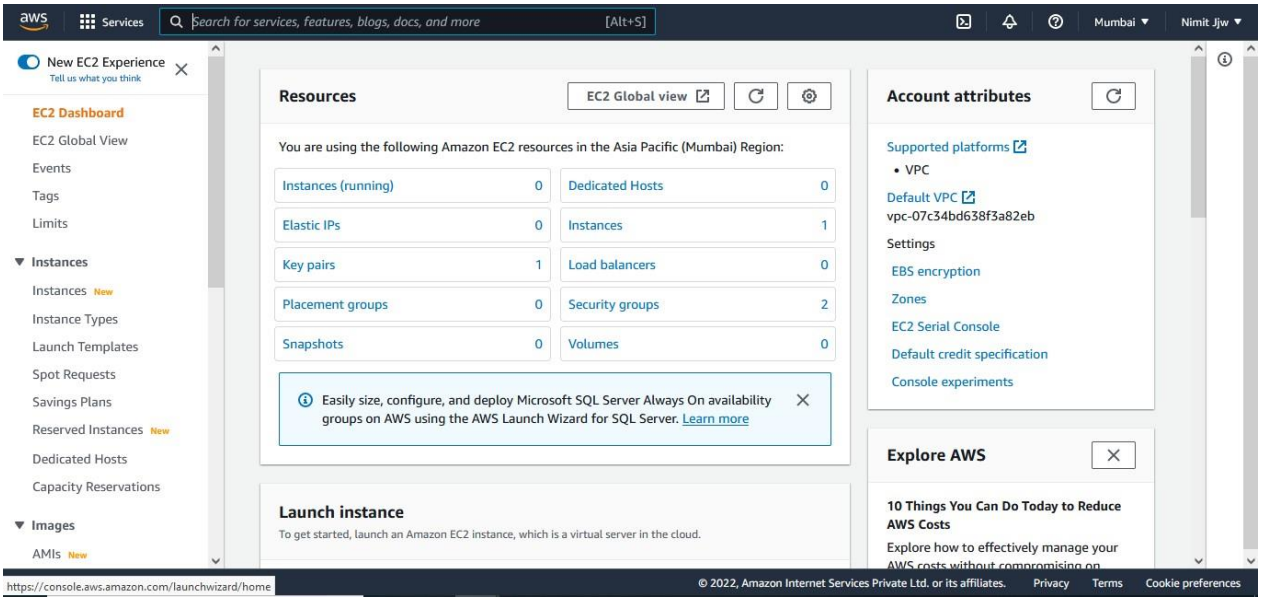
Experiment No. 7

Steps of Implementation:

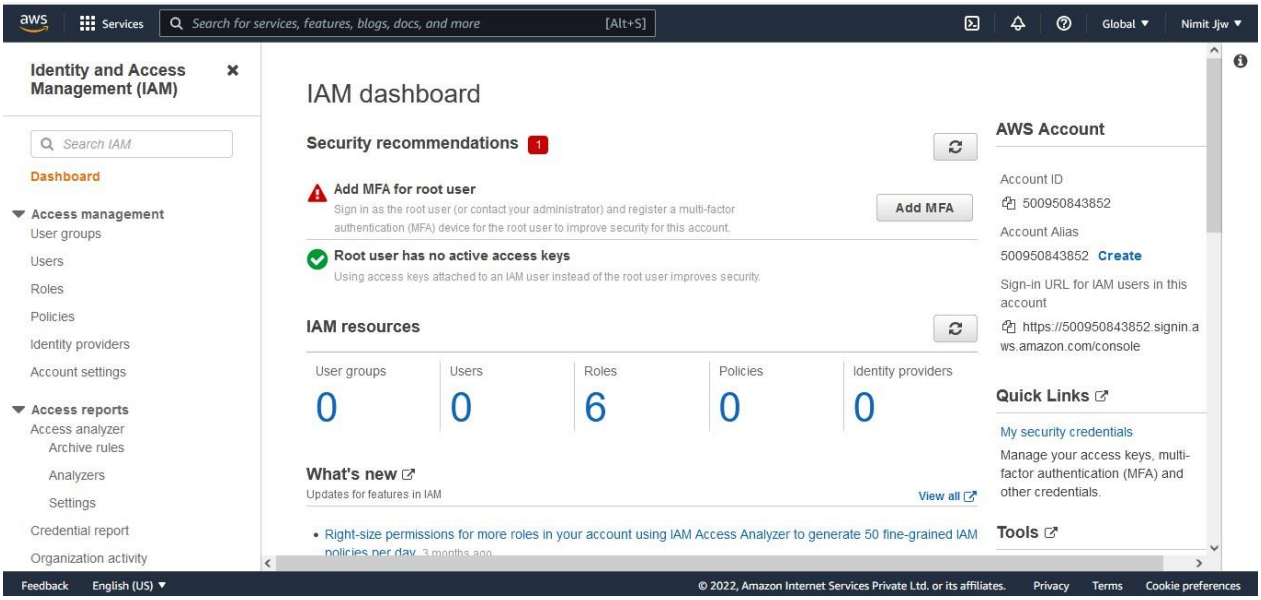
Login to AWS console

Make sure to check all Ec2 dashboard parameters



----- Configuring IAM Dashboard -----

Go to IAM dashboard



Click on create option under Account Alias and give a valid name; save changes

Create alias for AWS account 500950843852

Preferred alias

nimitjjw

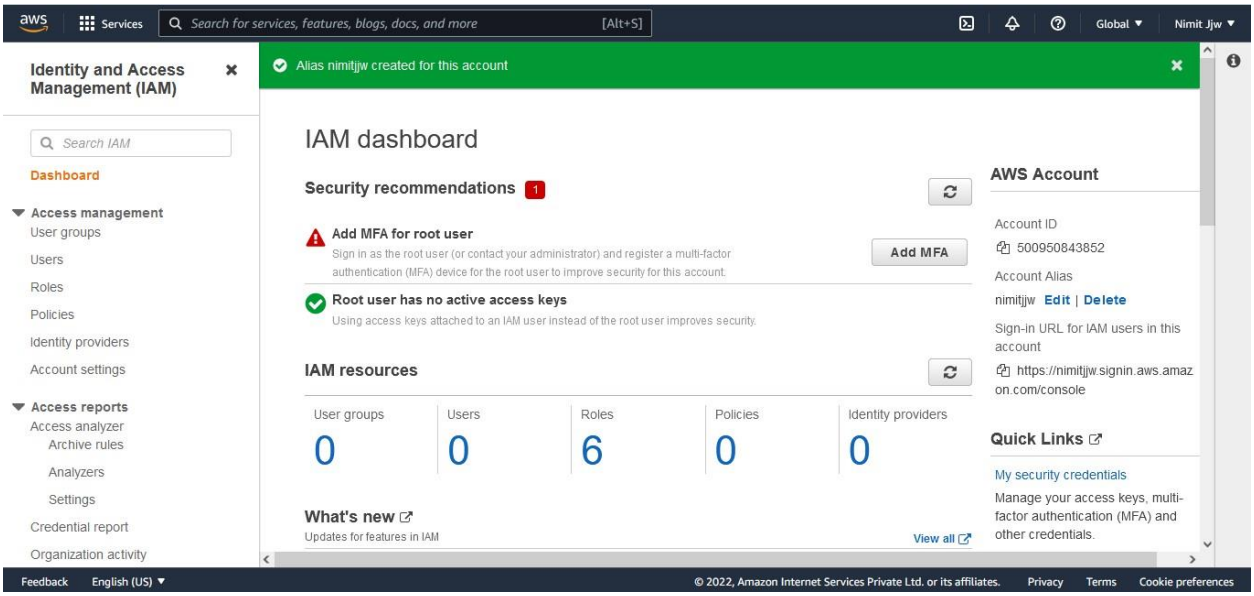
Must be not more than 63 characters. Valid characters are a-z, 0-9, and - (hyphen).

New sign-in URL

https://nimitjjw.signin.aws.amazon.com/console

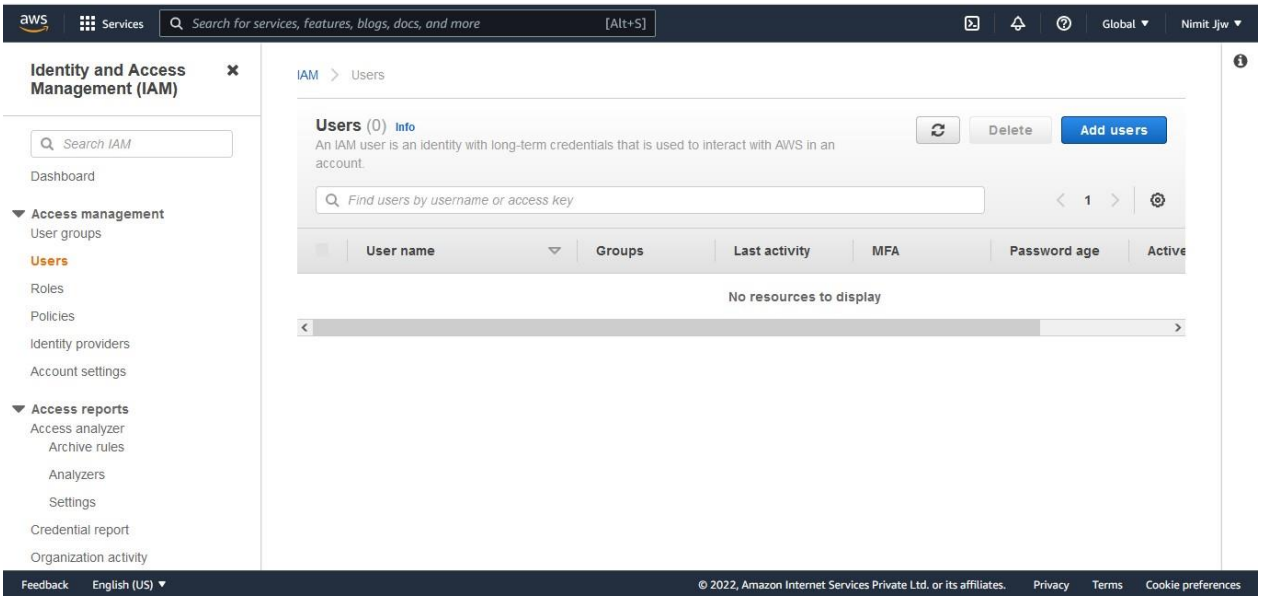
IAM users will still be able to use the default URL containing the AWS account ID.

Cancel | Save changes

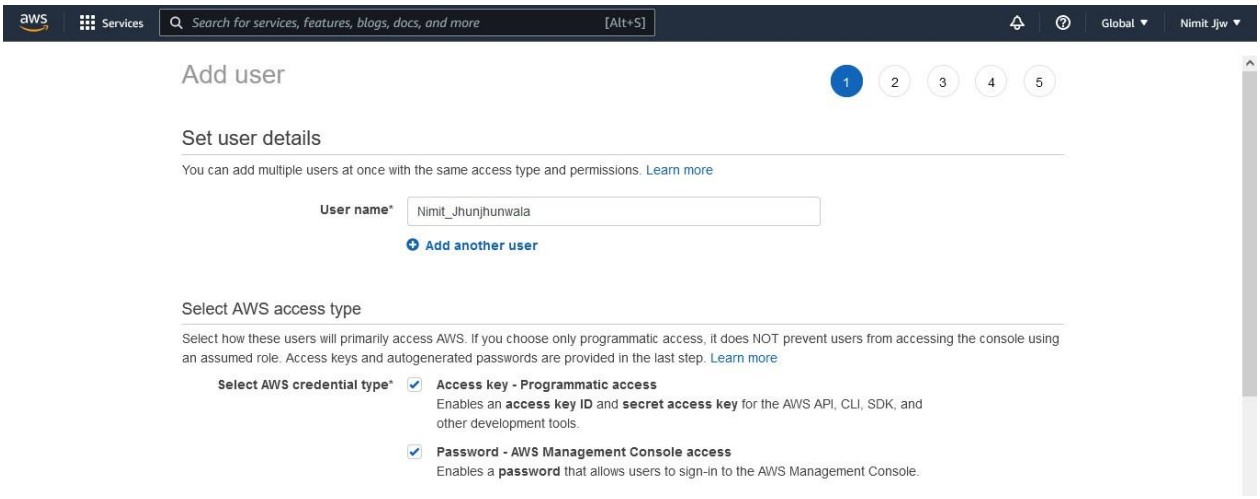


----- Creating a new User -----

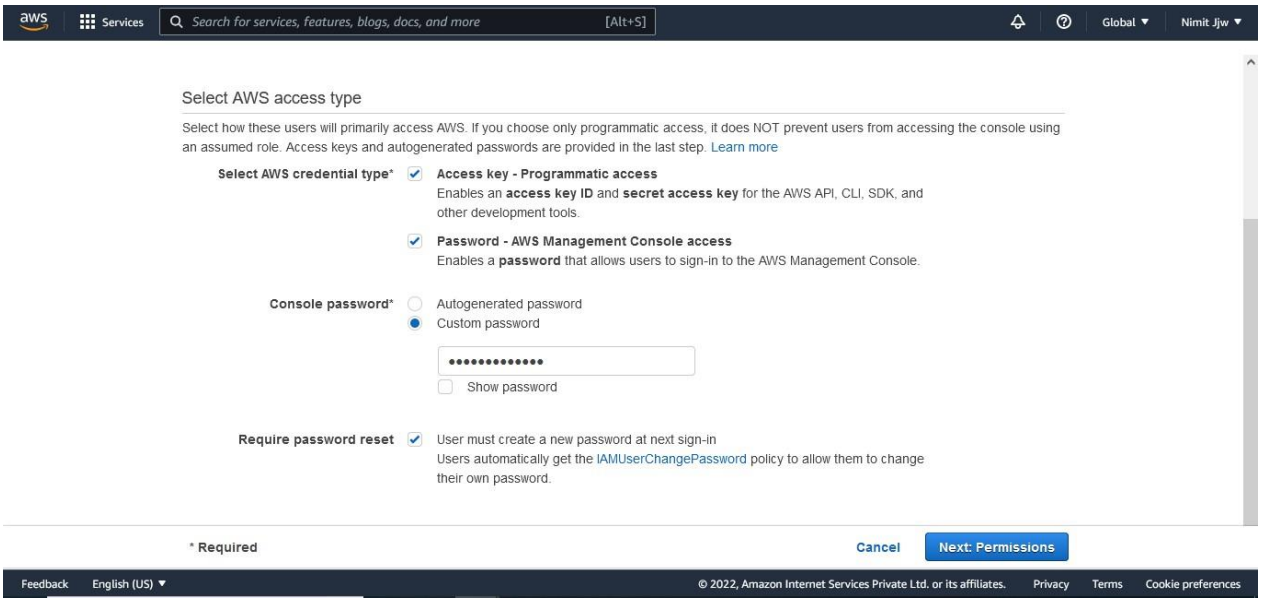
Click on “users” in the left column



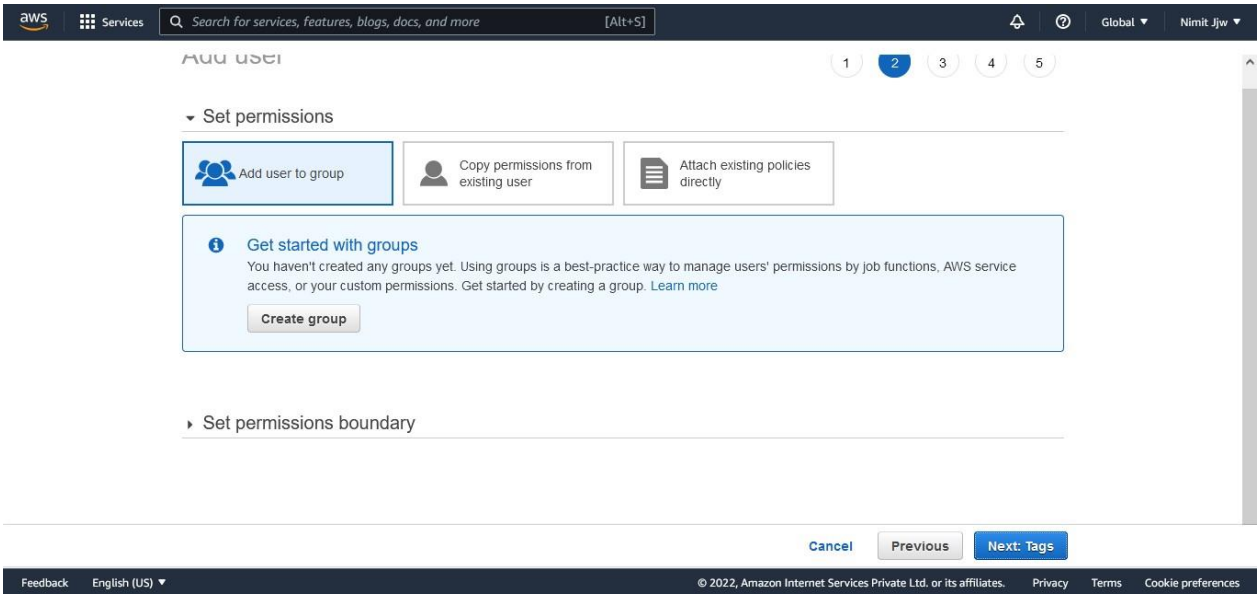
Click on Add users button



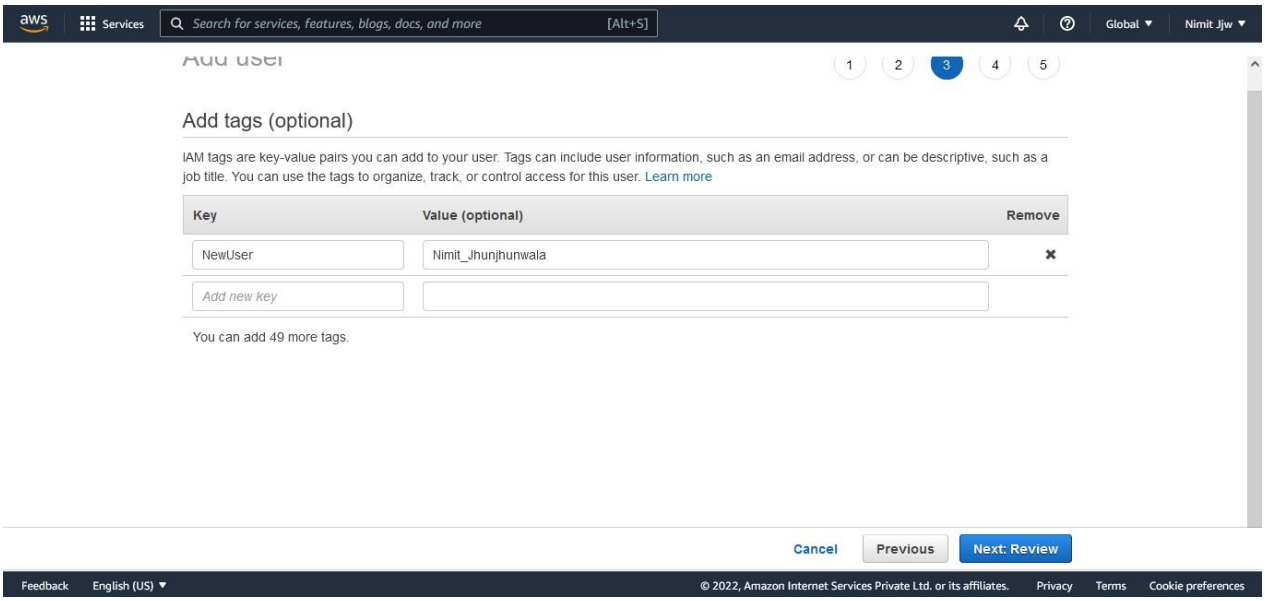
Set a custom valid psw (Imc: Qwertyuiop123) and check the Require psw rest box which will make you create a next psw in the next sign in



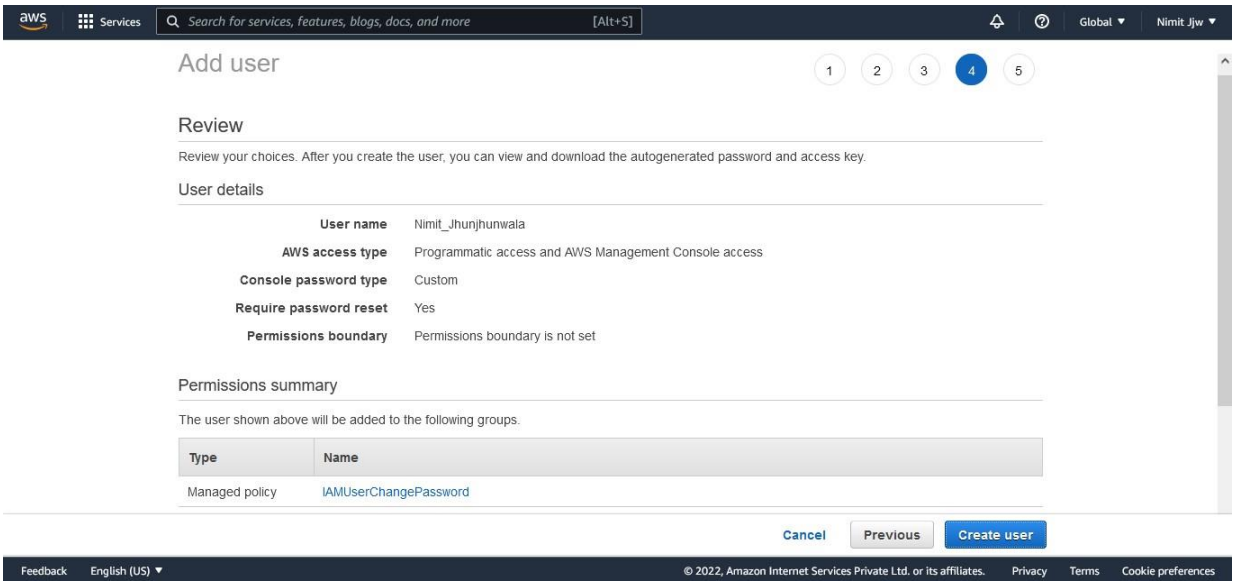
Click on Next: Tags



Add a tag if you want to just to keep track of your activities; then click on Next: Review

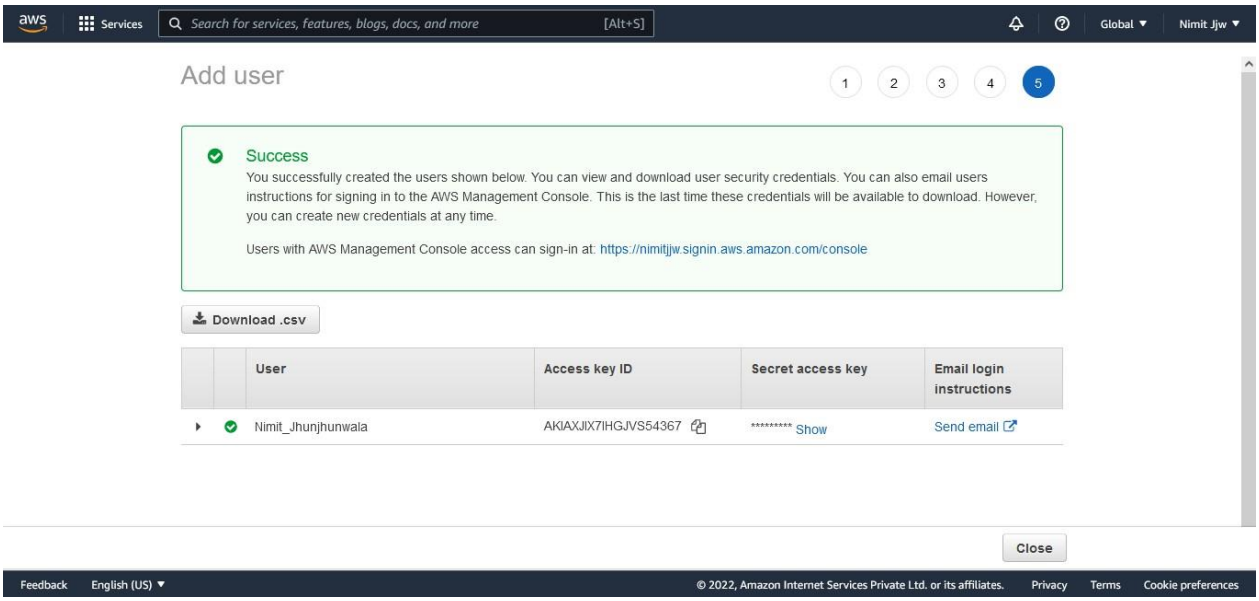


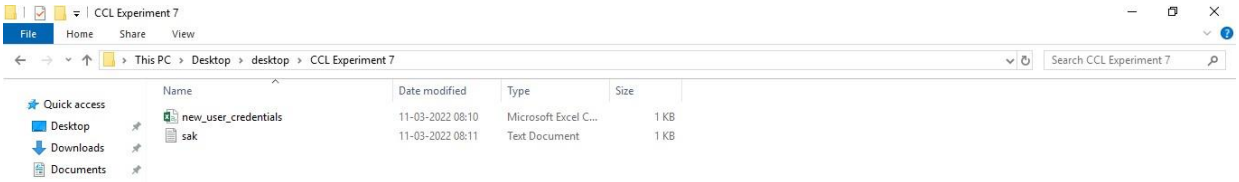
Click on Create User Button



Open the URL in Incognito Mode
(Imc: https://nimitjjw.signin.aws.amazon.com/console)

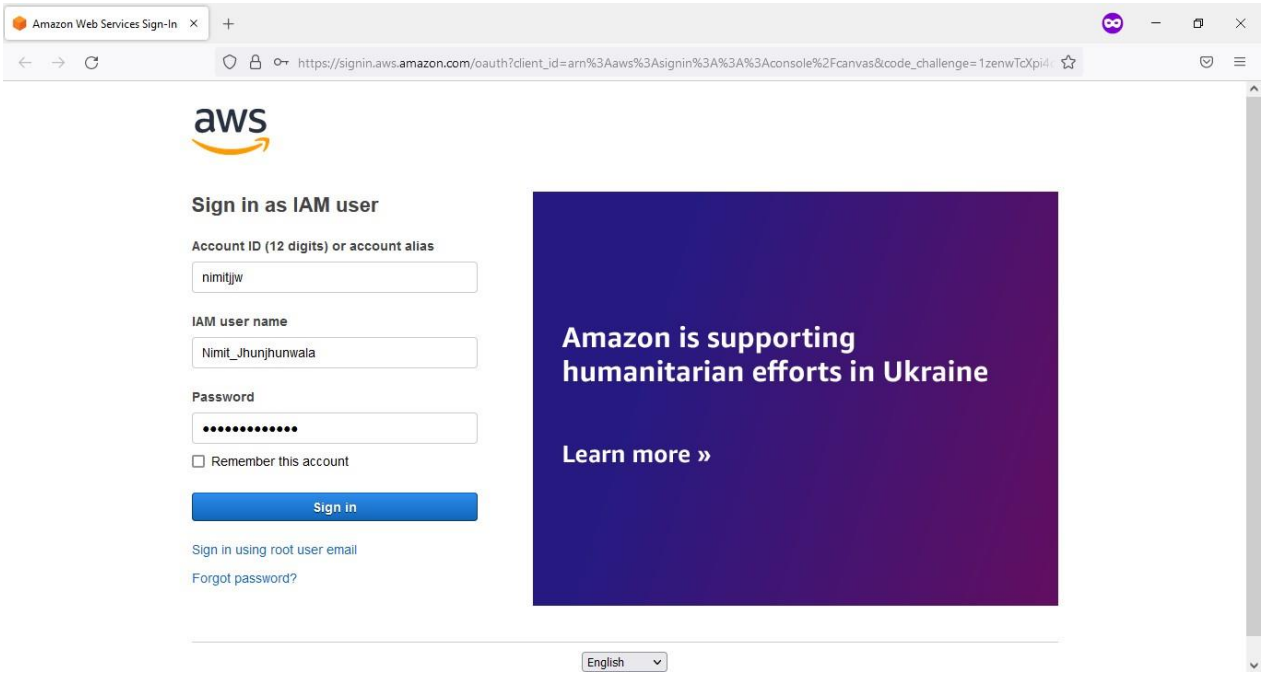
Note: Save the secret access ID & key in a notepad or download the csv



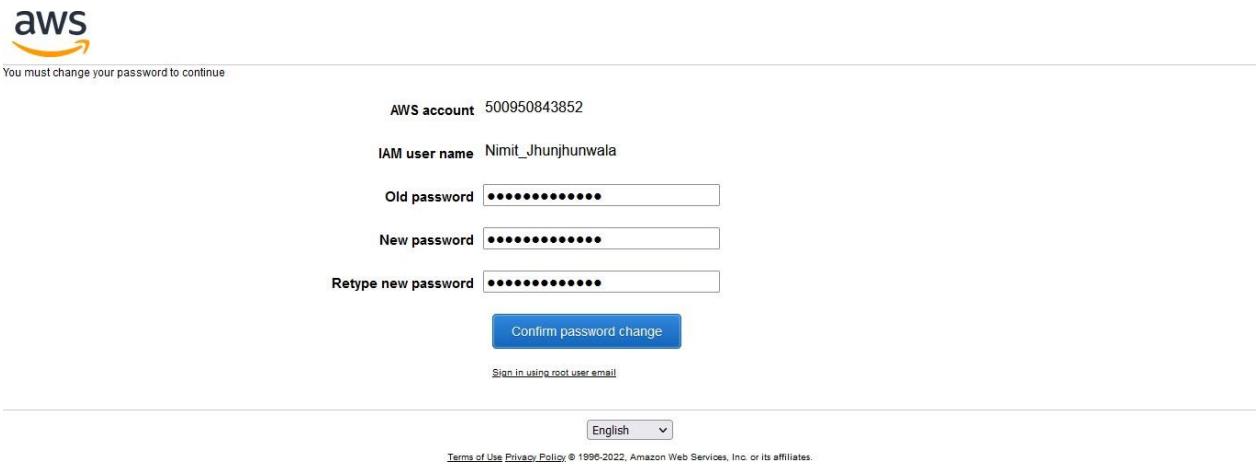


----- Logging in as the new User & Checking their permissions -----

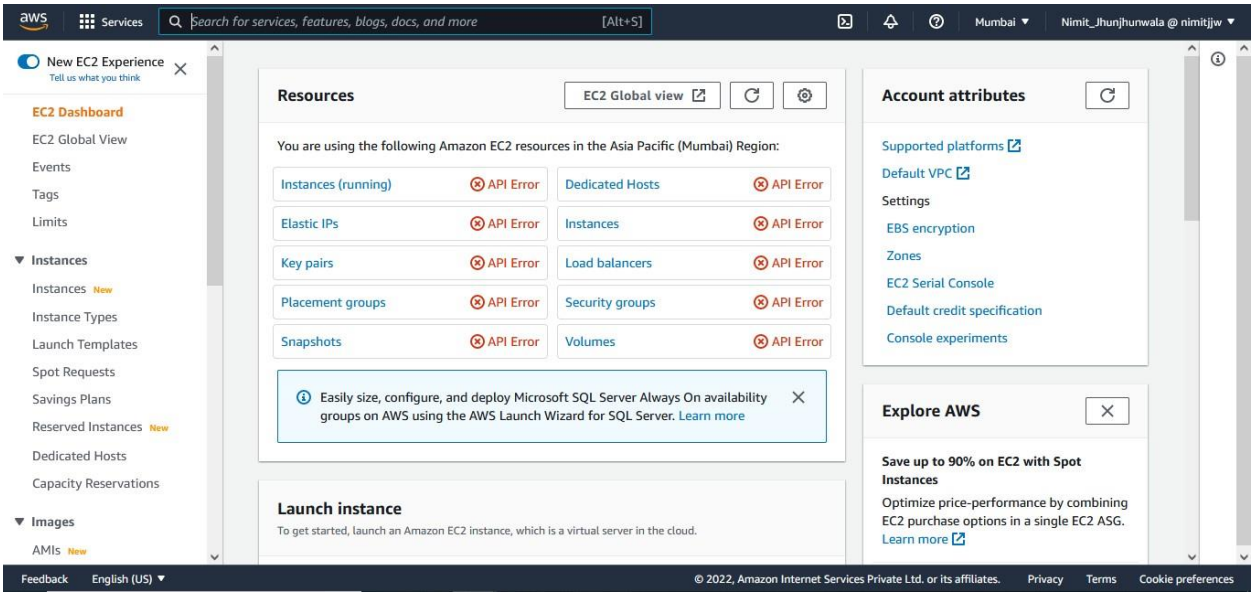
Enter the new user's name and psw saved earlier



Enter a new valid psw



After logging in, you will notice that you don't have permission to do anything yet


aws
Services
Search for services, features, blogs, docs, and more [Alt+S]
Mumbai
Nimit_Jhunjhunwala @ nimitjjw
New EC2 Experience
Tell us what you think
EC2 Dashboard
EC2 Global View
Events
Tags
Limits
Instances
Instances New
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances New
Dedicated Hosts
Capacity Reservations
Images
AMIs New
Resources
EC2 Global view
You are using the following Amazon EC2 resources in the Asia Pacific (Mumbai) 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.
Account attributes
Supported platforms
Default VPC
Settings
EBS encryption
Zones
EC2 Serial Console
Default credit specification
Console experiments
Explore AWS
Save up to 90% on EC2 with Spot Instances
Optimize price-performance by combining EC2 purchase options in a single EC2 ASG.
Learn more
Feedback
English (US)
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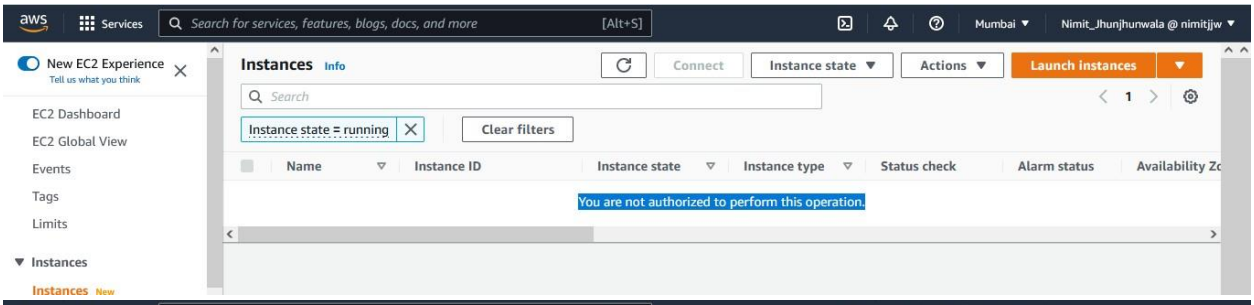
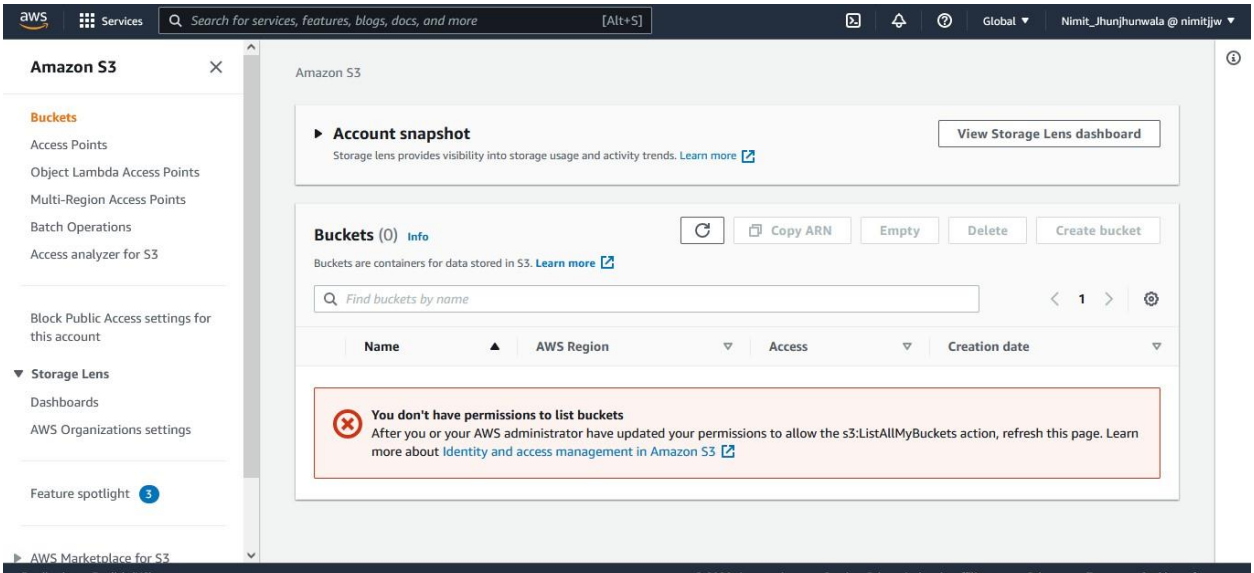
Terms
Cookie preferences


aws
Services
Search for services, features, blogs, docs, and more [Alt+S]
Mumbai
Nimit_Jhunjhunwala @ nimitjjw
New EC2 Experience
Tell us what you think
EC2 Dashboard
EC2 Global View
Events
Tags
Limits
Instances
Instances New
Instances Info
Connect
Instance state
Actions
Launch instances
Search
Instance state = running
Clear filters
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
You are not authorized to perform this operation.


aws
Services
Search for services, features, blogs, docs, and more [Alt+S]
Global
Nimit_Jhunjhunwala @ nimitjjw
Amazon S3
Buckets
Access Points
Object Lambda Access Points
Multi-Region Access Points
Batch Operations
Access analyzer for S3
Block Public Access settings for this account
Storage Lens
Dashboards
AWS Organizations settings
Feature spotlight 3
AWS Marketplace for S3
Amazon S3
Account snapshot
Storage lens provides visibility into storage usage and activity trends. Learn more
View Storage Lens dashboard
Buckets (0) Info
Copy ARN
Empty
Delete
Create bucket
Buckets are containers for data stored in S3. Learn more
Find buckets by name
Name
AWS Region
Access
Creation date
You don't have permissions to list buckets
After you or your AWS administrator have updated your permissions to allow the s3:ListAllMyBuckets action, refresh this page. Learn more about Identity and access management in Amazon S3
Feedback
English (US)
© 2022, Amazon Internet Services Private Ltd. or its affiliates.
Privacy
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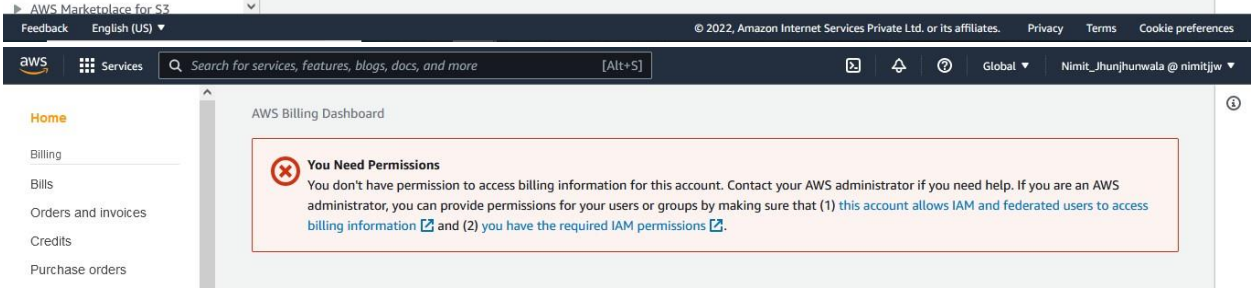
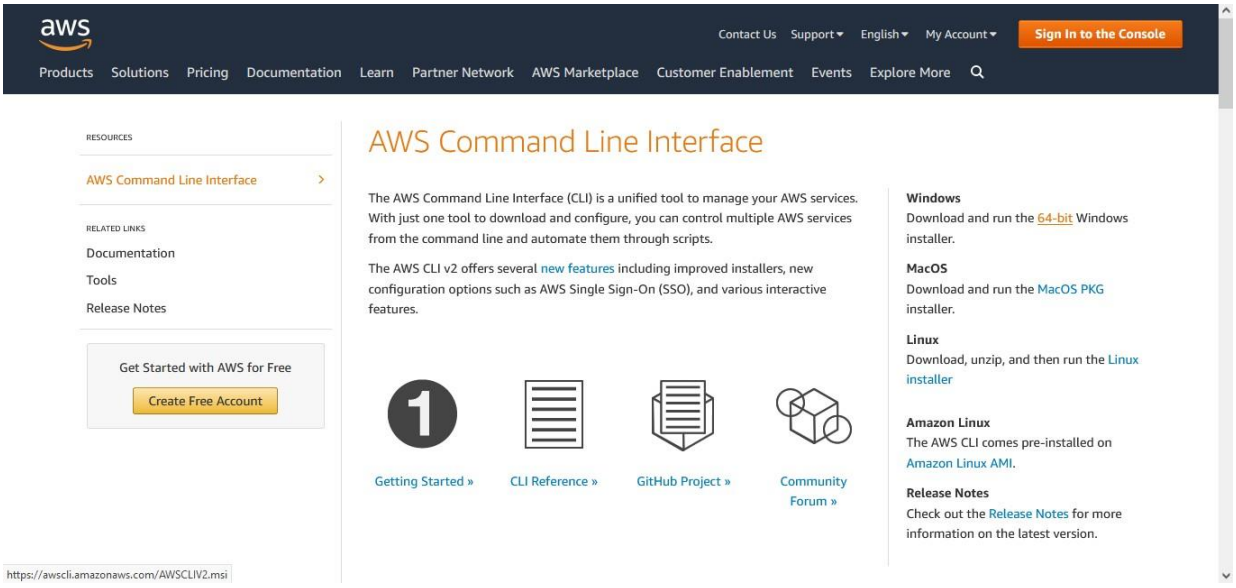
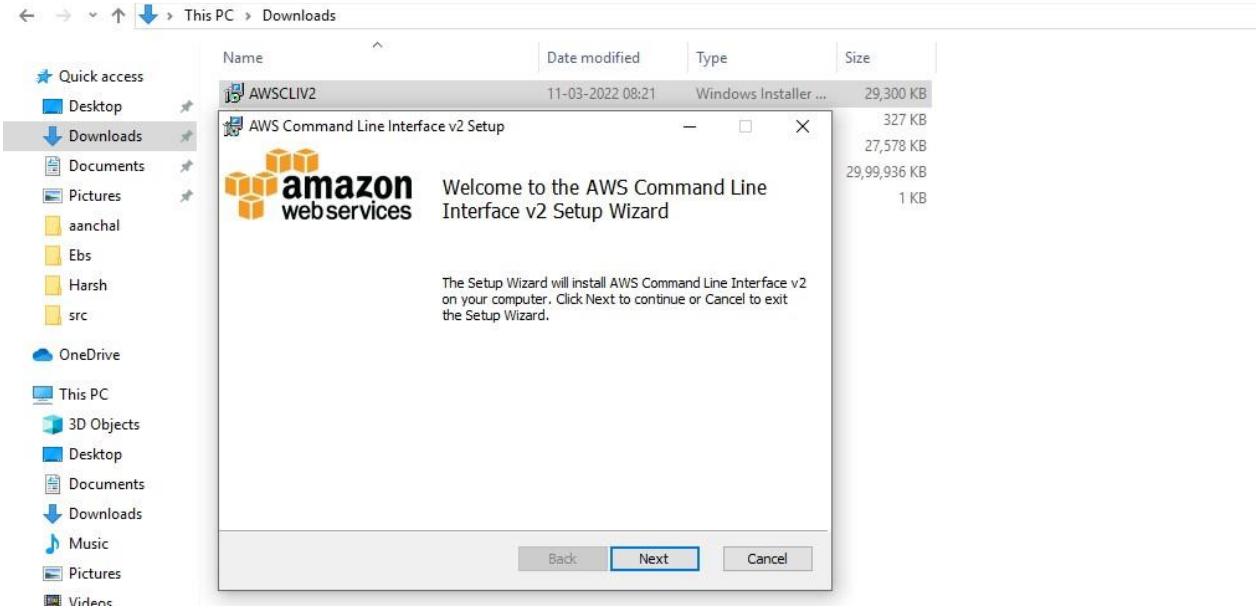
Cookie preferences

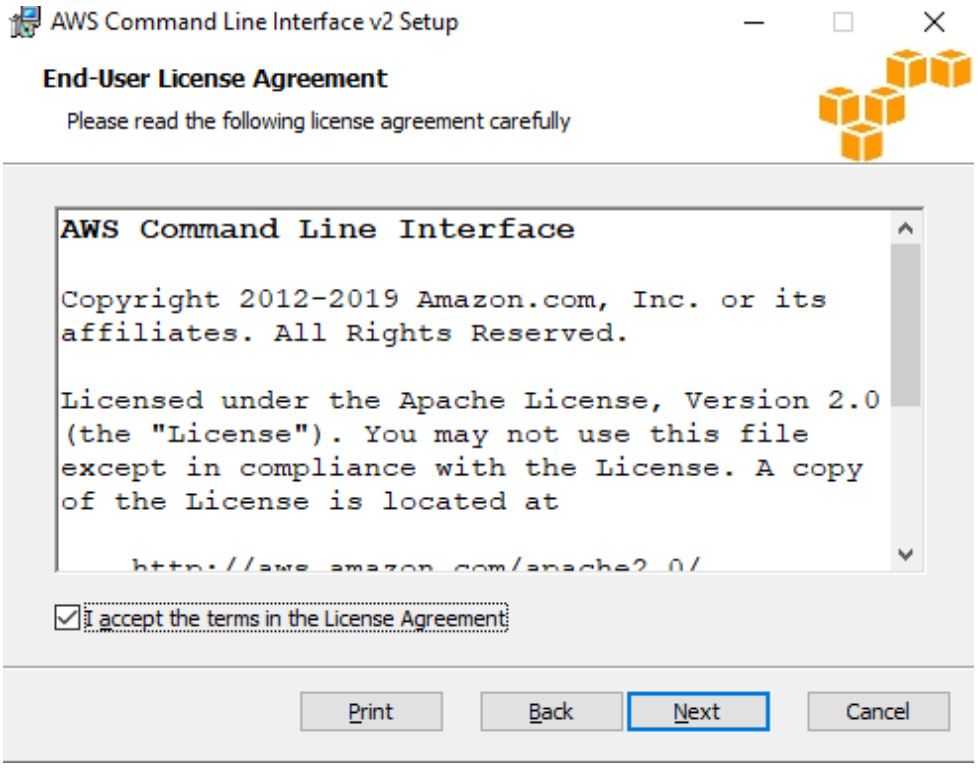

aws
Services
Search for services, features, blogs, docs, and more [Alt+S]
Global
Nimit_Jhunjhunwala @ nimitjjw
Home
Billing
Bills
Orders and invoices
Credits
Purchase orders
AWS Billing Dashboard
You Need Permissions
You don't have permission to access billing information for this account. Contact your AWS administrator if you need help. If you are an AWS administrator, you can provide permissions for your users or groups by making sure that (1) this account allows IAM and federated users to access billing information and (2) you have the required IAM permissions.

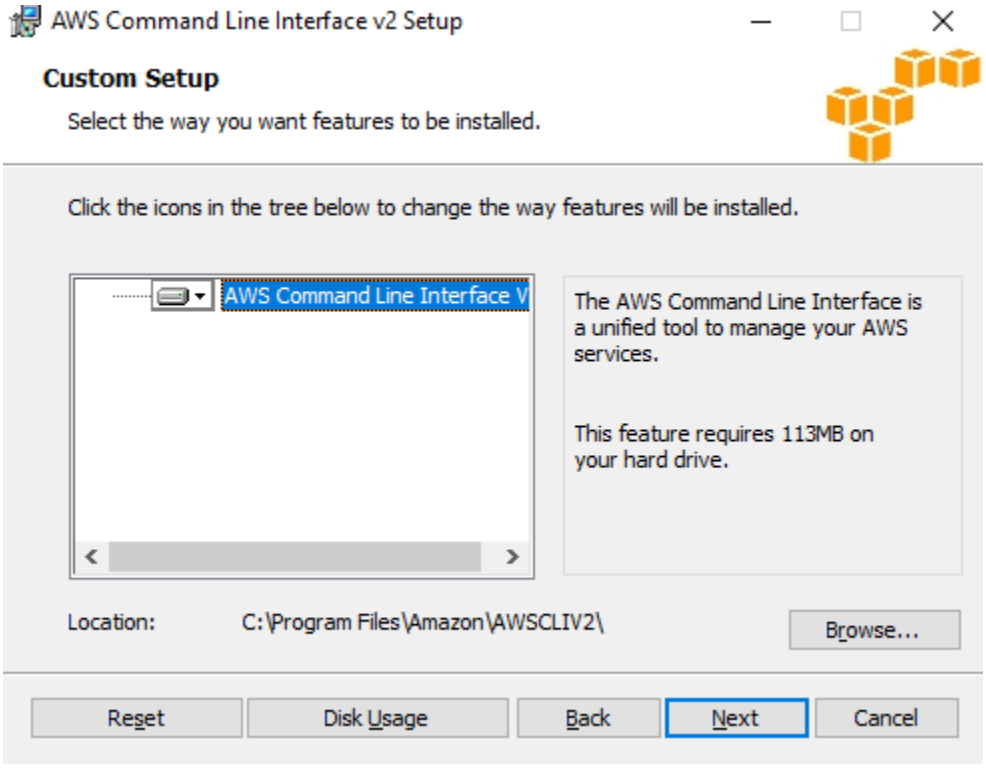
----- Adding MFA for the user via Root User -----

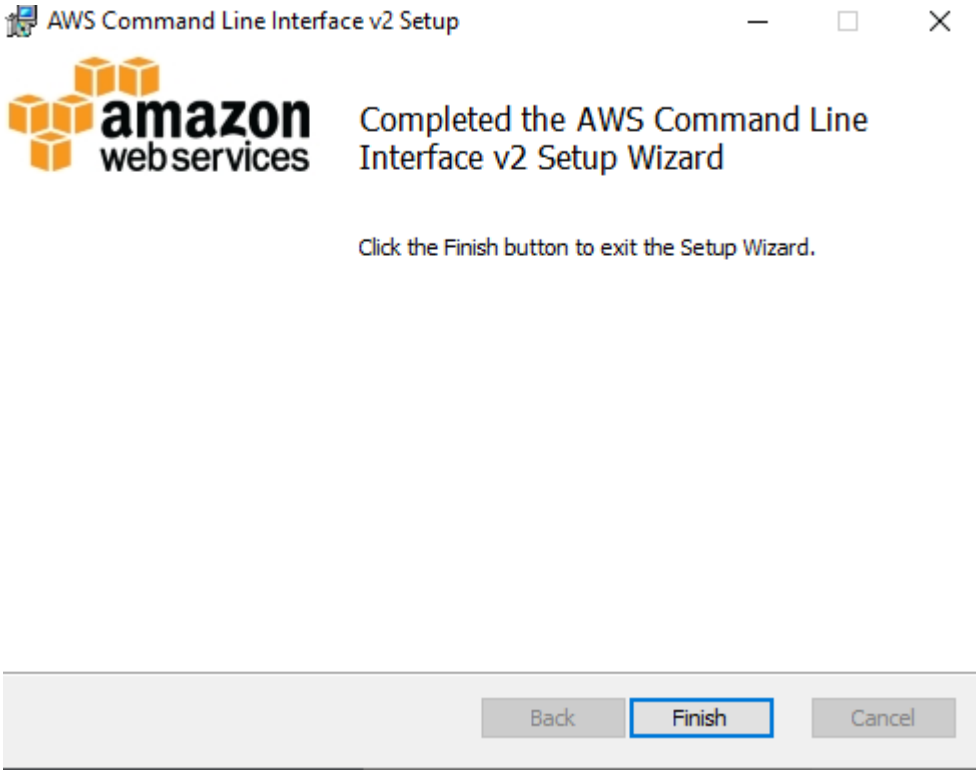
Type “AWS CLI” in a new window of any browser and go to it’s the main page of AWS regarding the same
Click on 64-bit hyperlink in the RHS column under the Windows section and download, install the AWS CLI



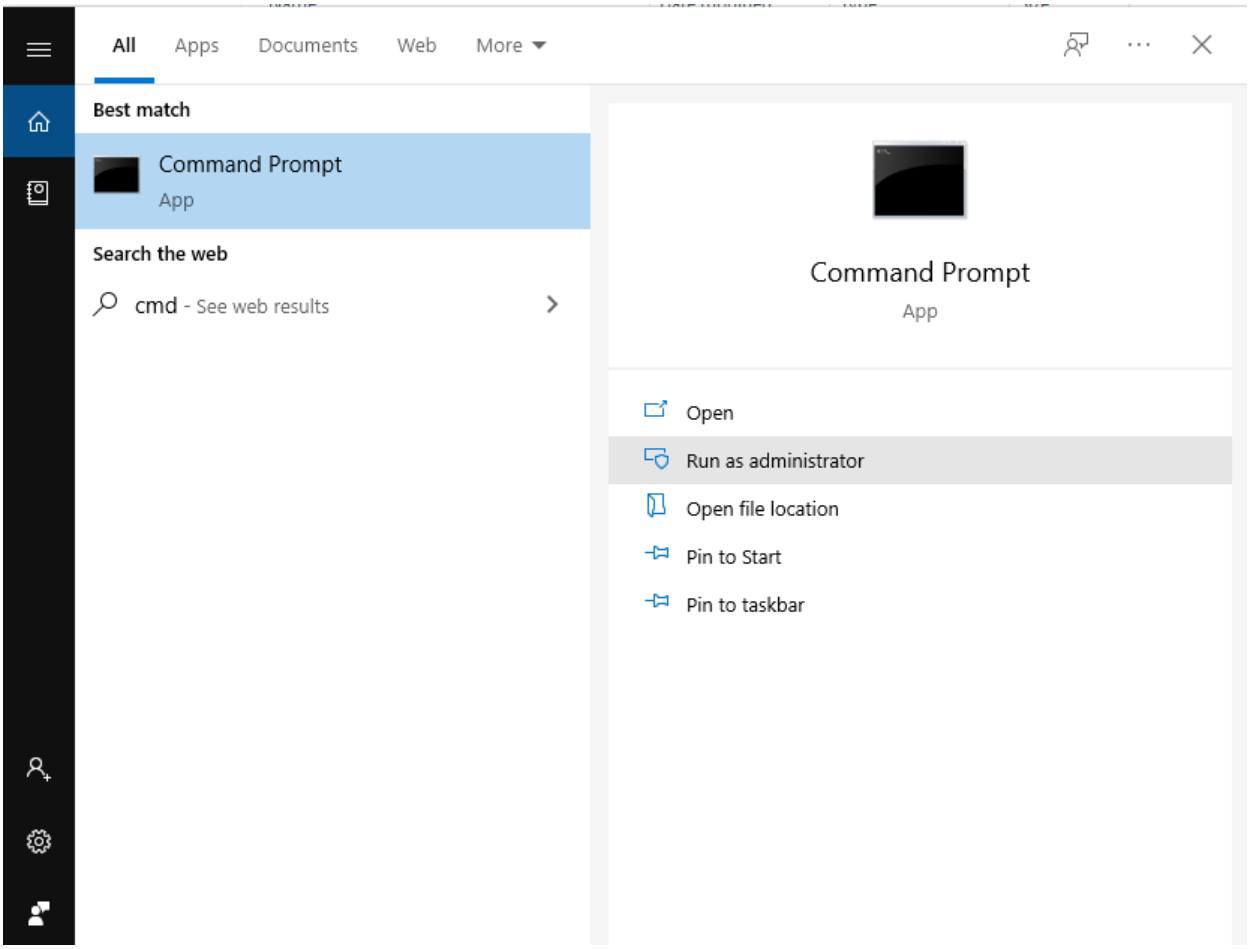

This PC › Downloads
Quick access
Desktop
Downloads
Documents
Pictures
aanchal
Ebs
Harsh
src
OneDrive
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
Name
Date modified
Type
Size
AWSCLIV2
11-03-2022 08:21
Windows Installer ...
29,300 KB
327 KB
27,578 KB
29,99,936 KB
1 KB
AWS Command Line Interface v2 Setup
amazon web services
Welcome to the AWS Command Line Interface v2 Setup Wizard
The Setup Wizard will install AWS Command Line Interface v2 on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
Back
Next
Cancel


AWS Command Line Interface v2 Setup
End-User License Agreement
Please read the following license agreement carefully
AWS Command Line Interface
Copyright 2012-2019 Amazon.com, Inc. or its affiliates. All Rights Reserved.
Licensed under the Apache License, Version 2.0 (the "License"). You may not use this file except in compliance with the License. A copy of the License is located at
http://aws.amazon.com/apache2.0/
I accept the terms in the License Agreement
Print
Back
Next
Cancel

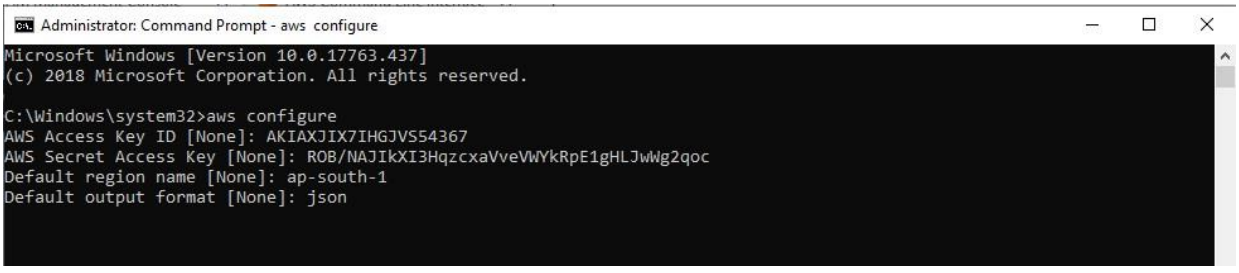

AWS Command Line Interface v2 Setup
Custom Setup
Select the way you want features to be installed.
Click the icons in the tree below to change the way features will be installed.
AWS Command Line Interface V
The AWS Command Line Interface is a unified tool to manage your AWS services.
This feature requires 113MB on your hard drive.
Location:
C:\Program Files\Amazon\AWSCLIV2\
Browse...
Reset
Disk Usage
Back
Next
Cancel


AWS Command Line Interface v2 Setup
amazon web services
Completed the AWS Command Line Interface v2 Setup Wizard
Click the Finish button to exit the Setup Wizard.
Back
Finish
Cancel

Type “cmd” in the windows search bar and run it as an administrator



Type `aws configure`, it will ask for a few inputs;
AWS Access Key ID and Key are the ones which we saved earlier
Default region name is whichever region AWS you are using; in case of Mumbai, its: `ap-south-1`
The output format is `json` in our case



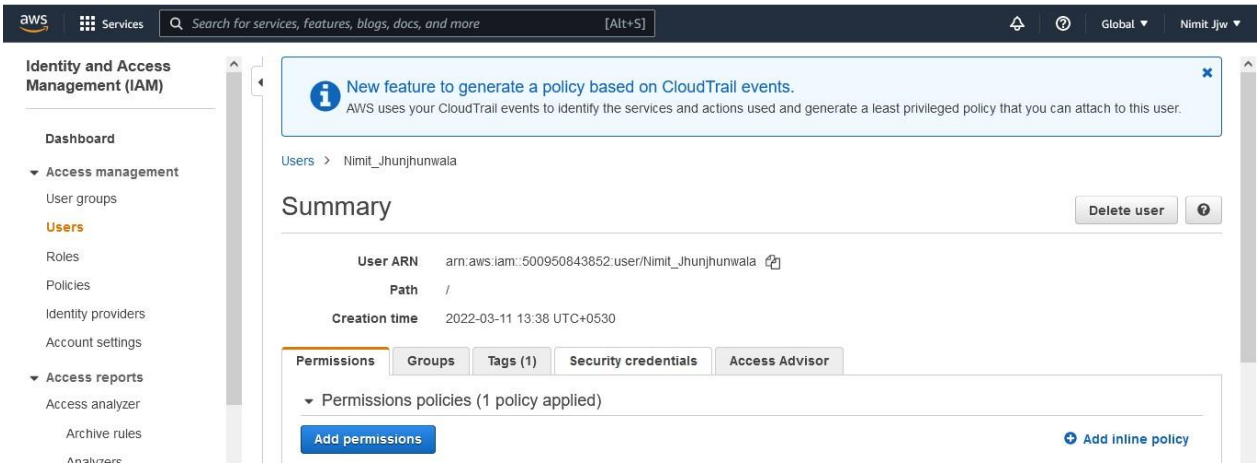
The next two steps are OPTIONAL:

```
aws –version
aws s3 ls
```

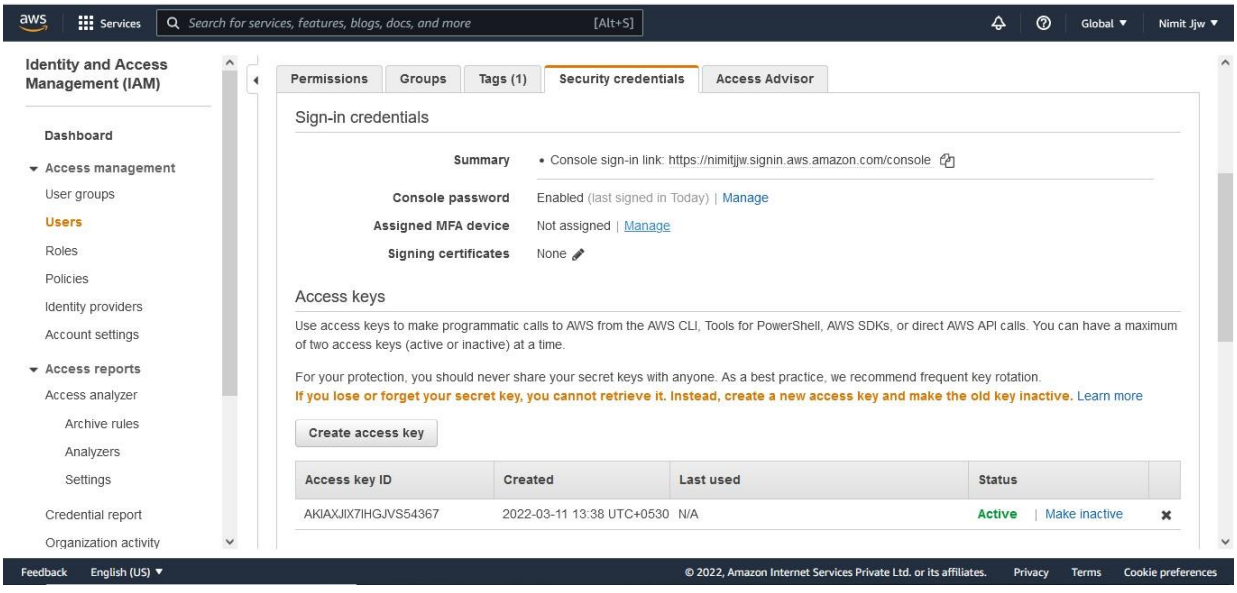
```
C:\Windows\system32>aws --version
aws-cli/2.4.25 Python/3.8.8 Windows/10 exe/AMD64 prompt/off
```

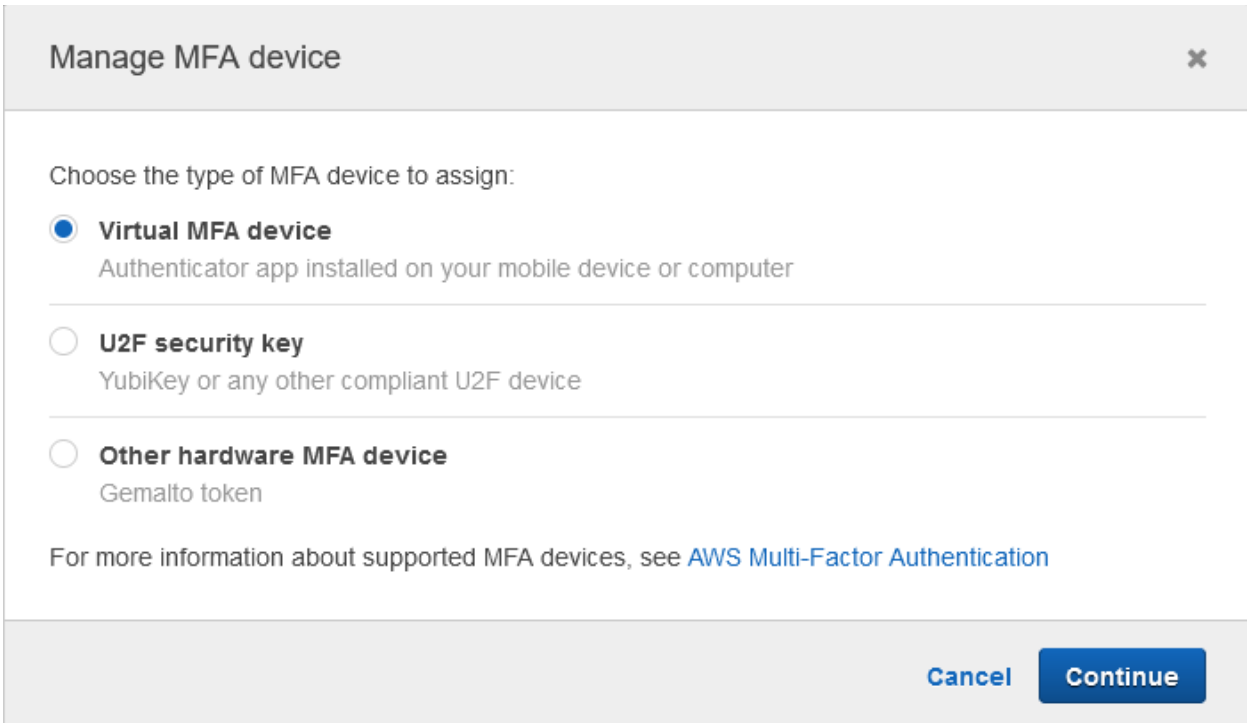
```
C:\Windows\system32>aws s3 ls

An error occurred (RequestTimeTooSkewed) when calling the ListBuckets operation: The difference between the request time
 and the current time is too large.
```

Go in the security credentials tab under Users of IAM Dashboard



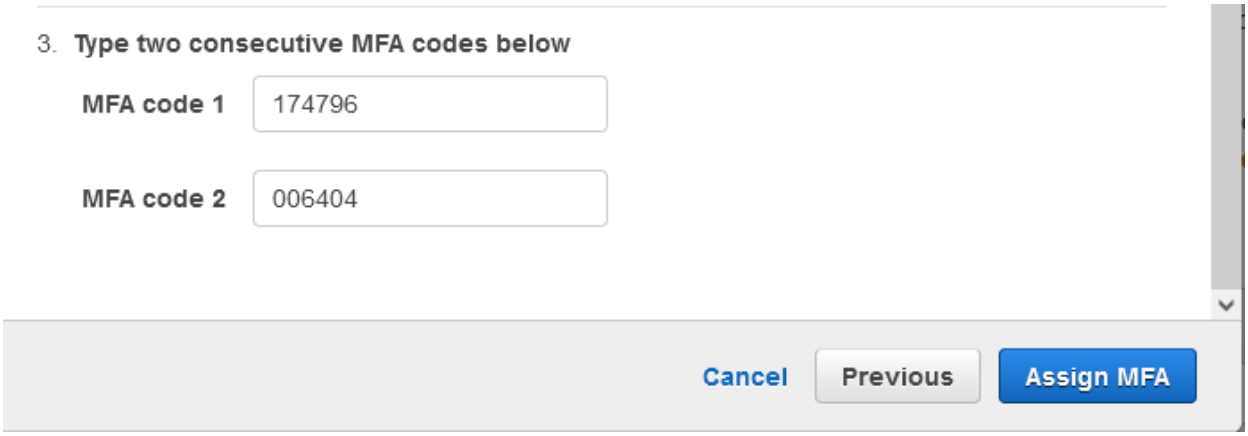
Click on the “Manage” Hyperlink

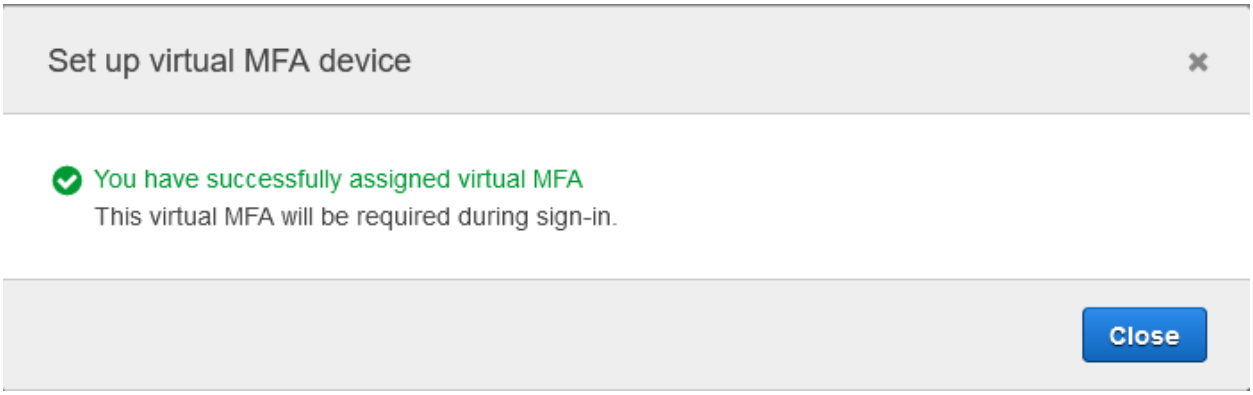




Use the Google Authenticator app downloaded earlier to scan the QR Code

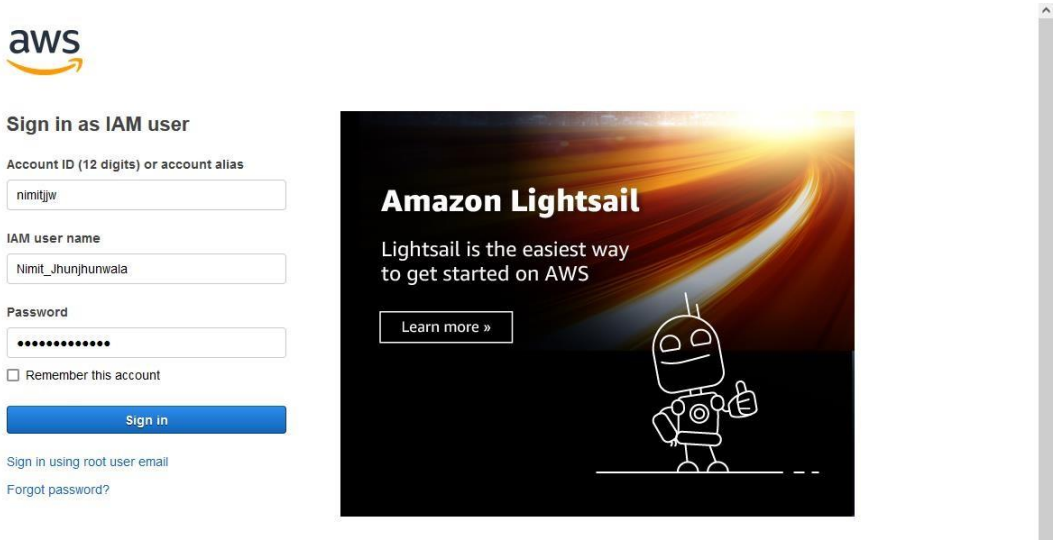
Enter two of the codes which are shown in the Google Authenticator App over a span of 30 secs each; click on Assign MFA Button



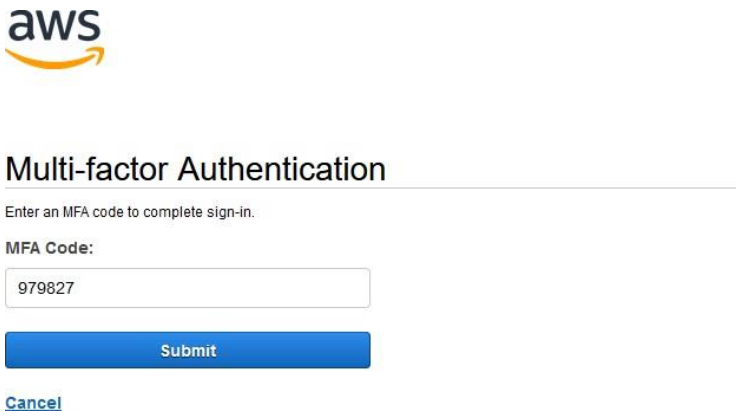


----- Logging in as the new user after MFA -----

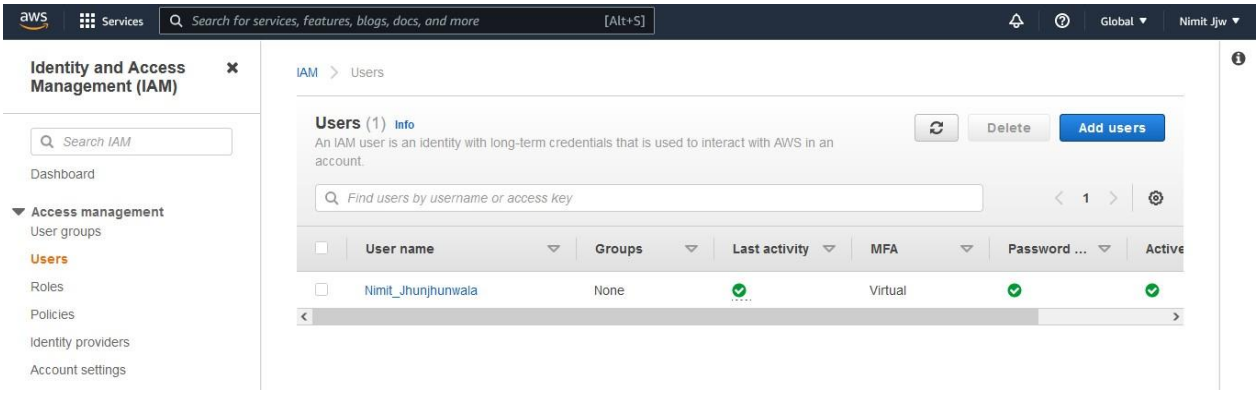
Again try logging in via the new user created earlier; this time it will ask for MFA after you click on Sign In



Use the code being shown in the Google Authenticator

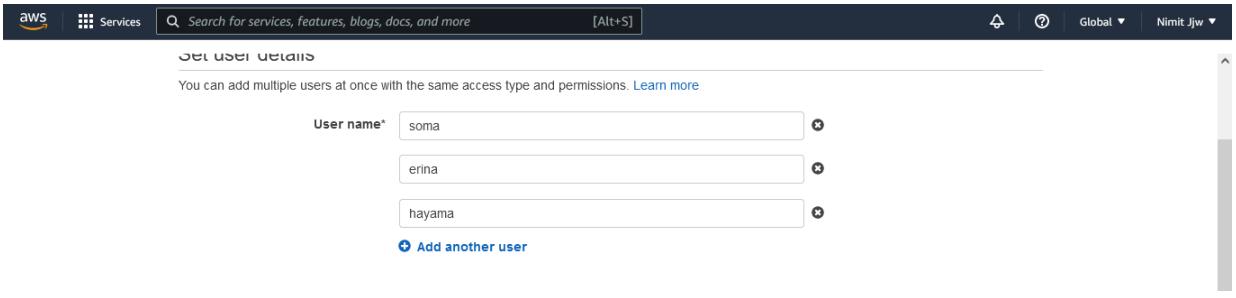


Now, after opening the root user window again
After going in the Users section of IAM Dashboard, we can see that MFA has been activated for the new user

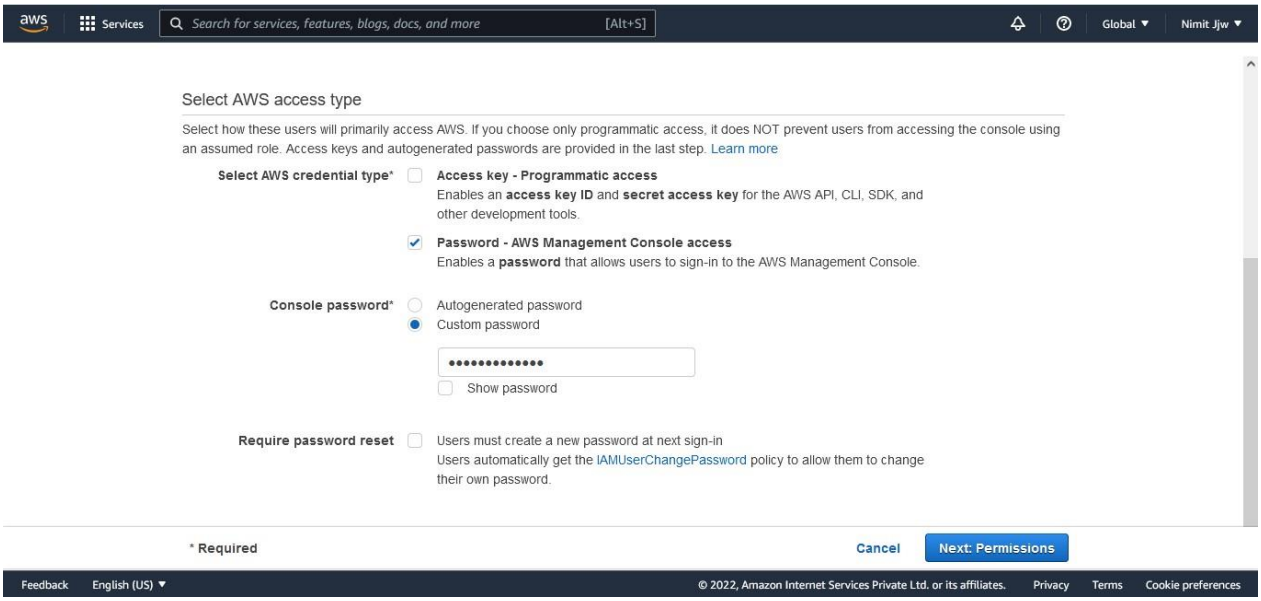


----- Adding 3 More Users and giving them permissions -----

Now, Adding 3 More Users



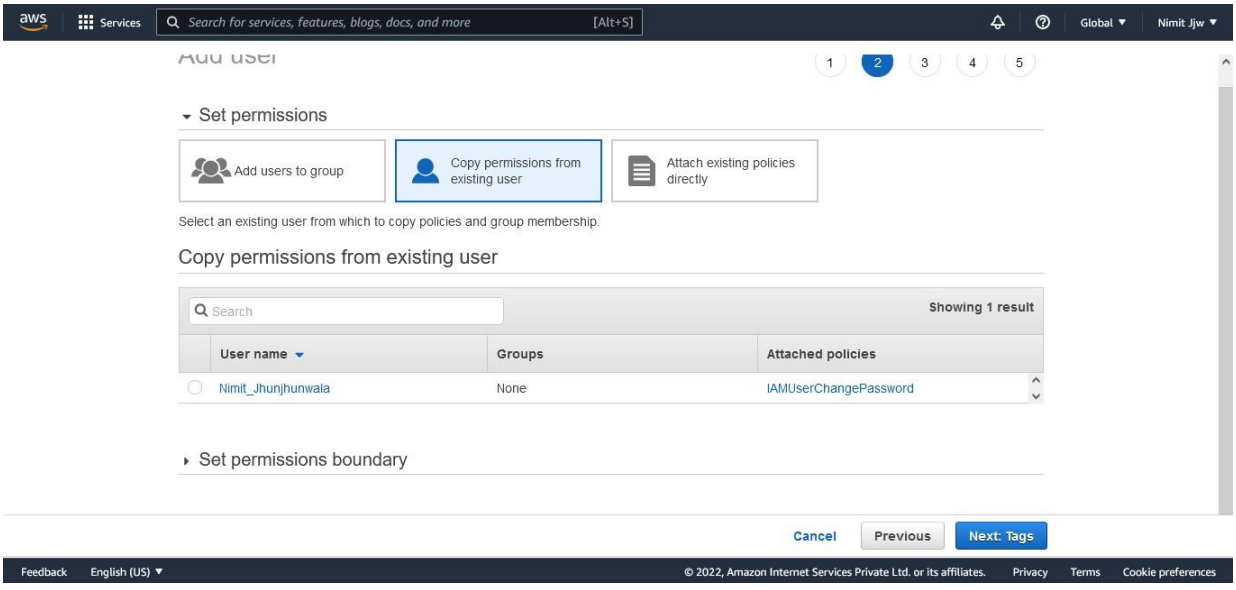
Not giving them an Access key and not checking the Psw Reset Checkbox; Click on the Next: Permissions



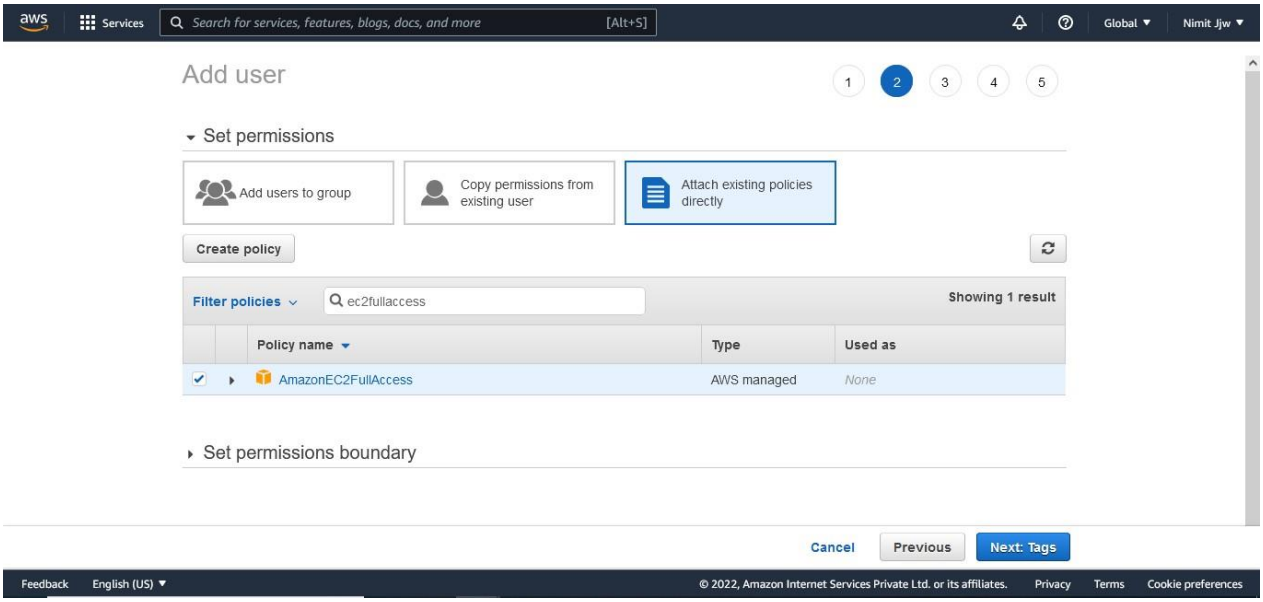
We will create a group later

We can see the previous user listed under the copy “permission from existing user” section (just for observation purpose)

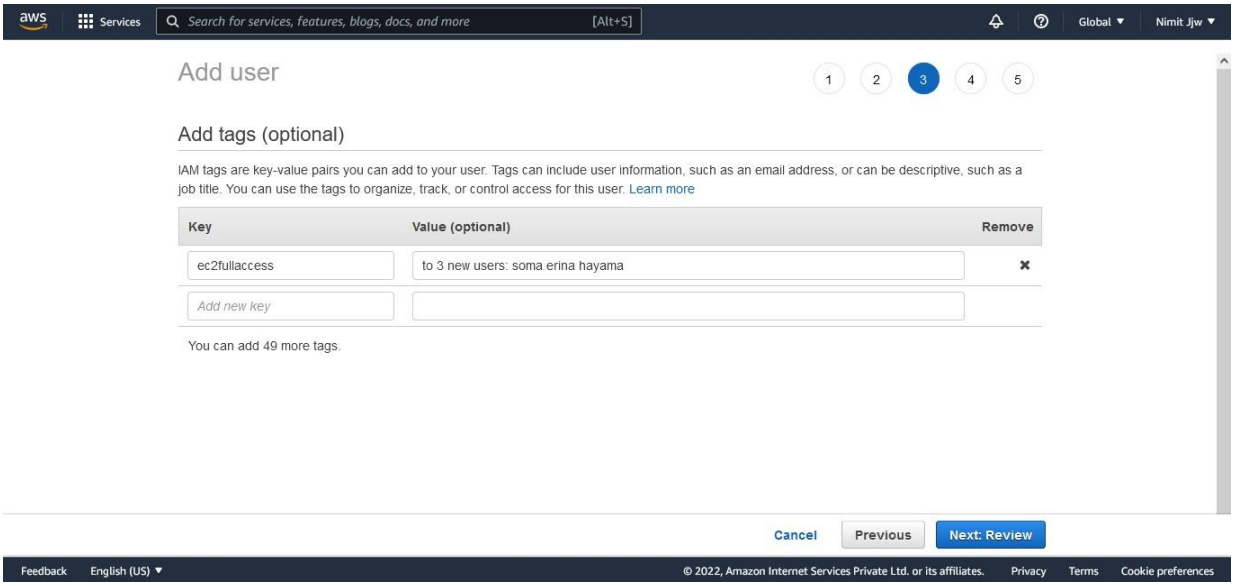
Click on the third section: Attach existing policies directly



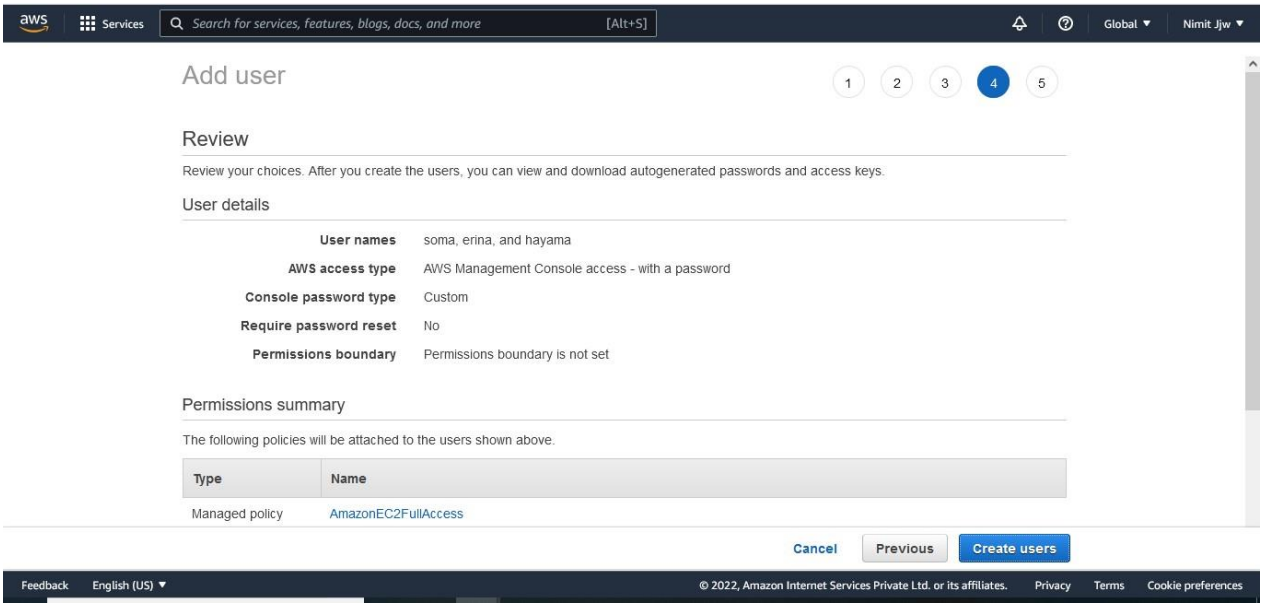
Type in `ec2fullaccess` in the search box and click the check box for it; click on Next: Tags

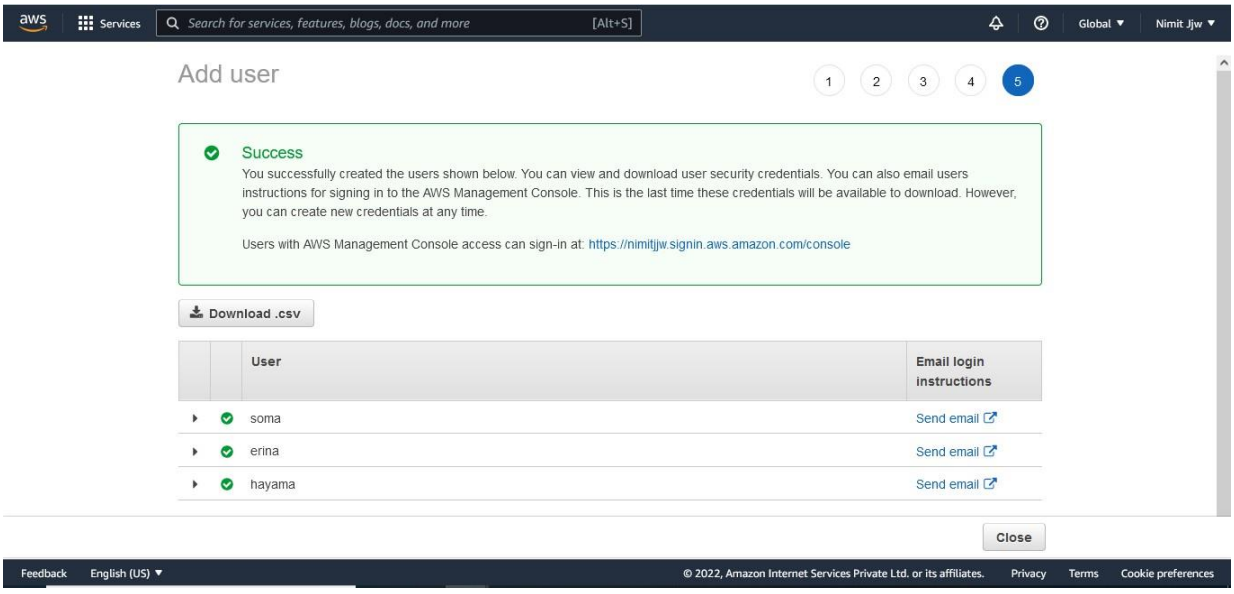


Input the Key and Value for the Tag to keep track of your activities; Click on Next: Review



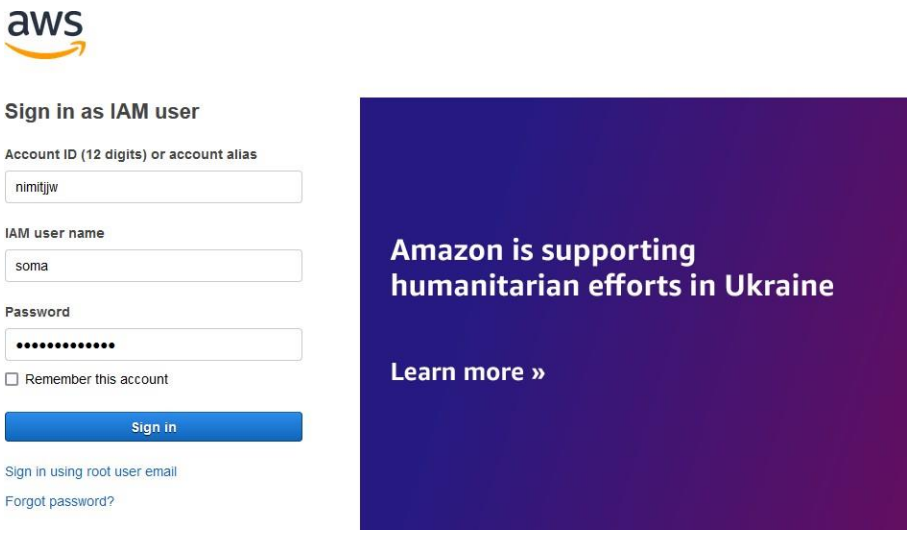
Click on Create Users Button



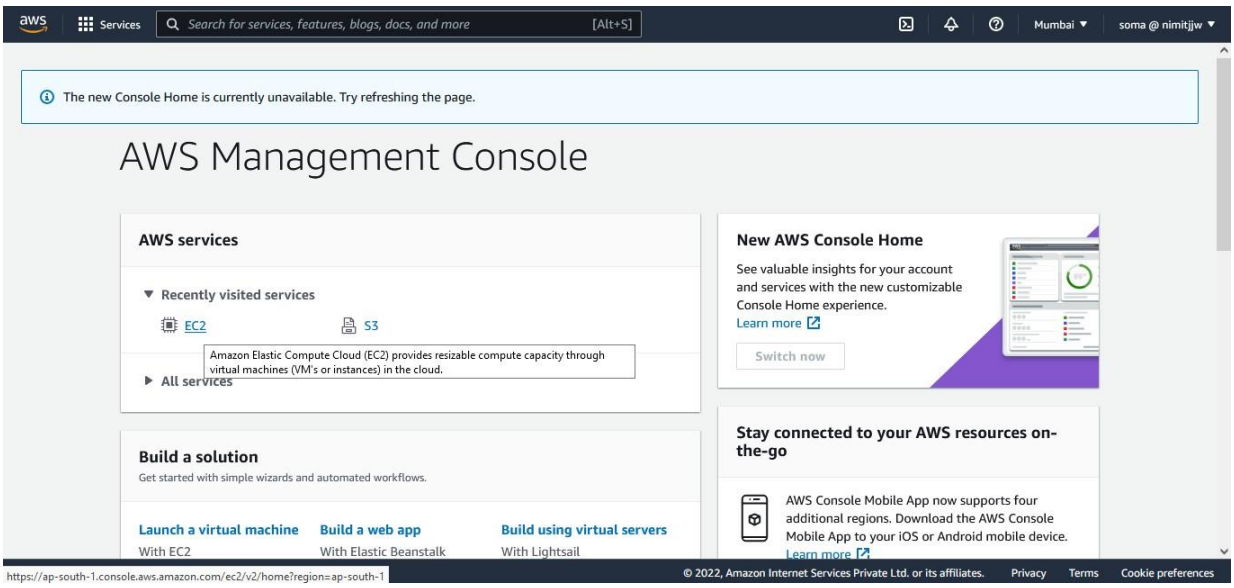


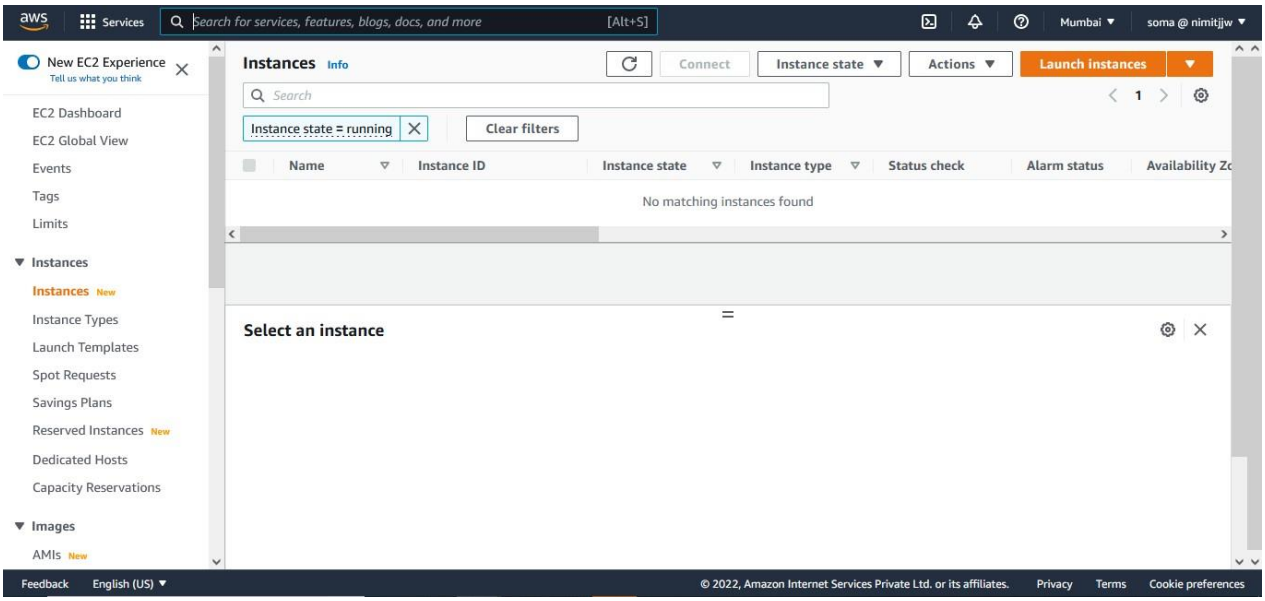
----- Logging in as one of the 3 new Users and checking their permissions -----

Try logging in as one of the 3 new users just created



Try launching an EC2 instance via the new user




aws
Services
Search for services, features, blogs, docs, and more
[Alt+S]
Mumbai
soma @ nimitjjw
New EC2 Experience
Tell us what you think
EC2 Dashboard
EC2 Global View
Events
Tags
Limits
Instances
Instances New
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances New
Dedicated Hosts
Capacity Reservations
Images
AMIs New
Instances Info
Connect
Instance state
Actions
Launch instances
Search
Instance state = running
Clear filters
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zo
No matching instances found
Select an instance
Feedback
English (US)
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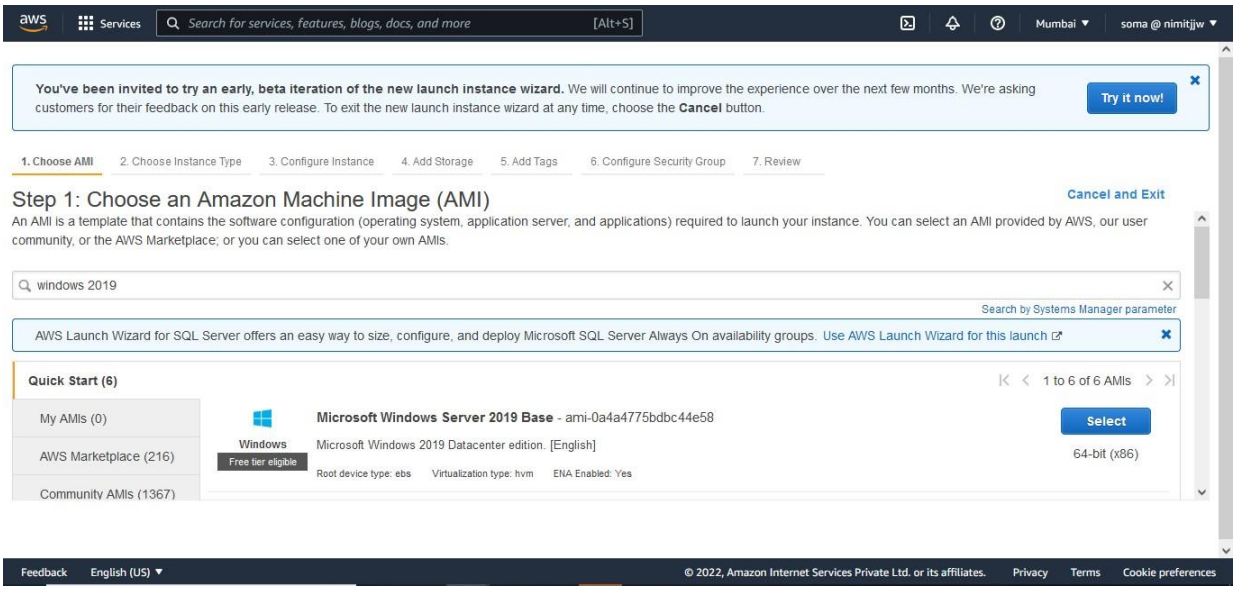
Terms
Cookie preferences


aws
Services
Search for services, features, blogs, docs, and more
[Alt+S]
Mumbai
soma @ nimitjjw
You've been invited to try an early, beta iteration of the new launch instance wizard. We will continue to improve the experience over the next few months. We're asking customers for their feedback on this early release. To exit the new launch instance wizard at any time, choose the Cancel button.
Try it now!
1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review
Step 1: Choose an Amazon Machine Image (AMI)
Cancel and Exit
An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.
windows 2019
Search by Systems Manager parameter
AWS Launch Wizard for SQL Server offers an easy way to size, configure, and deploy Microsoft SQL Server Always On availability groups. Use AWS Launch Wizard for this launch
Quick Start (6)
1 to 6 of 6 AMIs
My AMIs (0)
AWS Marketplace (216)
Community AMIs (1367)
Microsoft Windows Server 2019 Base - ami-0a4a4775bdbc44e58
Windows
Free tier eligible
Microsoft Windows 2019 Datacenter edition. [English]
Root device type: ebs
Virtualization type: hvm
ENA Enabled: Yes
Select
64-bit (x86)
Feedback
English (US)
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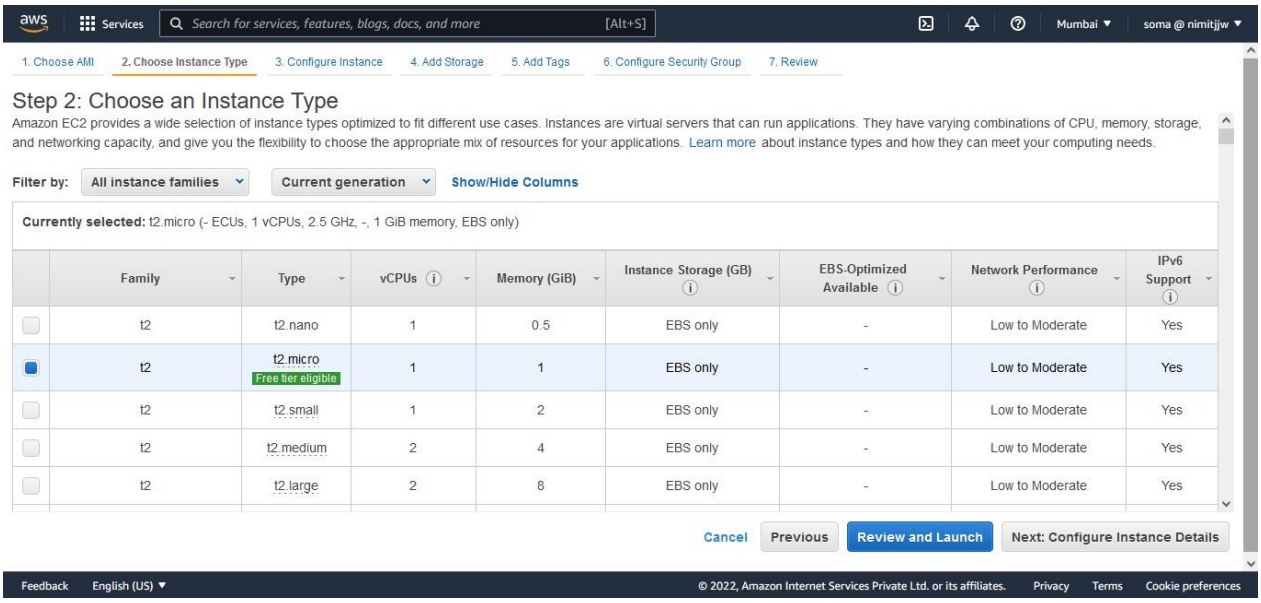
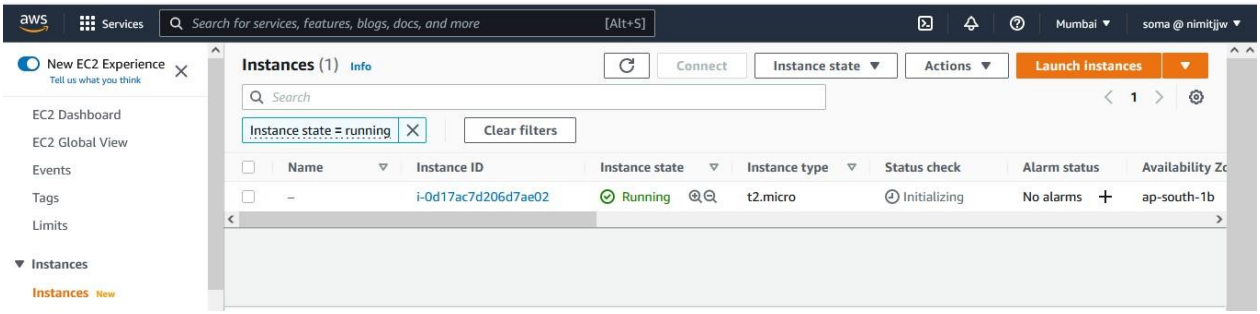


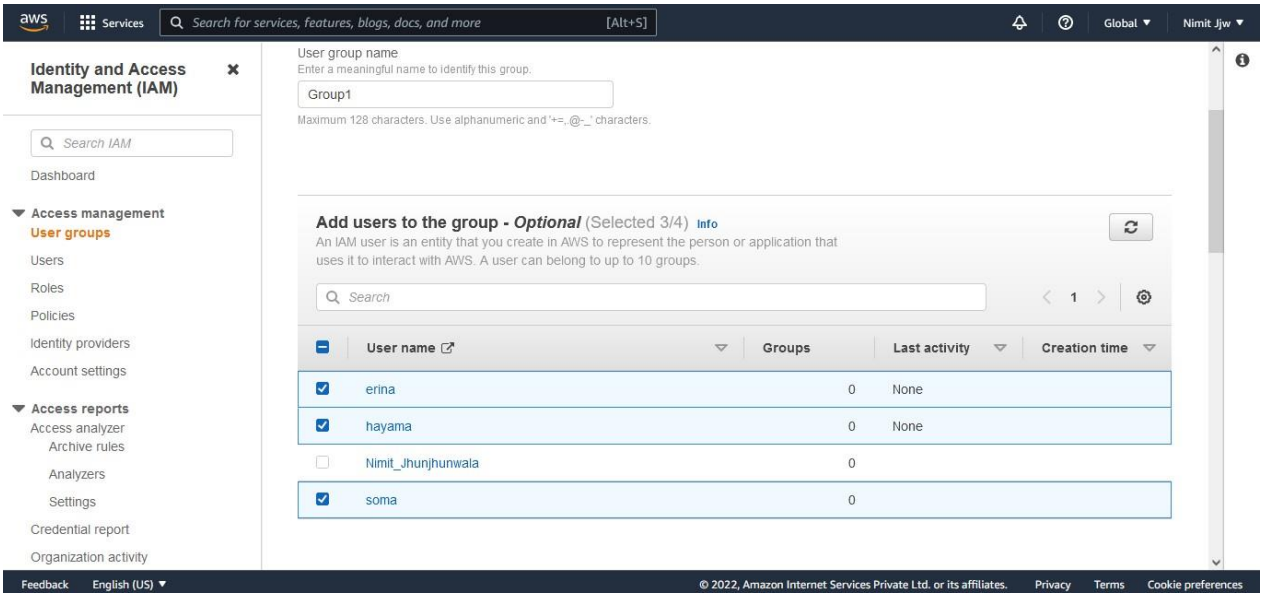
Hence, an instance has been created



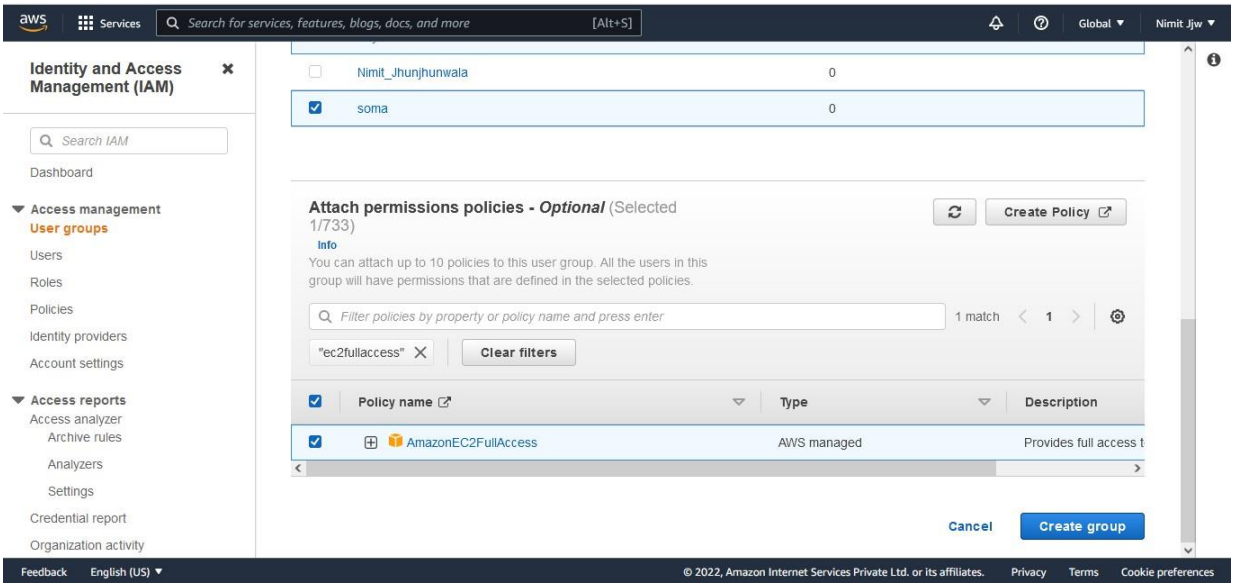
Delete the bucket when done with your work

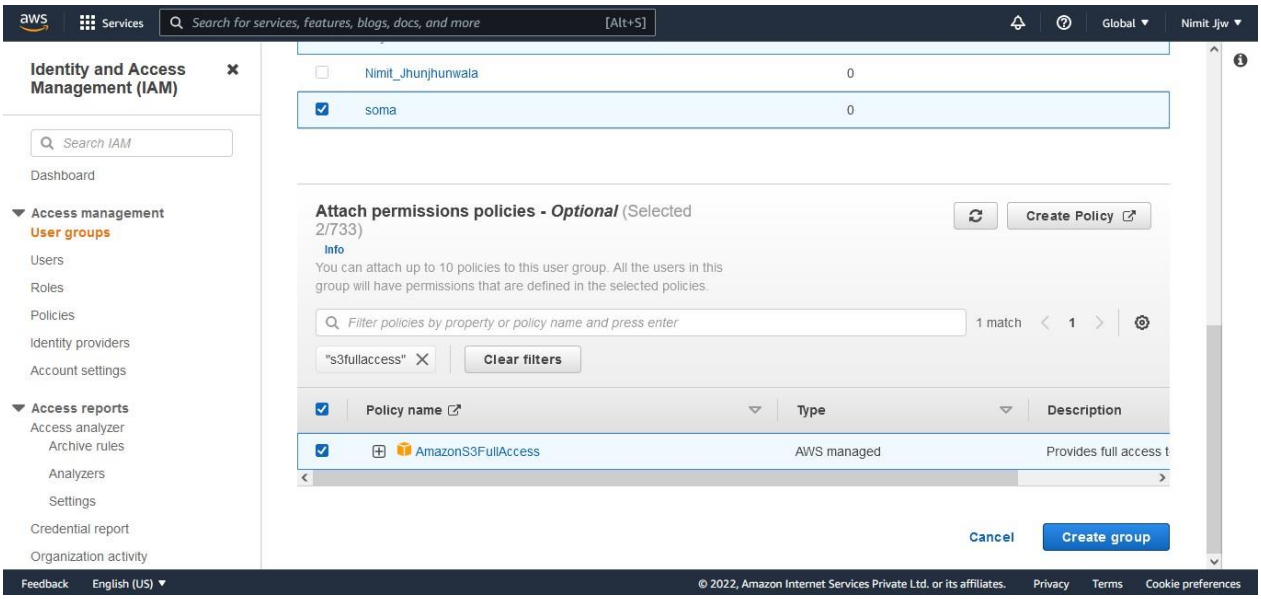
----- Creating a new Group and giving it permissions -----

Select the members to be present in the group (max 4 per group)



Giving this group `ec2fullaccess` and `s3fullaccess`




Identity and Access Management (IAM)
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
Nimit_Jhunjhunwala 0
soma 0
Attach permissions policies - Optional (Selected 2/733)
Info
You can attach up to 10 policies to this user group. All the users in this group will have permissions that are defined in the selected policies.
Create Policy
Filter policies by property or policy name and press enter
1 match
"s3fullaccess"
Clear filters
Policy name
Type
Description
AmazonS3FullAccess
AWS managed
Provides full access t
Cancel
Create group
Feedback
English (US)
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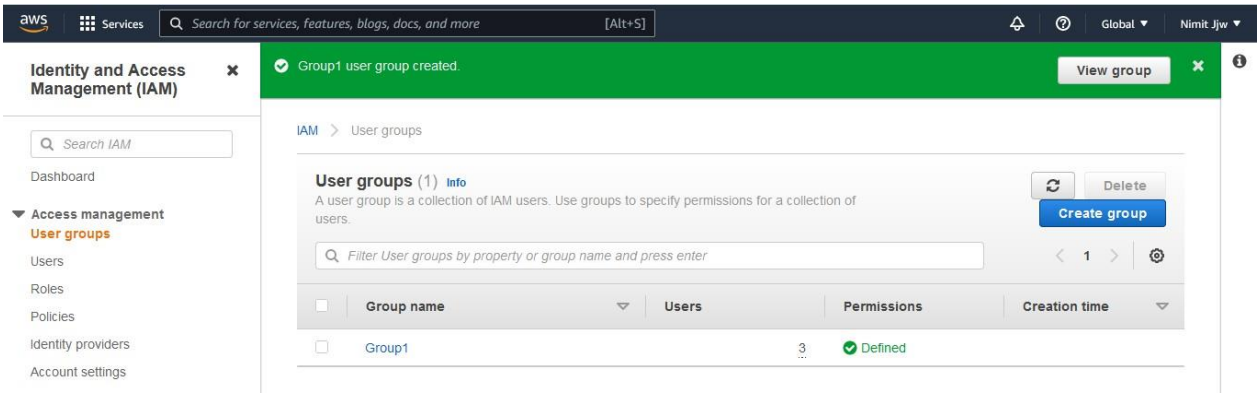
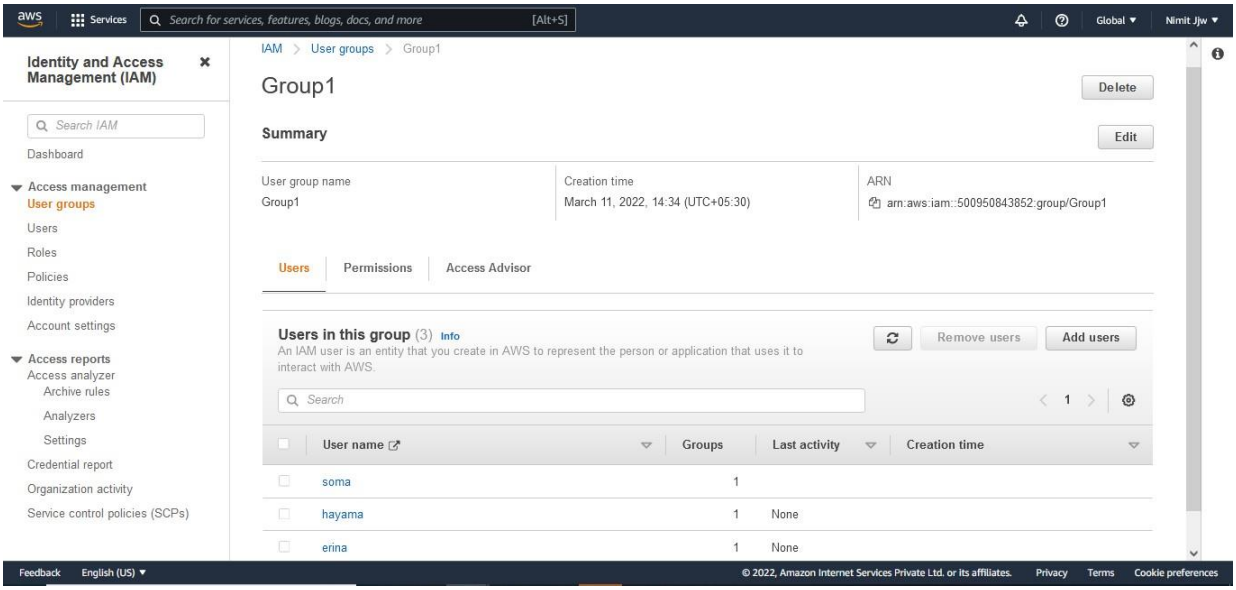
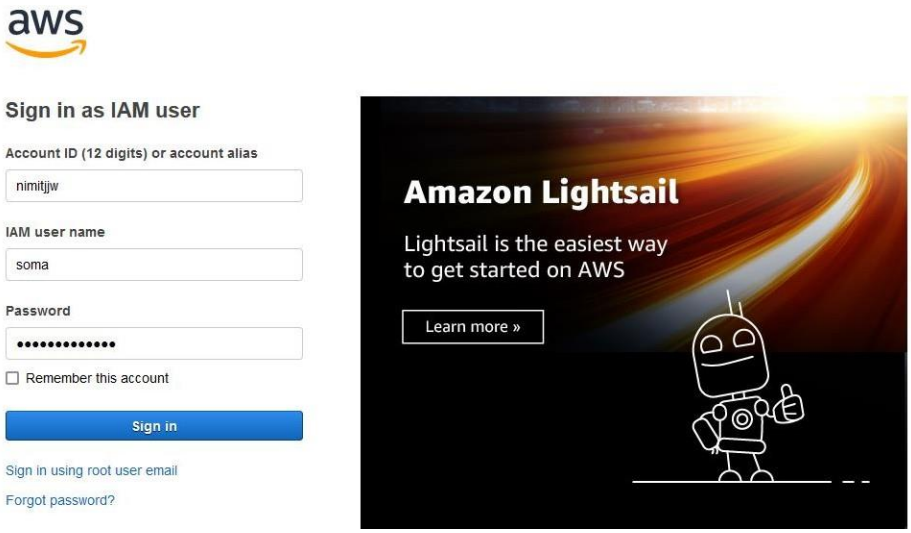
Privacy
Terms
Cookie preferences


Identity and Access Management (IAM)
Group1 user group created.
View group
IAM > User groups
User groups (1) Info
A user group is a collection of IAM users. Use groups to specify permissions for a collection of users.
Delete
Create group
Filter User groups by property or group name and press enter
Group name
Users
Permissions
Creation time
Group1
3
Defined

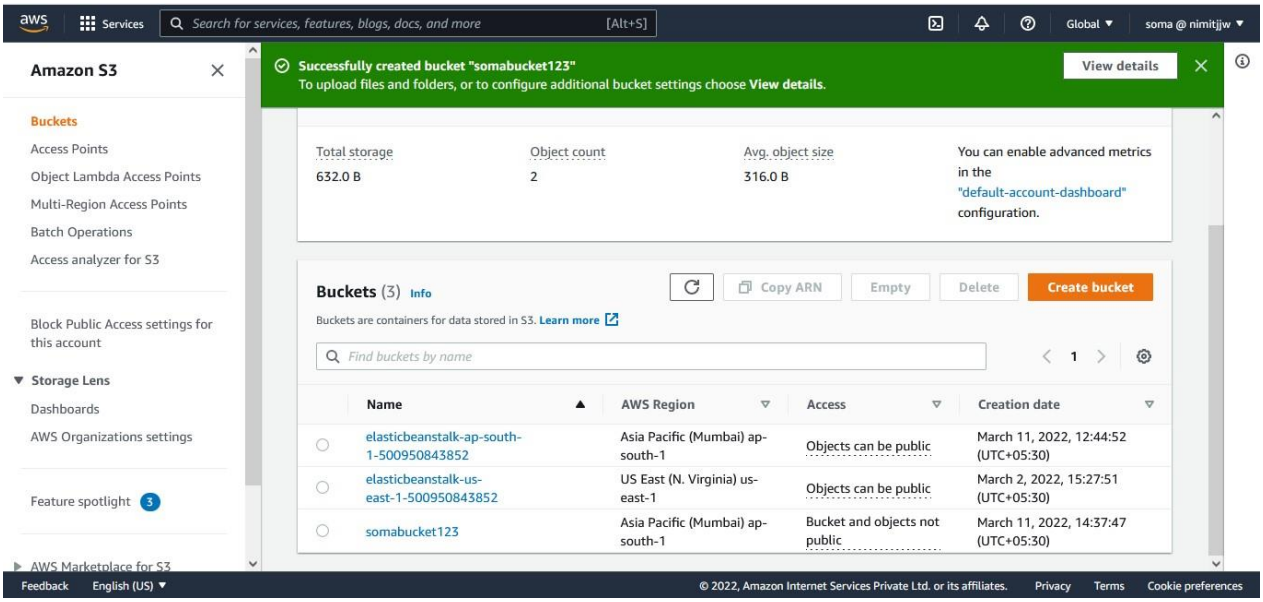

IAM > User groups > Group1
Group1
Delete
Summary
Edit
User group name
Group1
Creation time
March 11, 2022, 14:34 (UTC+05:30)
ARN
arn:aws:iam::500950843852:group/Group1
Users
Permissions
Access Advisor
Users in this group (3) Info
An IAM user is an entity that you create in AWS to represent the person or application that uses it to interact with AWS.
Remove users
Add users
Search
User name
Groups
Last activity
Creation time
soma 1
hayama 1 None
erina 1 None

----- Logging in as a member of the Group & checking their permissions -----

Now, login as one of the users from the group and try creating a S3 bucket



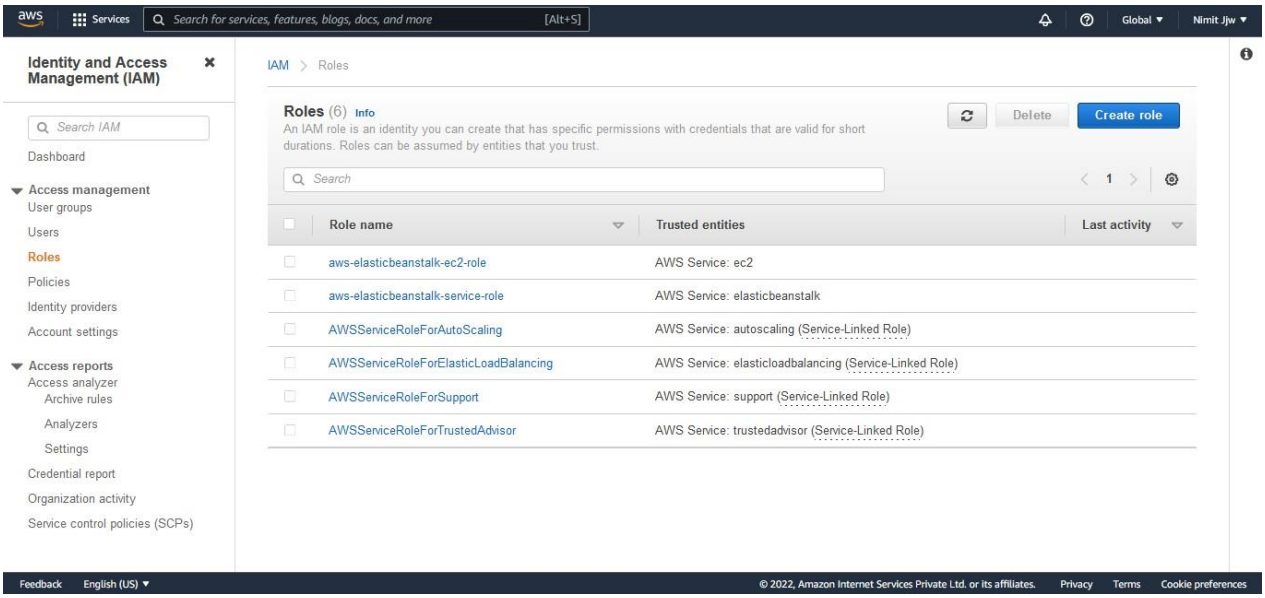
S3 bucket successfully created



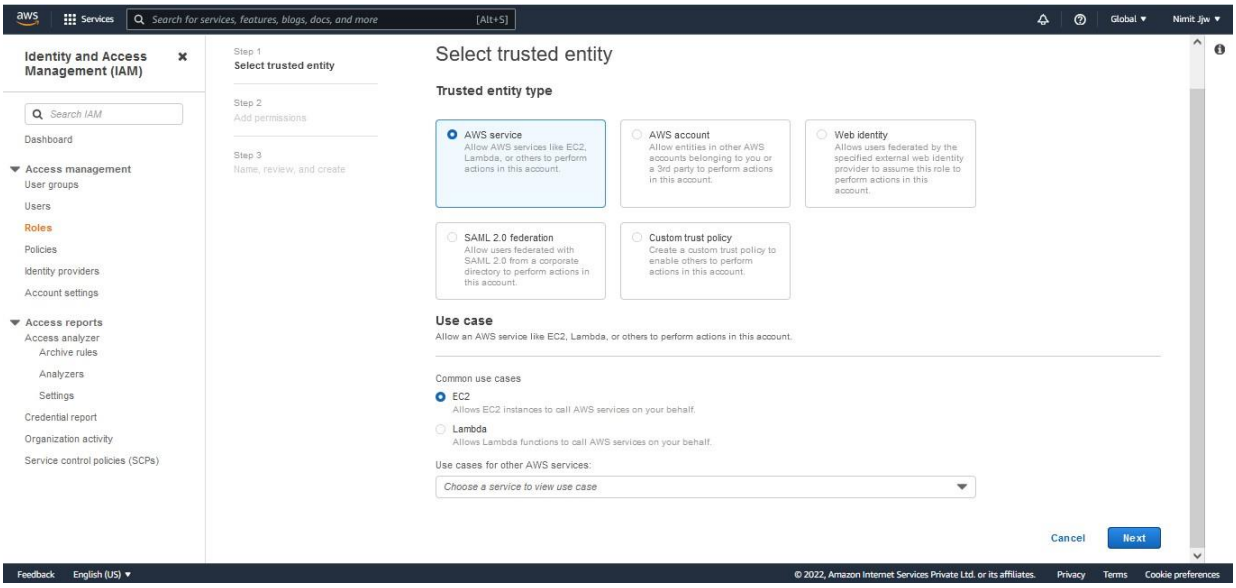
Delete the bucket when done with your work

----- Creating a new Role -----

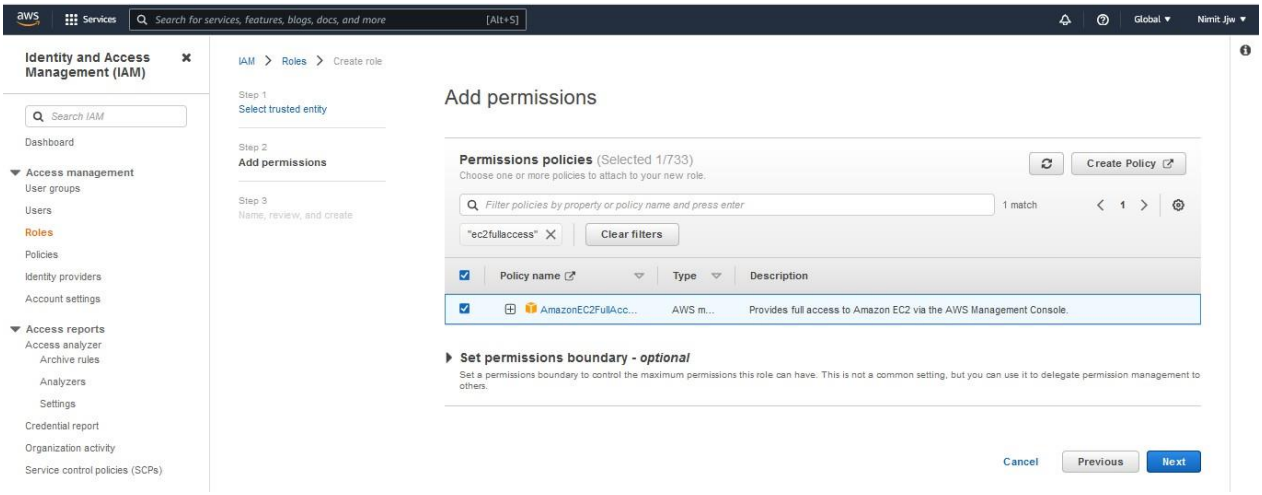
Go in the root user window and click on “create role” button in the “Roles” section of IAM Dashboard



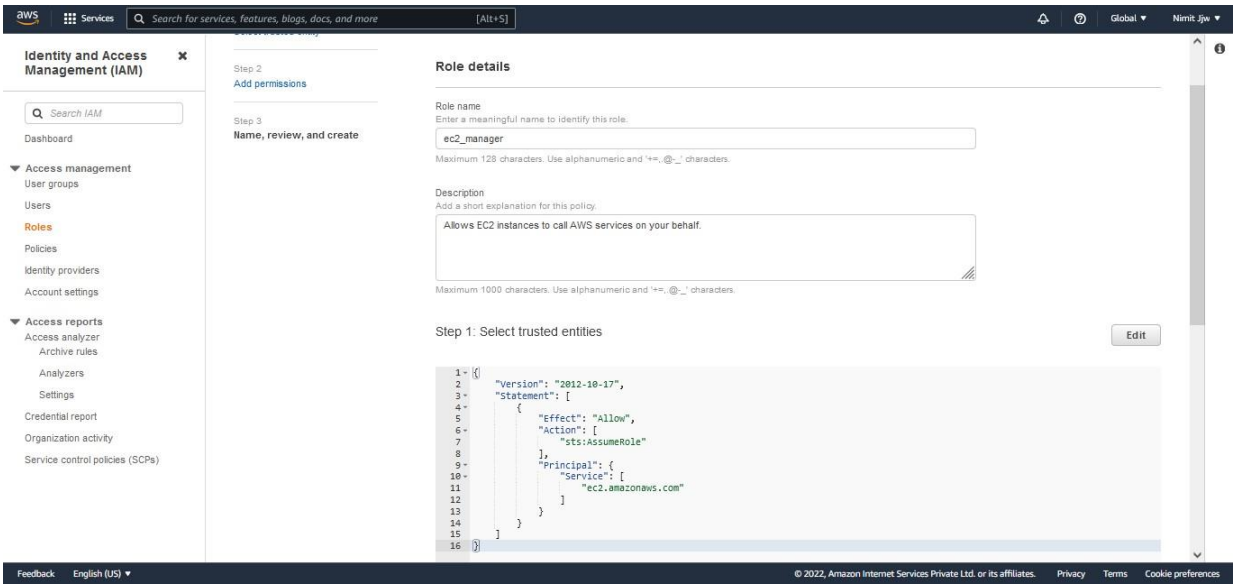
Let it be the default options (you can choose any use case you like)
Click in Next button



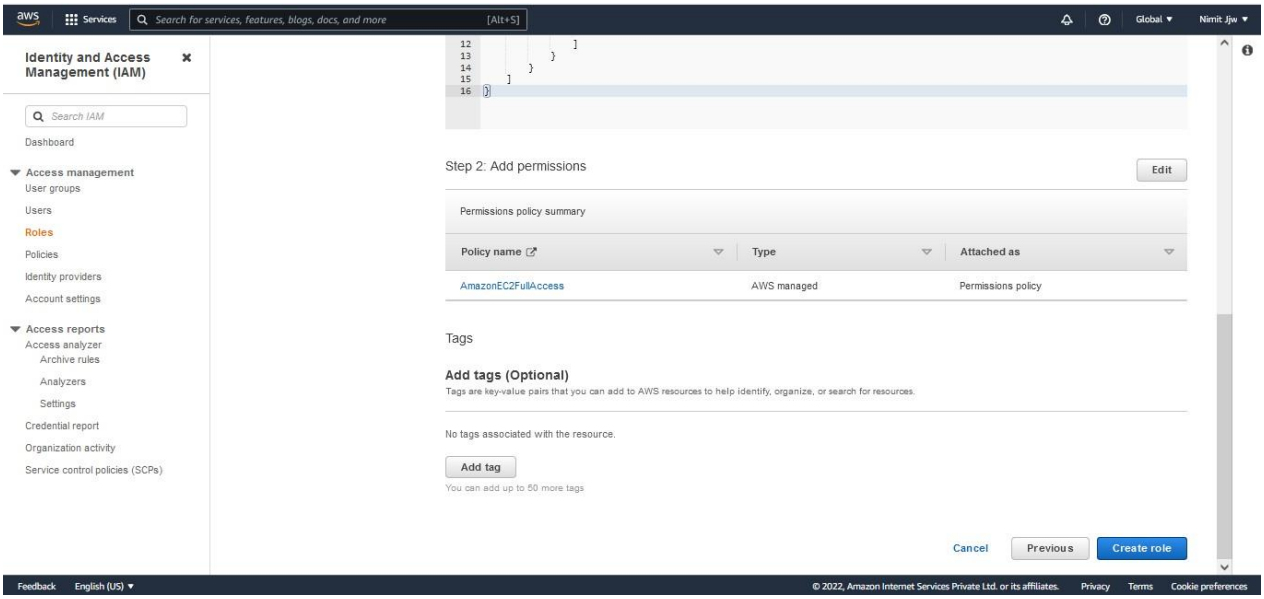
Give the permission suitable to the use case chosen



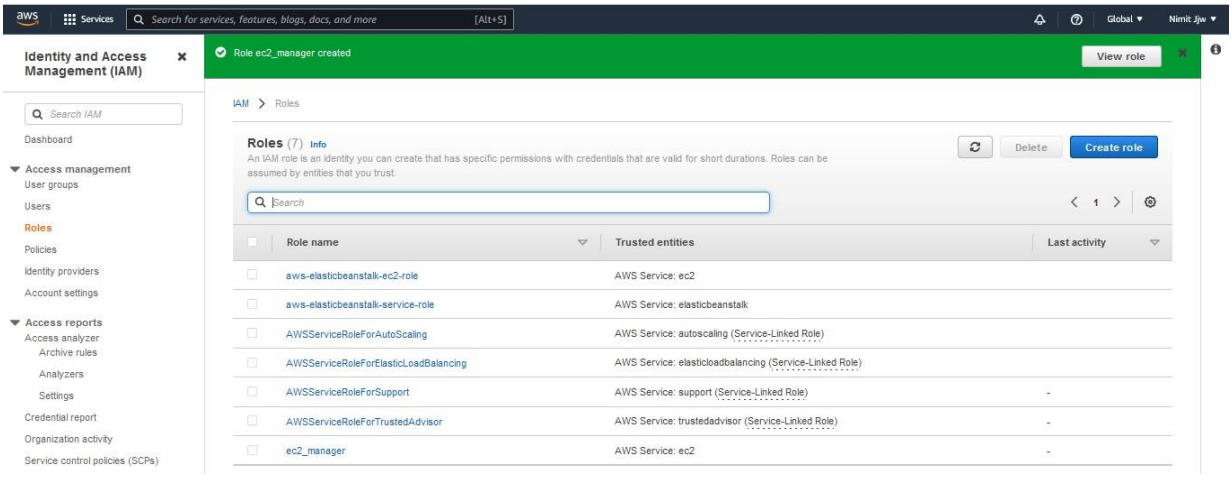
Give suitable Role name and description; rest would remain as default



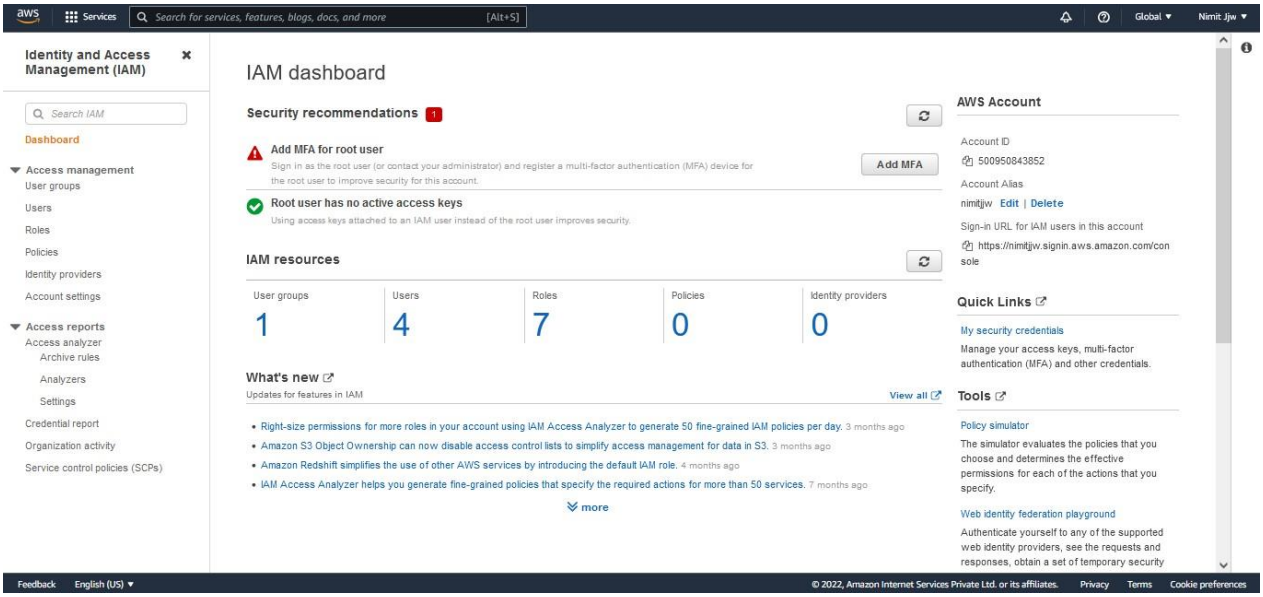
Add a tag if you want to; click on Create Role button



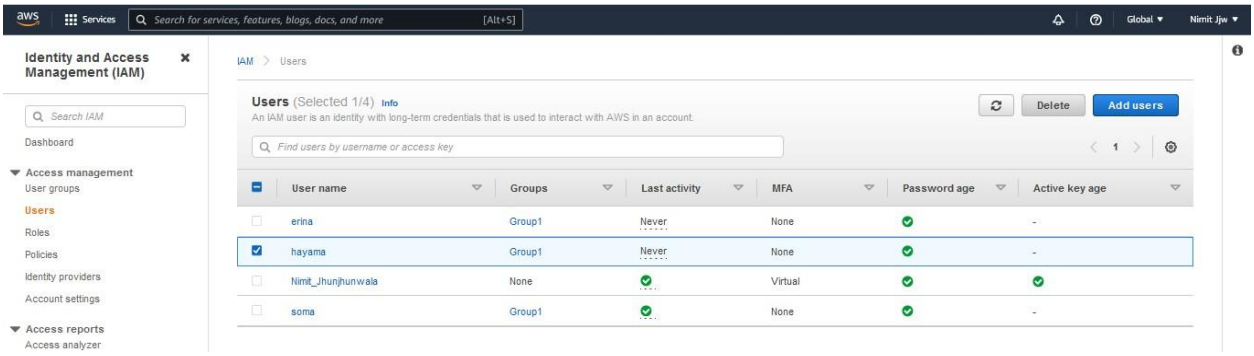
The role has been successfully created

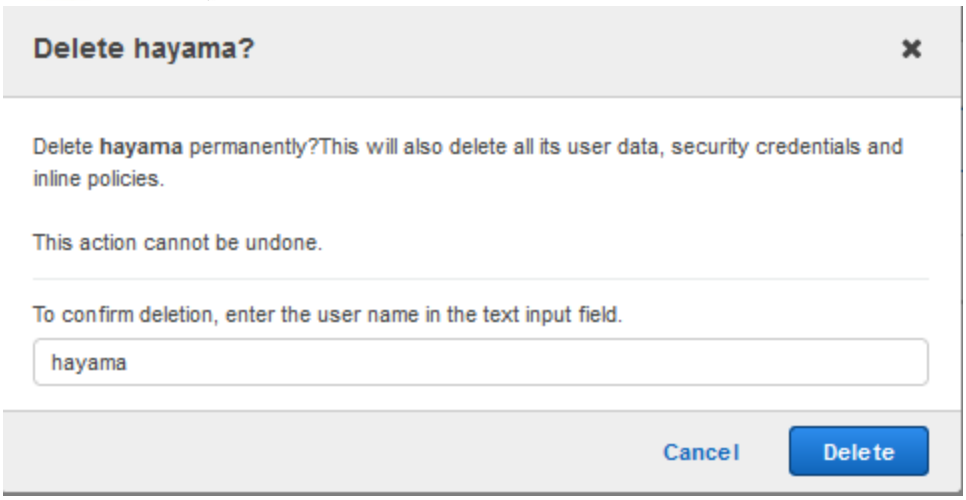


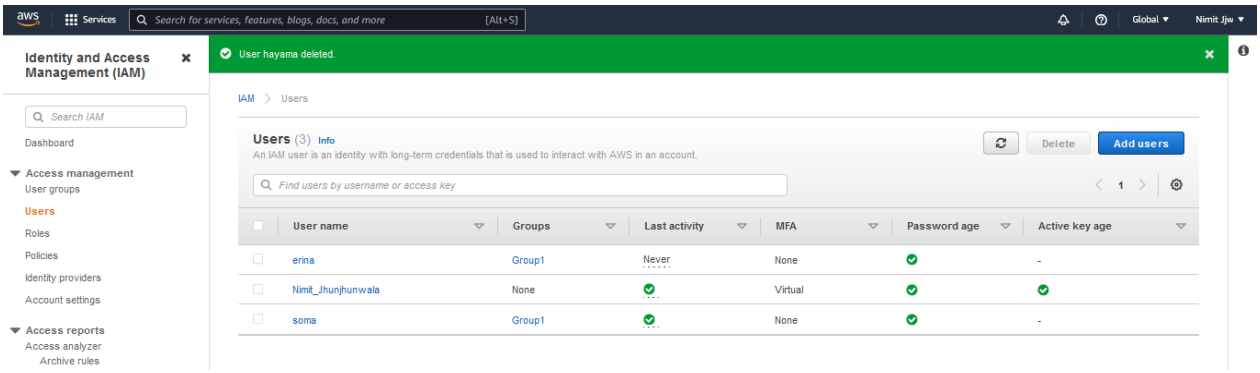
Just to check the overall users, groups and roles, you can check out the IAM Dashboard



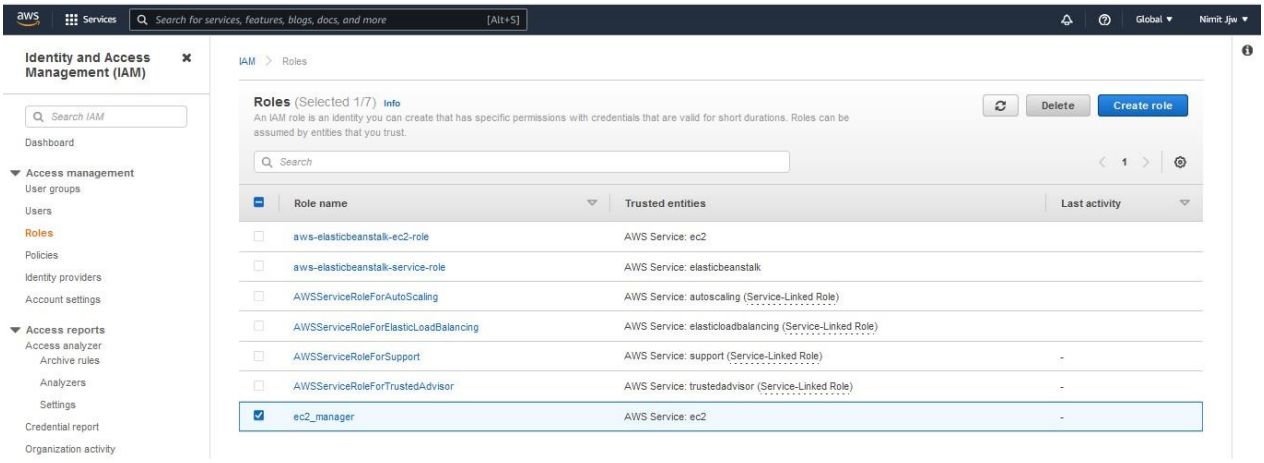
----- Deleting a User -----

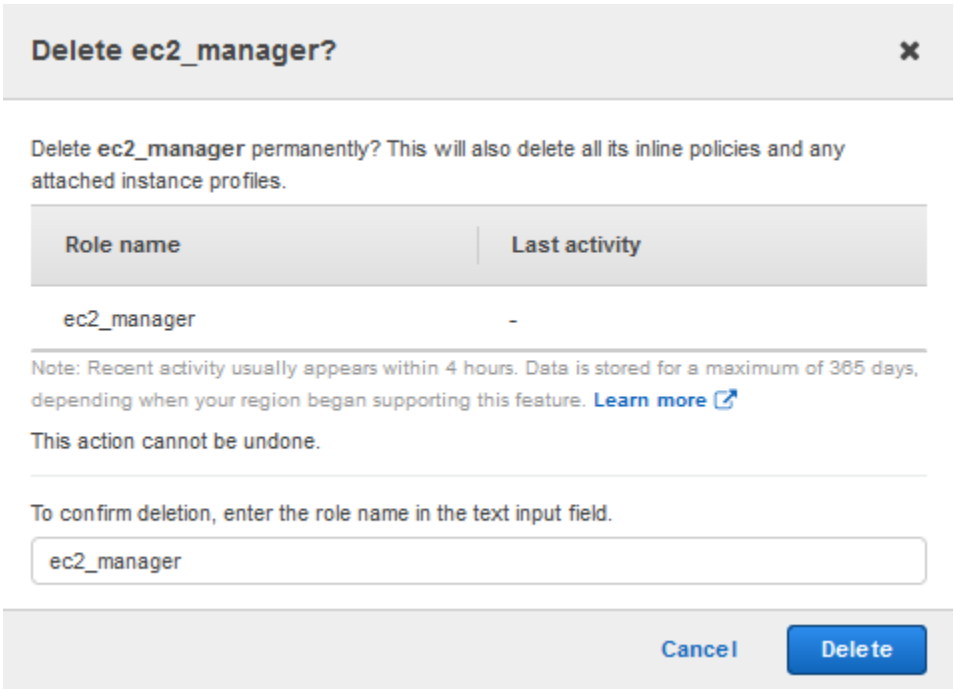


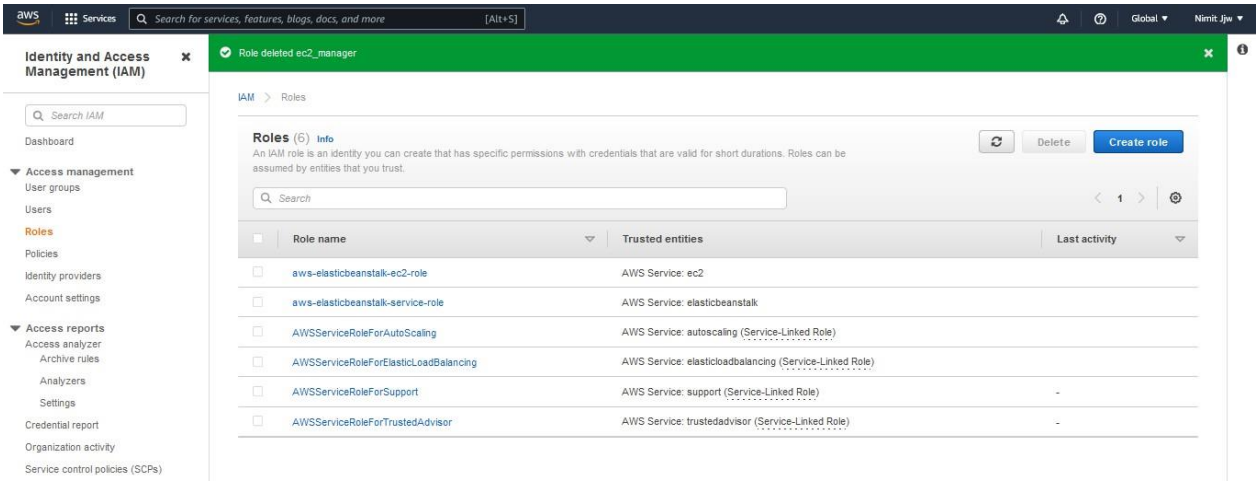




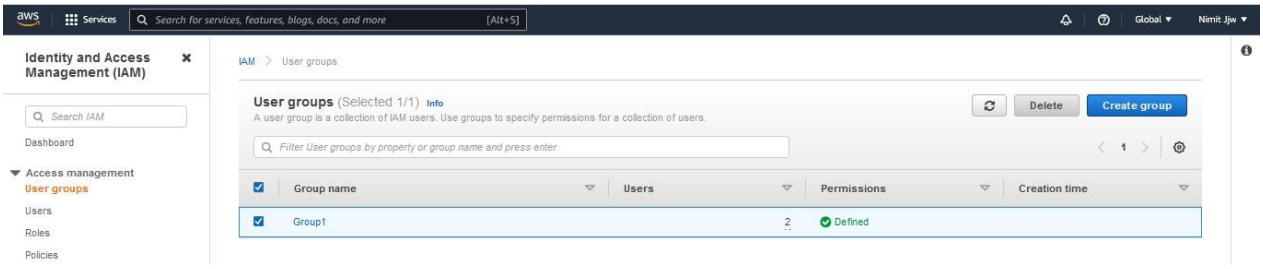
----- Deleting a Role -----

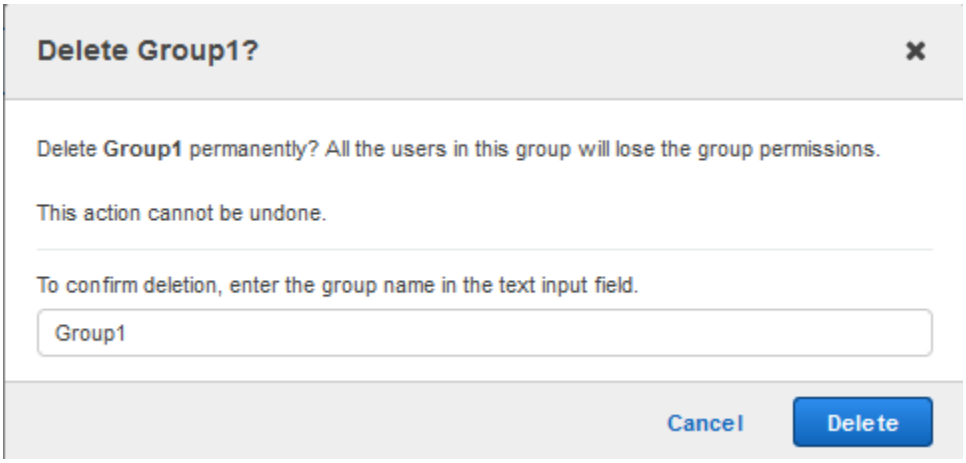


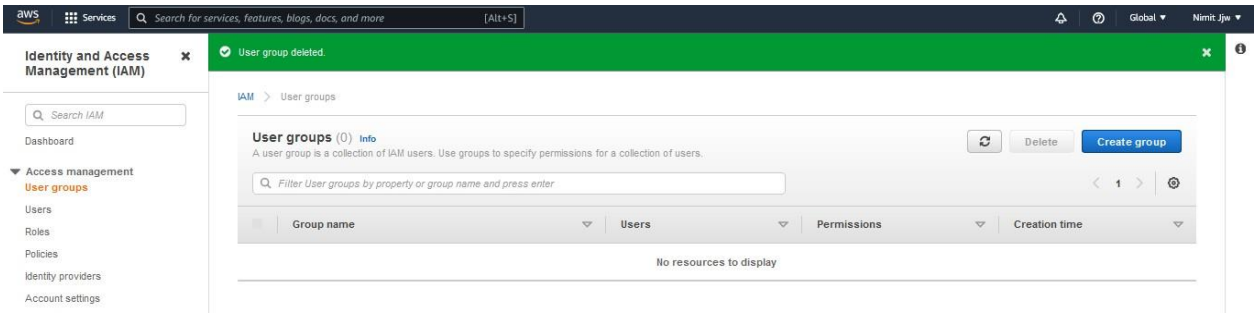




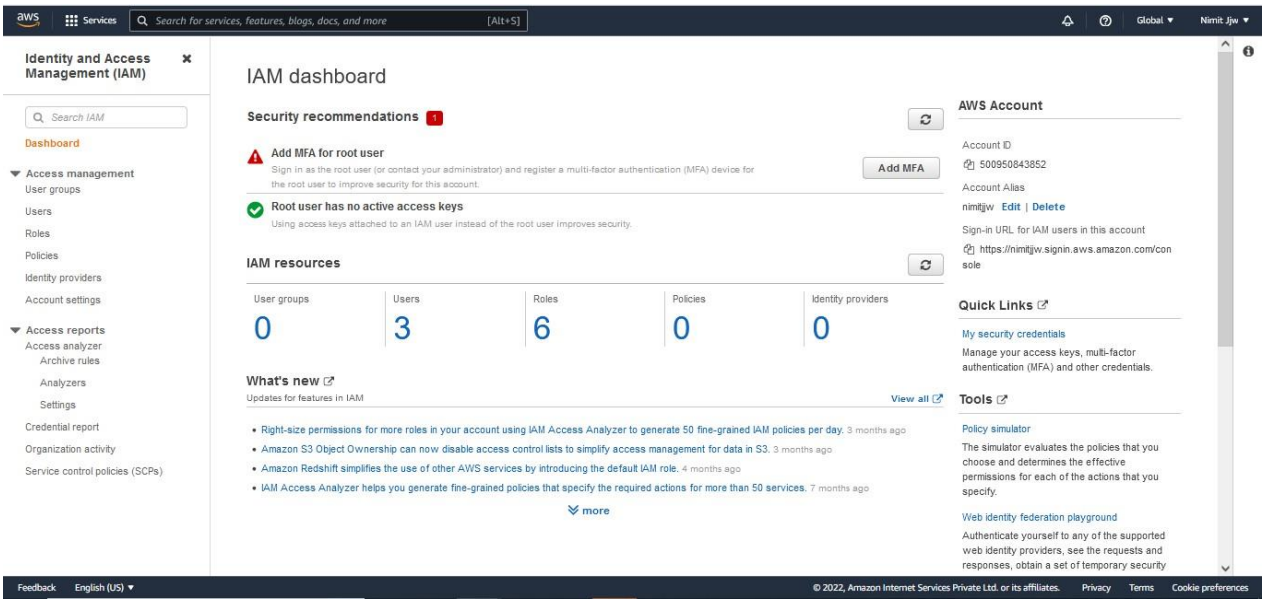
----- Deleting a Group -----







Check the IAM dashboard to see the results after deletion activities



Check the ec2 dashboard in case there are any running instances