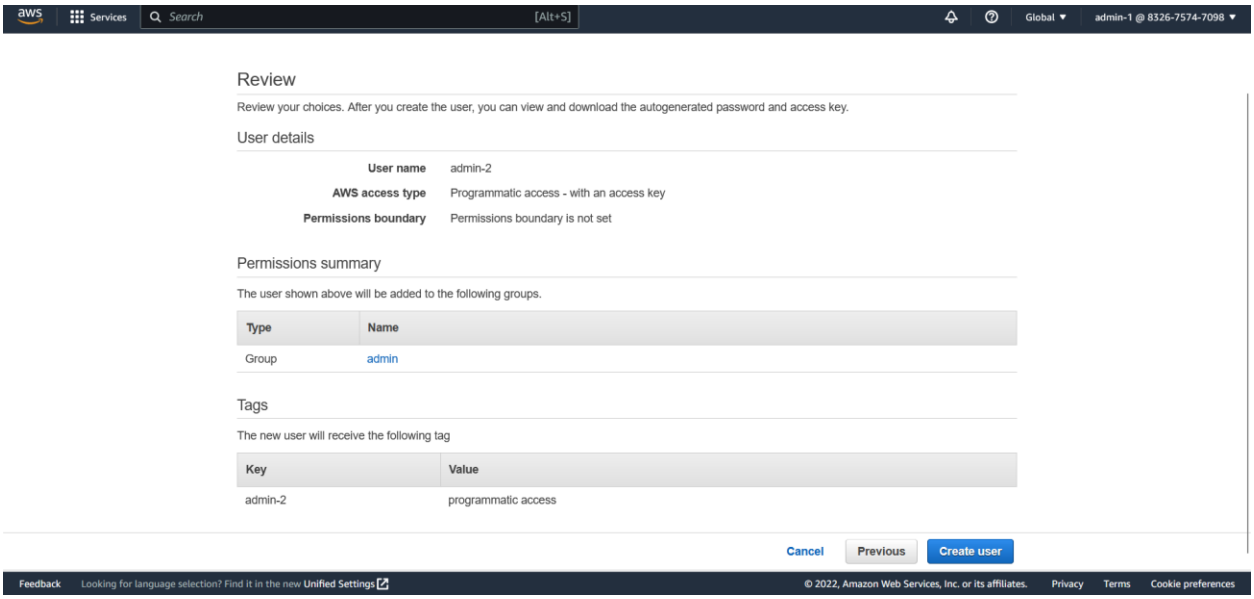

Multi-factor authentication (MFA) (1)
Use MFA to increase the security of your AWS environment. Signing in with MFA requires an authentication code from an MFA device. Each user can have a maximum of 8 MFA devices assigned. Learn more
Remove
Resync
Assign MFA device
Device type
Identifier
Created on
Virtual
arn:aws:iam::832675747098:mfa/my-authenticator
Now

- and admin2-prog with cli access only and list all users and groups using it commands
not console




aws
Services
Search
[Alt+S]
Global
admin-1 @ 8326-7574-7098
Review
Review your choices. After you create the user, you can view and download the autogenerated password and access key.
User details
User name
admin-2
AWS access type
Programmatic access - with an access key
Permissions boundary
Permissions boundary is not set
Permissions summary
The user shown above will be added to the following groups.
Type
Name
Group
admin
Tags
The new user will receive the following tag
Key
Value
admin-2
programmatic access
Cancel
Previous
Create user
Feedback
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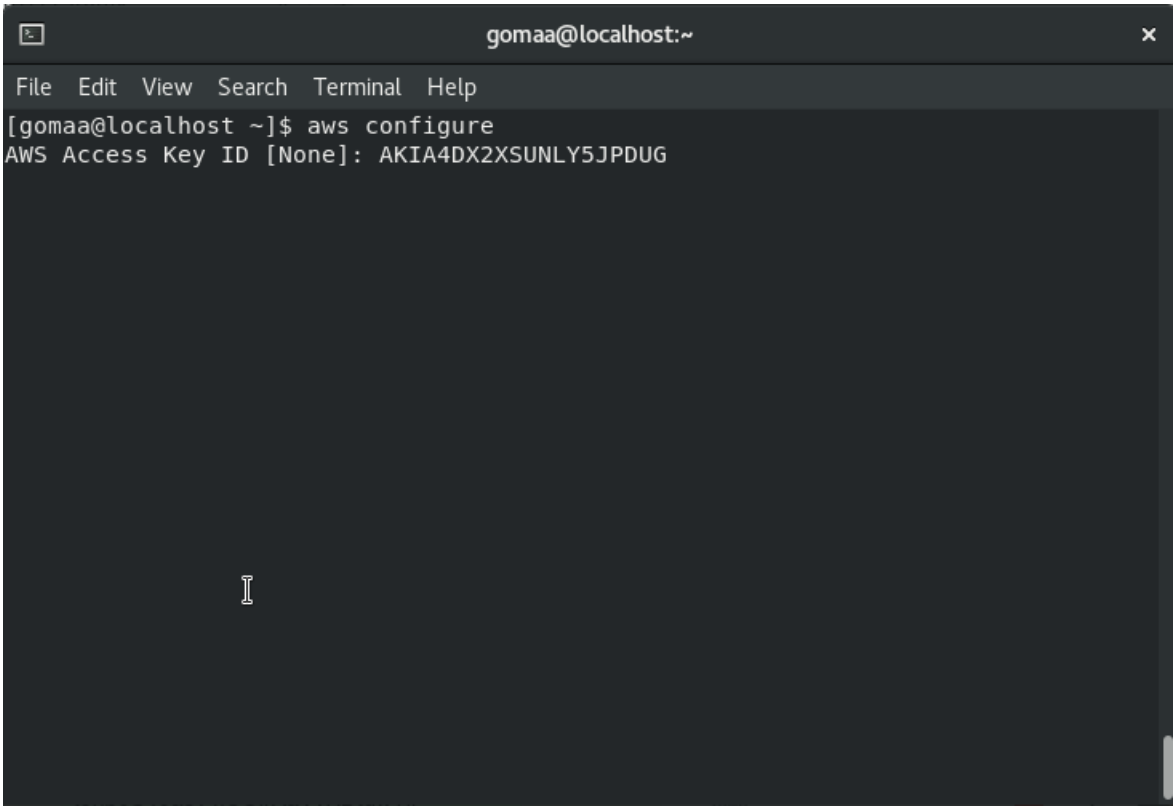
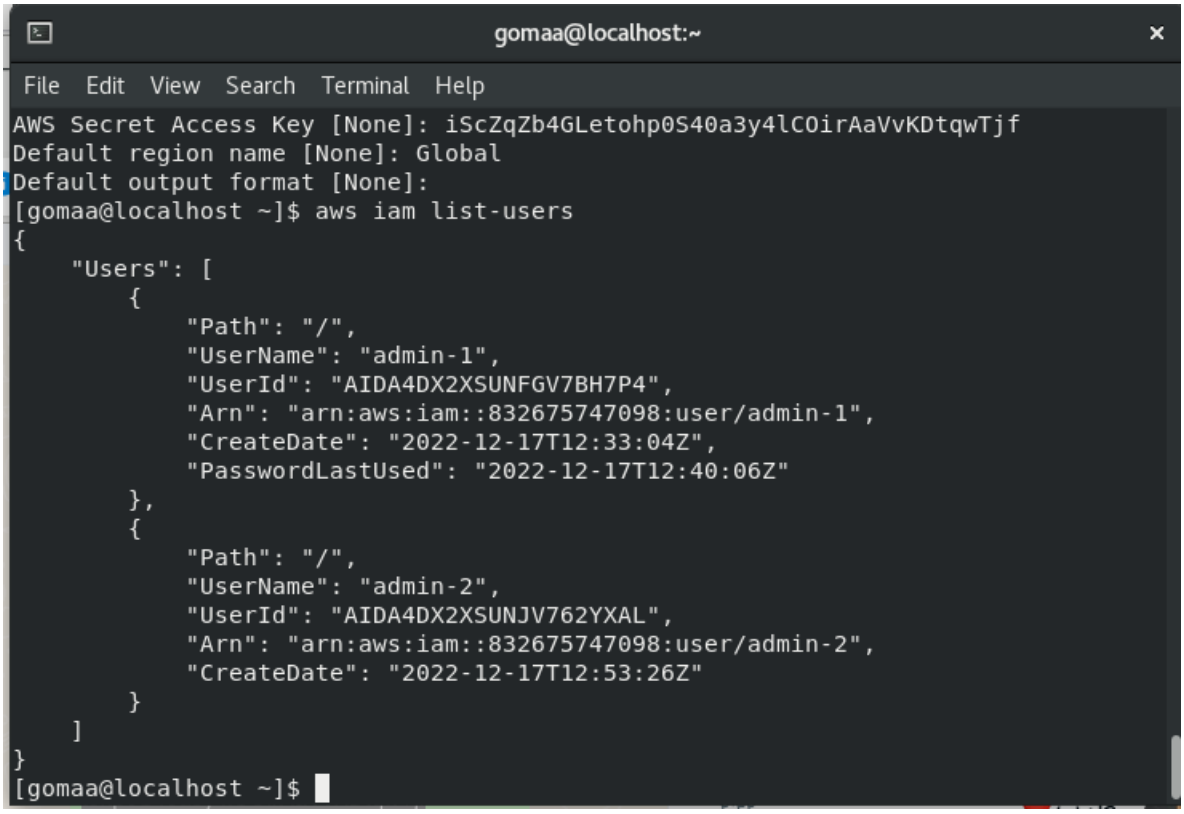
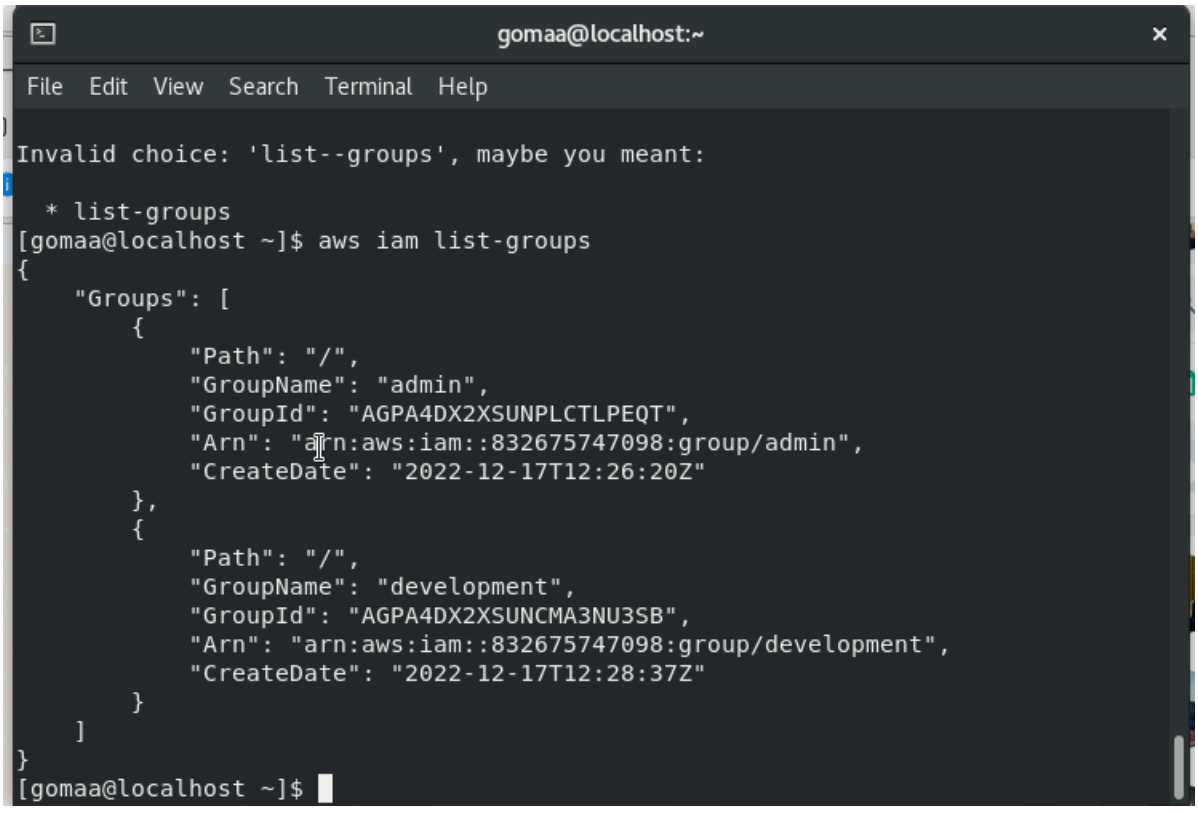
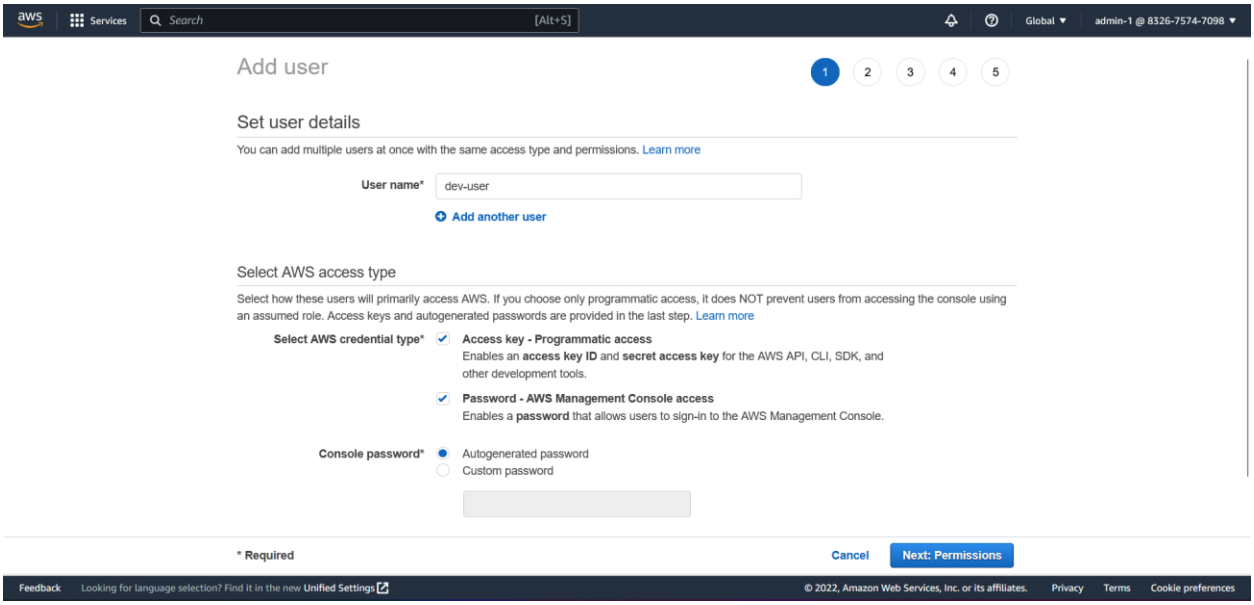
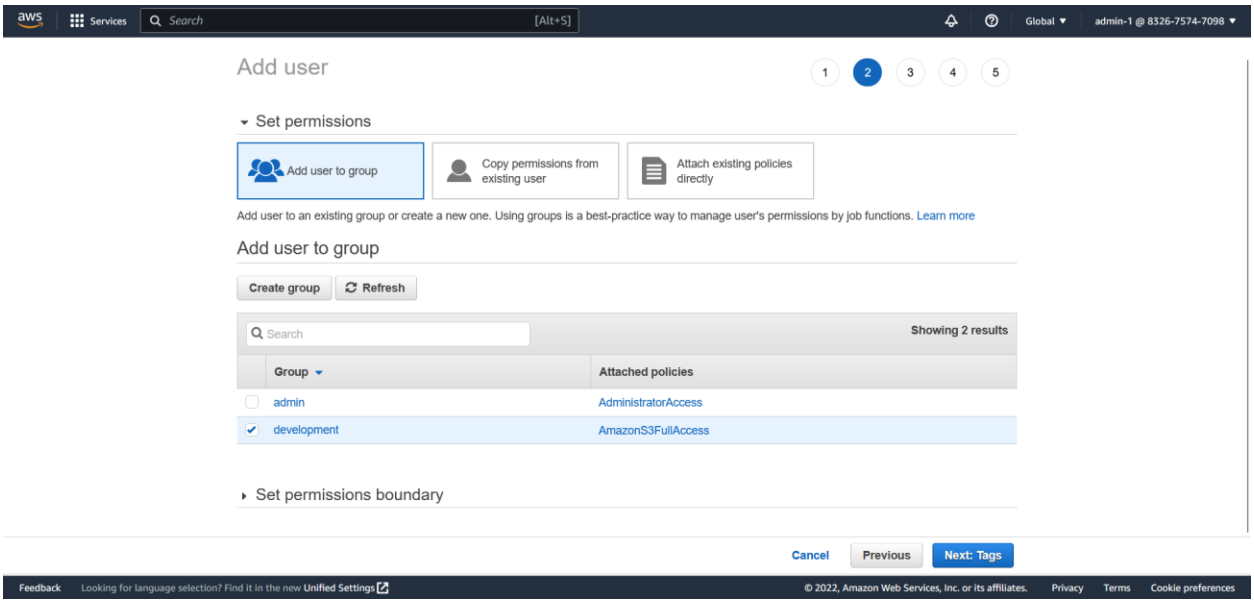

gomaa@localhost:~
File Edit View Search Terminal Help
[gomaa@localhost ~]$ aws configure
AWS Access Key ID [None]: AKIA4DX2XSUNLY5JPDUG

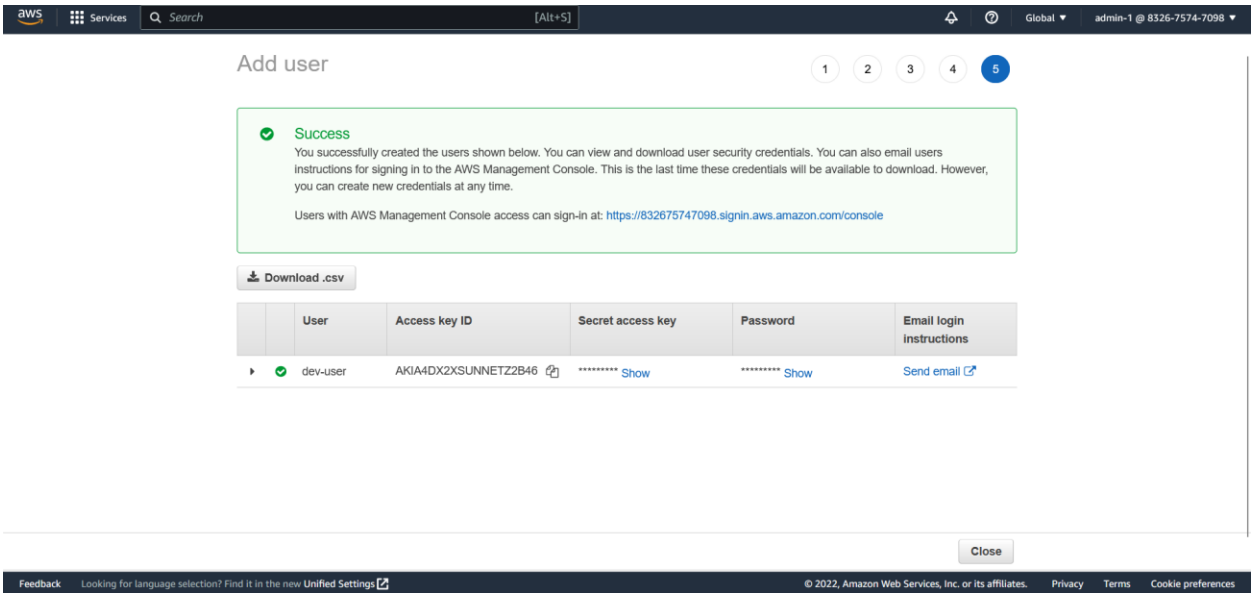

gomaa@localhost:~
File Edit View Search Terminal Help
AWS Secret Access Key [None]: iScZqZb4GLetohp0S40a3y4lCOirAaVvKDtqwTjf
Default region name [None]: Global
Default output format [None]:
[gomaa@localhost ~]$ aws iam list-users
{
"Users": [
{
"Path": "/",
"UserName": "admin-1",
"UserId": "AIDA4DX2XSUNFGV7BH7P4",
"Arn": "arn:aws:iam::832675747098:user/admin-1",
"CreateDate": "2022-12-17T12:33:04Z",
"PasswordLastUsed": "2022-12-17T12:40:06Z"
},
{
"Path": "/",
"UserName": "admin-2",
"UserId": "AIDA4DX2XSUNJV762YXAL",
"Arn": "arn:aws:iam::832675747098:user/admin-2",
"CreateDate": "2022-12-17T12:53:26Z"
}
]
}
[gomaa@localhost ~]$


gomaa@localhost:~
File Edit View Search Terminal Help
Invalid choice: 'list--groups', maybe you meant:
* list-groups
[gomaa@localhost ~]$ aws iam list-groups
{
"Groups": [
{
"Path": "/",
"GroupName": "admin",
"GroupId": "AGPA4DX2XSUNPLCTLPEQT",
"Arn": "arn:aws:iam::832675747098:group/admin",
"CreateDate": "2022-12-17T12:26:20Z"
},
{
"Path": "/",
"GroupName": "development",
"GroupId": "AGPA4DX2XSUNCMA3NU3SB",
"Arn": "arn:aws:iam::832675747098:group/development",
"CreateDate": "2022-12-17T12:28:37Z"
}
]
}
[gomaa@localhost ~]$

- in the development group create user with name dev-user with programmatic and.
Admin access try to access aws using it (take a screenshot from accessing ec2 and s3
console)
- Also access cli using it and try to get all users and groups using i




Services
Search
[Alt+S]
Global
admin-1 @ 8326-7574-7098
Add user
1
2
3
4
5
Success
You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.
Users with AWS Management Console access can sign-in at: https://832675747098.signin.aws.amazon.com/console
Download .csv
User
Access key ID
Secret access key
Password
Email login instructions
dev-user
AKIA4DX2XSUNNETZ2B46
******** Show
******** Show
Send email
Close
Feedback
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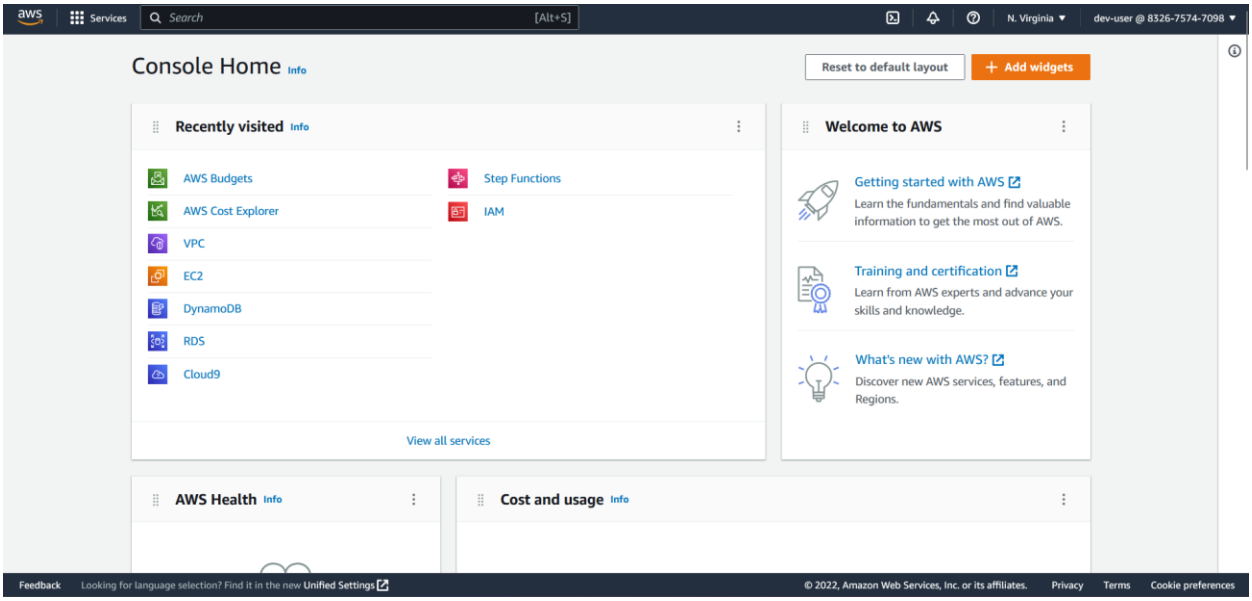
Services
Search
[Alt+S]
N. Virginia
dev-user @ 8326-7574-7098
Console Home Info
Reset to default layout
+ Add widgets
Recently visited Info
AWS Budgets
AWS Cost Explorer
VPC
EC2
DynamoDB
RDS
Cloud9
Step Functions
IAM
View all services
Welcome to AWS
Getting started with AWS
Learn the fundamentals and find valuable information to get the most out of AWS.
Training and certification
Learn from AWS experts and advance your skills and knowledge.
What's new with AWS?
Discover new AWS services, features, and Regions.
AWS Health Info
Cost and usage Info
Feedback
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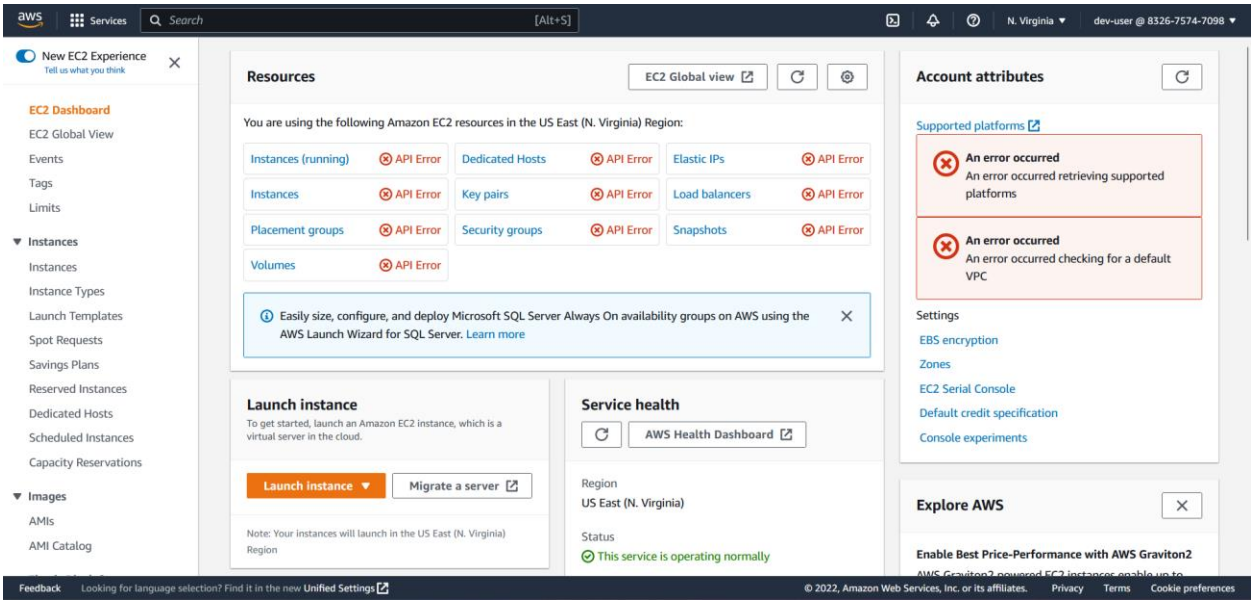
Services
Search
[Alt+S]
N. Virginia
dev-user @ 8326-7574-7098
New EC2 Experience
Tell us what you think
EC2 Dashboard
EC2 Global View
Events
Tags
Limits
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Scheduled Instances
Capacity Reservations
Images
AMIs
AMI Catalog
Resources
EC2 Global view
You are using the following Amazon EC2 resources in the US East (N. Virginia) Region:
Instances (running) API Error
Dedicated Hosts API Error
Elastic IPs API Error
Instances API Error
Key pairs API Error
Load balancers API Error
Placement groups API Error
Security groups API Error
Snapshots API Error
Volumes API Error
Easily size, configure, and deploy Microsoft SQL Server Always On availability groups on AWS using the AWS Launch Wizard for SQL Server. Learn more
Launch instance
To get started, launch an Amazon EC2 instance, which is a virtual server in the cloud.
Launch instance
Migrate a server
Note: Your instances will launch in the US East (N. Virginia) Region
Service health
AWS Health Dashboard
Region
US East (N. Virginia)
Status
This service is operating normally
Account attributes
Supported platforms
An error occurred
An error occurred retrieving supported platforms
An error occurred
An error occurred checking for a default VPC
Settings
EBS encryption
Zones
EC2 Serial Console
Default credit specification
Console experiments
Explore AWS
Enable Best Price-Performance with AWS Graviton2
Feedback
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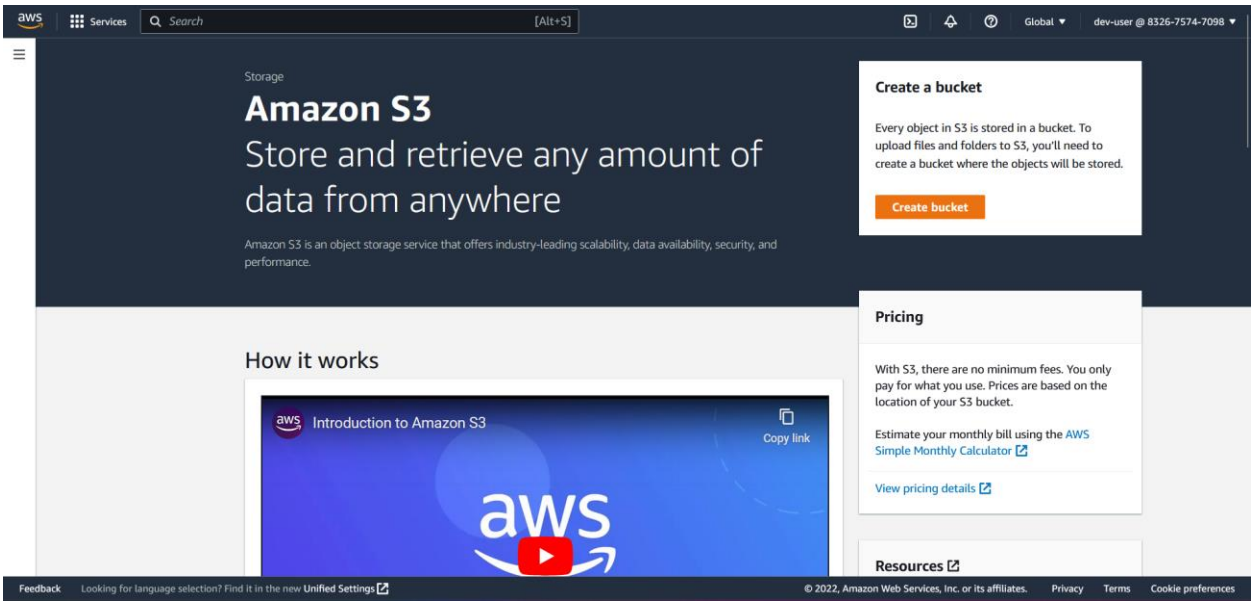
Services
Search
[Alt+S]
Global
dev-user @ 8326-7574-7098
Storage
Amazon S3
Store and retrieve any amount of data from anywhere
Amazon S3 is an object storage service that offers industry-leading scalability, data availability, security, and performance.
Create a bucket
Every object in S3 is stored in a bucket. To upload files and folders to S3, you'll need to create a bucket where the objects will be stored.
Create bucket
How it works
Introduction to Amazon S3
Copy link
Pricing
With S3, there are no minimum fees. You only pay for what you use. Prices are based on the location of your S3 bucket.
Estimate your monthly bill using the AWS Simple Monthly Calculator
View pricing details
Resources
Feedback
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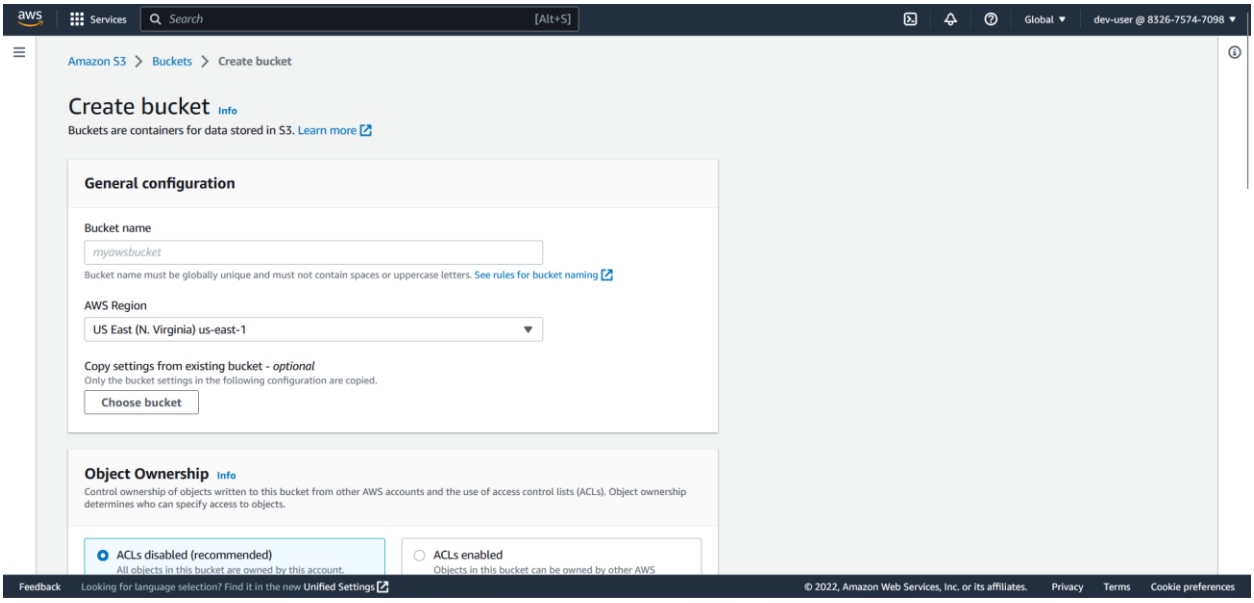
aws
Services
Search
[Alt+S]
Global
dev-user @ 8326-7574-7098
Amazon S3 > Buckets > Create bucket
Create bucket Info
Buckets are containers for data stored in S3. Learn more
General configuration
Bucket name
myawsbucket
Bucket name must be globally unique and must not contain spaces or uppercase letters. See rules for bucket naming
AWS Region
US East (N. Virginia) us-east-1
Copy settings from existing bucket - optional
Only the bucket settings in the following configuration are copied.
Choose bucket
Object Ownership Info
Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.
ACLs disabled (recommended)
All objects in this bucket are owned by this account.
ACLs enabled
Objects in this bucket can be owned by other AWS
Feedback
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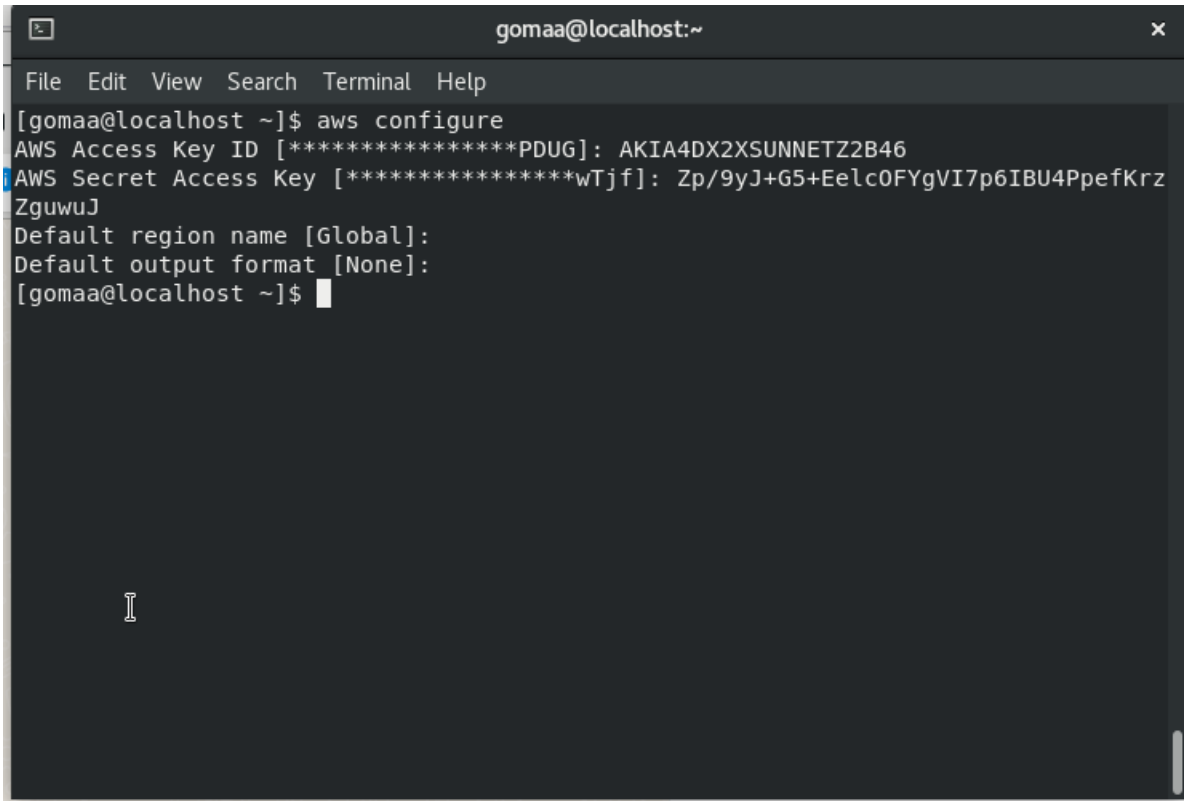
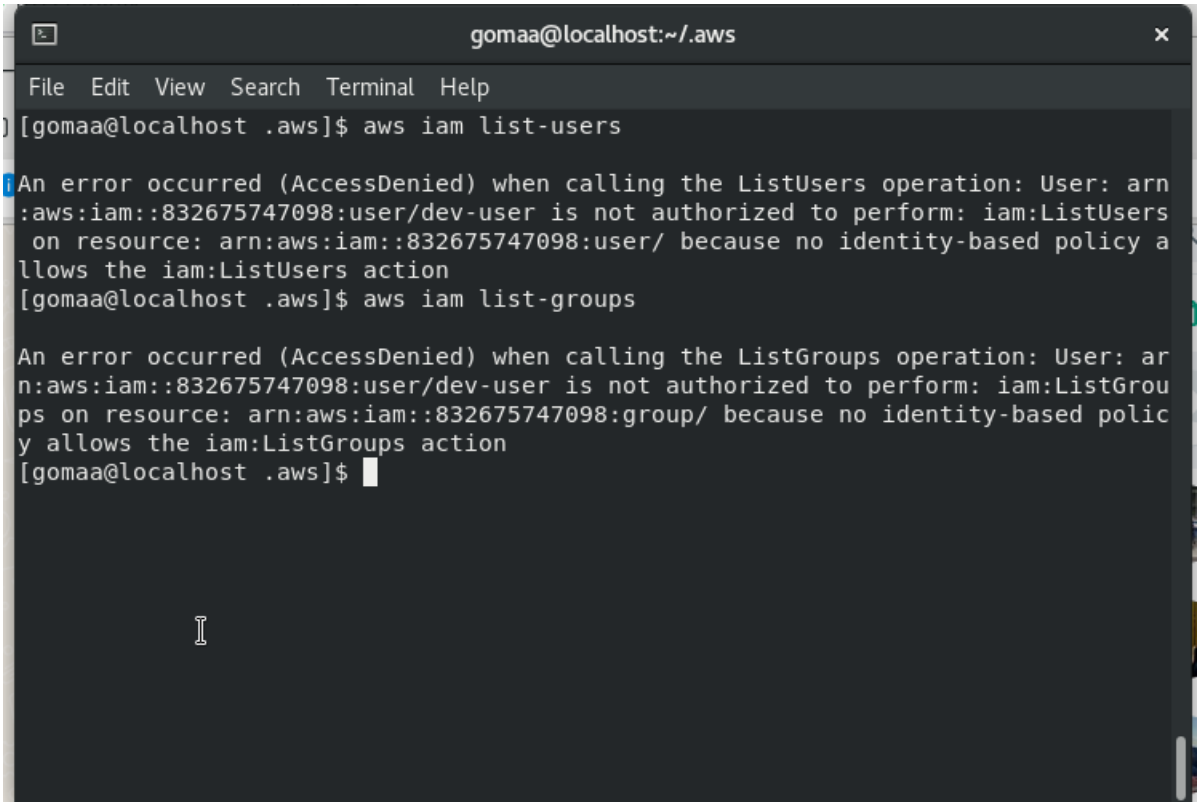

gomaa@localhost:~
File Edit View Search Terminal Help
[gomaa@localhost ~]$ aws configure
AWS Access Key ID [****************PDUG]: AKIA4DX2XSUNNETZ2B46
AWS Secret Access Key [****************wTjf]: Zp/9yJ+G5+EelcOFYgVI7p6IBU4PpefKrz
ZguwuJ
Default region name [Global]:
Default output format [None]:
[gomaa@localhost ~]$


gomaa@localhost:~/.aws
File Edit View Search Terminal Help
[gomaa@localhost .aws]$ aws iam list-users
An error occurred (AccessDenied) when calling the ListUsers operation: User: arn:aws:iam::832675747098:user/dev-user is not authorized to perform: iam:ListUsers on resource: arn:aws:iam::832675747098:user/ because no identity-based policy allows the iam:ListUsers action
[gomaa@localhost .aws]$ aws iam list-groups
An error occurred (AccessDenied) when calling the ListGroups operation: User: arn:aws:iam::832675747098:user/dev-user is not authorized to perform: iam:ListGroups on resource: arn:aws:iam::832675747098:group/ because no identity-based policy allows the iam:ListGroups action
[gomaa@localhost .aws]$