RAMNIRANJAN JHUNJHUNWALA COLLEGE
GHATKOPAR (W), MUMBAI - 400 086

DEPARTMENT OF
INFORMATION TECHNOLOGY

2021 - 2022

M.Sc. (I.T.) Part II (Sem - 3)

Subject: Amazon Web Services

Name: Sneha Ramchandra Pawar.
Roll No.: 18

Hindi Vidya Prachar Samiti's

RAMNIRANJAN JHUNJHUNWALA COLLEGE

(AUTONOMOUS)

Opposite Ghatkopar Railway Station, Ghatkopar West, Mumbai-400086

CERTIFICATE

This is to certify that **Miss. Sneha Ramchandra Pawar** with Roll No. **18** has successfully completed the necessary course of experiments in the subject of **Amazon Web Services** during the academic year **2021 – 2022** complying with the requirements of **RAMNIRANJAN JHUNJHUNWALA COLLEGE OF ARTS, SCIENCE AND COMMERCE**, for the course of **M.Sc. (IT) Part II Semester – III.**

_____ _____

Internal Examiner **External Examiner**

_____ _____

Head Of Department **College Seal**

Index

B]	Upload an object to the bucket		
C]	Make an object public		
D]	Create a bucket policy		
E]	Explore versioning		
	Introduction to CloudWatch https://cloudacademy.com/lab/introduction-to-cloudwatch/ Lab Steps Logging in to the Amazon Web Services Console Explore CloudWatch Monitoring EC2 Instances Install the EC2 Monitoring Scripts Creating Your First CloudWatch Alarm Create an Alarm using the EC2 console Sharing CloudWatch Metrics with others		
4	**Introduction to Amazon API Gateway** https://amazon.qwiklabs.com/focuses/10383?parent=catalog		
A]	Create a Lambda Function		
B]	Test the Lambda function Conclusion		
5	**Introduction to Amazon DynamoDB** https://amazon.qwiklabs.com/focuses/14815?catalog_rank=%7B%22rank%22%3A1%2C%22num_filters%22%3A0%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=14619942		
A]	Create a new table		
B]	Add data		
C]	Modify existing items		
D]	Query the table		
E]	Delete the table		

6	**Introduction to Amazon Redshift** https://amazon.qwiklabs.com/focuses/18468?catalog_rank=%7B%22rank%22%3A1%2C%22num_filters%22%3A0%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=14619952 **https://cloudacademy.com/lab/introduction-virtual-private-cloud-vpc/**		
A]	Launch an amazon redshift cluster		
B]	Launch Pgweb to communicate with the redshift cluster		
C]	Create a table		
D]	Load sample data from amazon S3		
E]	Query data		
	Introduction to Virtual Private Cloud (VPC) Lab Steps Logging in to the Amazon Web Services Console Creating a VPC Creating a VPC subnet Creating a VPC Internet Gateway Connecting the Internet Gateway to the VPC Route Table Creating an EC2 instance Allocating and Associating an Elastic IP		
7	**Introduction to AWS Key management Service** https://amazon.qwiklabs.com/focuses/22184?catalog_rank=%7B%22rank%22%3A1%2C%22num_filters%22%3A0%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=14619966 **https://cloudacademy.com/lab/create-your-first-amazon-rds-database/**		
A]	Create KMS master key		
B]	Configure cloudTrail to store Logs in an S3 Bucket		
C]	Upload an Image to S3 bucket and encrypt it		
D]	Access the encrypted image		

E]	Monitor KMS activity Using CloudTrail Logs		
F	Manage encryption keys		
	Create Your First Amazon RDS Database Lab Steps Logging in to the Amazon Web Services Console Creating an RDS Subnet Group Setting up Security Group Rules for Connecting to the RDS Instance Creating a Database Using RDS Starting an AWS Systems Manager Session Manager Browser Shell Session Connecting to RDS and Creating a Database Table Deleting an RDS Database		
8	**Case Study : Amazon Architecture**		
	ABP News		
	Buzzdial		
	Classle		

Practical No. 1

Introduction

Aim: A) Creating AWS Free tier Account.

B) Getting Familiarised With The Aws Console

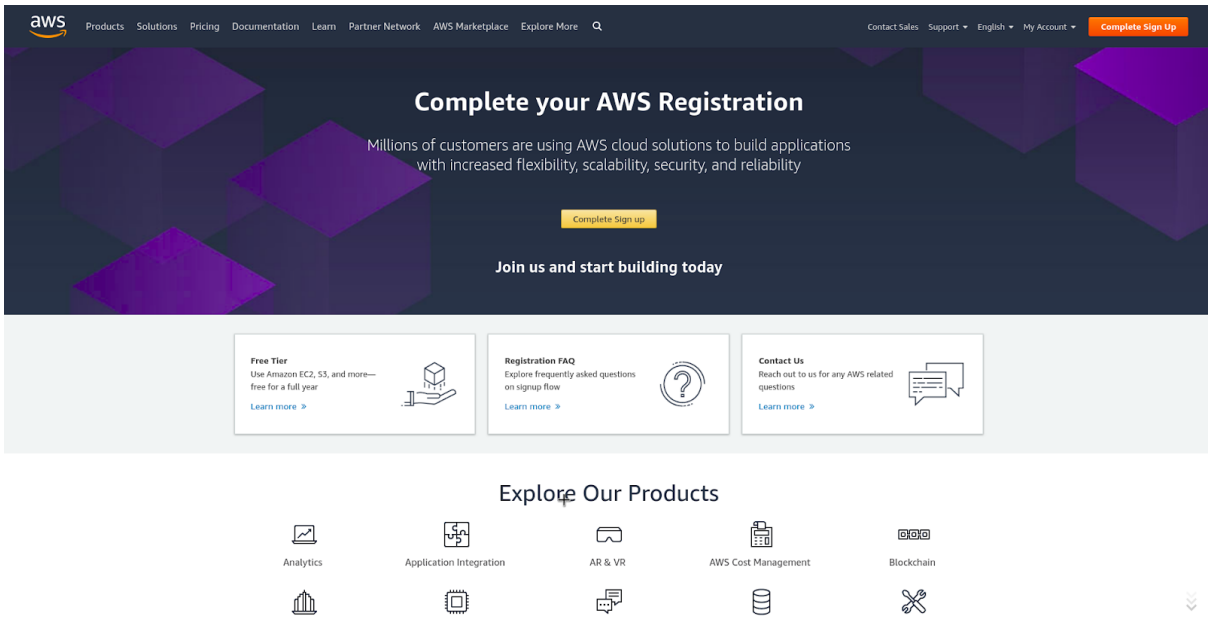
A] **Creating an AWS Account – A Step by Step Process**

Creating an AWS Account is the first step you need to take in order to learn Amazon Web Services. Signing up for AWS provides you with all the tools you require to become an AWS professional.

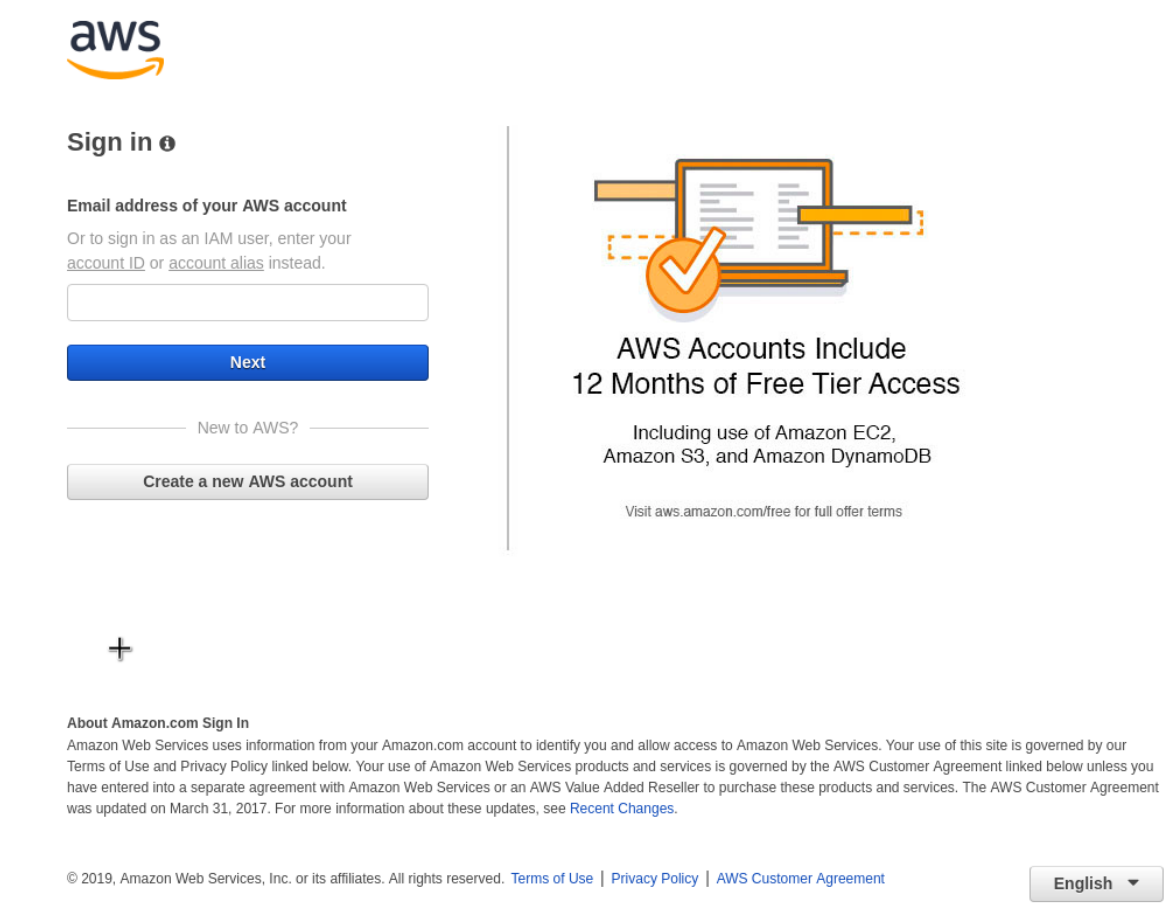
In this practical, we will look at the step-by-step process of Creating an AWS Account.

Step 1 – Visiting the Signup Page
Head over to the Amazon Web Services website for Creating an AWS Account.

You should see something like below:



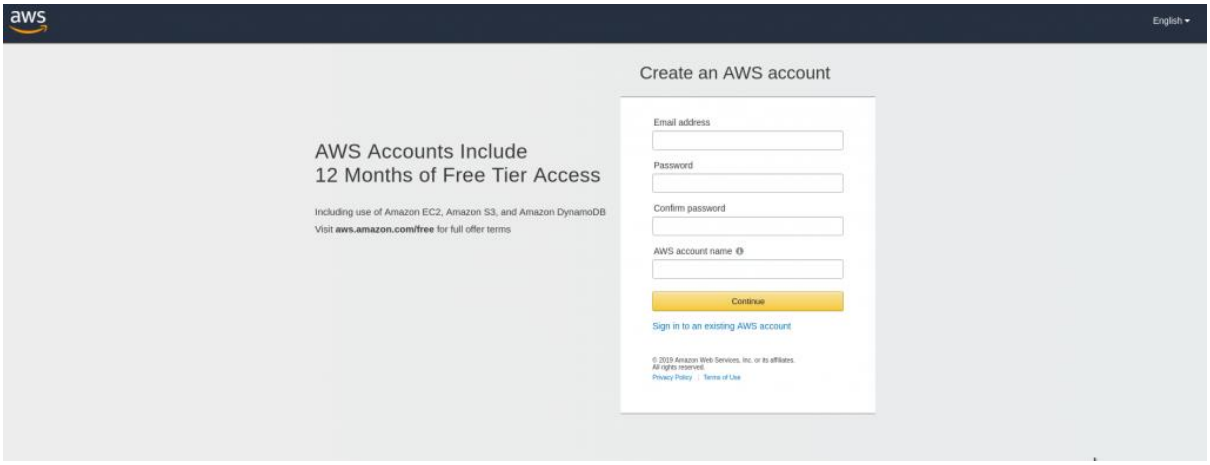
In order to continue, click the Complete Sign Up button in the middle of the screen or on the top right corner of the screen. You will see the below screen.



If you are an existing user, you can sign in. Or you can click on the Create a new AWS account button. On this screen, you can also select your language preference from the dropdown below.

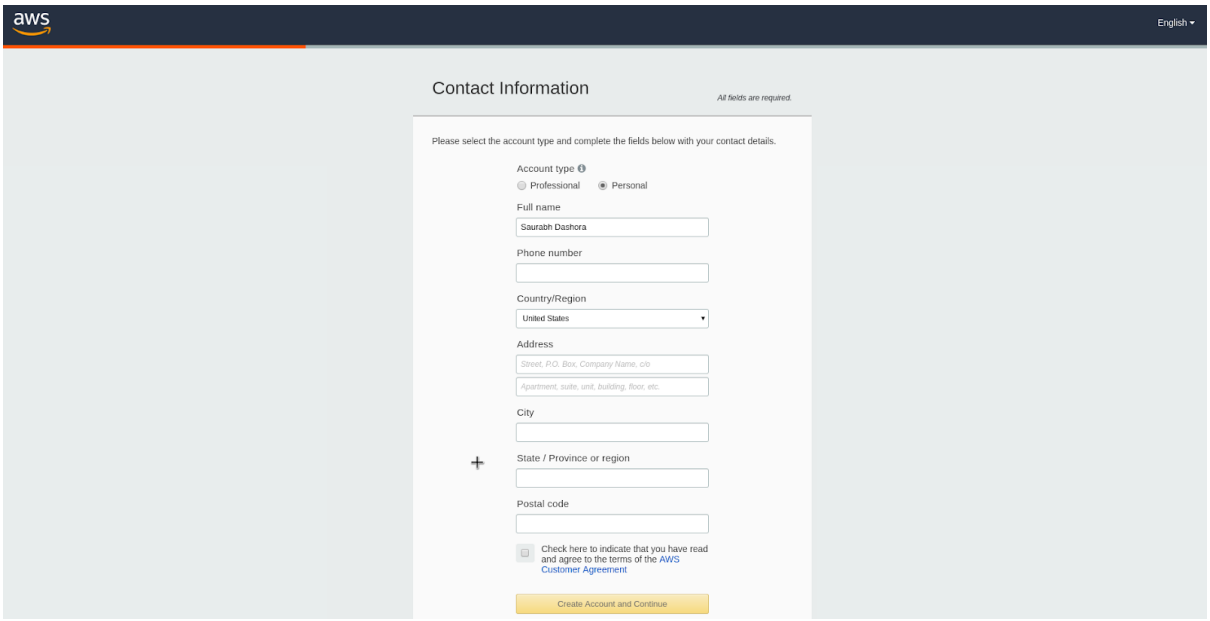
Step 2 – Entering User Details

After you have chosen to Create a new AWS account, you will see the below screen asking for few details.



You can fill up the details as per your requirements and click Continue.

Next you will be asked to fill up your contact details such contact number, country, address and so on. You should fill them up properly because your contact number is important for further steps.

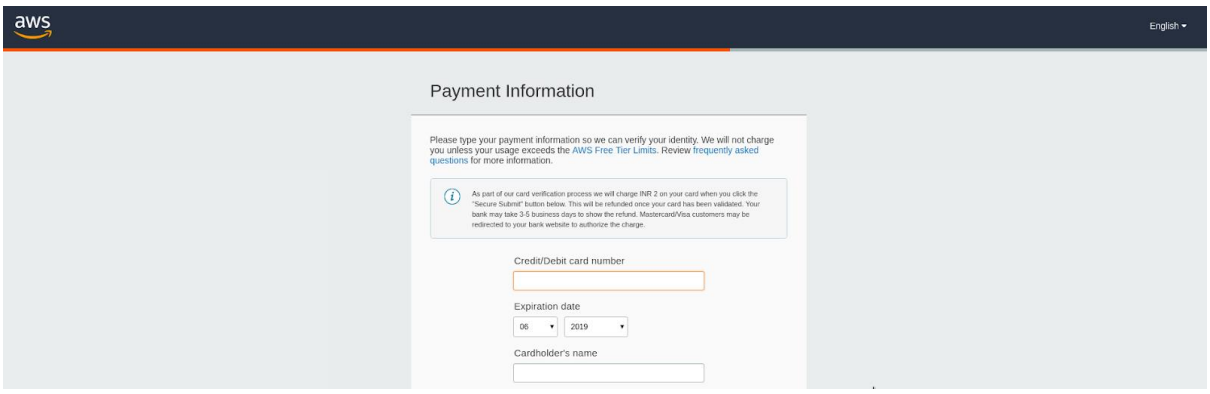


Note that unless you are creating an account for your organization, it is better to select Account Type as Personal.

After filling up the details, click on the Create Account and Continue button at the bottom of the form.

Step 3 – Filling up the Credit Card details

For Creating an AWS Account, you need to enter your Credit Card details.

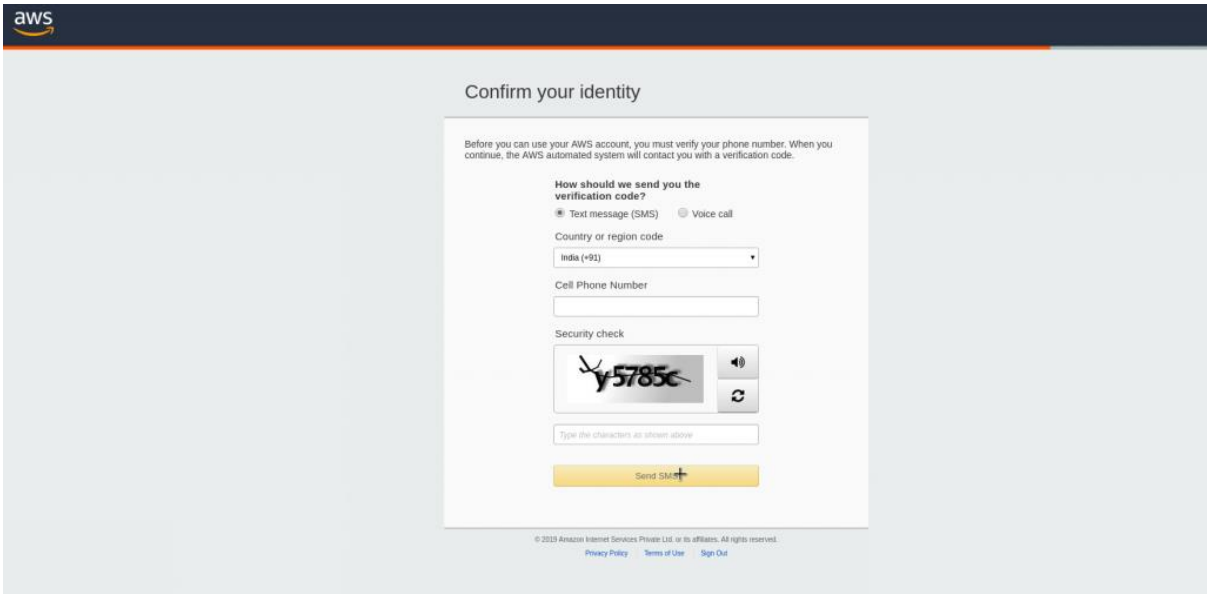


However, don't worry. This will not charge anything from your account (except for a verification amount that will be refunded back). But this is required in case you exceed the free-tier limit available with a new AWS Account.

After entering the details, click on Secure Submit button. It might take a while to process the request depending on your bank/credit card company servers.

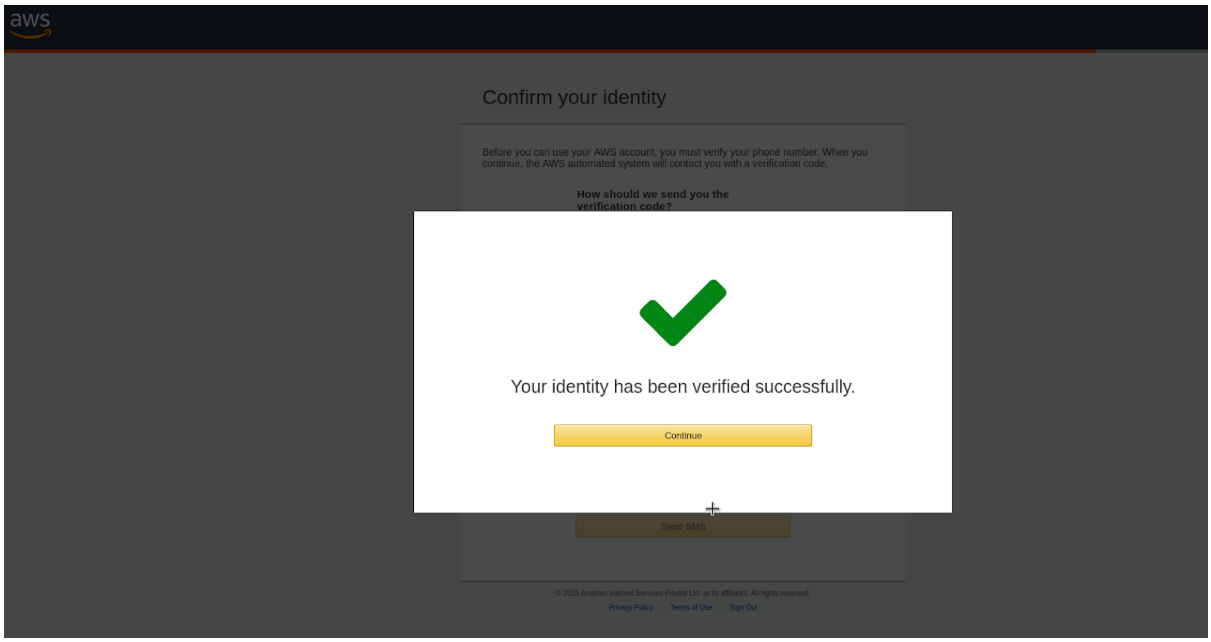
Step 4 – Identity Confirmation

Once the credit card details are confirmed, you will need to complete the Identity Confirmation step. You will see the below screen:



Basically, you need to select a mode to confirm your identity. It could be a Text Message or a Voice call to your valid phone number.

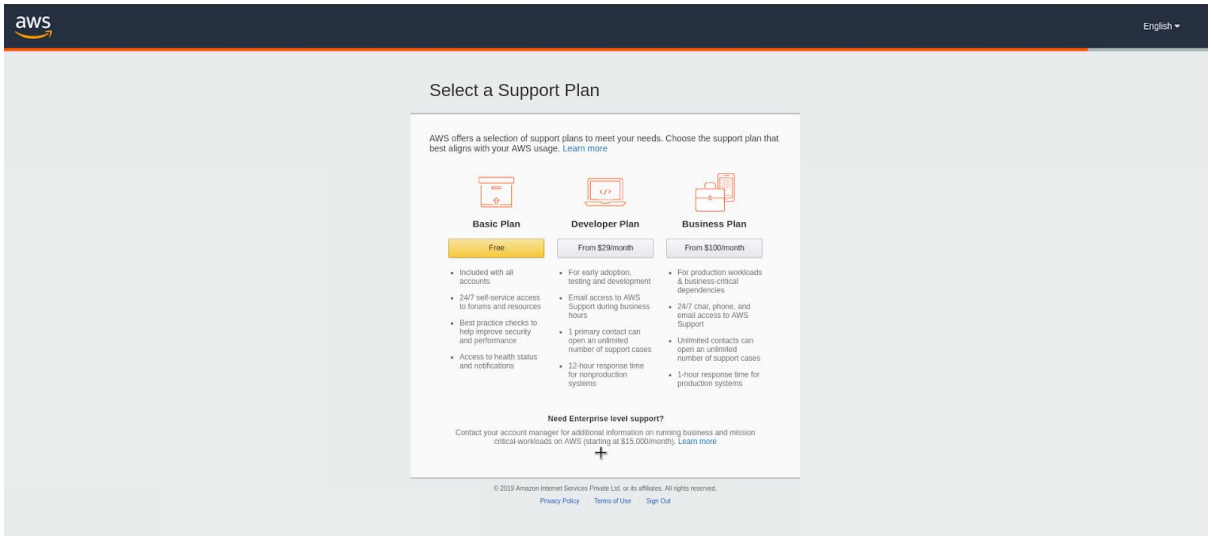
Once you have verified successfully, you should see a screen like below:



Click on Continue to proceed further.

Step 5 – Selecting a Support Plan

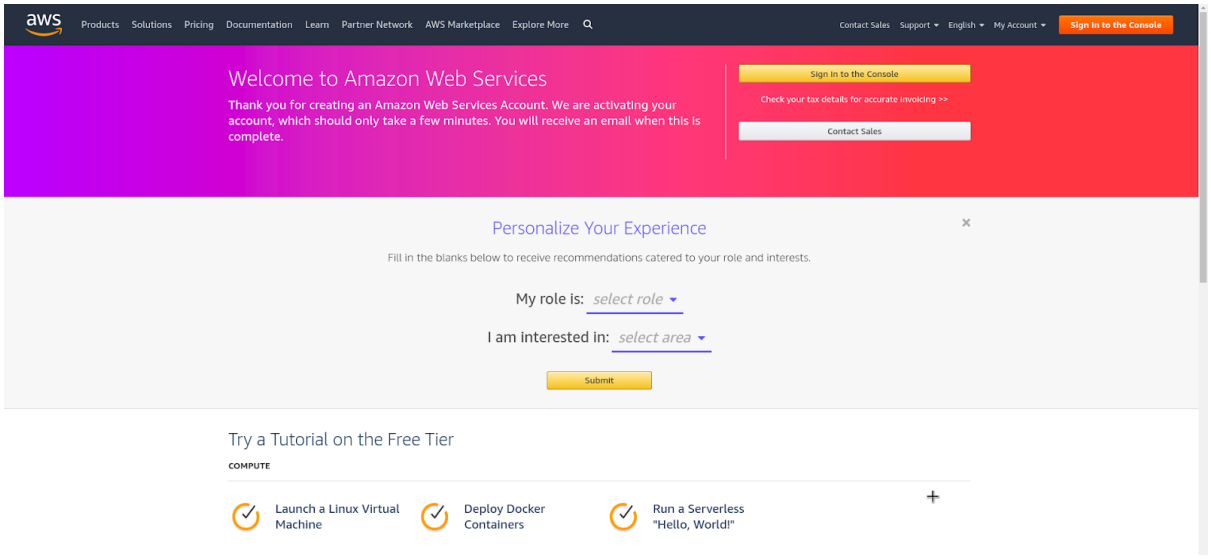
In the next step for creating an AWS Account, we need to select the plan for our AWS Account.



Unless you are planning to do some professional development, I would suggest selecting the Basic Plan. It is Free of cost and great for learning purposes.

The other plans are Developer Plan and a Business Plan. But both of them are paid options.

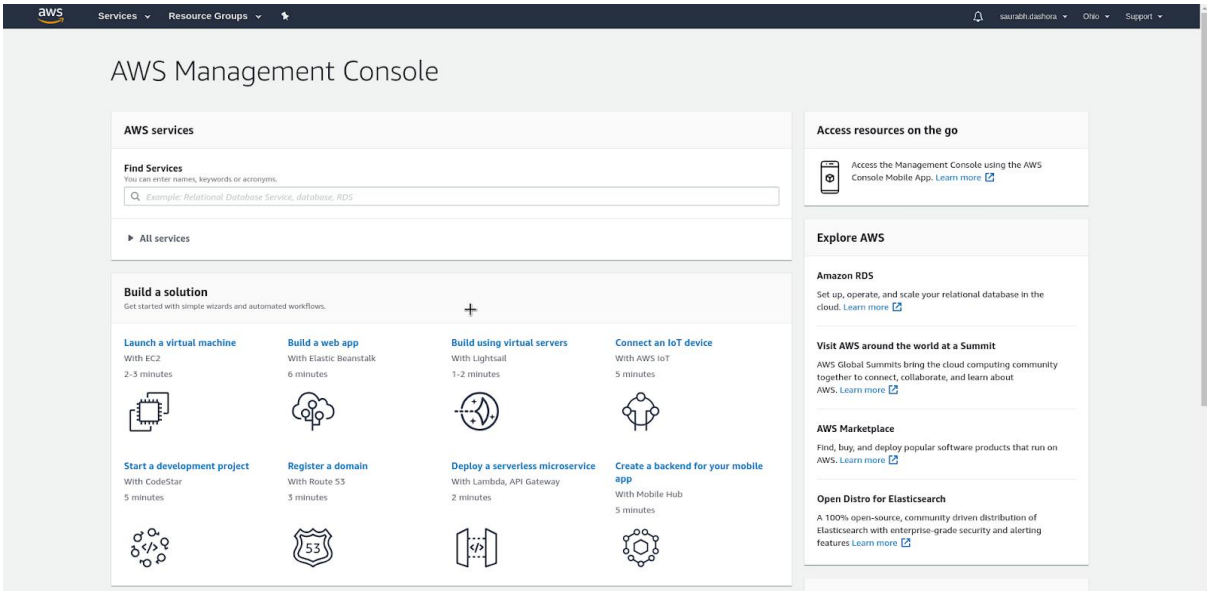
Once you select your plan, you will see the below Welcome screen. From here on, you can Sign in to your AWS Console.



Here, you also have the option of personalizing your experience of using Amazon Web Services.

However, you can also simply continue by clicking Sign in to the Console. After this, you will be again presented with the sign in screen where you can now use your credentials to login.

Finally, after logging in, you should be able to see the AWS Management Console as below:



If you have reached this far, you have successfully finished Creating an AWS Account.

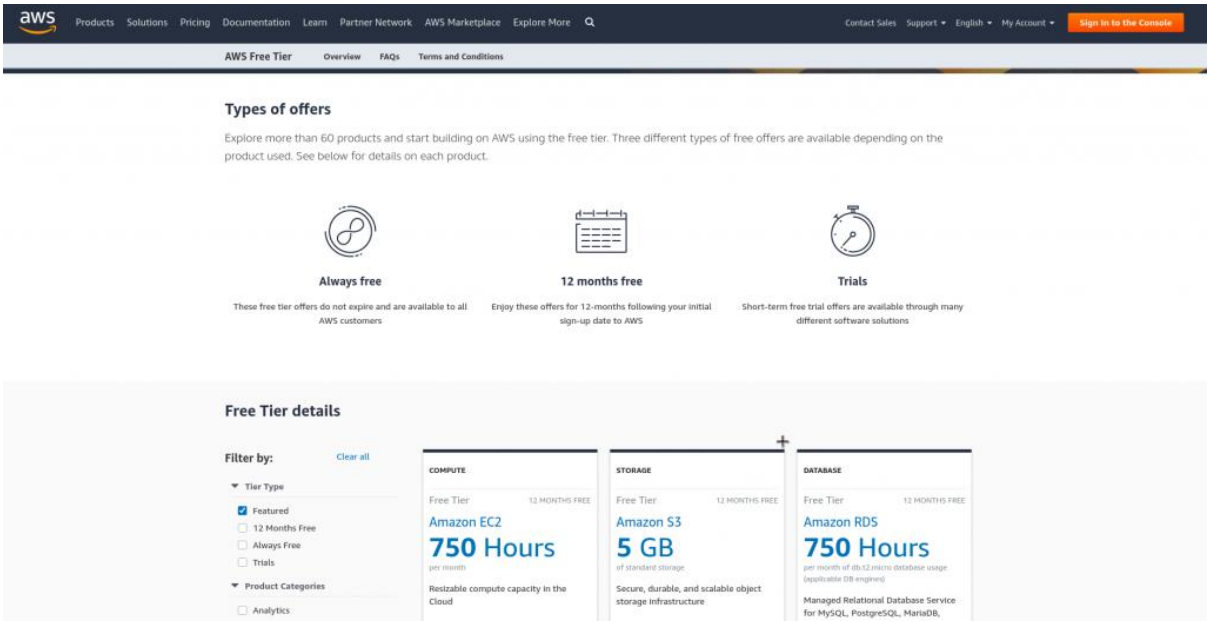
Understand the AWS Free Tier

The great thing about Amazon Web Services is that you get a free tier when you create an account.

This is extremely useful if you want to learn AWS without spending money on provisioning servers and so on.

However, not all stuff available on AWS qualifies for Free. Also, there are categories such as Always Free and 12 Months Free.

You can get more details about them at this link.



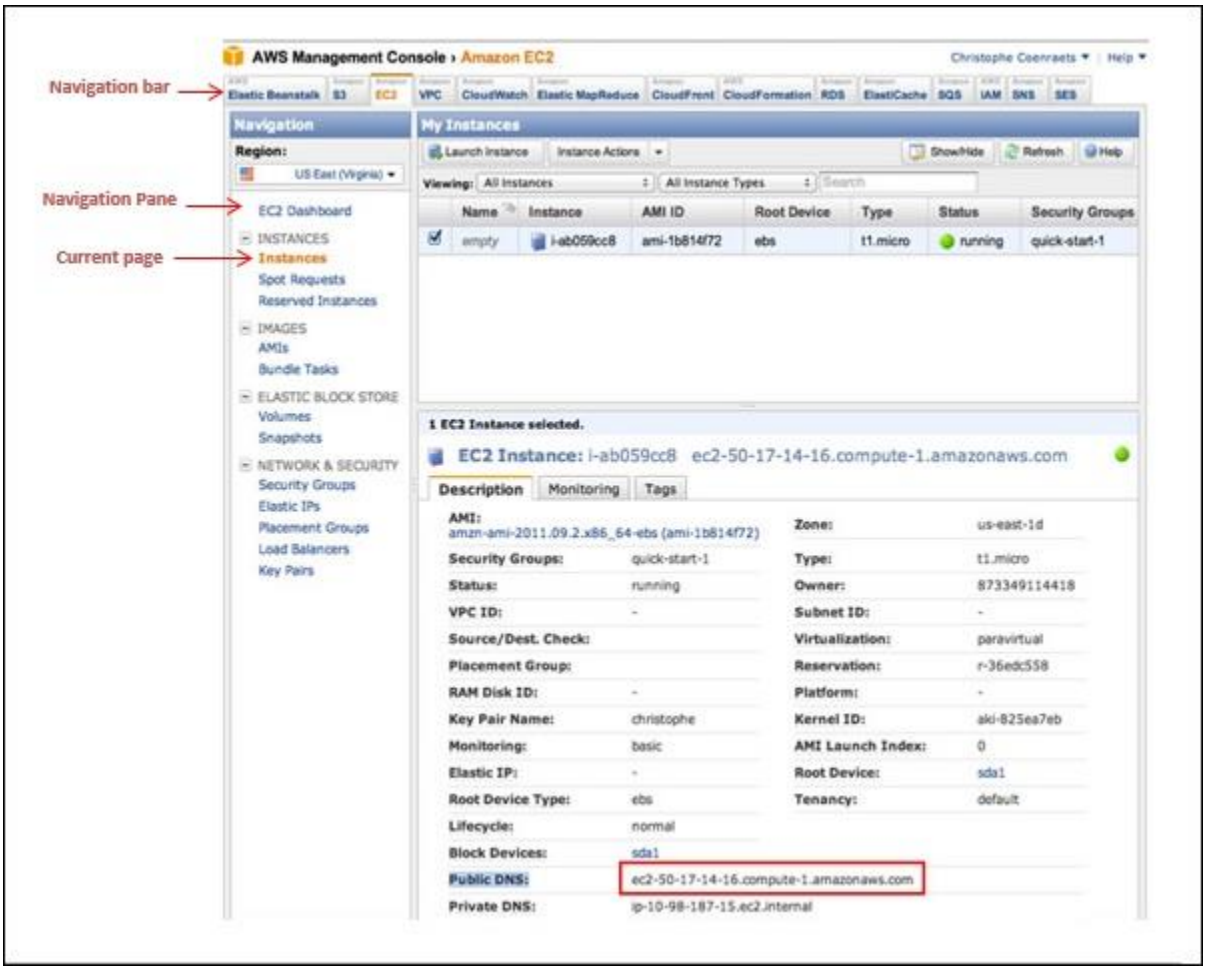
In our series of learning AWS, we will try to keep ourselves within the free tier as much as possible.

Conclusion

We have now successfully finished creating an AWS Account and also verified it so that it can be used to learn AWS.

B]

Getting Familiarized with the AWS Console :



Navigation bar : Navigation bar provides **a unified search tool for tracking down AWS services and features, service documentation, and AWS Marketplace**.

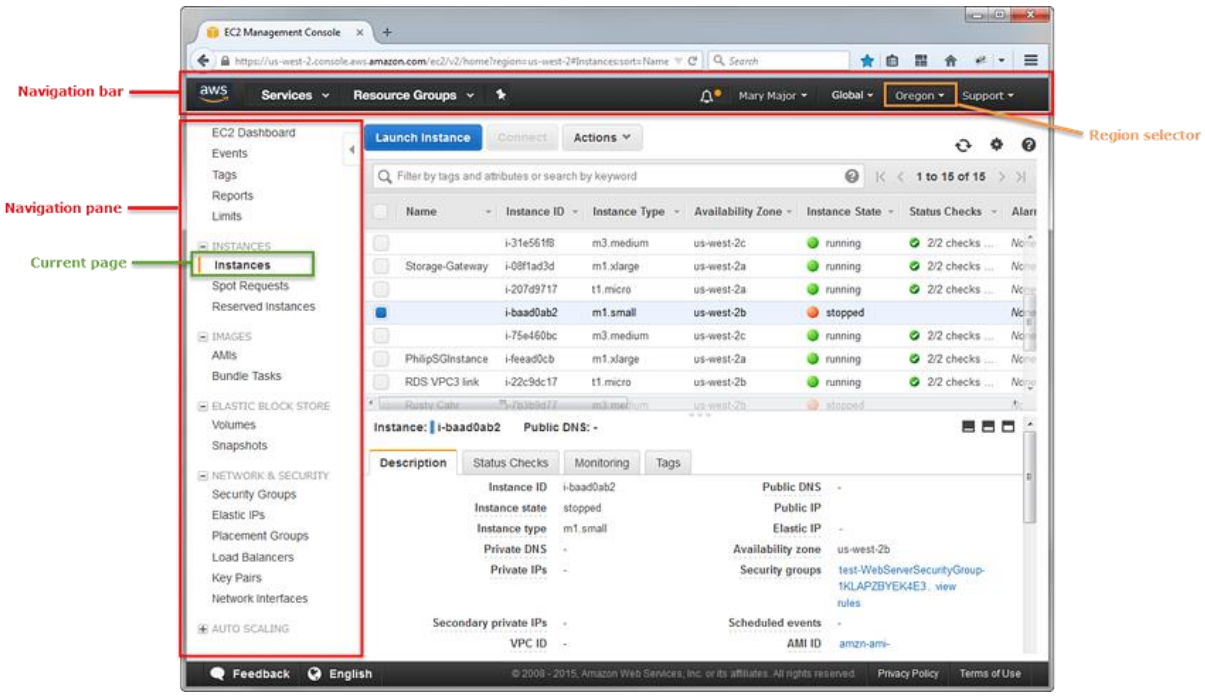
Navigation Pane : The main dashboard is selected by default on the homepage of the AWS console, One can navigate to any pages using navigation pane.

Current Page : Current Page is the page to which we navigate through Navigation Pane. In the current scenario the current page is of EC2 Instances

Public DNS : Public DNS — **The external DNS hostname**. When you launch an EC2 instance, it is assigned a public IP address and a public DNS (**Domain Name System**) name that you can use to reach it from the internet. Because there are so many hosts in the Amazon Web Services domain, these public names must be quite long for each name to remain unique.

Private DNS : Private IPv4 addresses enable communication within the network of the instance. You can use the Route 53 Private DNS feature to manage **authoritative** DNS within your Virtual Private Clouds (VPCs), so you can use custom domain names for your internal AWS resources without exposing DNS data to the public Internet.

Zone : An Availability Zone (AZ) is **one or more discrete data centers with redundant power, networking, and connectivity** in an AWS Region.



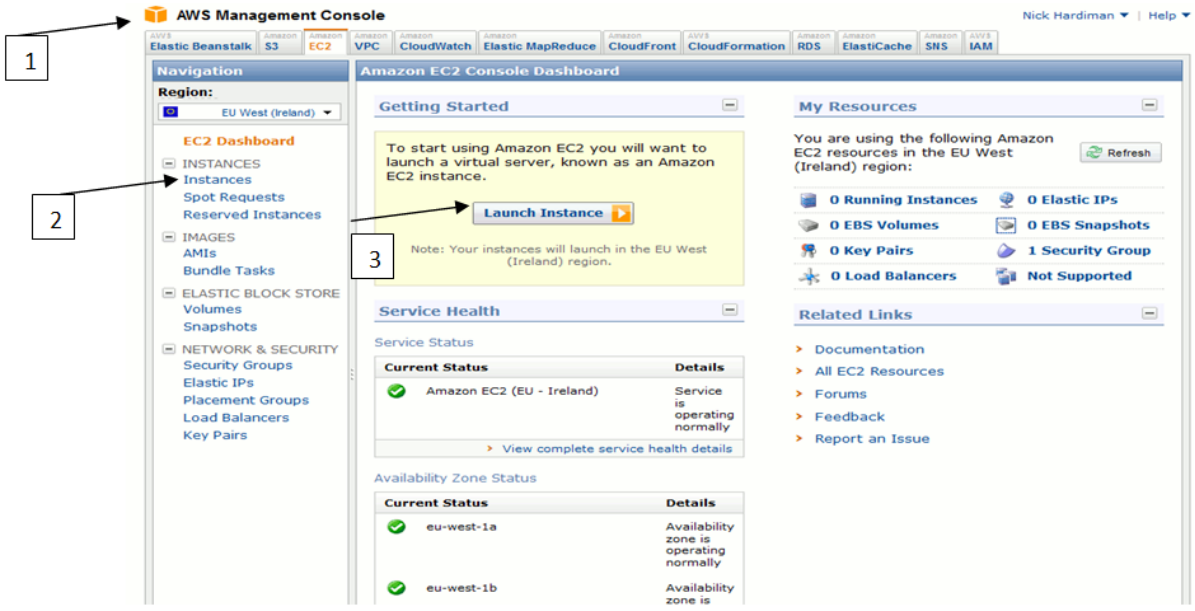
Description of :

Instance ID : Amazon Connect instance ID is **the 36-character string at the end of your instance's Amazon Resource Name (ARN)**.

Instance State : Instance state shows the status of the Instance whether it is running or stopped.

Instance Type: Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instance types comprise varying combinations of CPU, memory, storage, and networking capacity and give you the flexibility to choose the appropriate mix of resources for your applications. Each instance type includes one or more instance sizes, allowing you to scale your resources to the requirements of your target workload.

Security Groups: A security group **acts as a virtual firewall for your EC2 instances to control incoming and outgoing traffic**.



Description :

1. AWS console is **the web application that allows users to access Amazon web services**. Without the console presented in a way users can easily navigate to every Amazon web service, it will be difficult to have centralized access to all the Amazon web services.

2. An instance is **a virtual server in the AWS Cloud**. With Amazon EC2, you can set up and configure the operating system and applications that run on your instance. When you sign up for AWS, you can get started with Amazon EC2 using the AWS Free Tier.

3. Launch instances are **virtual machines that run inside the cloud**. Before you can launch an instance, gather the following parameters: The instance source can be an image, snapshot, or block storage volume that contains an image or snapshot. A name for your instance.

Practical No. 2

An AWS IAM User

Aim: A) Explore users and groups

B) Add users to groups

C) Sign-In and test the users

D) Introduction to IAM

Lab Steps

Logging in to the Amazon Web Services Console

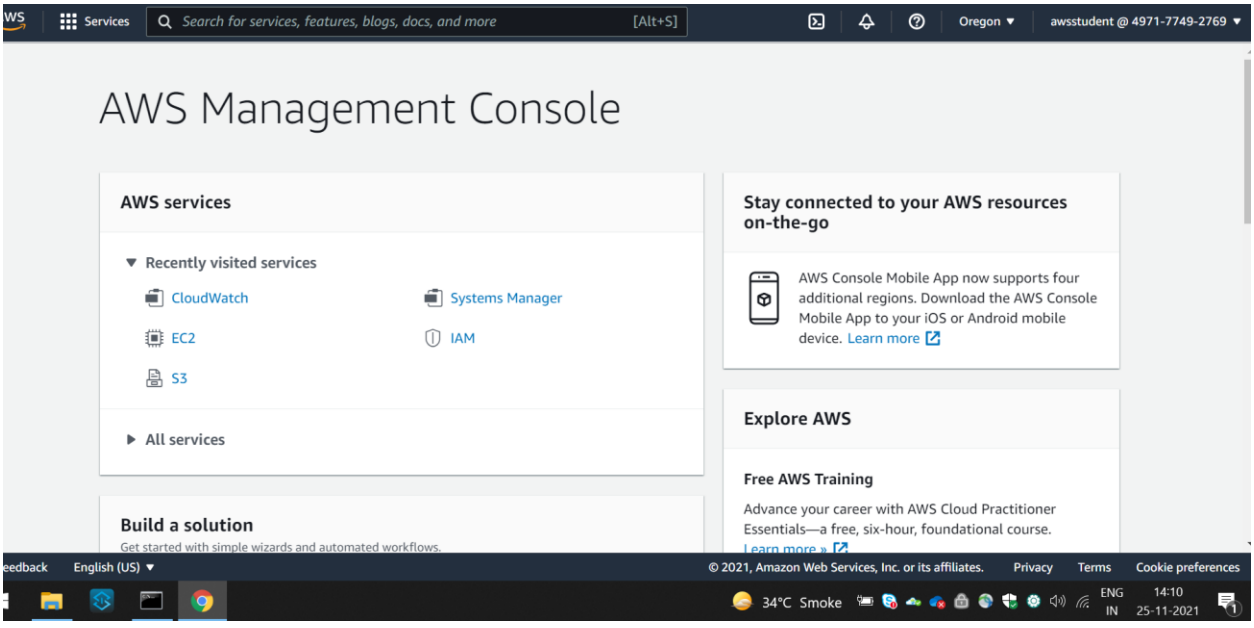
Creating an IAM User Group

Creating an IAM User

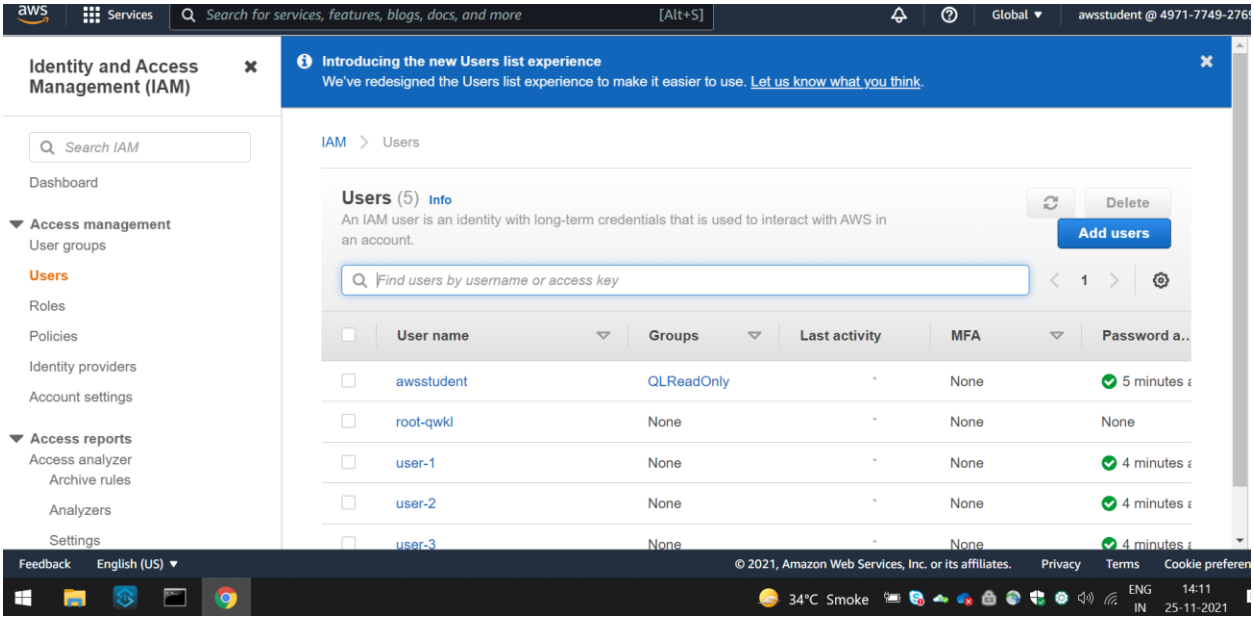
Logging in using the new IAM credentials

A) **Explore users and groups**

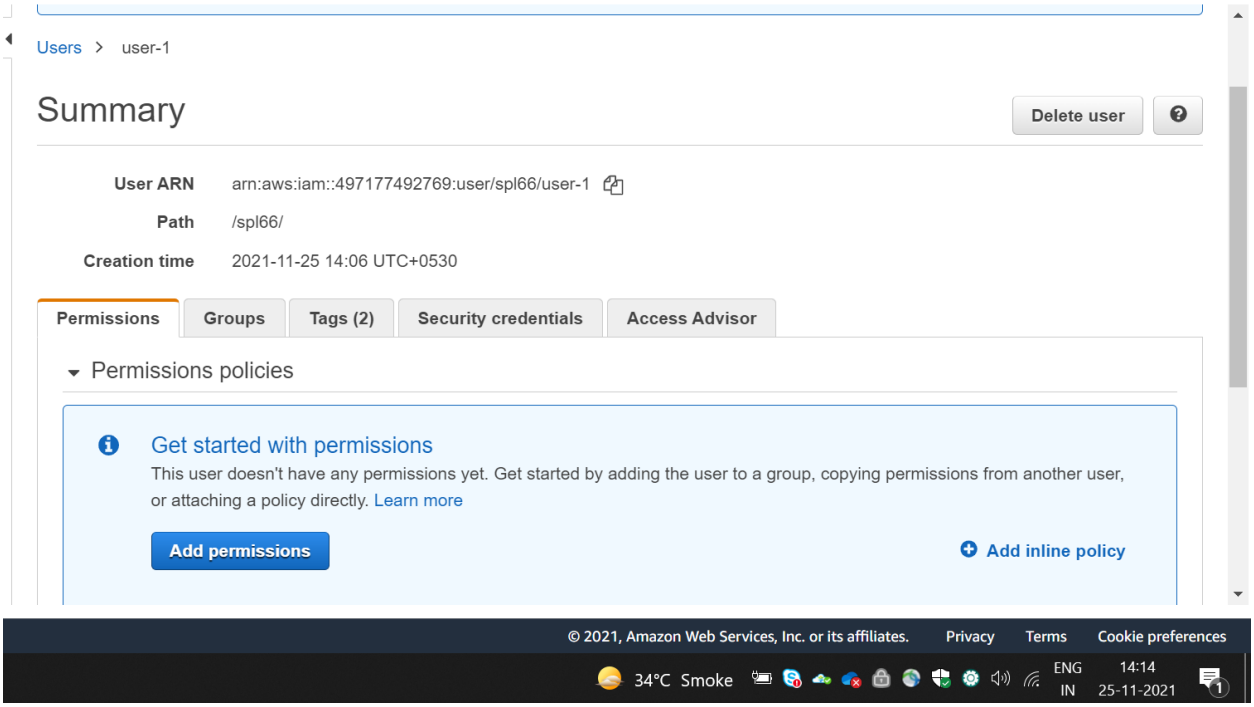
In AWS console -> services menu ->click IAM



In the navigation pane -> click on users



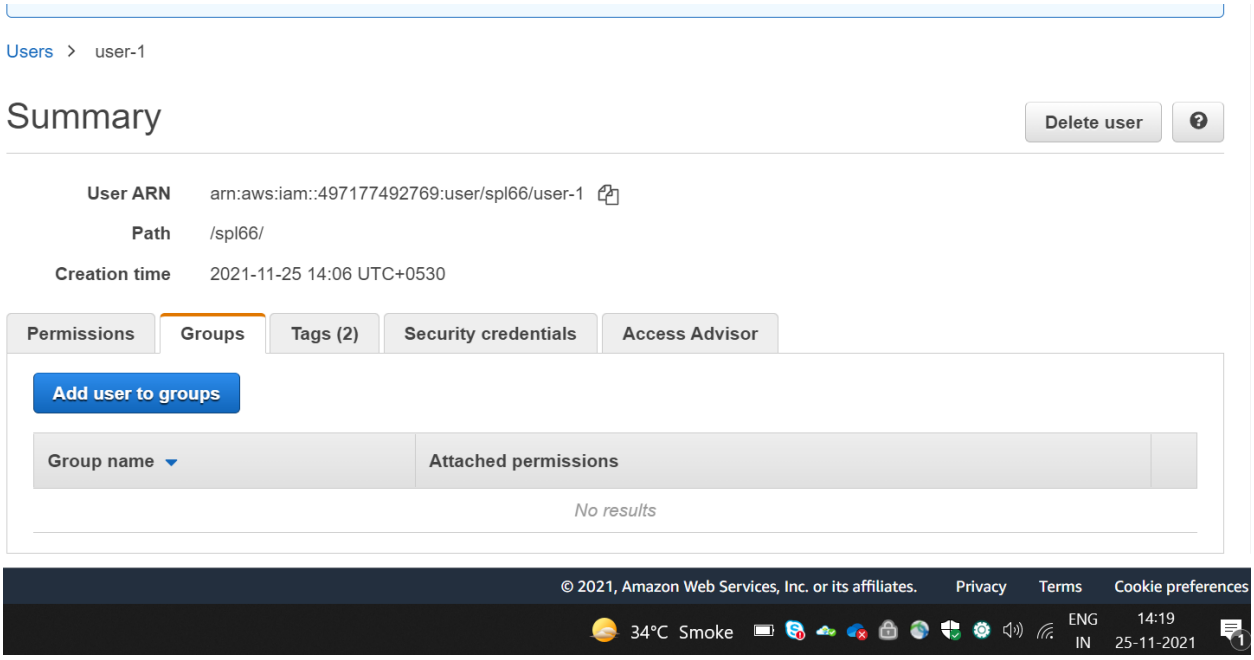
Click on user 1 this will bring you on summary page with permission tab



Notice that user-1 does not have any permissions.

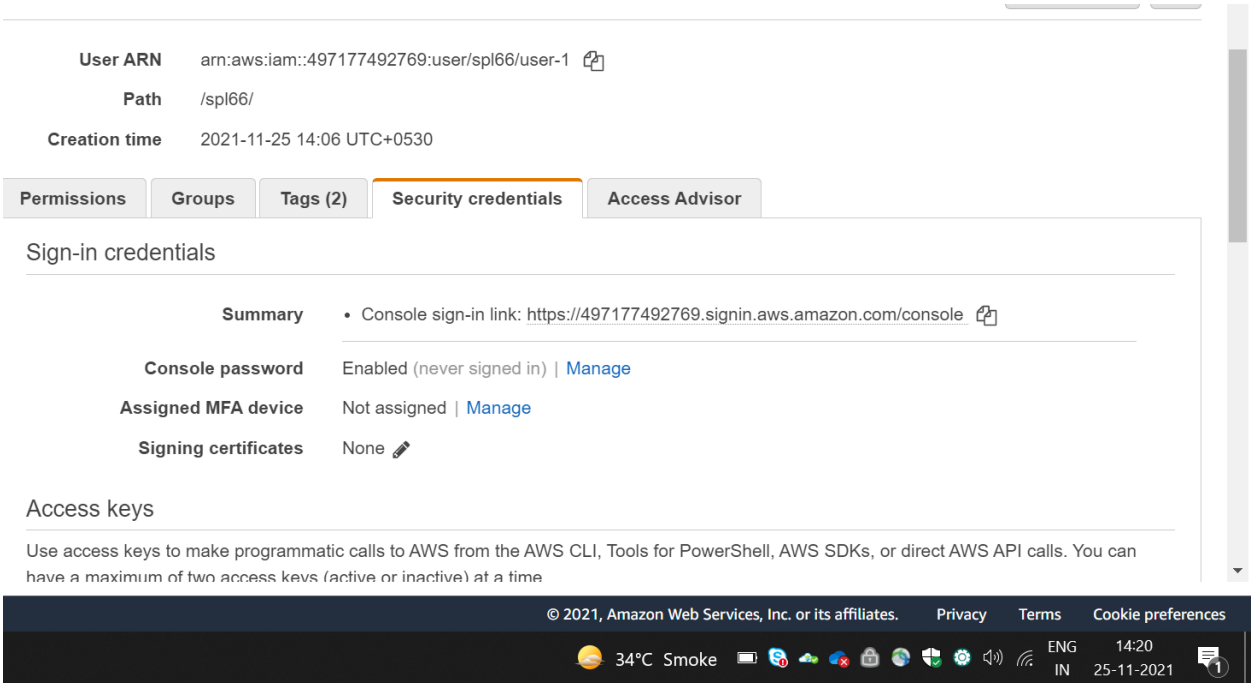
7. Click the Groups tab.

user-1 also is not a member of any groups.



8. Click the Security credentials tab.

user-1 is assigned a Console password



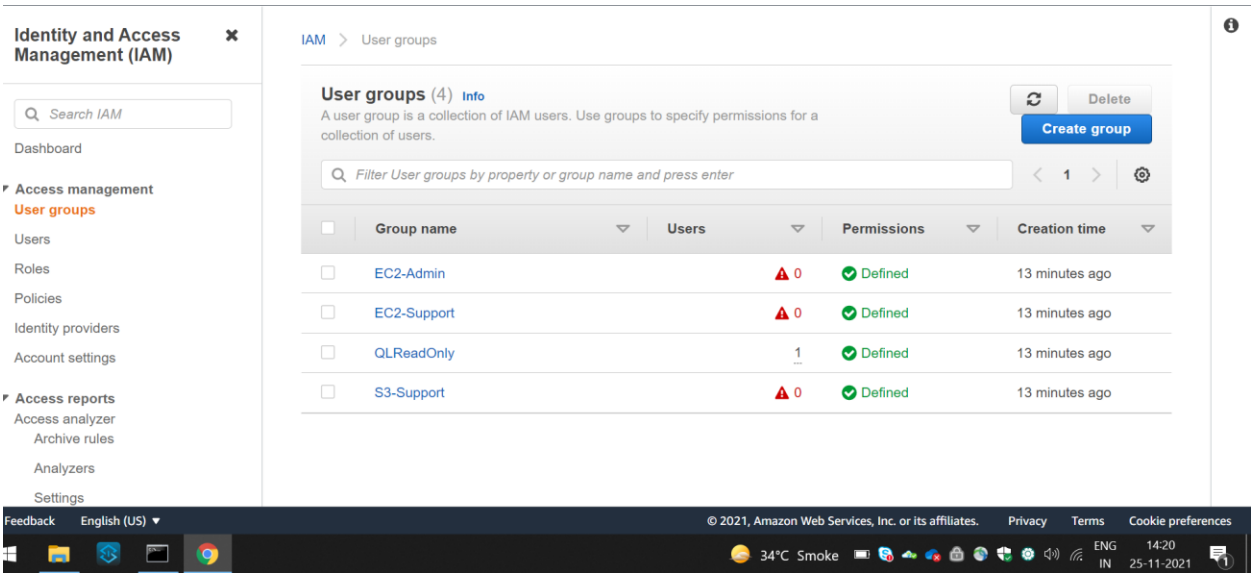
9. In the navigation pane on the left, click User Groups.

The following groups have already been created for you:

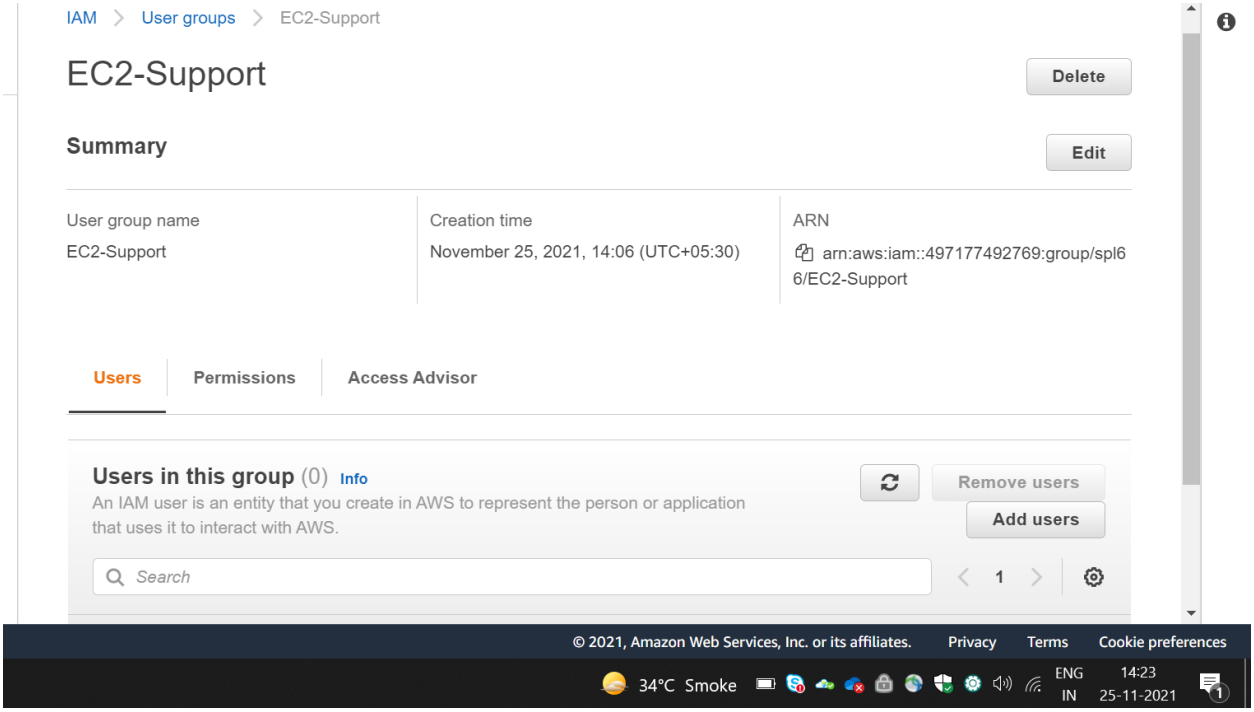
EC2-Admin

• EC2-Support

• S3-Support

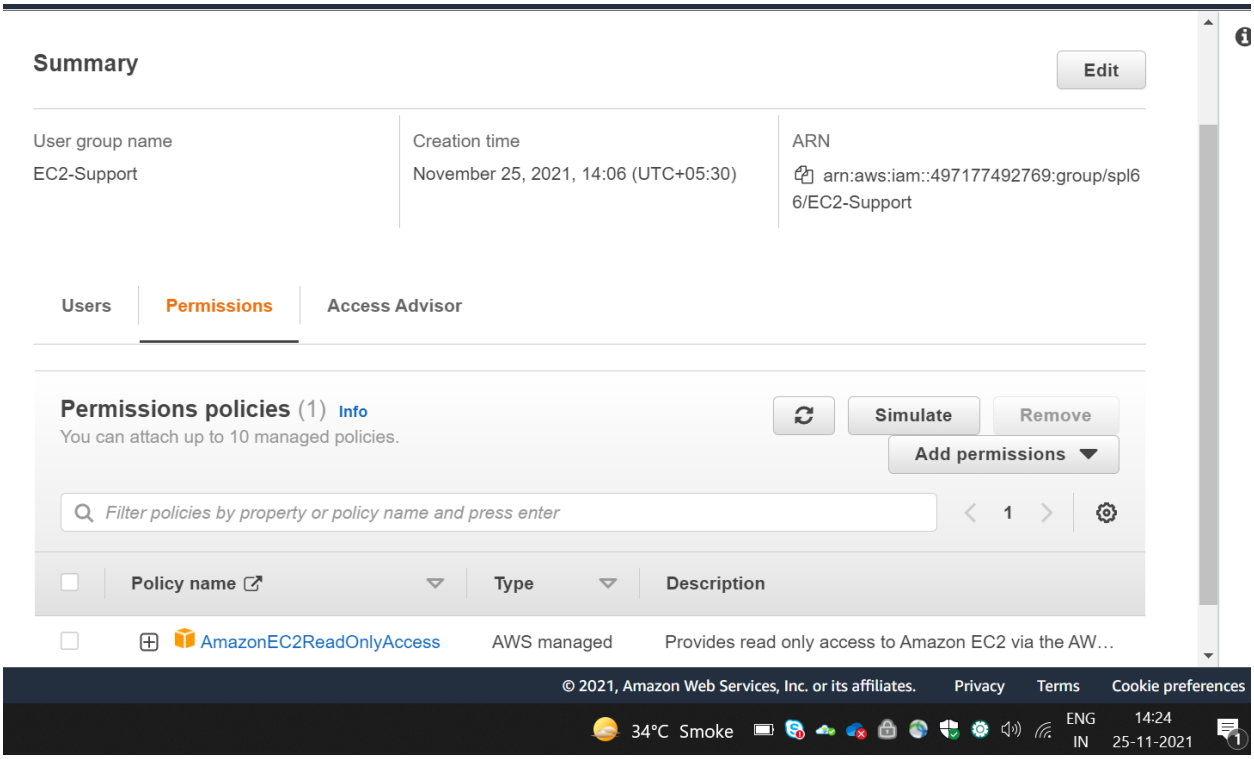


10. Click the EC2-Support group.



This will bring you to the summary page for the EC2-Support group.

11. Click the Permissions tab.

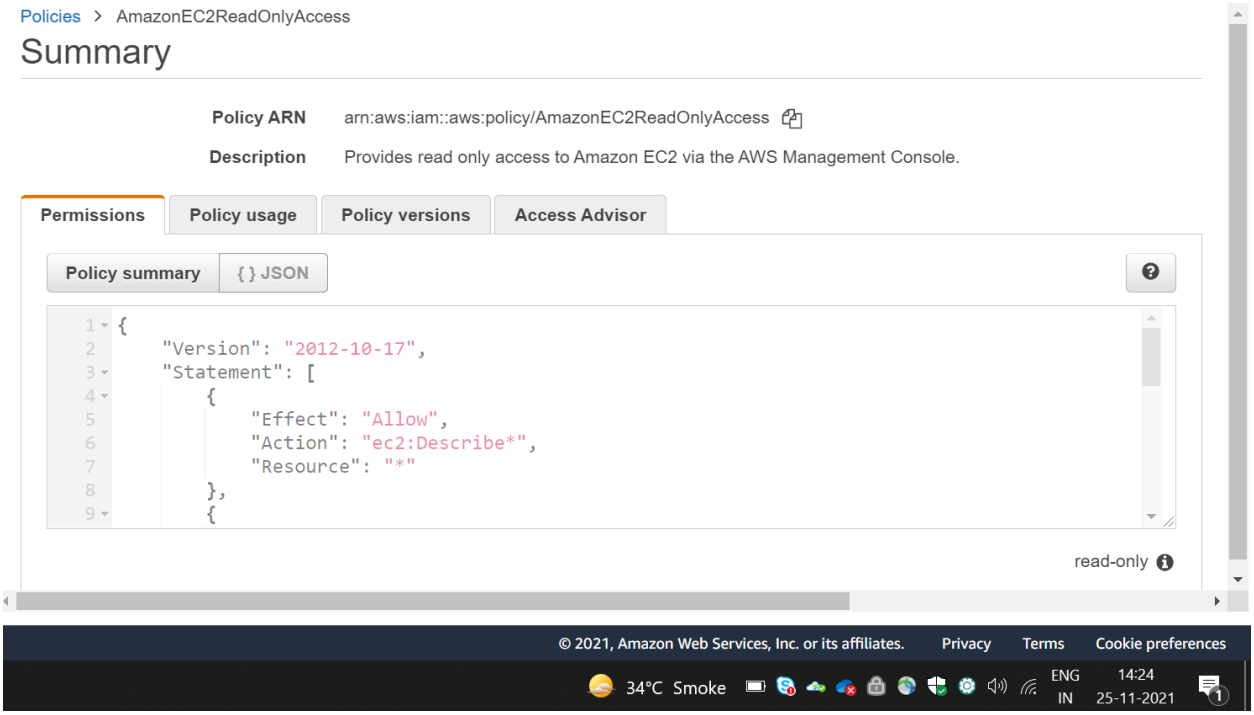


This group has a Managed Policy associated with it, called

AmazonEC2ReadOnly Access Managed Policies are pre-built policies (built either by AWS or by your administrators) that can be attached to IAM Users and Groups. When the policy is updated, the changes to the policy are immediately apply against all Users and Groups that are attached to the policy

12. Click on Amazon EC2ReadOnly Access under Permissions tab and a new browser window opens. Now click on () JSON.

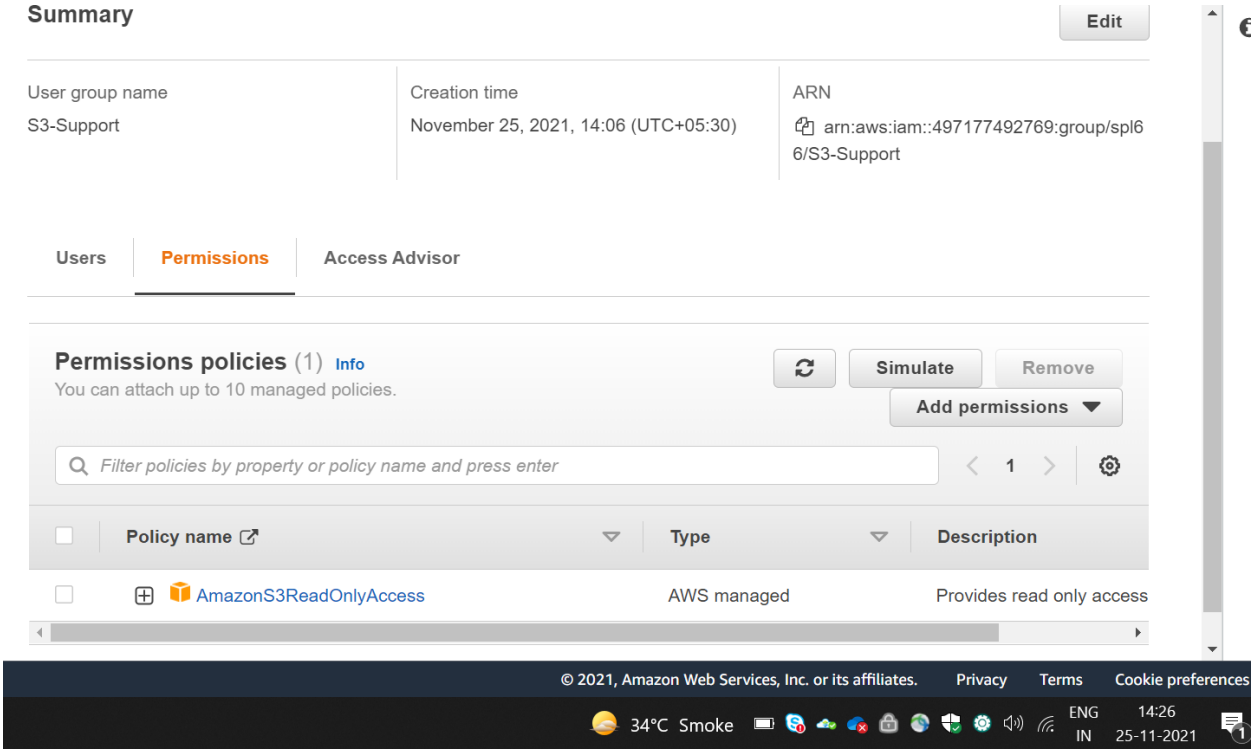
A policy defines what actions are allowed or denied for specific AWS resources. This policy is granting permission to List and Describe information about EC2, Elastic Load Balancing, CloudWatch and Auto Scaling. This ability to view resources, but not modify them, is ideal for assigning to a Support



In the navigation pane on the left, click User Groups

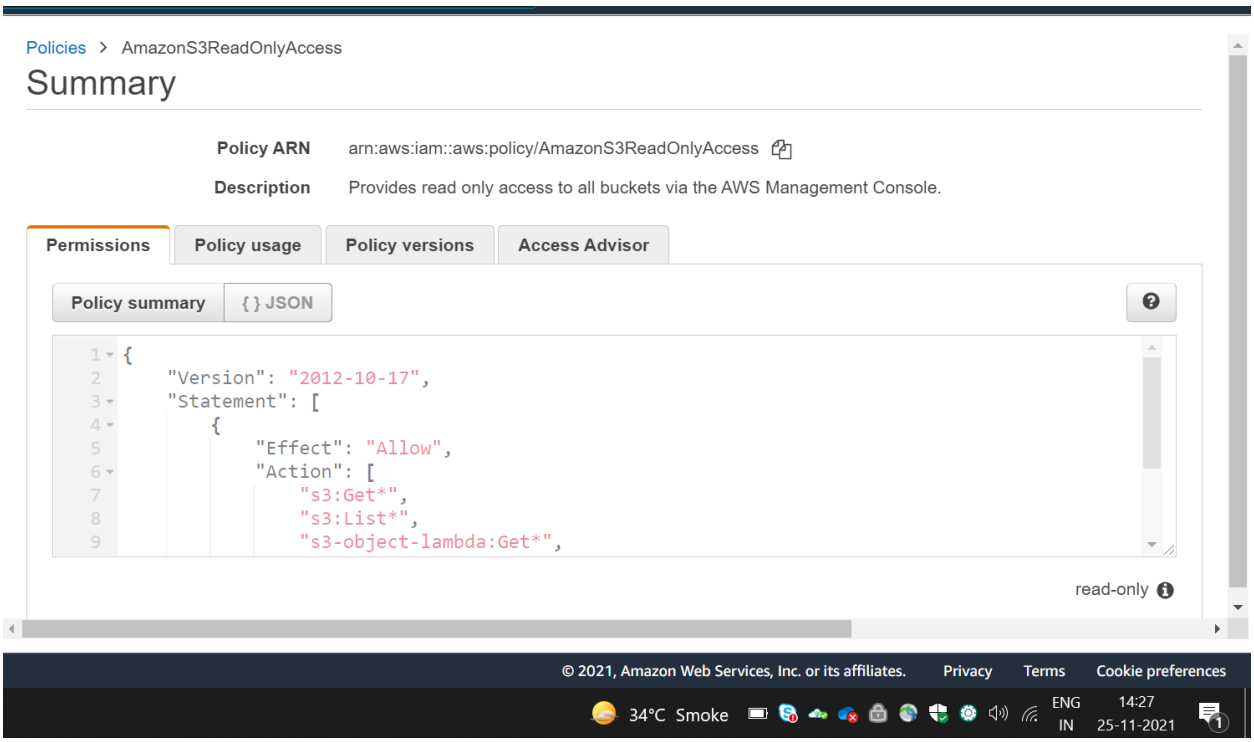
14 Click the S3-Support group.

The S3-Support group has the Amazon S3ReadOnlyAccess policy attached



15. Click on Amazon S3ReadOnly Access under Permissions tab and a new browser window opens. Now click on () JSON.

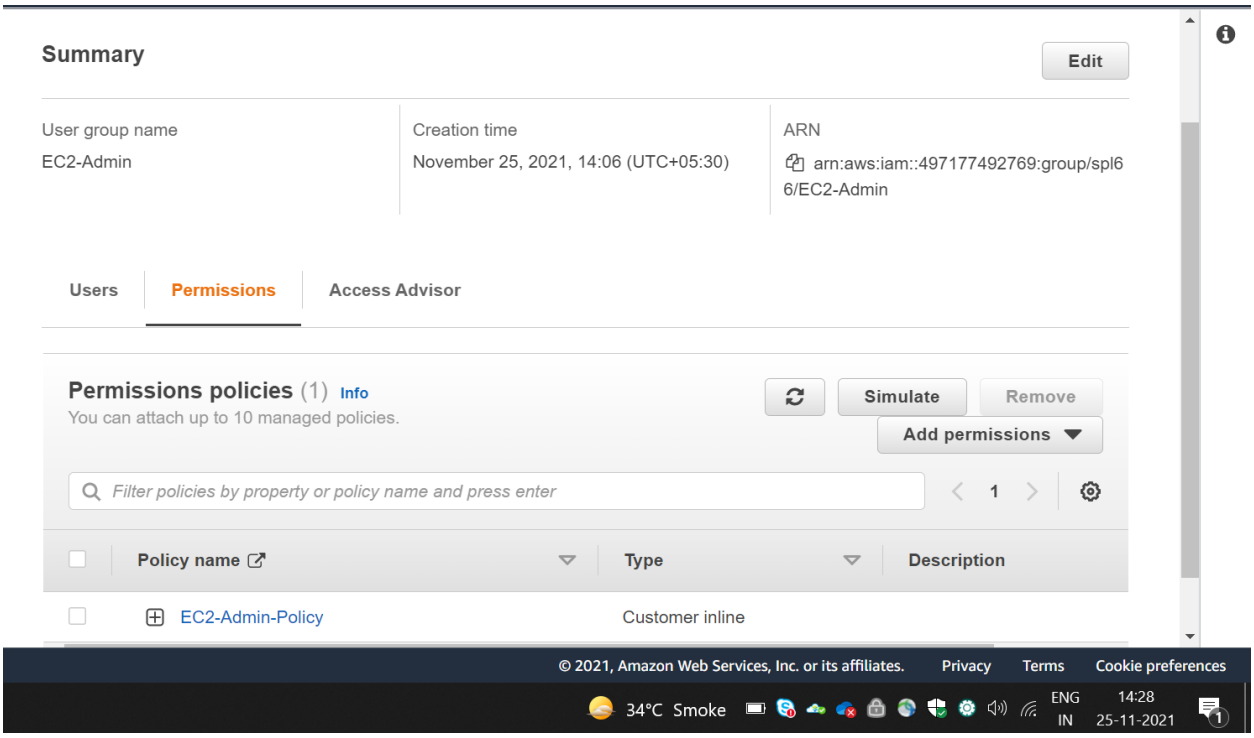
This policy has permissions to Get and List resources in Amazon $3.



16. In the navigation pane on the left, click User Groups

17. Click the EC2-Admin group.

This Group is slightly different from the other two. Instead of a Managed Policy, it has an Inline Policy, which is a policy assigned to just one User or Group Inline Policies are typically used to apply permissions for one-off situations



click on EC2 admin policy Access under Permissions tab and a new browser window opens. Now click on () JSON.

B) **Add users to groups**

Add user-1 to the S3-Support Group

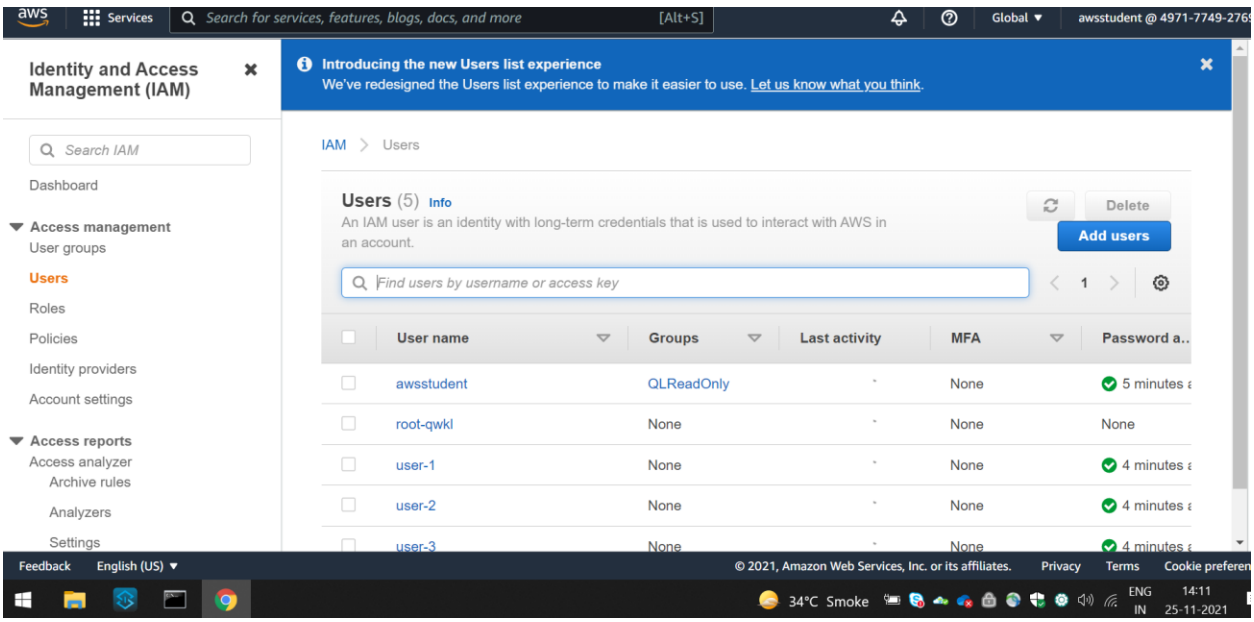
20. In the left navigation pane, click User Groups

21. Click the S3-Support group.

22. Click the Users tab.

23. In the Users tab, click Add Users to Group

.

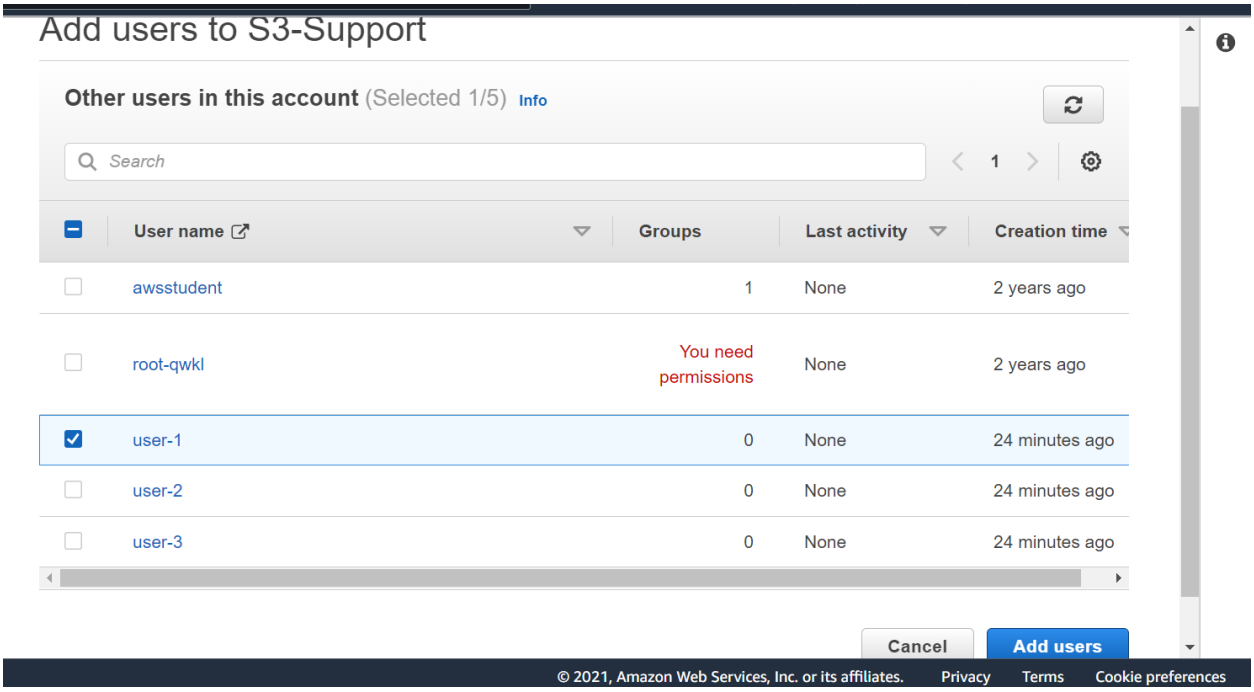


In the Add Users to Group window, configure the following

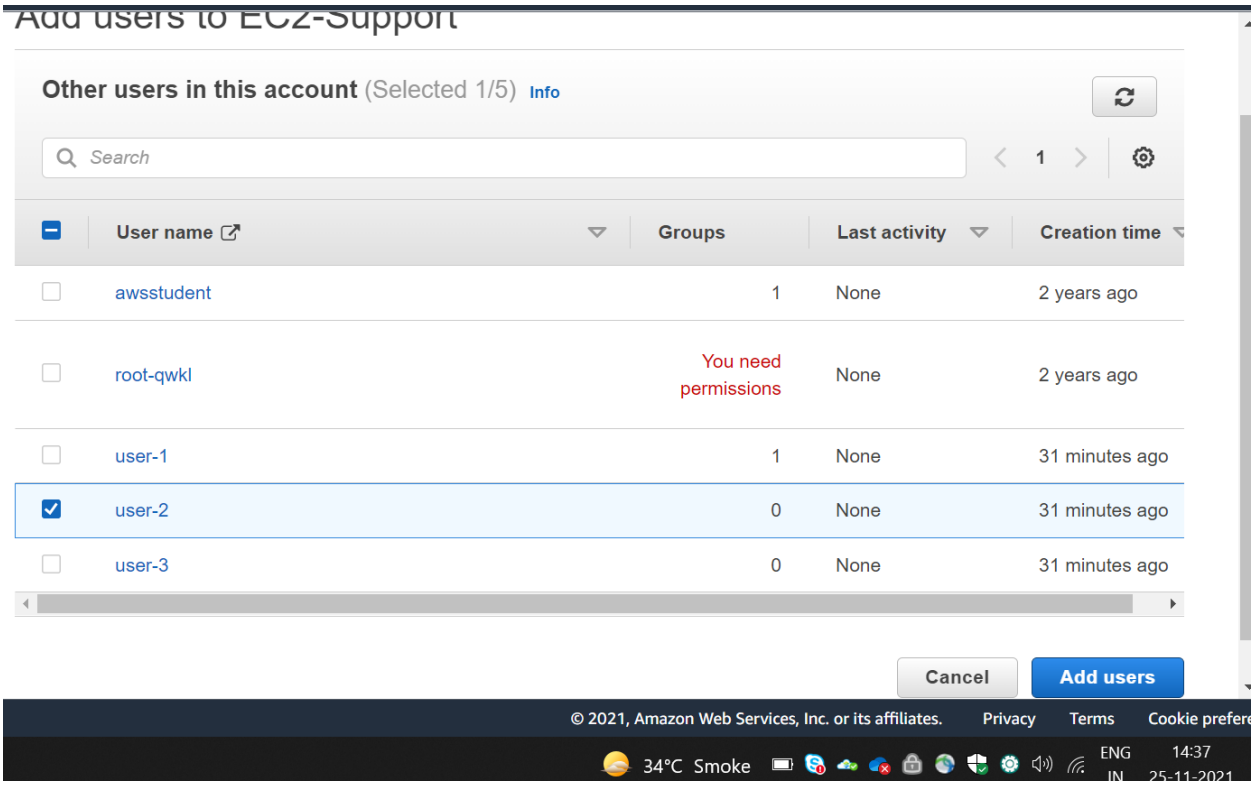
Select user-1.

At the bottom of the screen, click Add Users

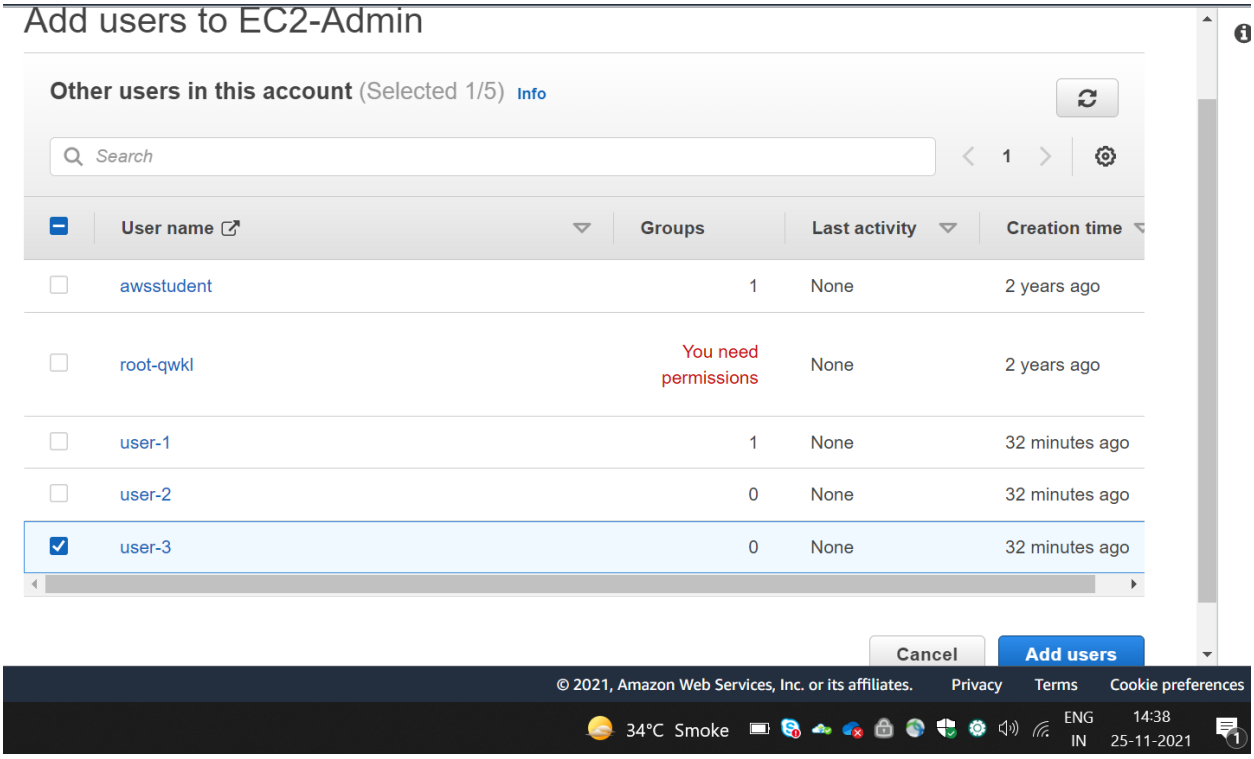
In the Users tab you will see that user-1 has been added to the group.



Add user-2 to Ec2 support by same steps



Add user-3 to Ec2 admin



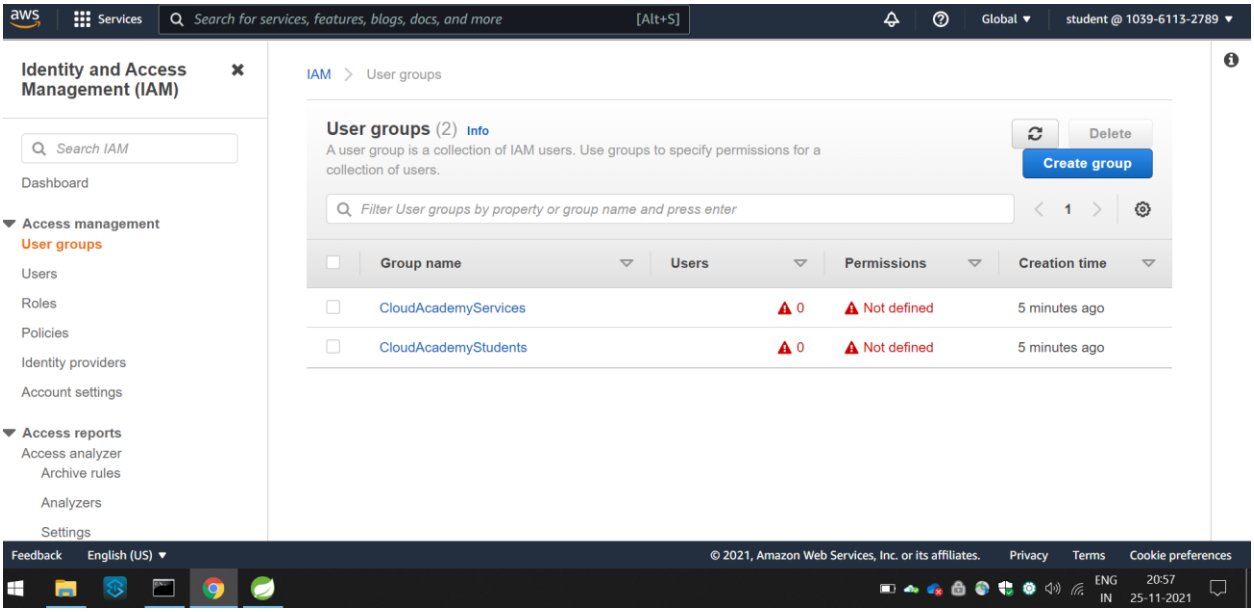
Sign-In and test the users

Creating an IAM User Group

In the AWS Management Console search bar, enter *IAM*, and click the **IAM** result under **Services**:

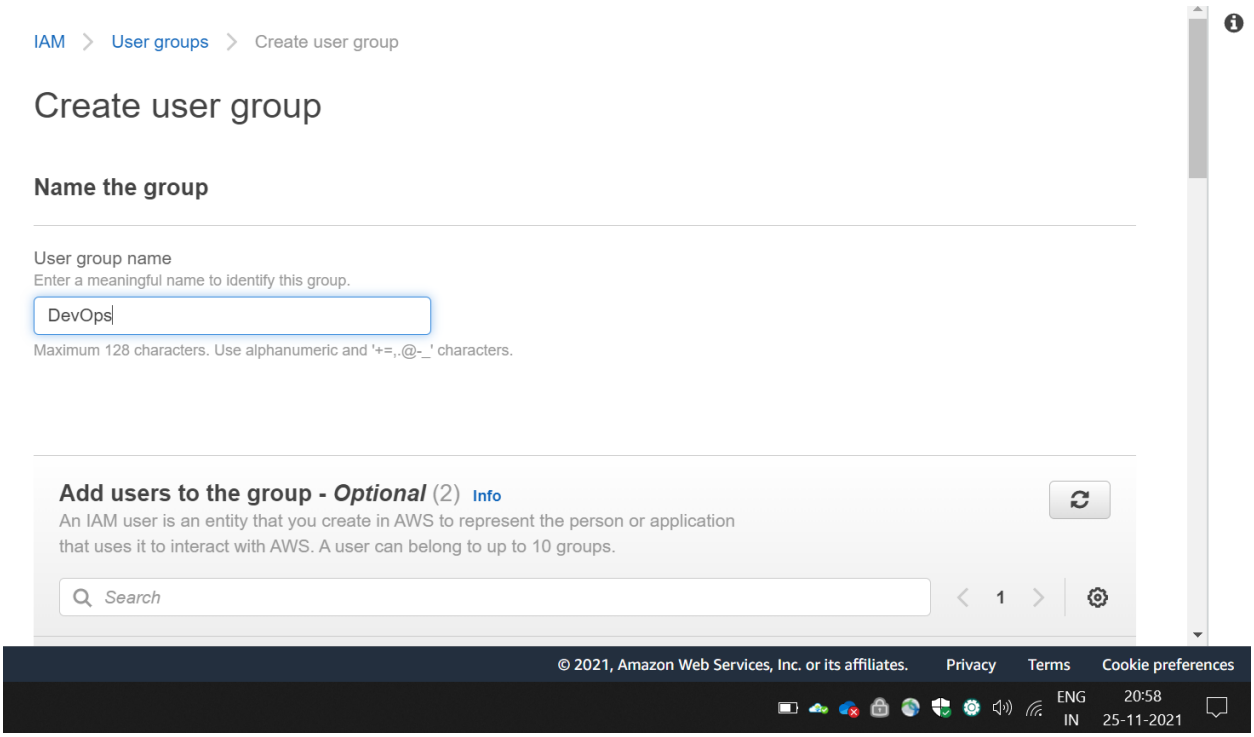
From the IAM dashboard, click on **User groups** link in the sidebar menu:

You will see errors indicating your student user does not have permissions to perform specific actions:

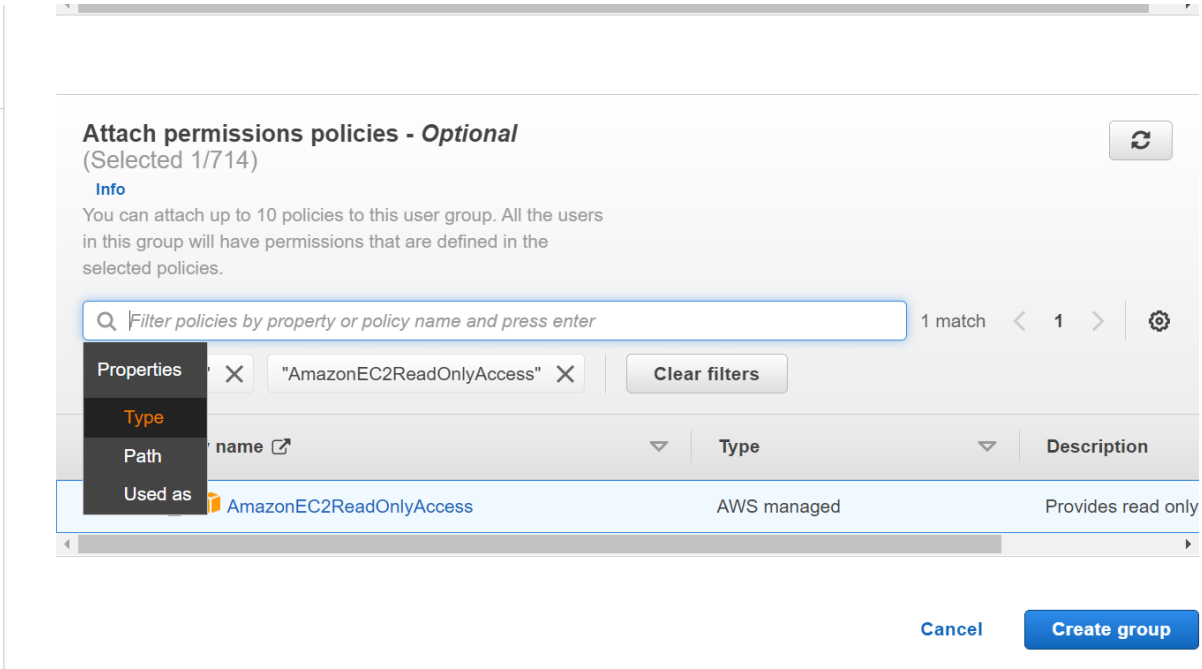


Click on the **Create Group** blue button for creating a new IAM group:

In the **User group name** field, enter *DevOps* as the name of the group:

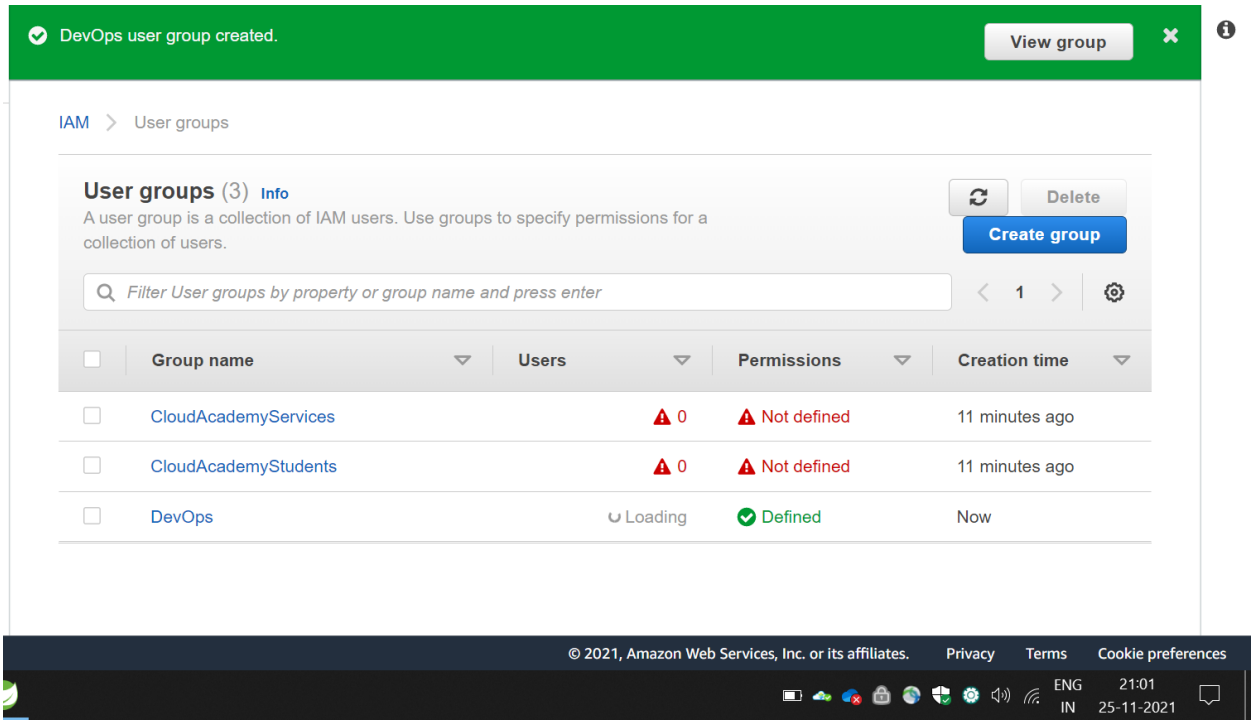


Skip down to the **Attach permissions policies** section, enter *AmazonEC2ReadOnlyAccess* into the search bar and select the resulting policy: **AmazonEC2ReadOnlyAccess**:



Click **Create Group.**

The **Groups** page now lists the new group and you are able to assign the DevOps group to any available user:



Creating an IAM User

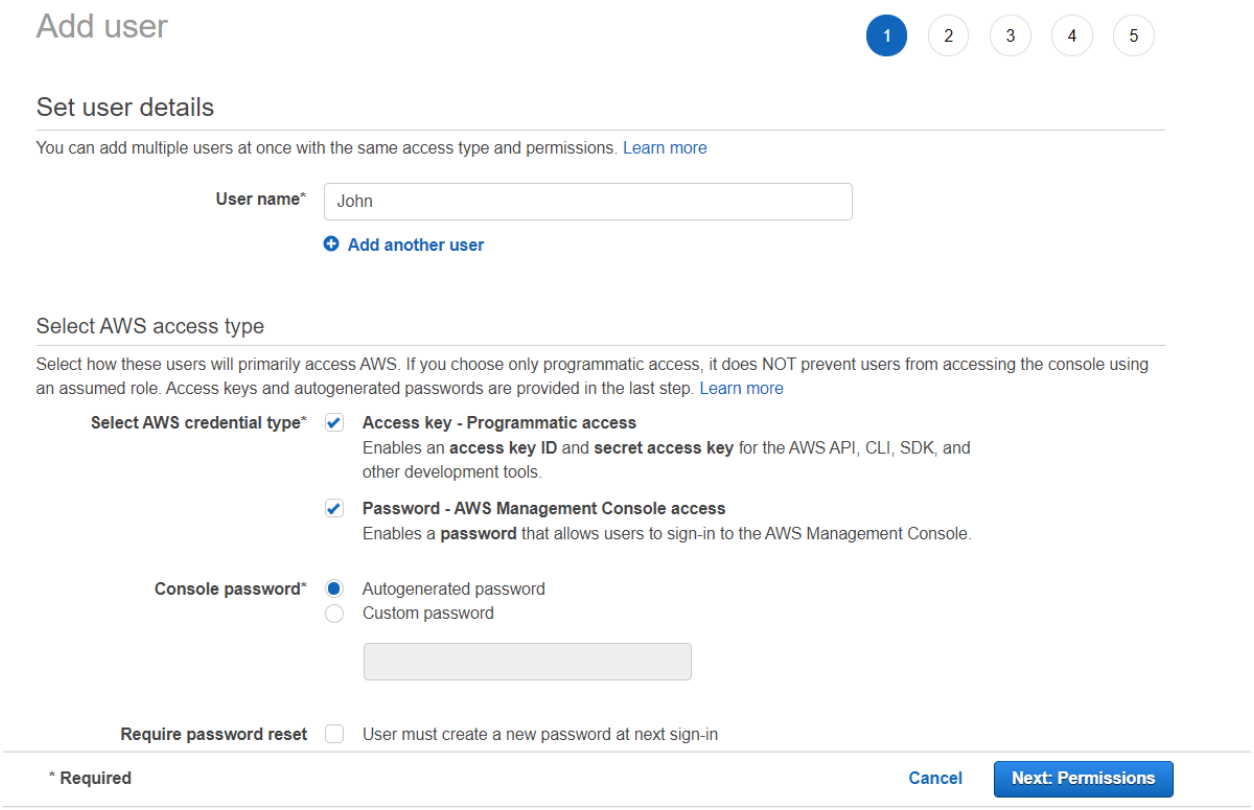
click on **Users** in the sidebar menu:

Click **Add user** to begin creating a new user:

Enter the following values in the form:

- **User name**: *John* (Name must be case sensitive)
- **Access key - Programmatic access**: Checked
- **Password - AWS Management Console access**: Checked

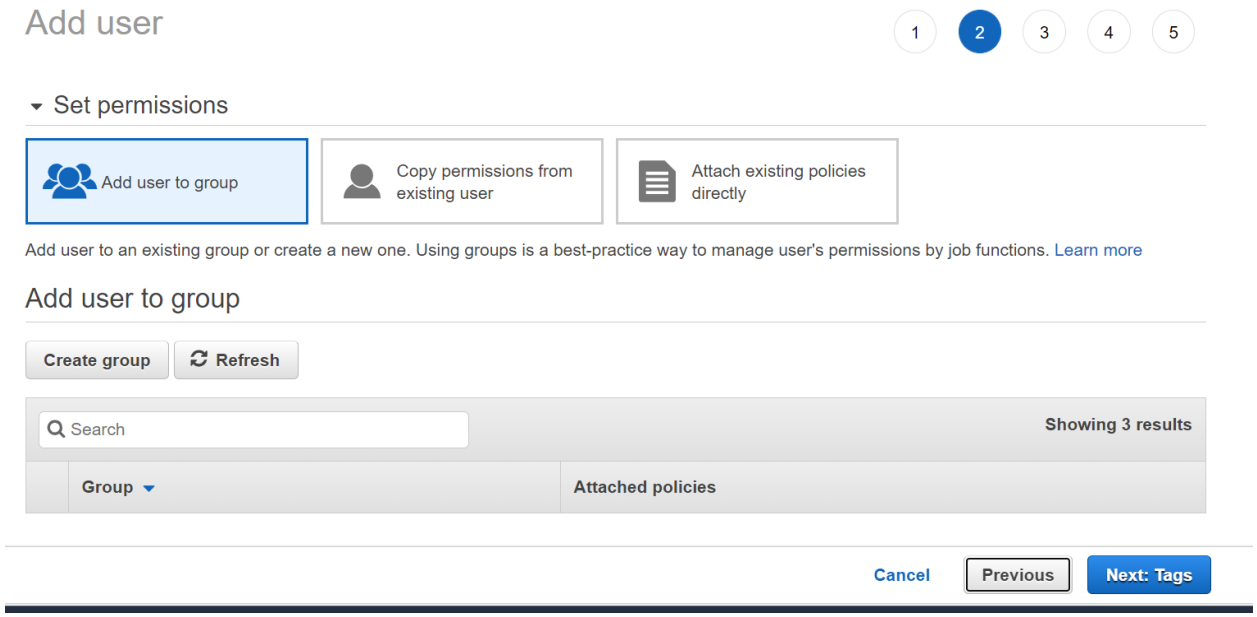
- **Console password**: **Autogenerated password**
- **Require password reset**: Unchecked

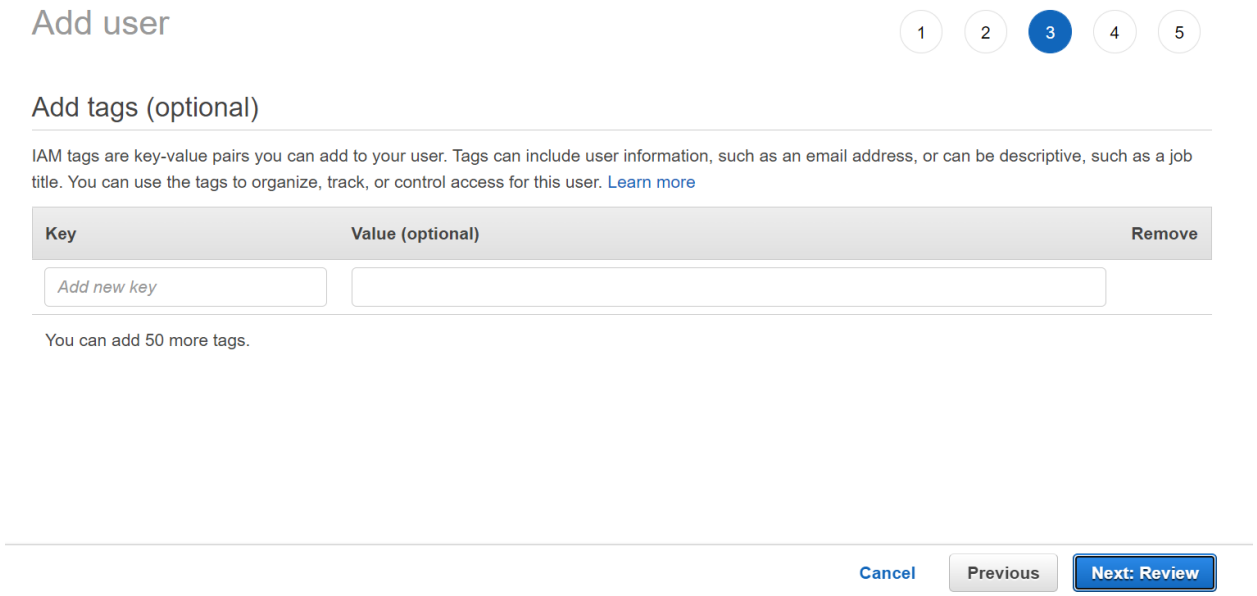


Click **Next: Permission** to advance to the next step.

Click **Next: Tags**. Skip this page and click on **Next: Review**.

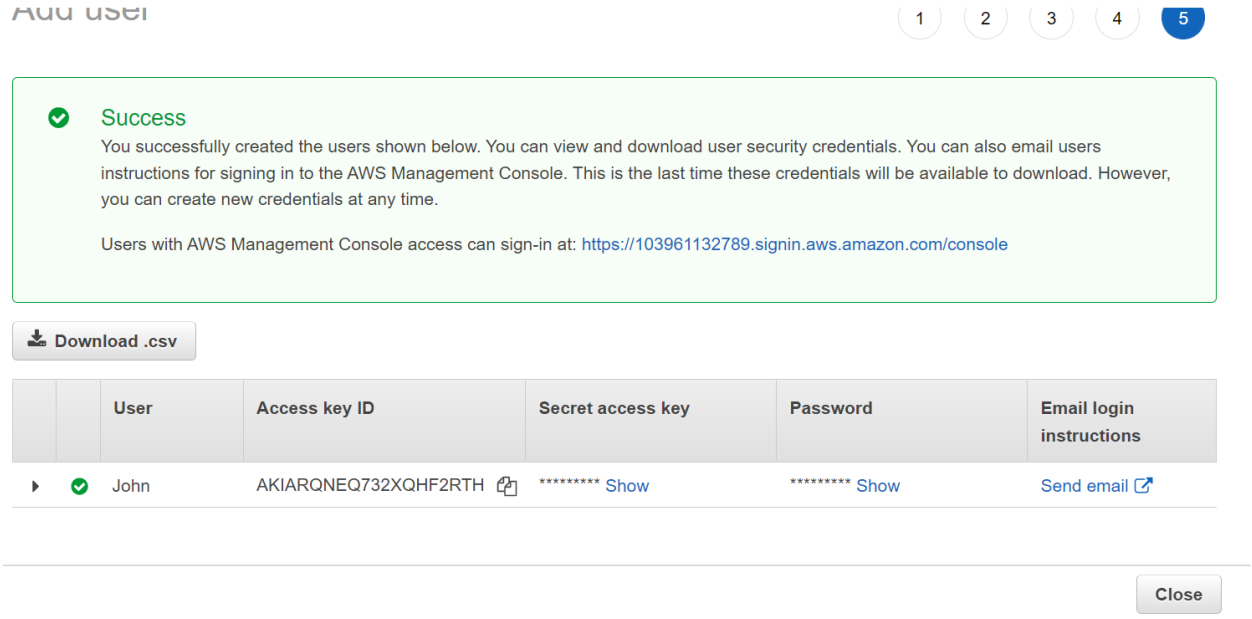
You will add the user to the DevOps Group later.


Add user
1
2
3
4
5
Set permissions
Add user to group
Copy permissions from existing user
Attach existing policies directly
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
Add user to group
Create group
Refresh
Search
Showing 3 results
Group
Attached policies
Cancel
Previous
Next: Tags

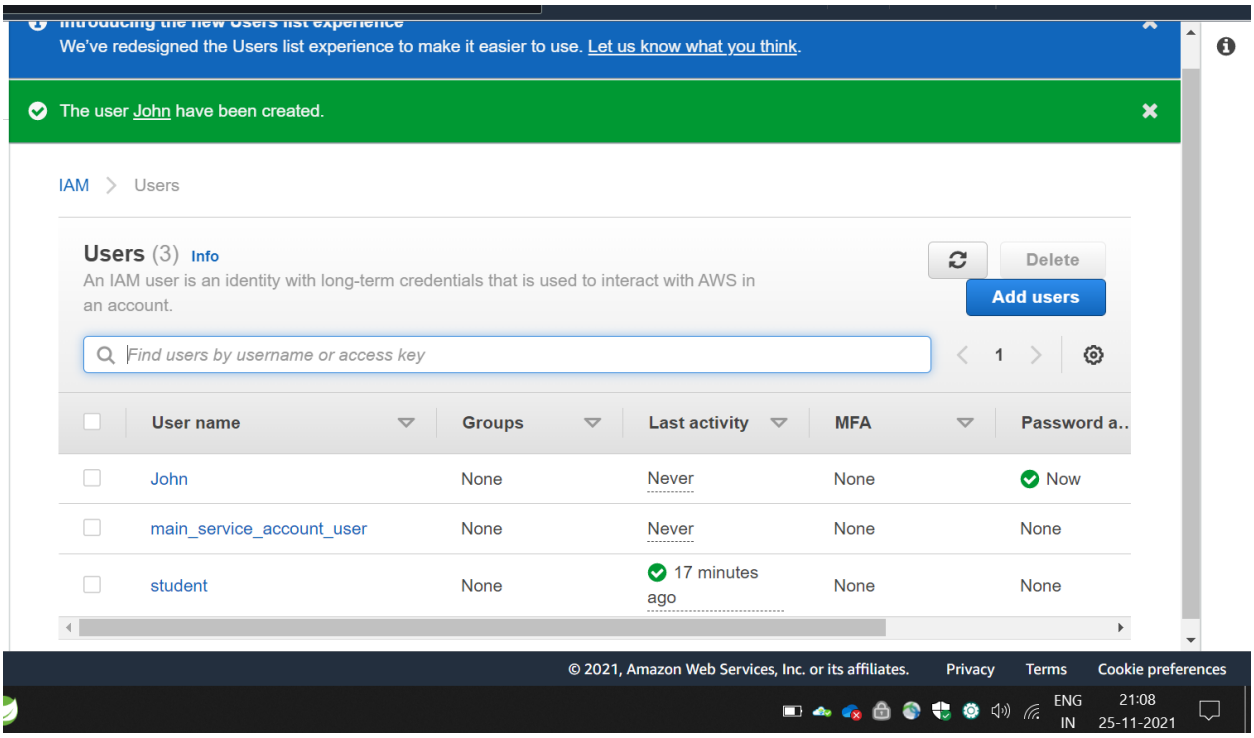

Add user
1
2
3
4
5
Add tags (optional)
IAM tags are key-value pairs you can add to your user. Tags can include user information, such as an email address, or can be descriptive, such as a job title. You can use the tags to organize, track, or control access for this user. Learn more
Key
Value (optional)
Remove
Add new key
You can add 50 more tags.
Cancel
Previous
Next: Review

Click **Create User.**

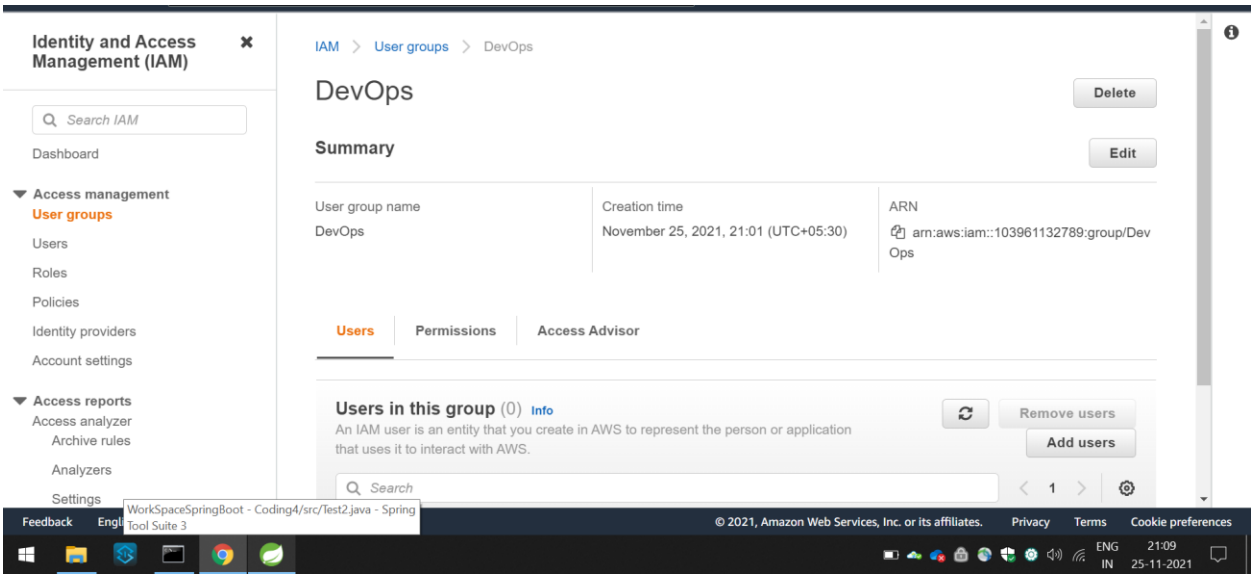
7. Click **Download .csv** for downloading a CSV file containing the security credentials and then click **Close**:



Review the newly-created user in the **IAM Console**:

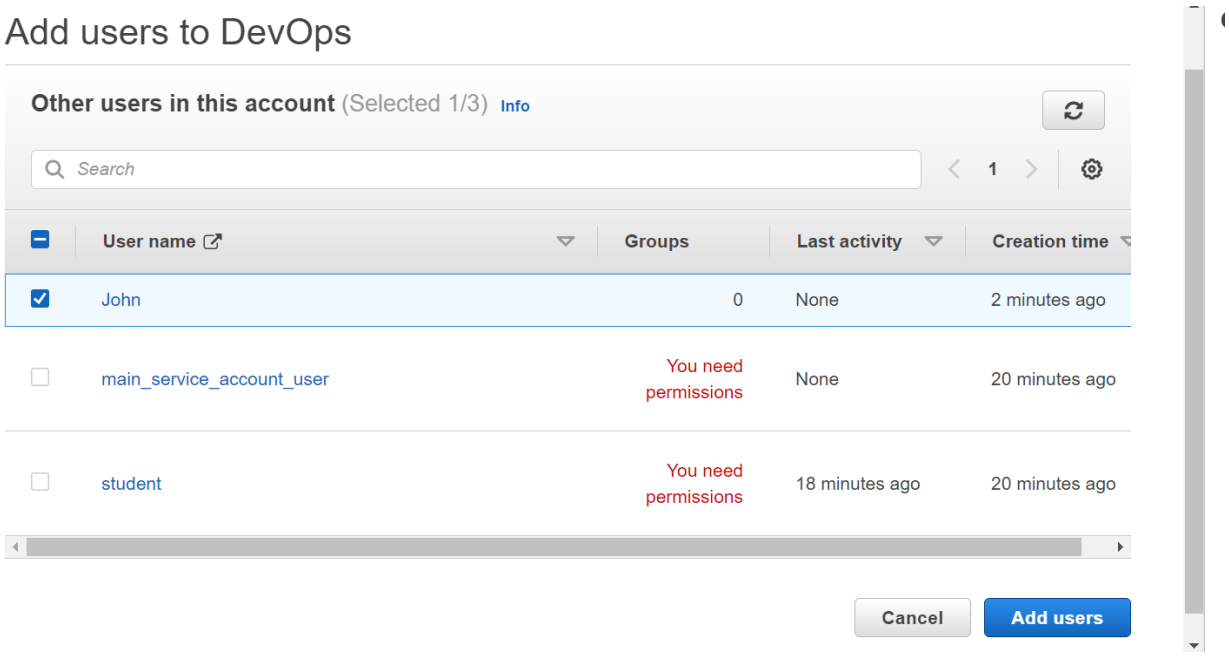


Click **User groups** > **DevOps** to open the DevOps group details view:

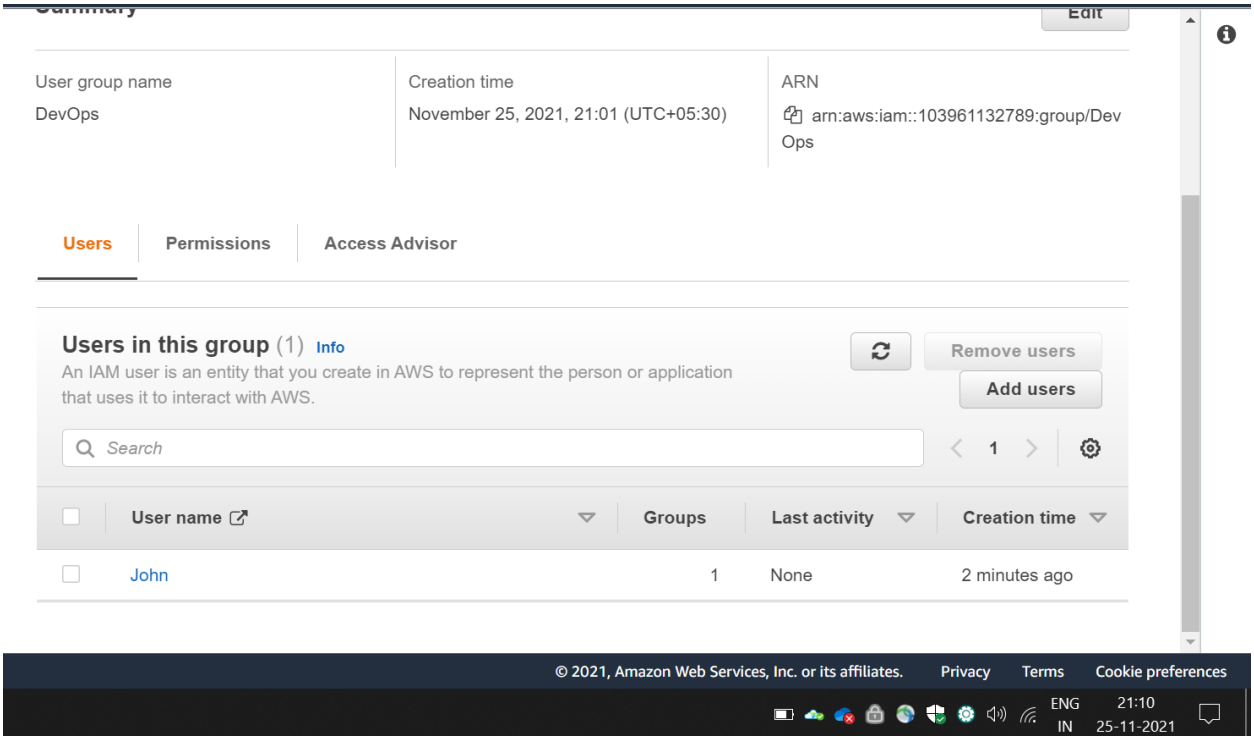


Click **Add Users**.

11. Check **John** and click **Add Users**:



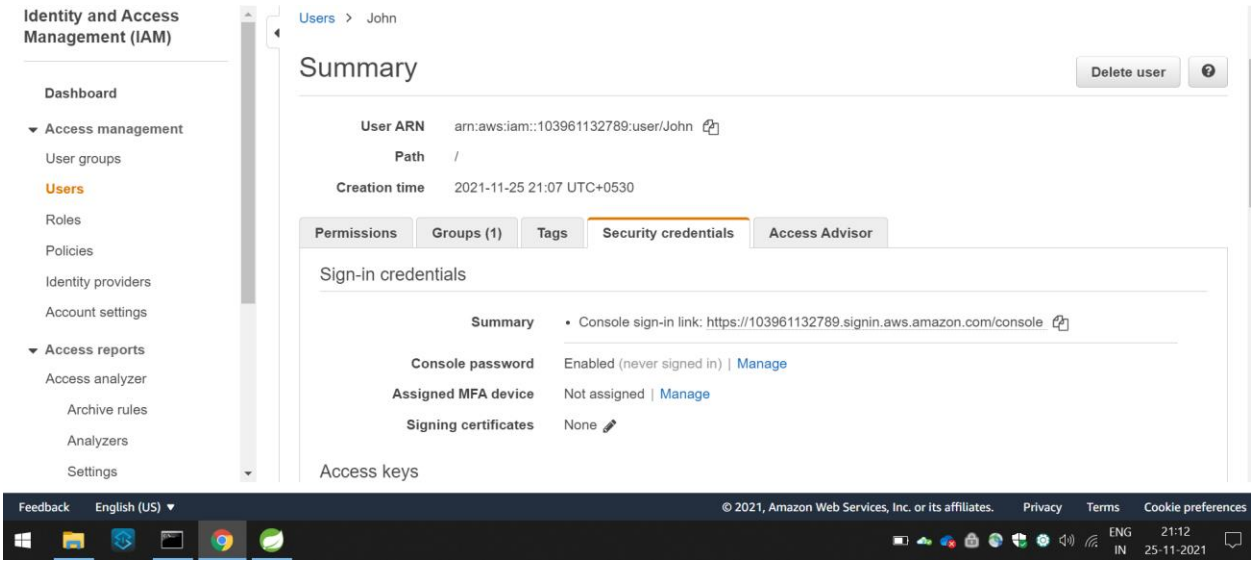
Observe that John is now in the DevOps group:



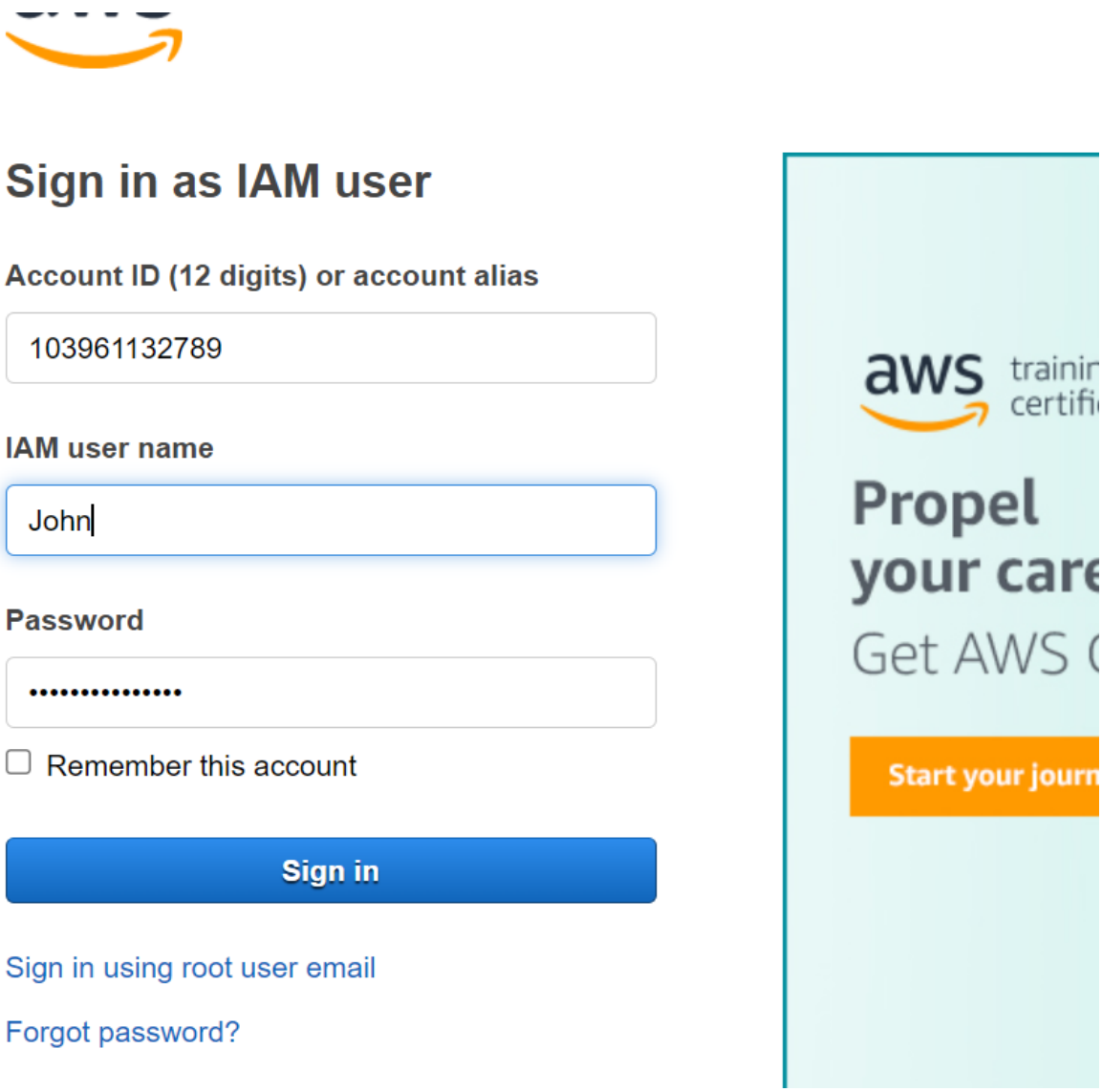
Logging in using the new IAM credentials

click on **Users** in the sidebar menu.Click **John** on the **IAM User** page:

Click **Security Credentials** and then navigate to the **Console sign-in link** listed in the tab:

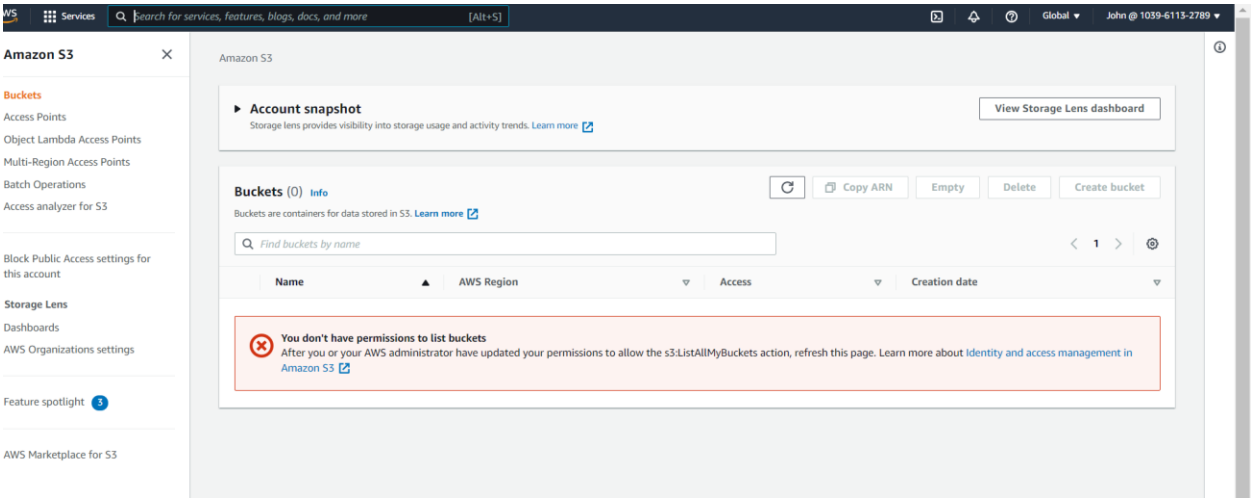


Use the credentials in the CSV file you downloaded to log in as John.



From the AWS Management Console, click on **Services** at the top of the page and type *S3* into the text box. Select the **S3** option:

. Notice that due to the restrictive permissions you placed on the IAM user "John", you receive an **Access Denied** message when attempting to access S3 resources:



Practical No. 3

Working With S3 Buckets

Aim: A) Create a bucket

B) Upload an object to the bucket

C) Make an object public

D) Create a bucket policy

E) Explore versioning

Introduction to CloudWatch

Lab Steps

Logging in to the Amazon Web Services Console

Explore CloudWatch

Monitoring EC2 Instances

Install the EC2 Monitoring Scripts

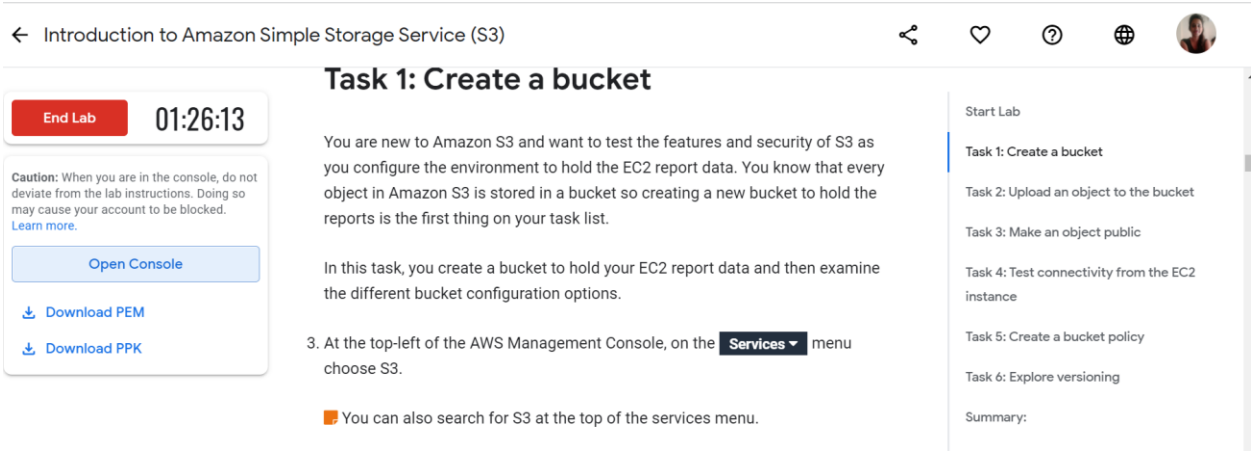
Creating Your First CloudWatch Alarm

Create an Alarm using the EC2 console

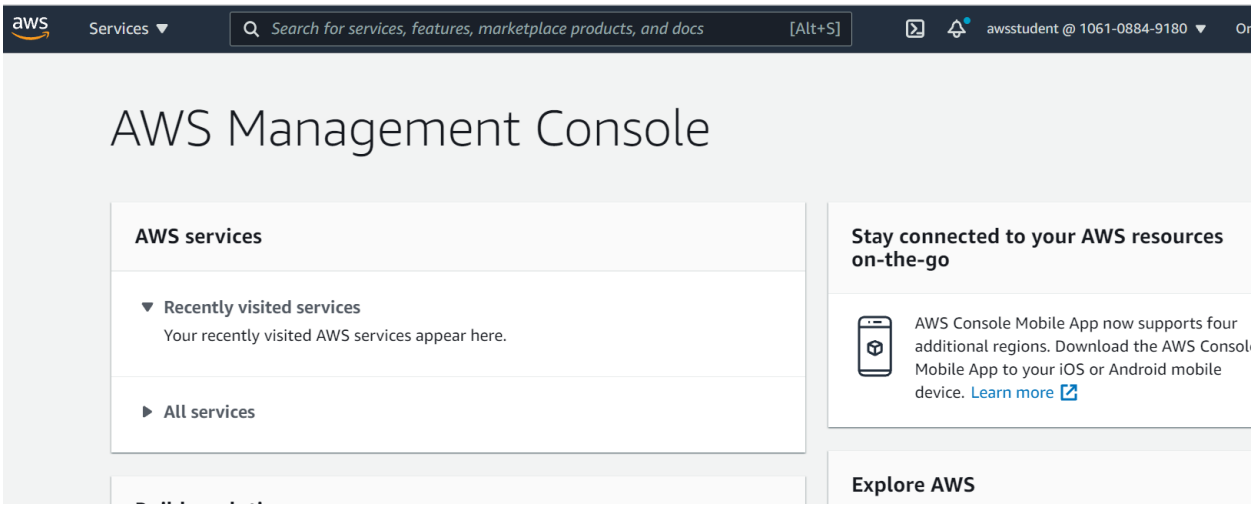
Sharing CloudWatch Metrics with others

A) Create a bucket

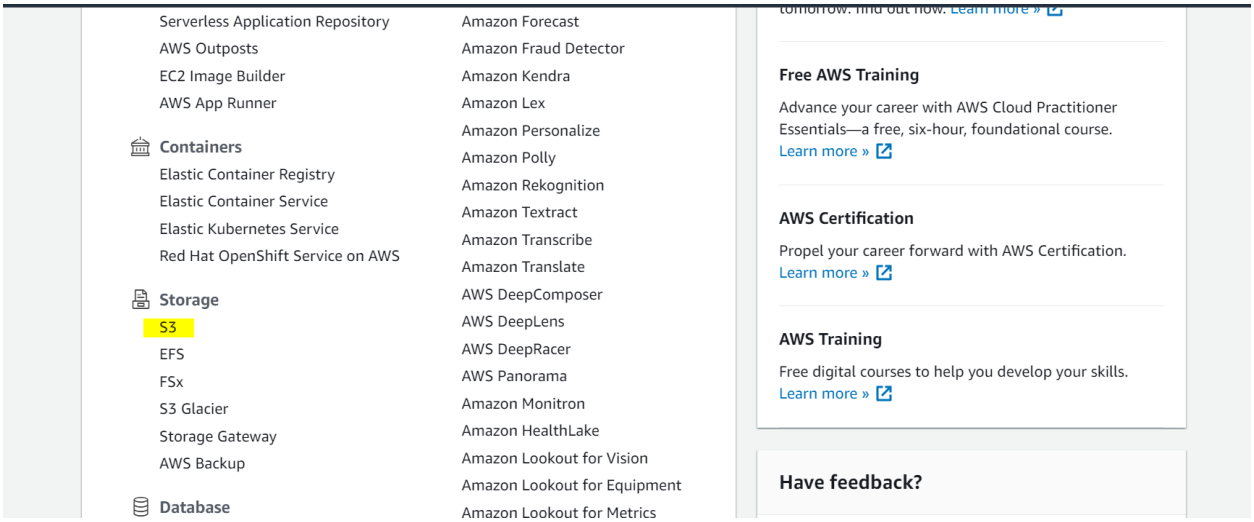
Step 1: Click on Start Lab

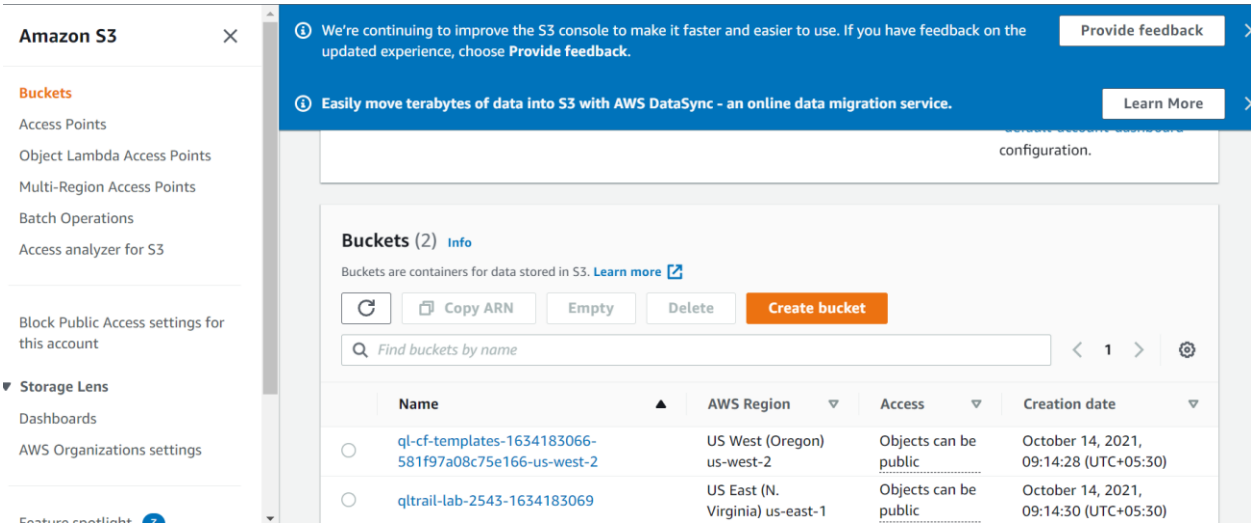


Step 2 : Open YOu lab by choosing Open Console

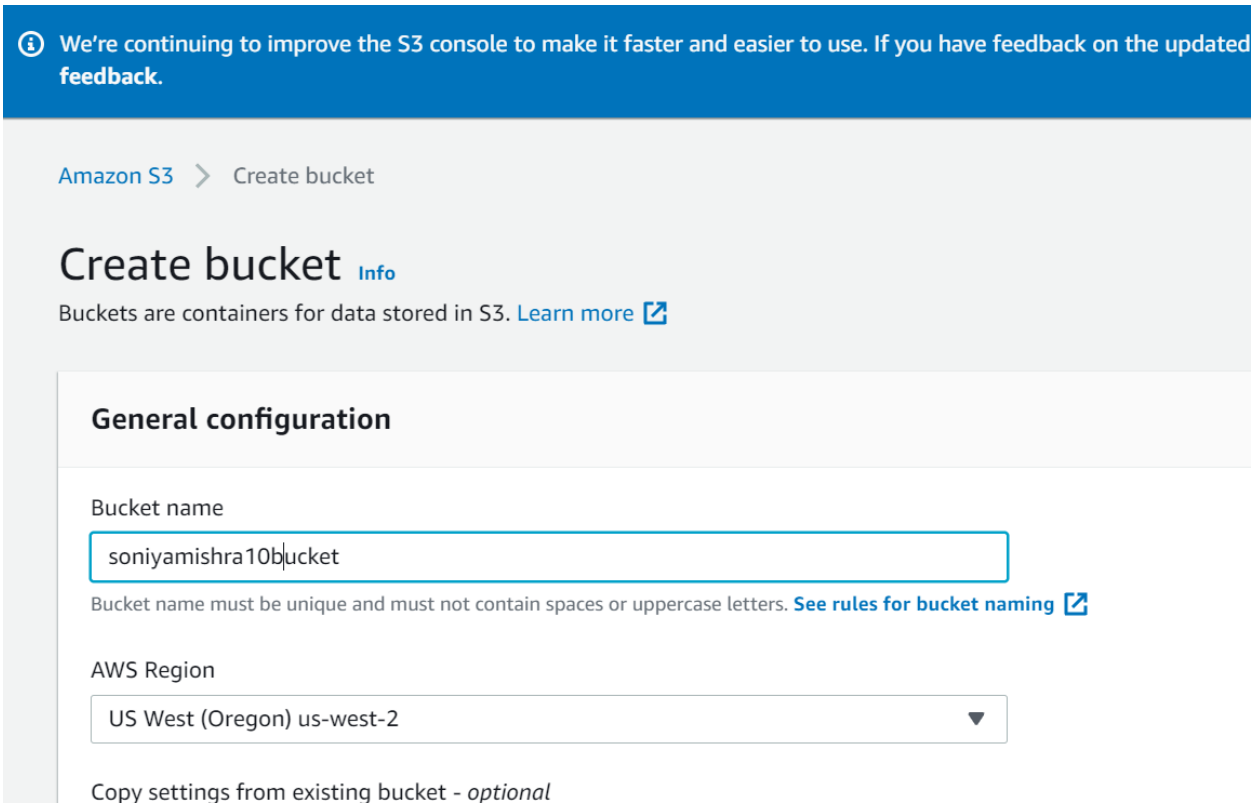


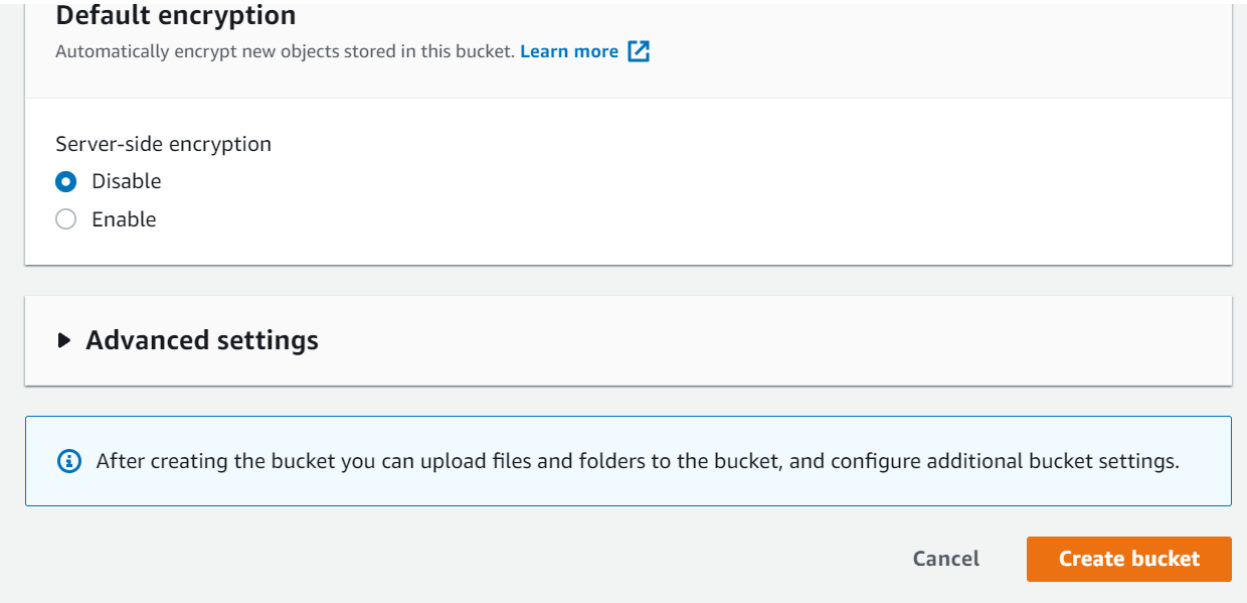
Step 3 : At the top of the menu- click on services menu and choose s3



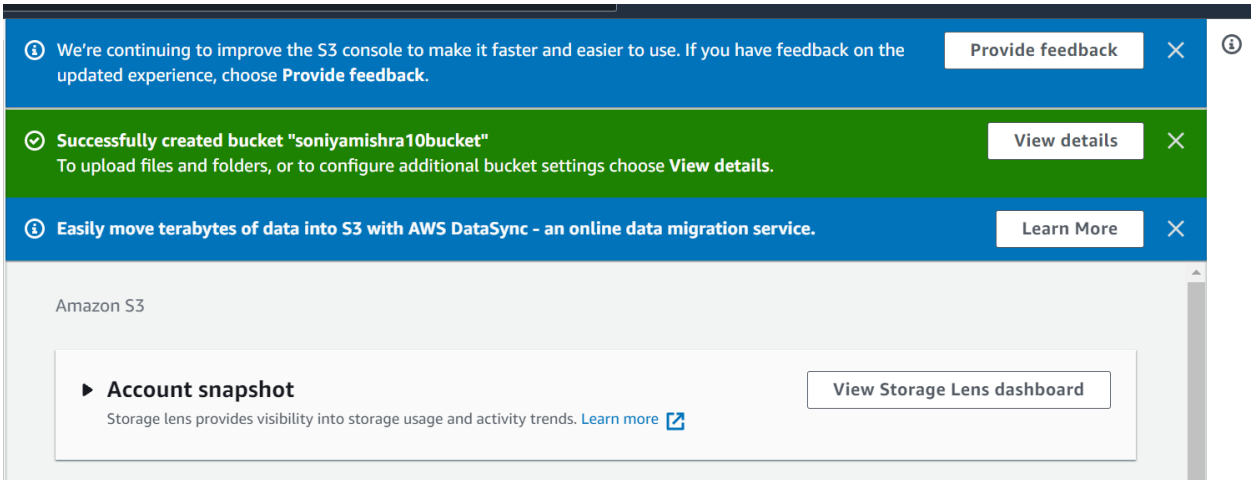


Step 4 : Click on Create bucket button





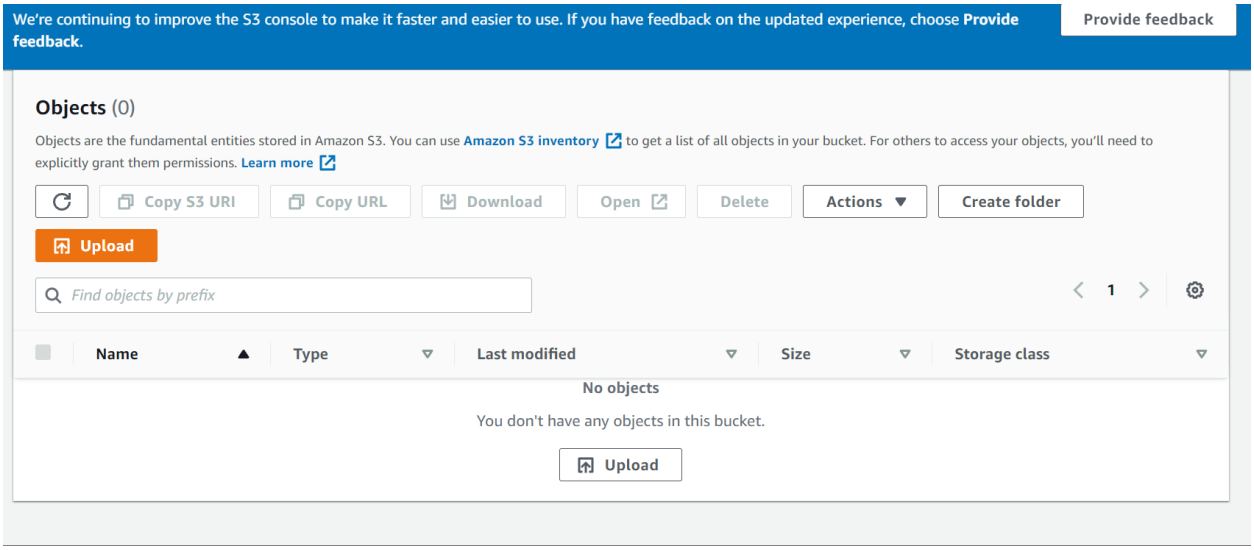
Step 5: Give a unique Bucket Name and scroll down and click on create bucket button

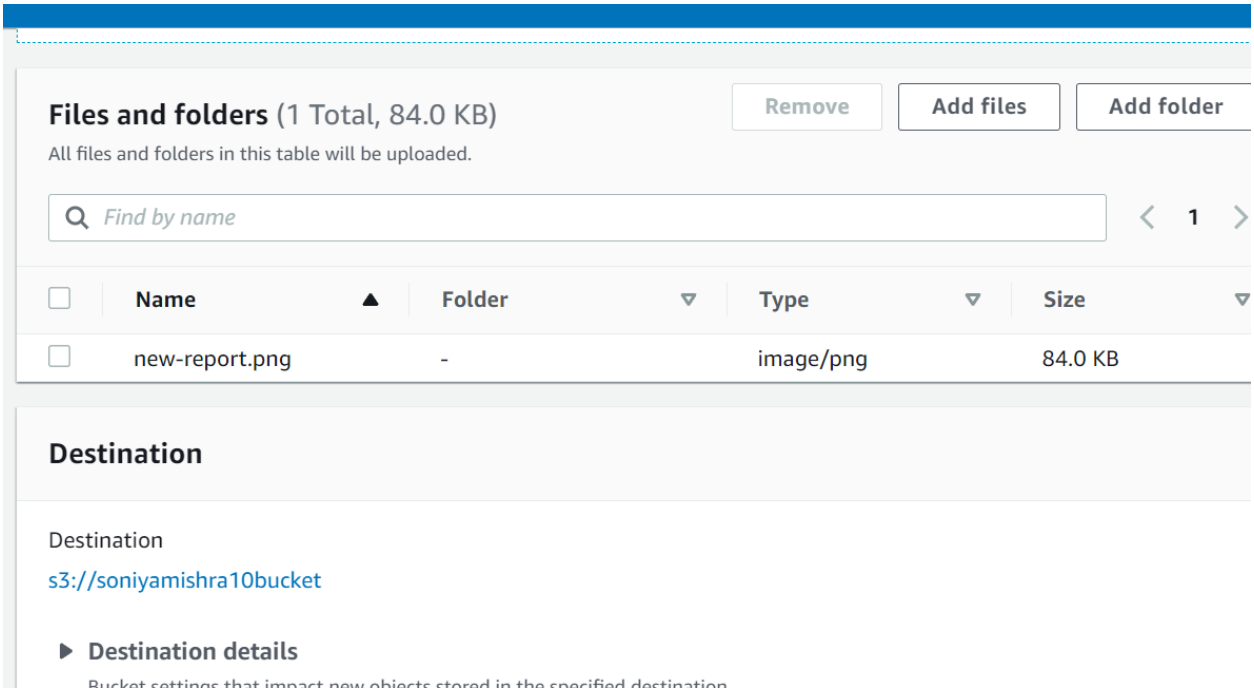


Bucket is successfully created

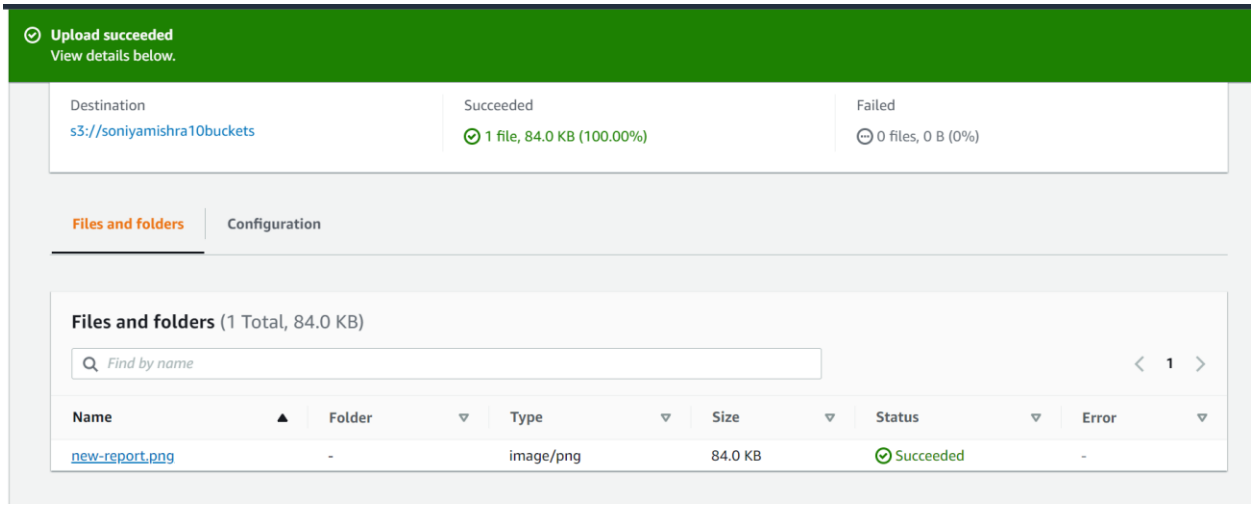
B) Upload an object to the bucket

Step 1: Choose you bucket and click the upload button





Step 2: click on Add files and browse and choose your file and upload

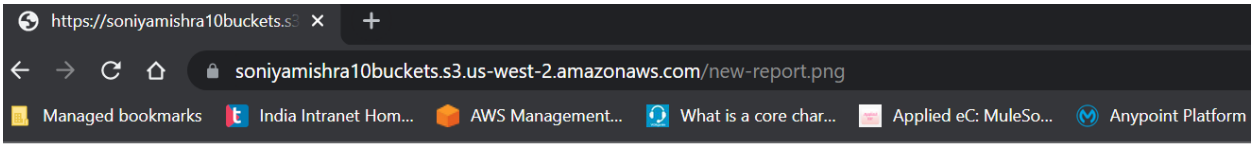


You file has been successfully uploaded

C) Make an object public

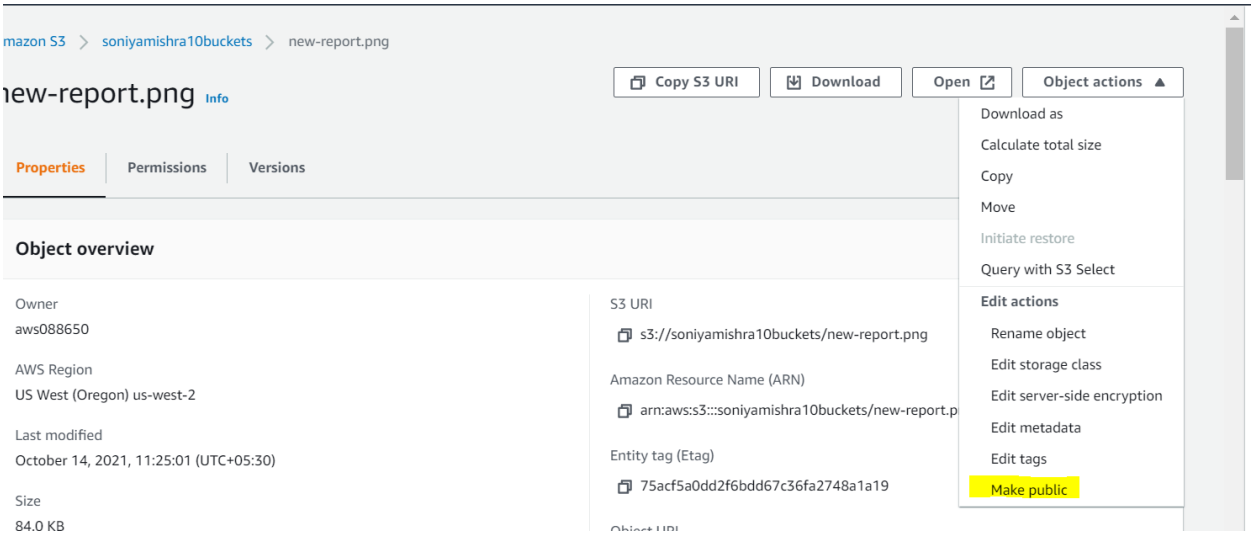
Step 1: click on the file you have uploaded to the bucket and you will be redirected to the Object Overview page , locate the link of Object url copy and paste to a new tab

You will receive an Access Denied Error, because S3 bucket object are bydefault private.

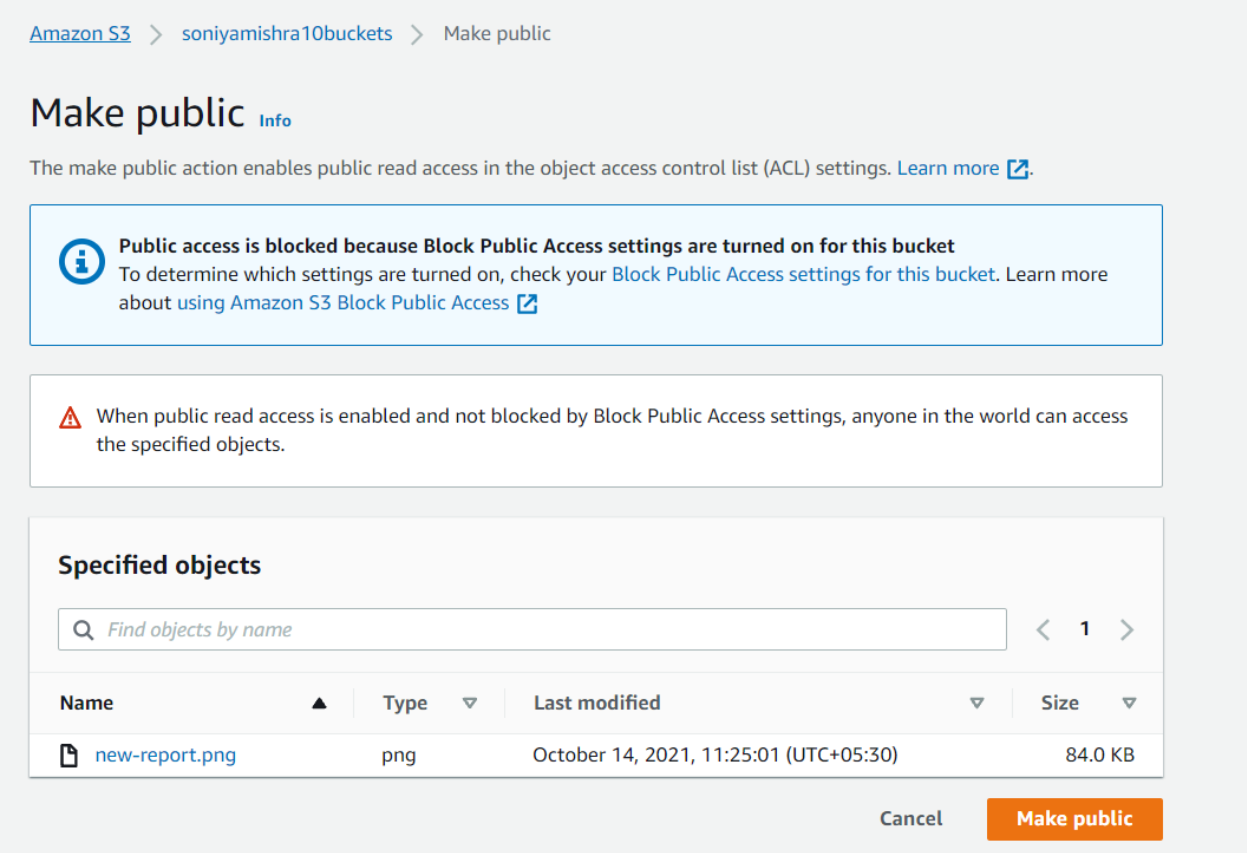


This XML file does not appear to have any style information associated with it. The document tree is shown below.

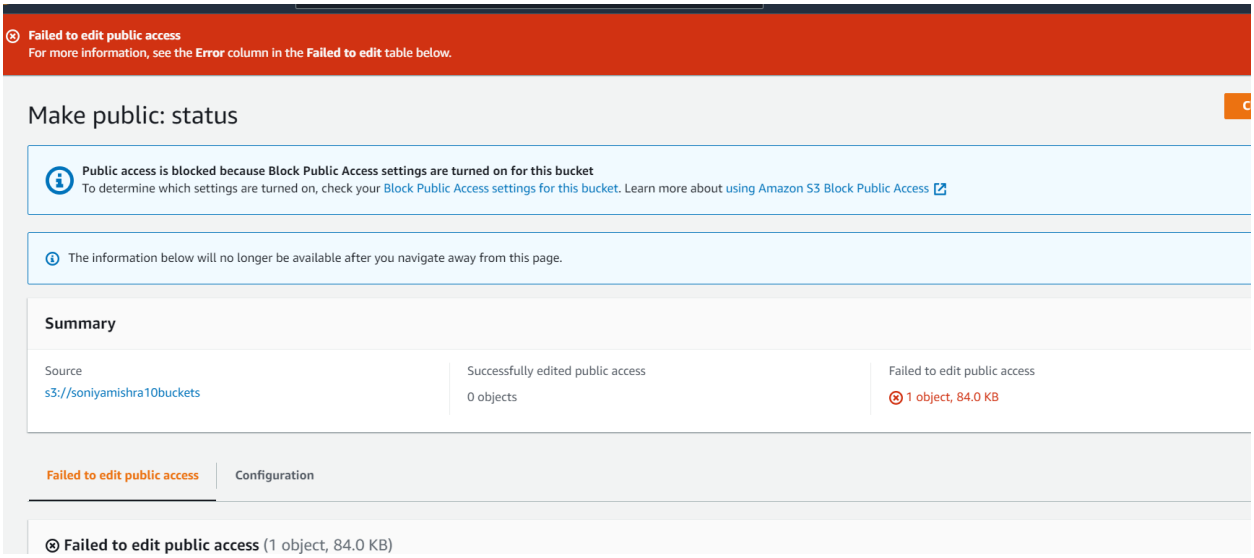

```
<Error>
  <Code>AccessDenied</Code>
  <Message>Access Denied</Message>
  <RequestId>GDP4PNX8DQRCY0FH</RequestId>
  <HostId>CbgRzovGYZjg/I2ERjvWxRPxlATKYPNlf0hdgeGWZAaI2fW/49NXm28qlvwKnY2QGzUUquBUD+E=</HostId>
</Error>
```

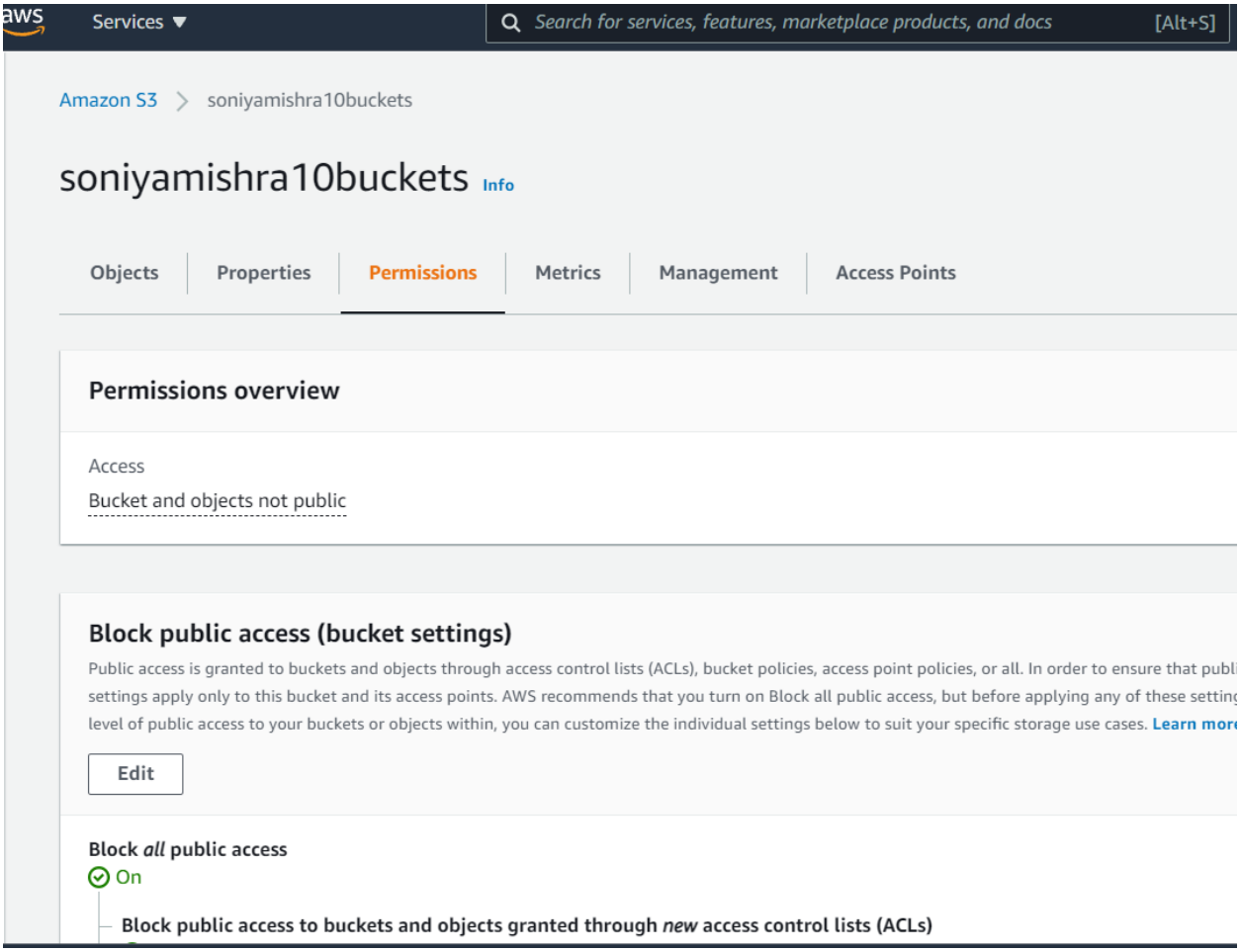
Step 2: In the object overview(new-report.png) page of the click on object action and click on make public



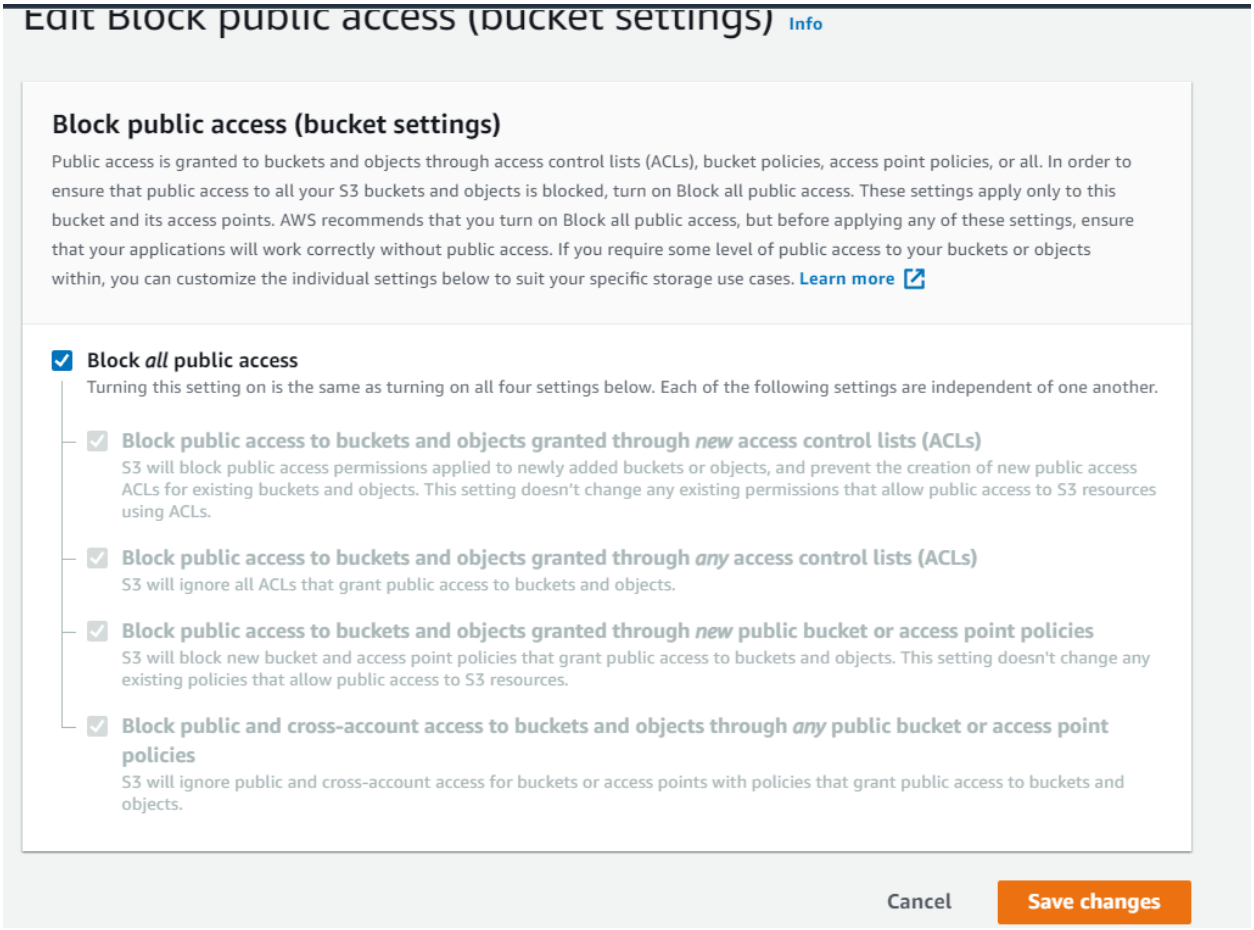
Click on make public



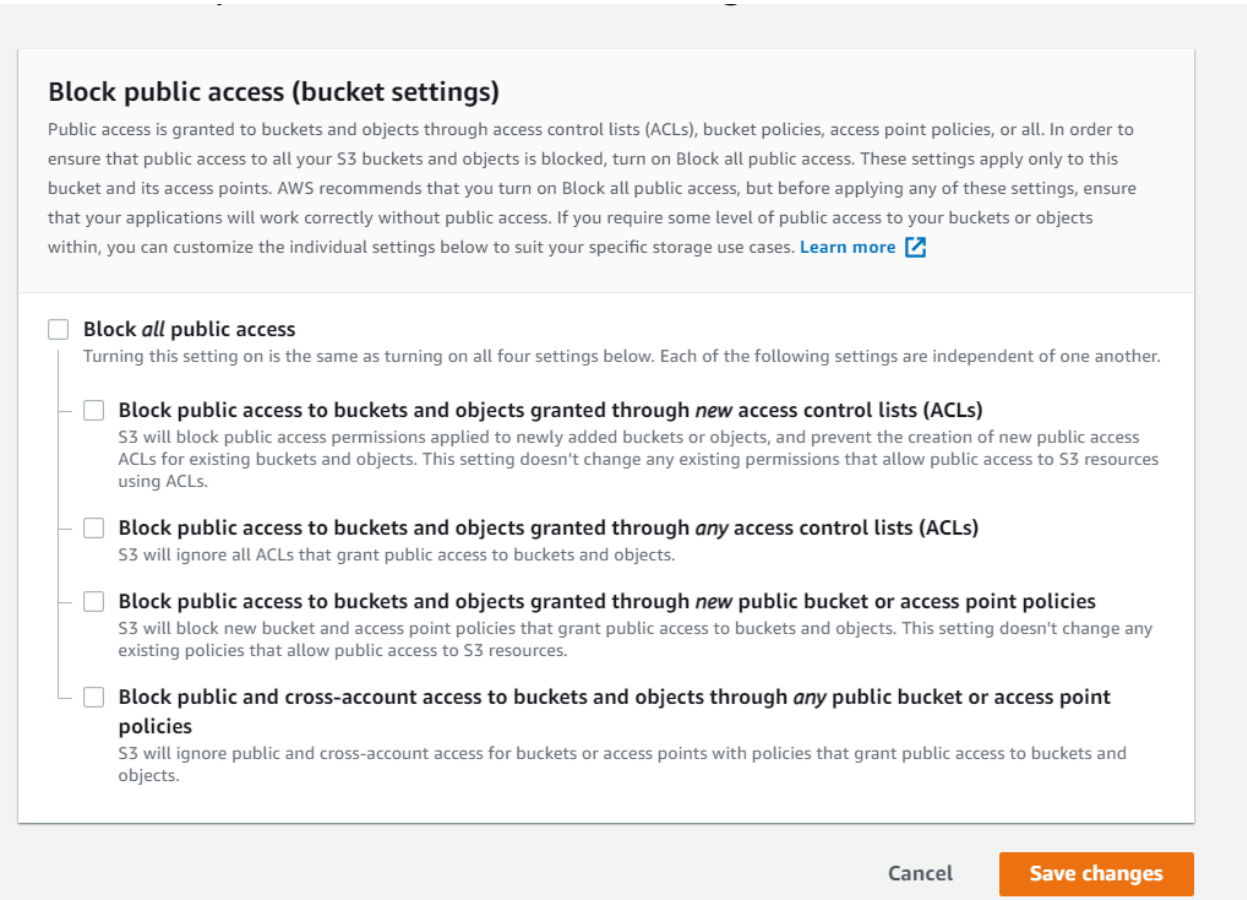
You will be failed to make public



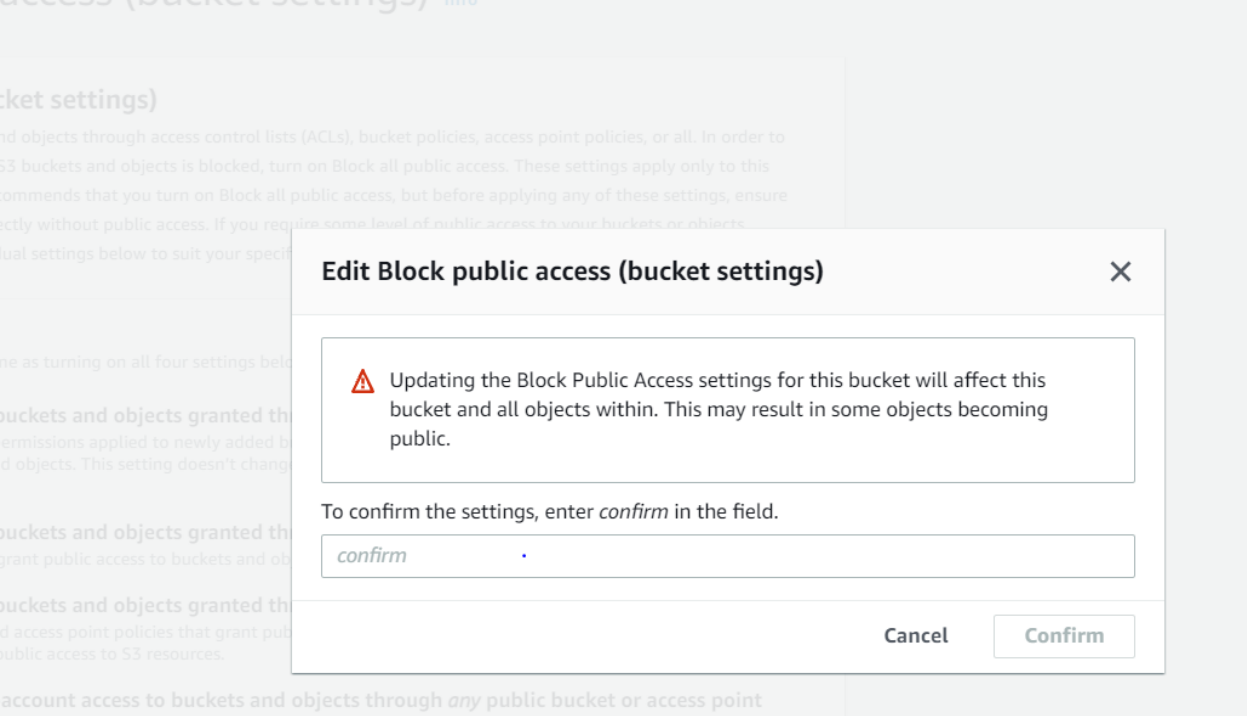
Step 3: Come back to bucket page and go to permissions and go to edit of Block public access section



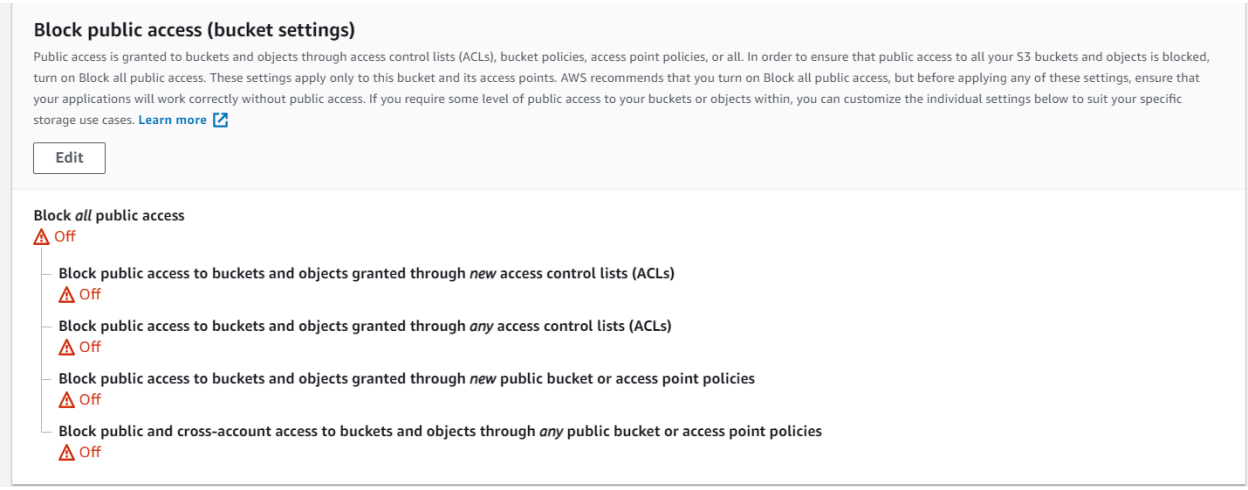
Step 4: Uncheck block all public access

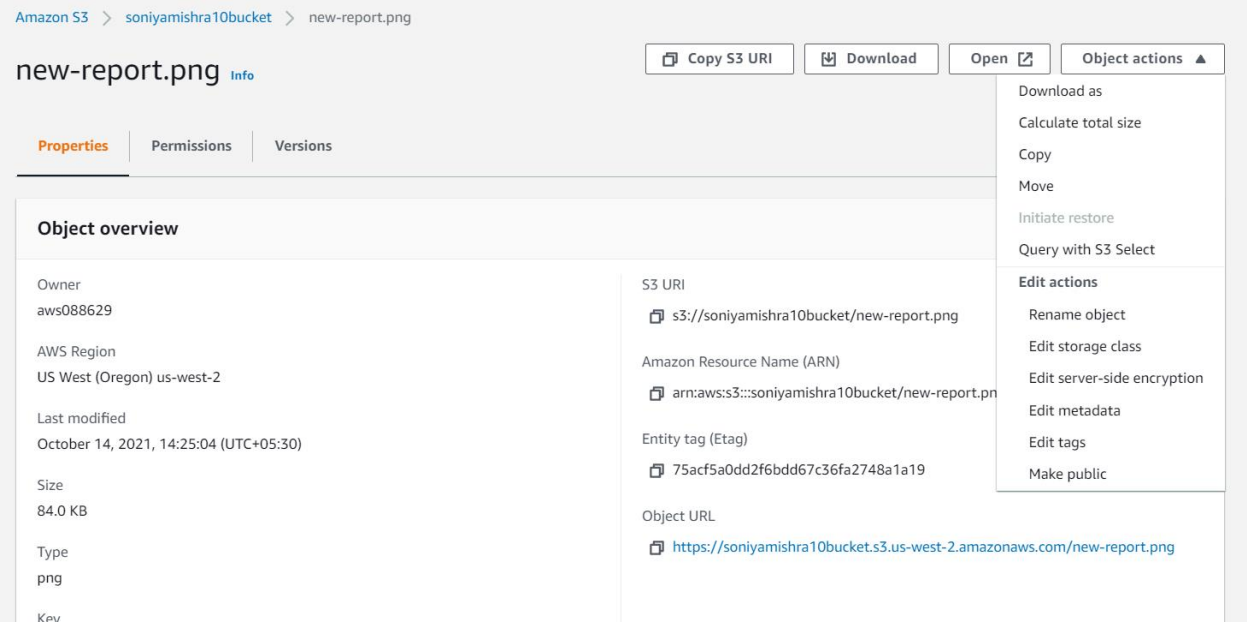


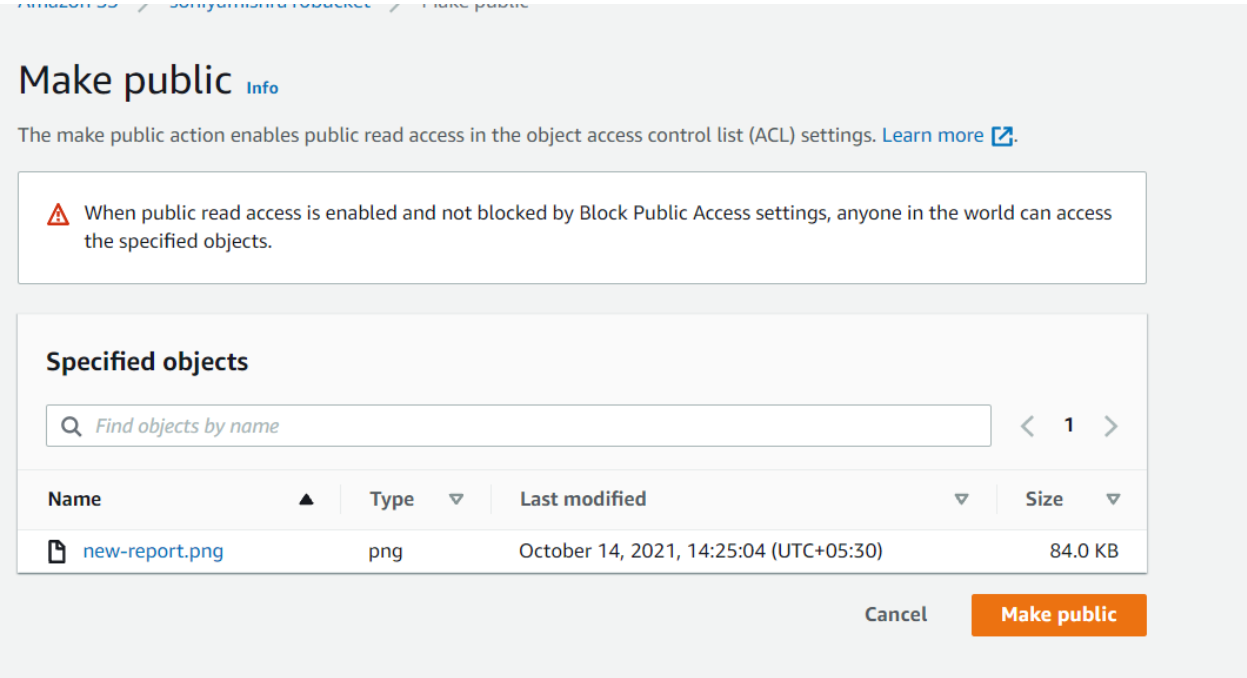
and click on save changes button

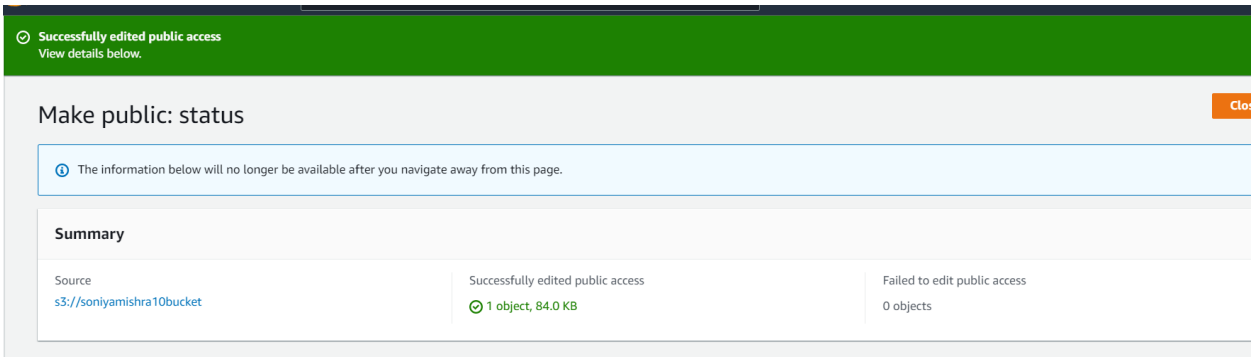


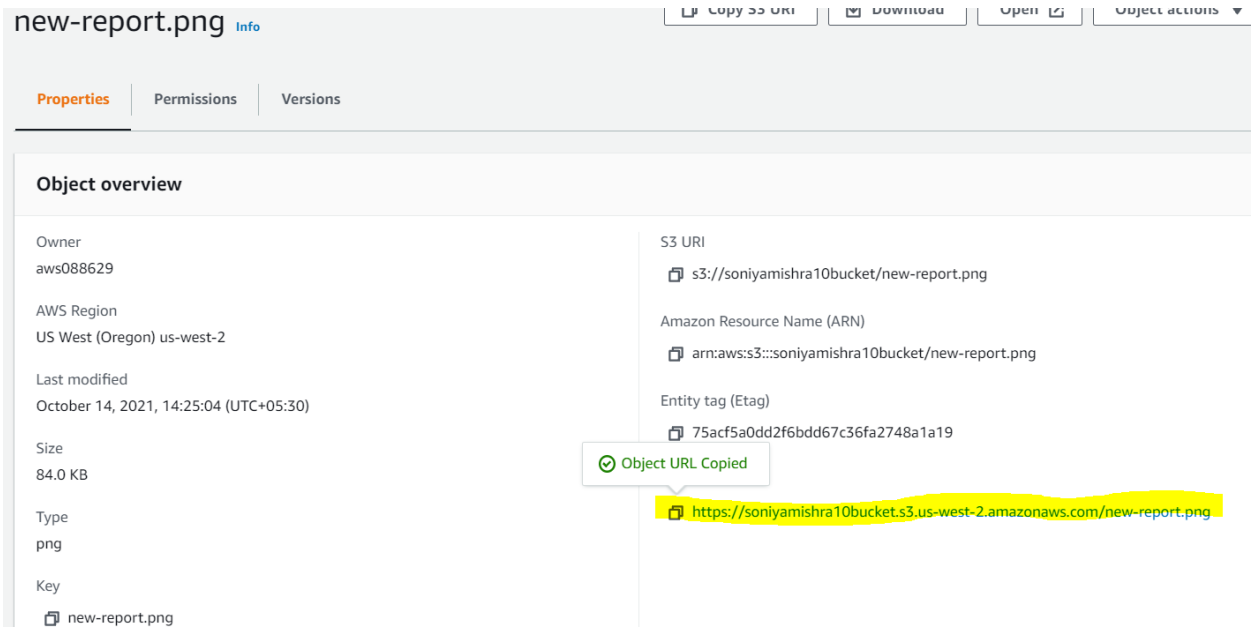
Write “confirm” on the textbox



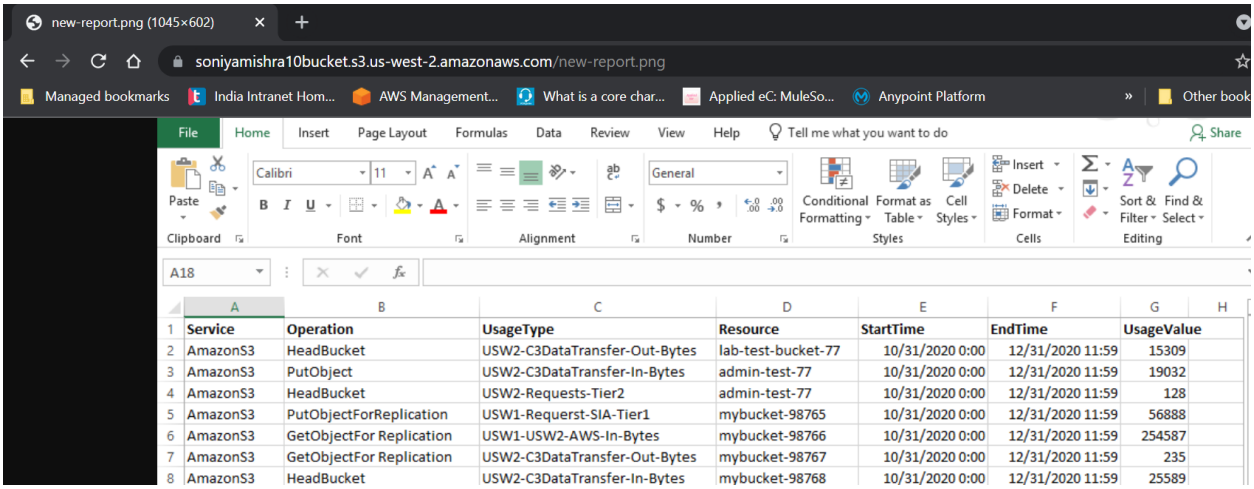

Amazon S3 > soniyamishra10bucket > new-report.png
new-report.png Info
Copy S3 URI
Download
Open
Object actions
Download as
Calculate total size
Copy
Move
Initiate restore
Query with S3 Select
Edit actions
Rename object
Edit storage class
Edit server-side encryption
Edit metadata
Edit tags
Make public
Properties
Permissions
Versions
Object overview
Owner
aws088629
AWS Region
US West (Oregon) us-west-2
Last modified
October 14, 2021, 14:25:04 (UTC+05:30)
Size
84.0 KB
Type
png
Key
S3 URI
s3://soniyamishra10bucket/new-report.png
Amazon Resource Name (ARN)
arn:aws:s3:::soniyamishra10bucket/new-report.pn
Entity tag (Etag)
75acf5a0dd2f6bdd67c36fa2748a1a19
Object URL
https://soniyamishra10bucket.s3.us-west-2.amazonaws.com/new-report.png


Make public Info
The make public action enables public read access in the object access control list (ACL) settings. Learn more.
When public read access is enabled and not blocked by Block Public Access settings, anyone in the world can access the specified objects.
Specified objects
Find objects by name
1
Name
Type
Last modified
Size
new-report.png
png
October 14, 2021, 14:25:04 (UTC+05:30)
84.0 KB
Cancel
Make public


Successfully edited public access
View details below.
Make public: status
The information below will no longer be available after you navigate away from this page.
Summary
Source
s3://soniyamishra10bucket
Successfully edited public access
1 object, 84.0 KB
Failed to edit public access
0 objects


new-report.png Info
Properties
Permissions
Versions
Object overview
Owner
aws088629
AWS Region
US West (Oregon) us-west-2
Last modified
October 14, 2021, 14:25:04 (UTC+05:30)
Size
84.0 KB
Type
png
Key
new-report.png
S3 URI
s3://soniyamishra10bucket/new-report.png
Amazon Resource Name (ARN)
arn:aws:s3:::soniyamishra10bucket/new-report.png
Entity tag (Etag)
75acf5a0dd2f6bdd67c36fa2748a1a19
Object URL Copied
https://soniyamishra10bucket.s3.us-west-2.amazonaws.com/new-report.png

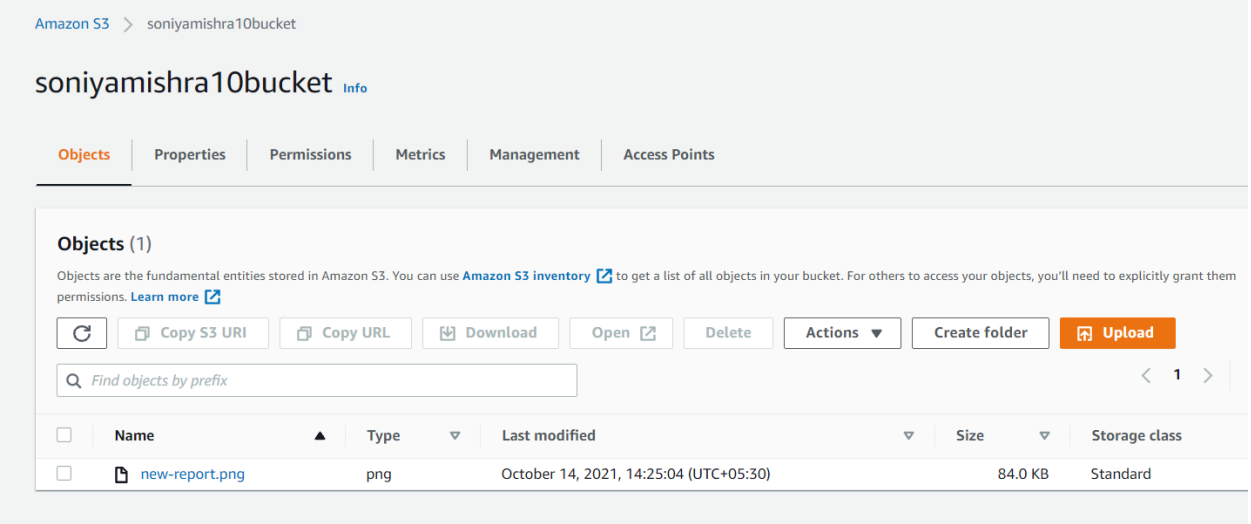
.


new-report.png (1045×602)
soniyamishra10bucket.s3.us-west-2.amazonaws.com/new-report.png
Managed bookmarks
India Intranet Hom...
AWS Management...
What is a core char...
Applied eC: MuleSo...
Anypoint Platform
Other book
File
Home
Insert
Page Layout
Formulas
Data
Review
View
Help
Tell me what you want to do
Share
Paste
Calibri
11
General
Conditional Formatting
Format as Table
Cell Styles
Insert
Delete
Format
Sort & Filter
Find & Select
Clipboard
Font
Alignment
Number
Styles
Cells
Editing
A18
Service
Operation
UsageType
Resource
StartTime
EndTime
UsageValue
AmazonS3 HeadBucket USW2-C3DataTransfer-Out-Bytes lab-test-bucket-77 10/31/2020 0:00 12/31/2020 11:59 15309
AmazonS3 PutObject USW2-C3DataTransfer-In-Bytes admin-test-77 10/31/2020 0:00 12/31/2020 11:59 19032
AmazonS3 HeadBucket USW2-Requests-Tier2 admin-test-77 10/31/2020 0:00 12/31/2020 11:59 128
AmazonS3 PutObjectForReplication USW1-Requerst-SIA-Tier1 mybucket-98765 10/31/2020 0:00 12/31/2020 11:59 56888
AmazonS3 GetObjectFor Replication USW1-USW2-AWS-In-Bytes mybucket-98766 10/31/2020 0:00 12/31/2020 11:59 254587
AmazonS3 GetObjectFor Replication USW2-C3DataTransfer-Out-Bytes mybucket-98767 10/31/2020 0:00 12/31/2020 11:59 235
AmazonS3 HeadBucket USW2-C3DataTransfer-In-Bytes mybucket-98768 10/31/2020 0:00 12/31/2020 11:59 25589

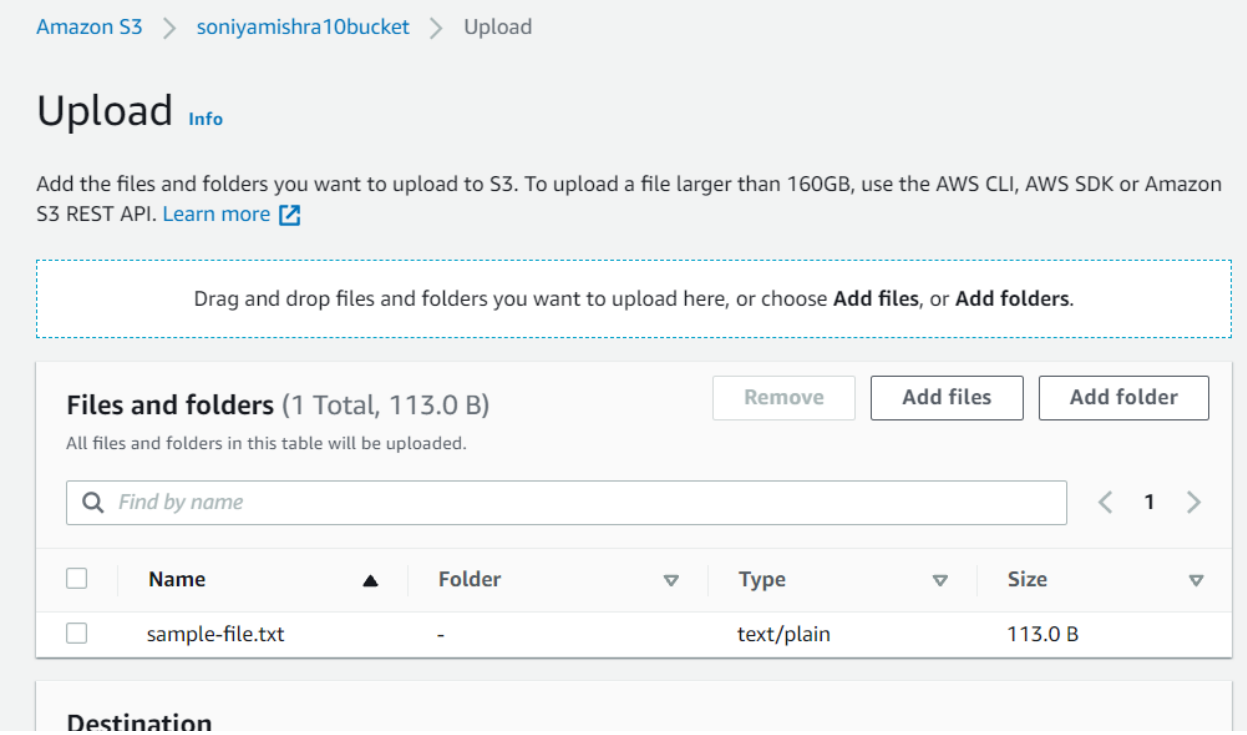
Now you can refresh the page and able to view the file

Task 5: Create a bucket Policy

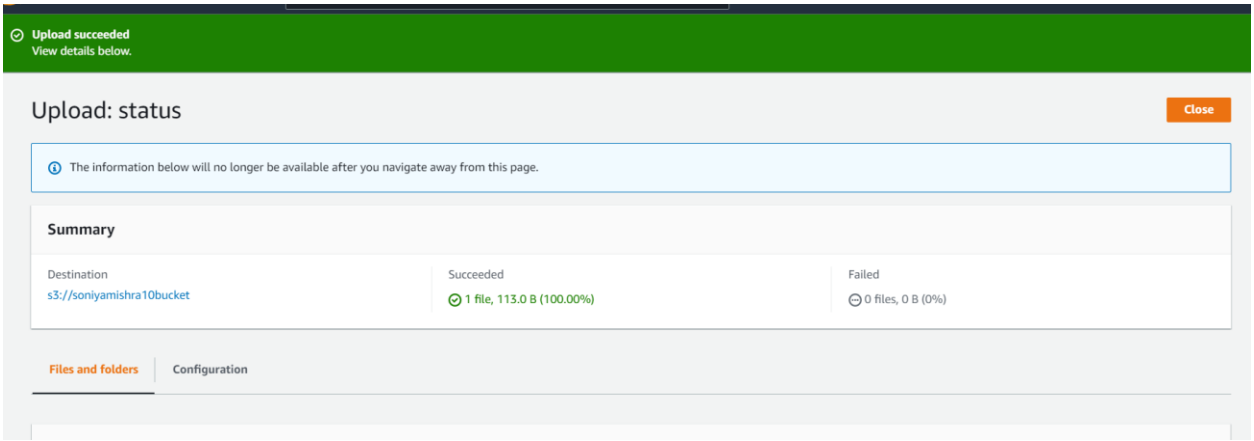
Step 1 At the top of the menu- click on services menu and choose s3



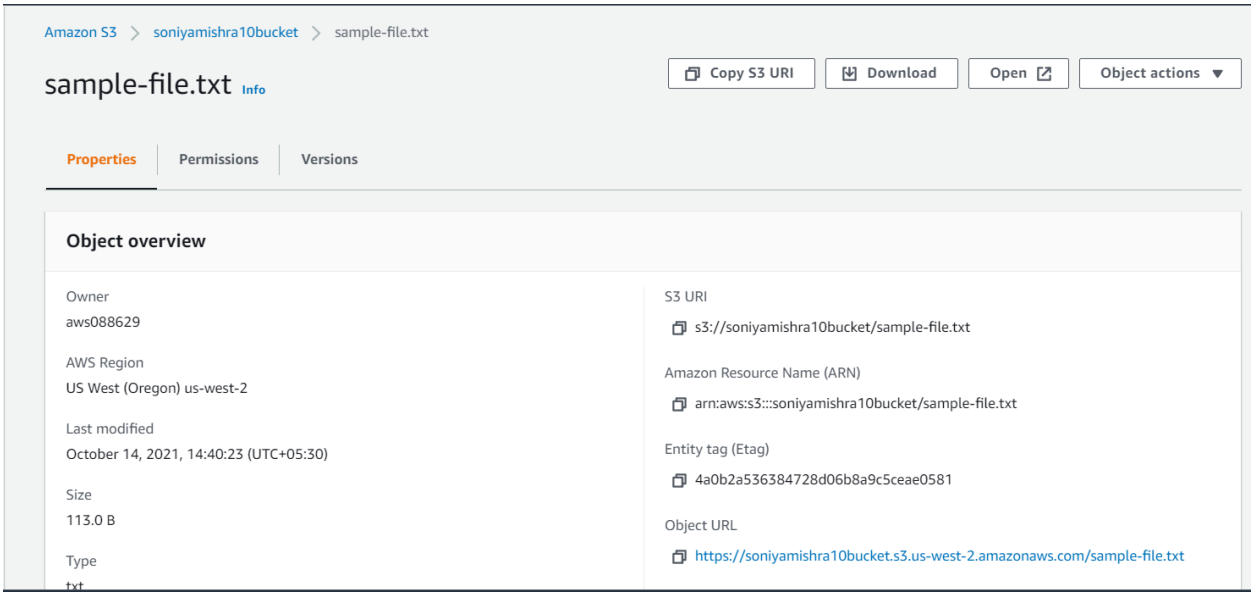
Step 2 Choose you bucket and click the upload button



Step 3: click on Add files and browse and choose your file and upload



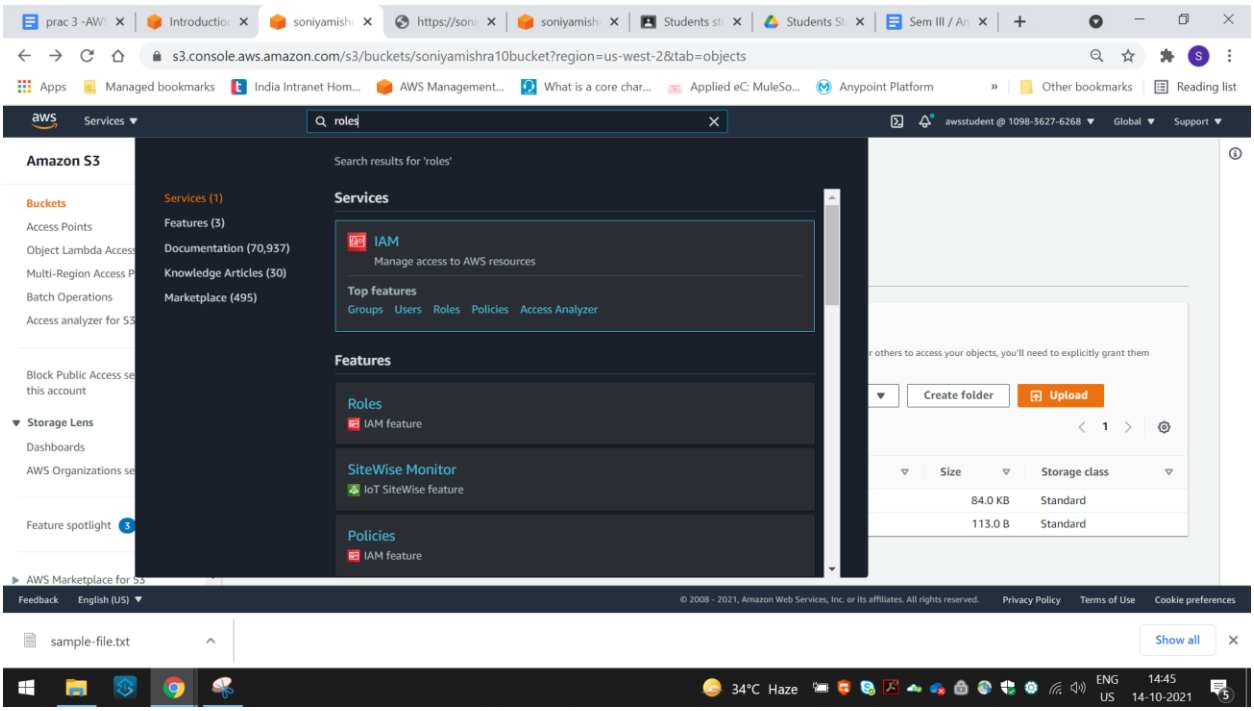
Uploaded successfully



Step 4

click on the file you have uploaded to the bucket and you will be redirected to the Object Overview page , locate the link of Object url copy and paste to a new tab

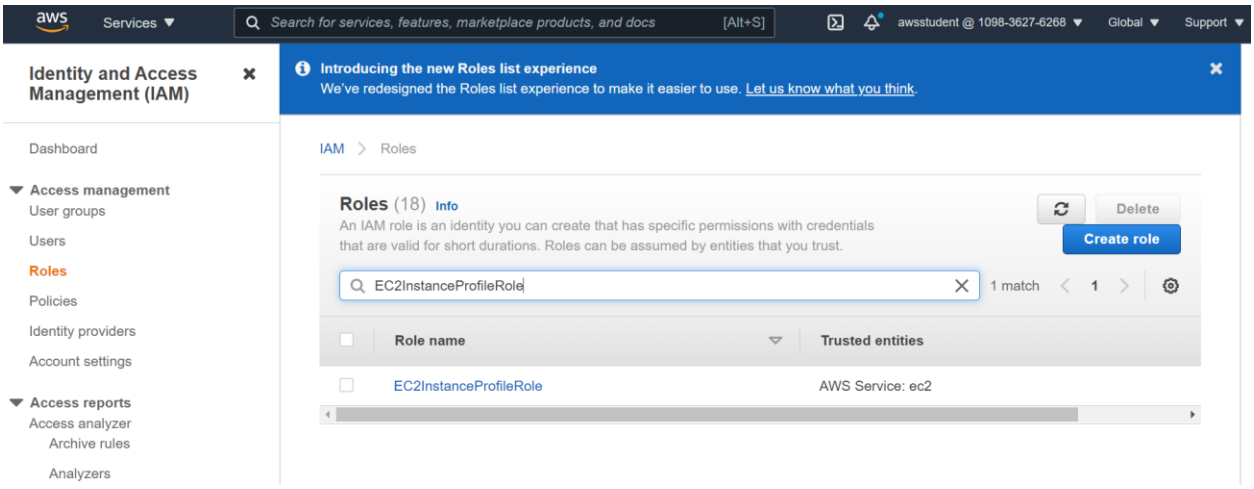
You will receive an Access Denied Error, because S3 bucket object are by default private.



Step 5 : Go to

Services

>IAM > Roles.

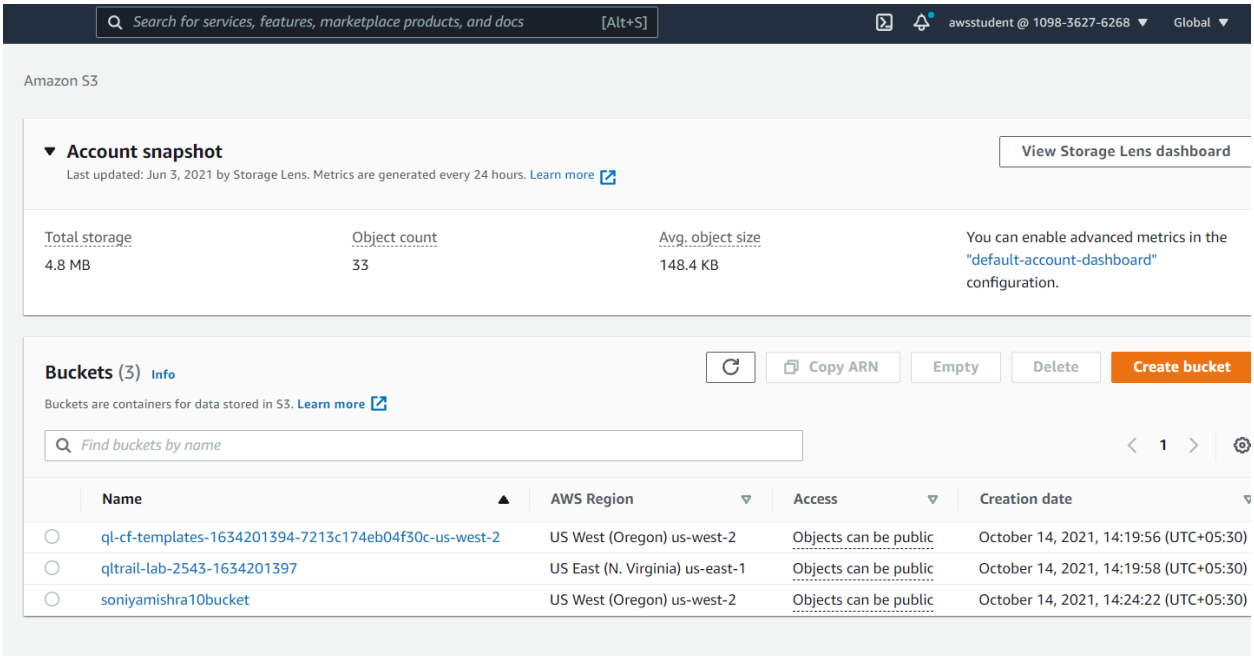


Step 5 Select EC2InstanceProfileRole. On the Summary page, copy the Role ARN to a text file to be used in a later step.

Select EC2InstanceProfileRole. On the Summary page, copy the Role ARN to a text file to be used in a later step.

It should look similar to this: arn:aws:iam::596123517671:role/EC2 Instan

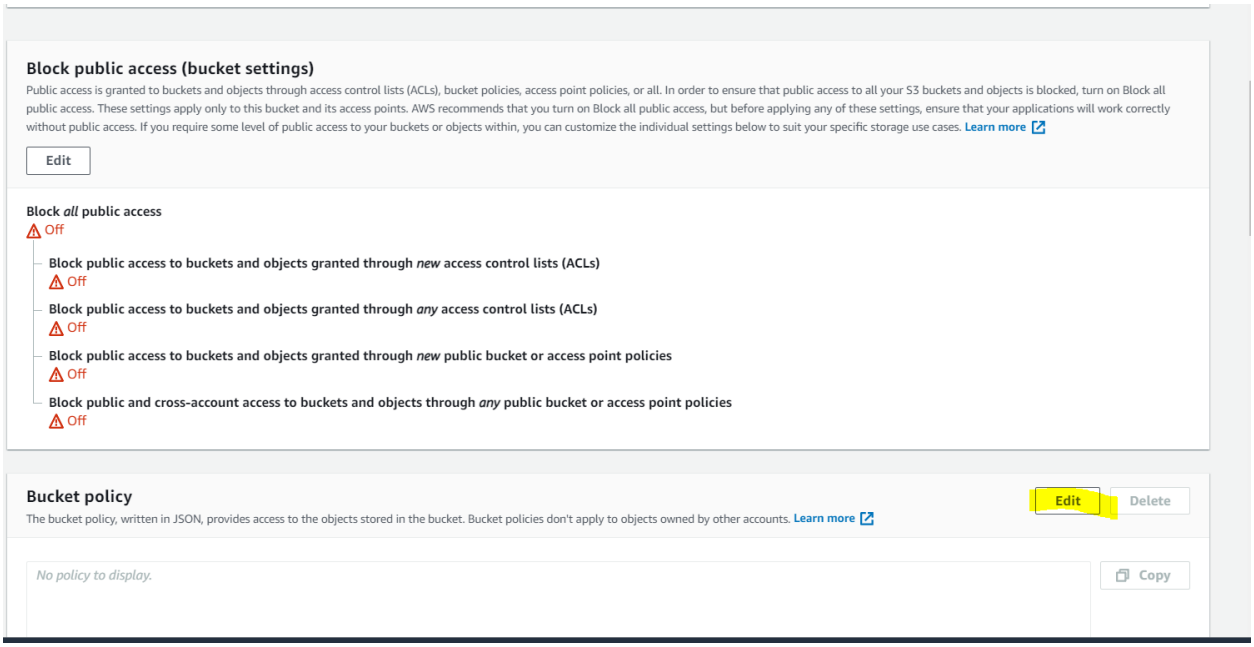
Step 6: Choose Services S3 and return to the s3 Management Console.

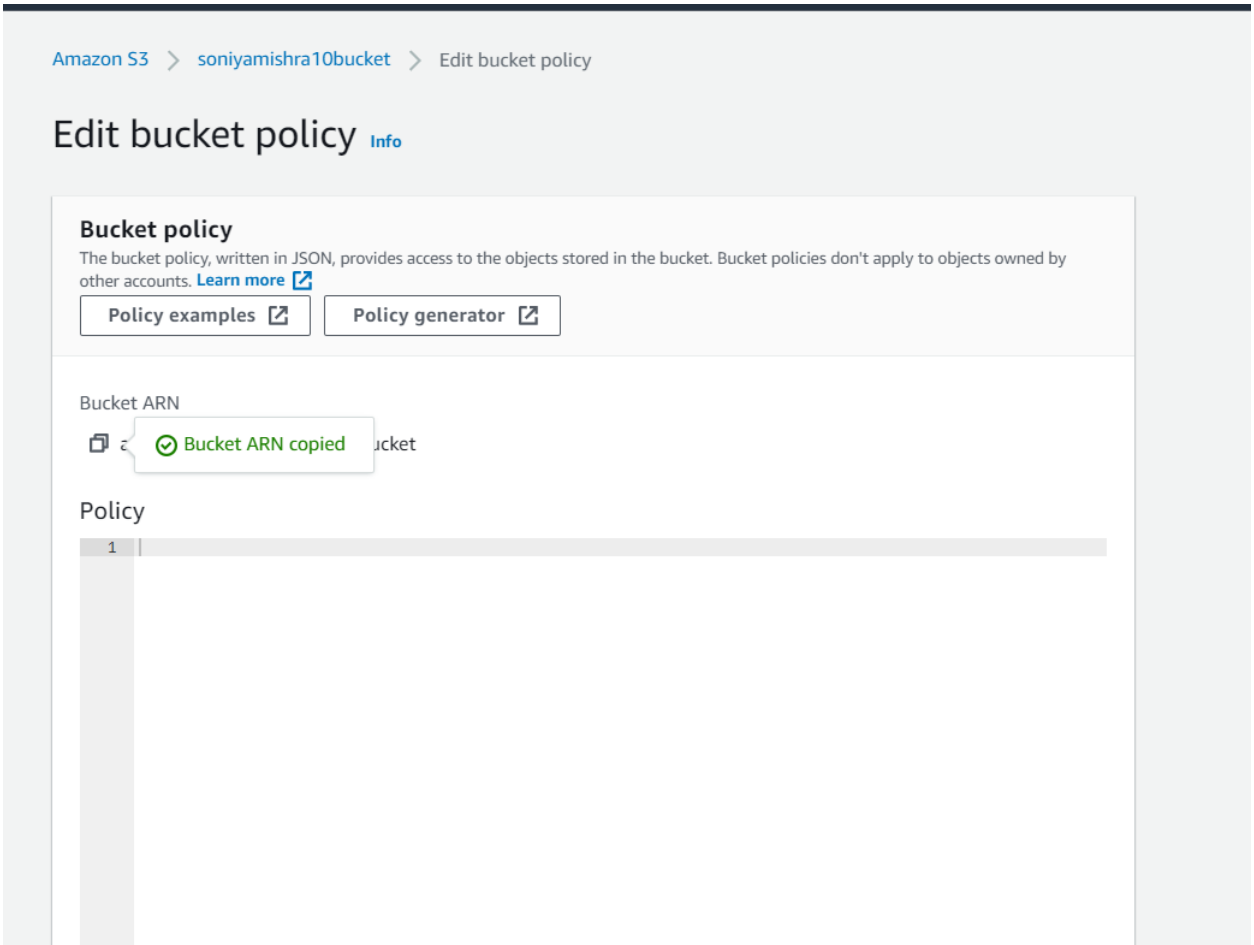


Step 7 : Choose your bucket.

You should see the two objects you uploaded

Click on permission tab scroll down and click on edit section of Bucket policy editor


Block public access (bucket settings)
Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to all your S3 buckets and objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to your buckets or objects within, you can customize the individual settings below to suit your specific storage use cases. Learn more
Edit
Block all public access
Off
Block public access to buckets and objects granted through new access control lists (ACLs)
Off
Block public access to buckets and objects granted through any access control lists (ACLs)
Off
Block public access to buckets and objects granted through new public bucket or access point policies
Off
Block public and cross-account access to buckets and objects through any public bucket or access point policies
Off
Bucket policy
The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. Learn more
Edit
Delete
No policy to display.
Copy


Amazon S3
soniyamishra10bucket
Edit bucket policy
Edit bucket policy Info
Bucket policy
The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. Learn more
Policy examples
Policy generator
Bucket ARN
Bucket ARN copied
Policy
1

Step 1: Select Policy Type

A Policy is a container for permissions. The different types of policies you can create are an IAM Policy, an S3 Bucket Policy, an SNS Topic Policy, a VPC Endpoint Policy, and an SQS Queue Policy.

Select Type of Policy S3 Bucket Policy

Step 2: Add Statement(s)

A statement is the formal description of a single permission. See a description of elements that you can use in statements.

Effect Allow Deny

Principal arn:aws:iam::109836276268

Use a comma to separate multiple values.

AWS Service Amazon S3 All Services ('*')

Use multiple statements to add permissions for more than one service.

Actions 2 Action(s) Selected All Actions ('*')

Amazon Resource Name (ARN) arn:aws:s3:::soniyamishra1(

ARN should follow the following format: arn:aws:s3:::${BucketName}/${KeyName}.
Use a comma to separate multiple values.

Add Conditions (Optional)

Add Statement

Add Conditions (Optional)

Add Statement

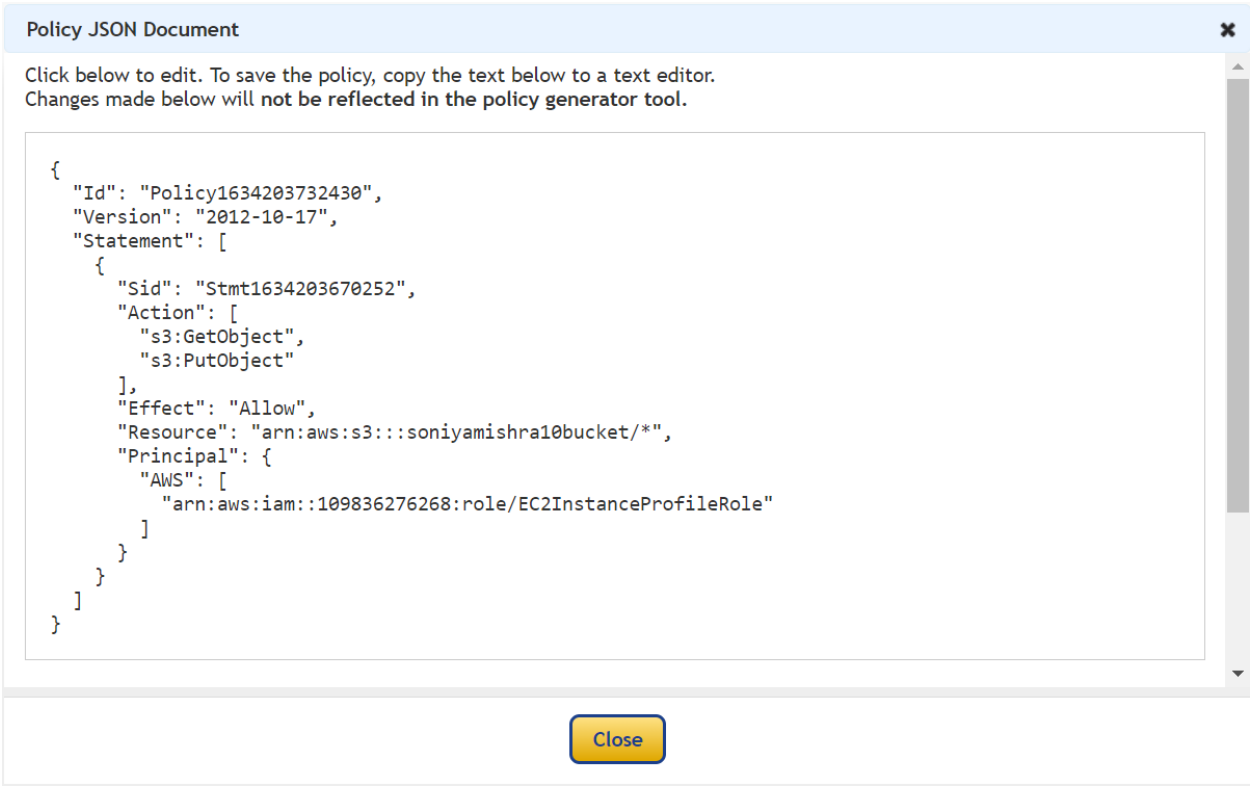
You added the following statements. Click the button below to Generate a policy.

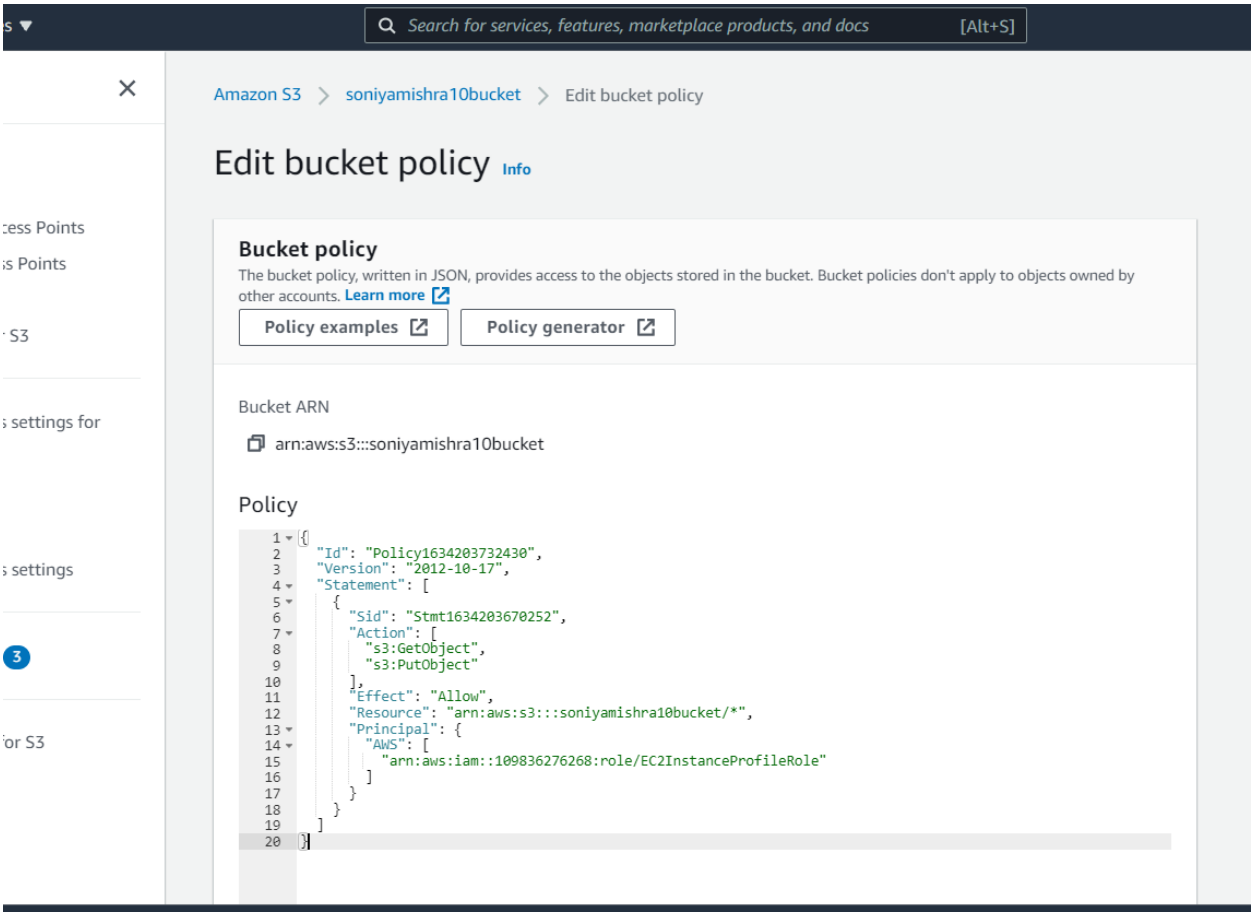
Principal(s)	Effect	Action	Resource	Conditions
• arn:aws:iam::109836276268:role/EC2InstanceProfileRole	Allow	• s3:GetObject • s3:PutObject	arn:aws:s3:::soniyamishra10bucket/*	*None*

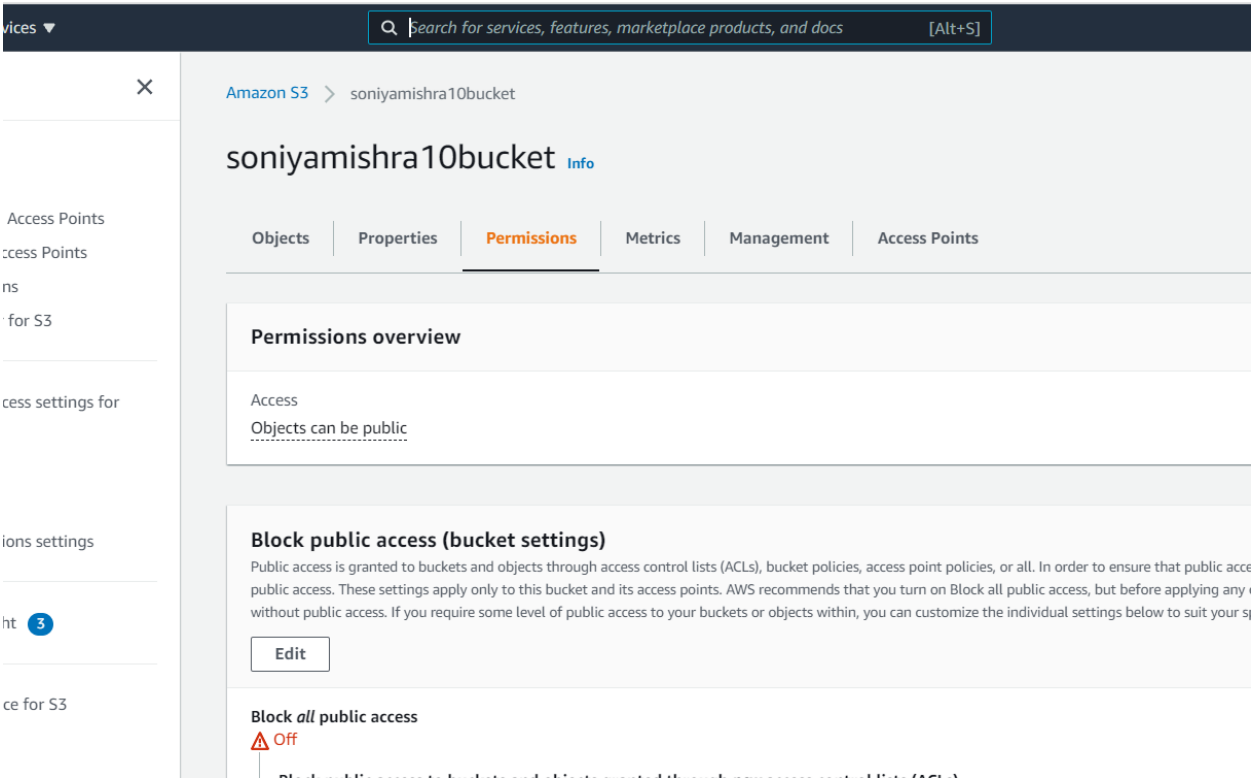
Step 3: Generate Policy

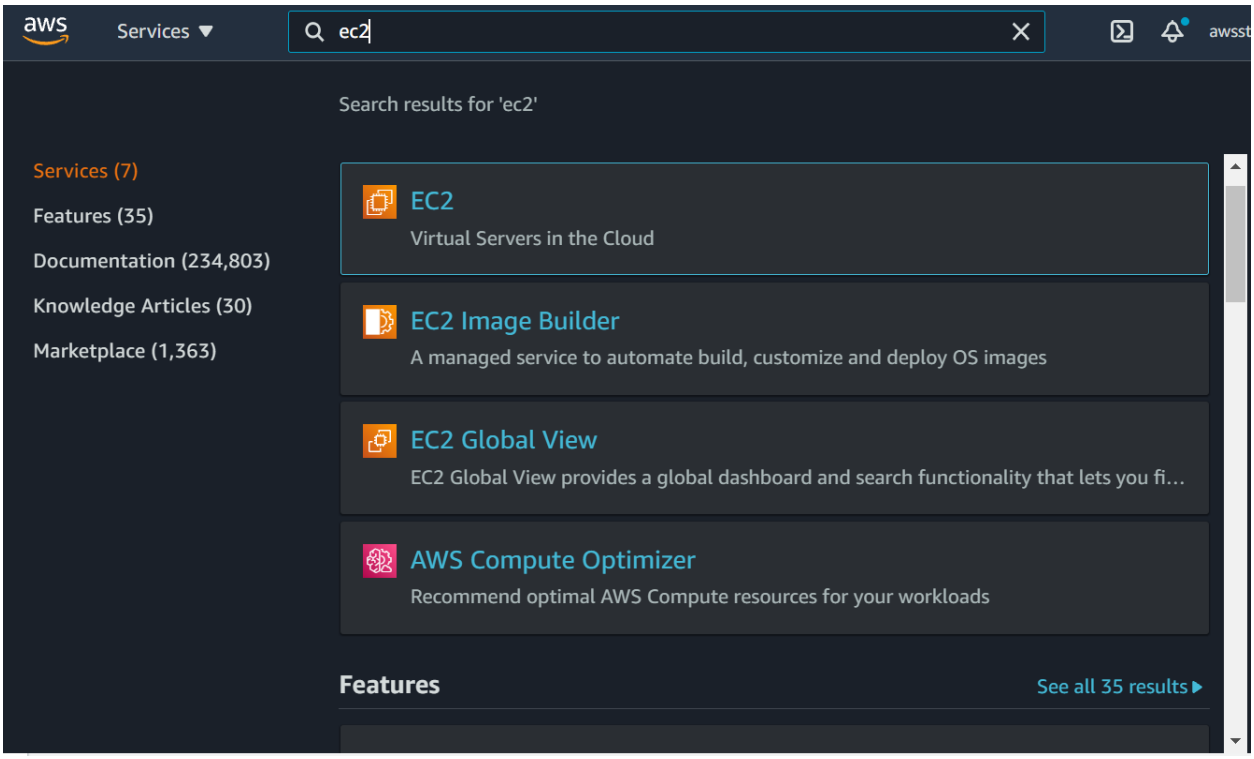
A *policy* is a document (written in the Access Policy Language) that acts as a container for one or more statements.

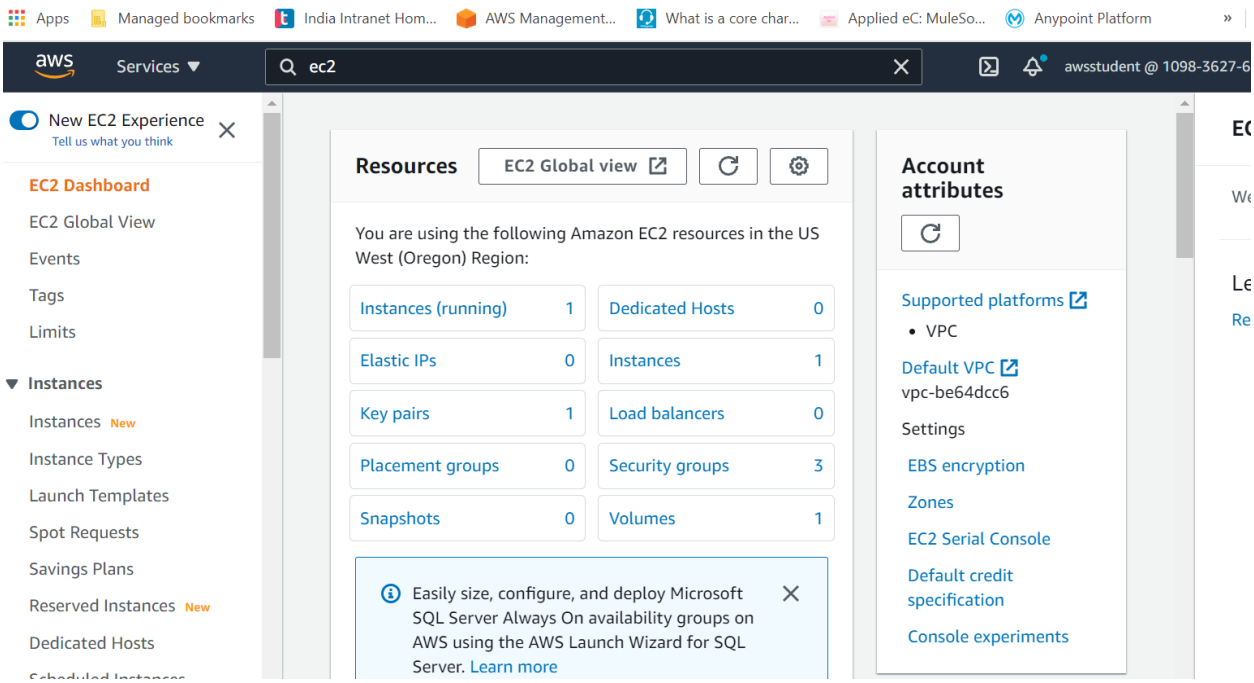
Generate Policy Start Over

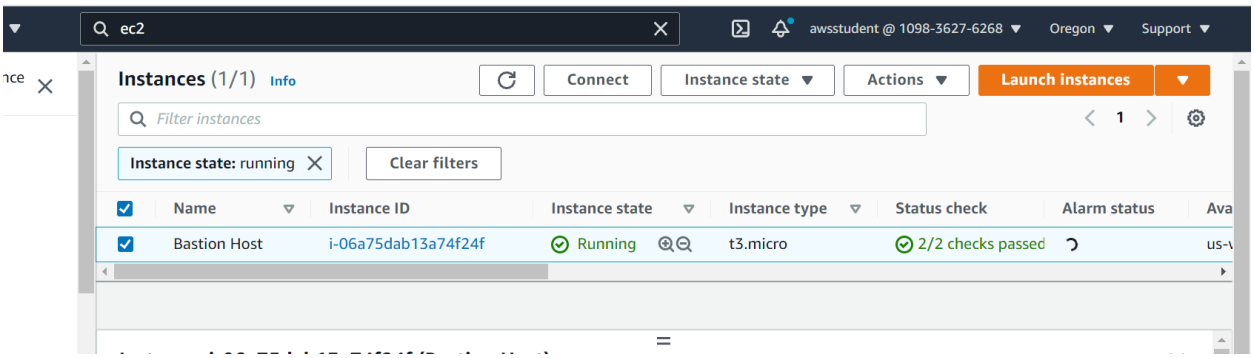

Policy JSON Document
Click below to edit. To save the policy, copy the text below to a text editor.
Changes made below will not be reflected in the policy generator tool.
{
"Id": "Policy1634203732430",
"Version": "2012-10-17",
"Statement": [
{
"Sid": "Stmt1634203670252",
"Action": [
"s3:GetObject",
"s3:PutObject"
],
"Effect": "Allow",
"Resource": "arn:aws:s3:::soniyamishra10bucket/*",
"Principal": {
"AWS": [
"arn:aws:iam::109836276268:role/EC2InstanceProfileRole"
]
}
}
]
}
Close

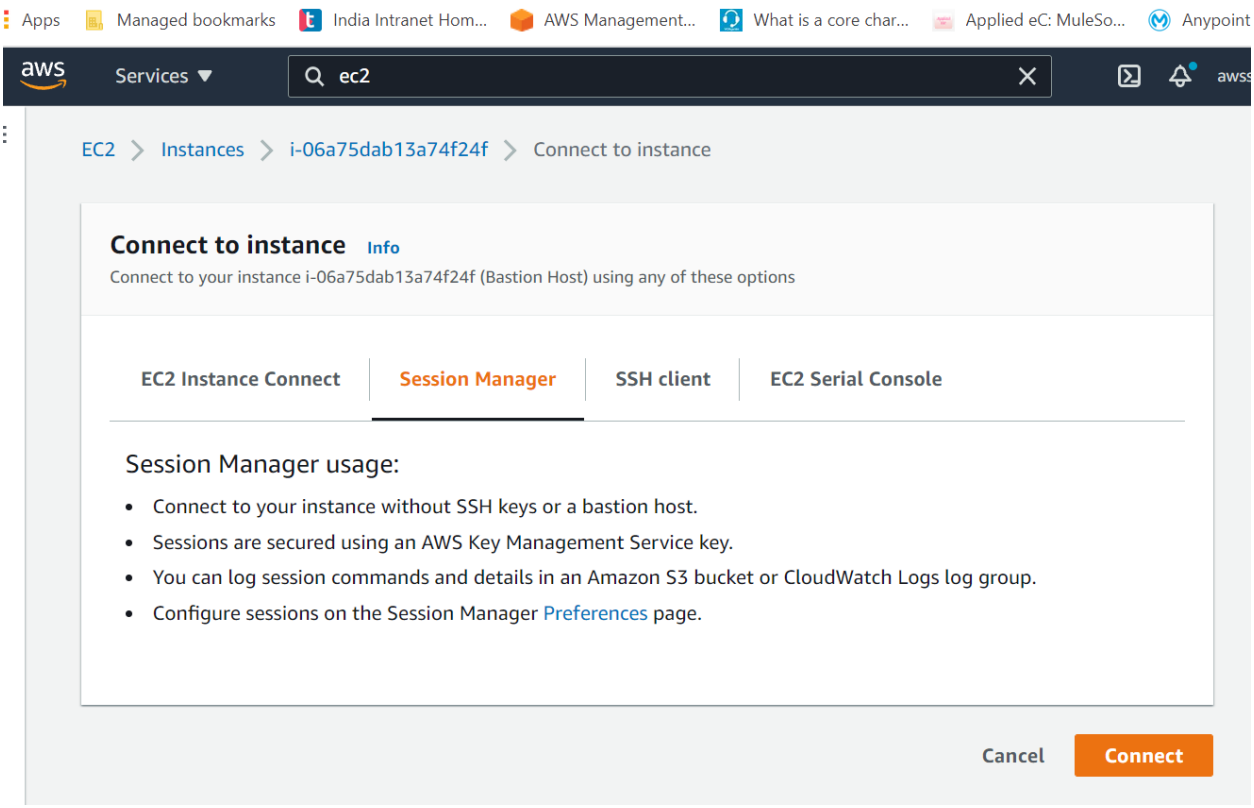

Search for services, features, marketplace products, and docs [Alt+S]
Amazon S3 > soniyamishra10bucket > Edit bucket policy
Edit bucket policy Info
Bucket policy
The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. Learn more
Policy examples
Policy generator
Bucket ARN
arn:aws:s3:::soniyamishra10bucket
Policy
{
"Id": "Policy1634203732430",
"Version": "2012-10-17",
"Statement": [
{
"Sid": "Stmt1634203670252",
"Action": [
"s3:GetObject",
"s3:PutObject"
],
"Effect": "Allow",
"Resource": "arn:aws:s3:::soniyamishra10bucket/*",
"Principal": {
"AWS": [
"arn:aws:iam::109836276268:role/EC2InstanceProfileRole"
]
}
}
]
}


Search for services, features, marketplace products, and docs [Alt+S]
Amazon S3 > soniyamishra10bucket
soniyamishra10bucket Info
Objects
Properties
Permissions
Metrics
Management
Access Points
Permissions overview
Access
Objects can be public
Block public access (bucket settings)
Edit
Block all public access
Off


aws
Services
ec2
Search results for 'ec2'
Services (7)
Features (35)
Documentation (234,803)
Knowledge Articles (30)
Marketplace (1,363)
EC2
Virtual Servers in the Cloud
EC2 Image Builder
A managed service to automate build, customize and deploy OS images
EC2 Global View
EC2 Global View provides a global dashboard and search functionality that lets you fi...
AWS Compute Optimizer
Recommend optimal AWS Compute resources for your workloads
Features
See all 35 results

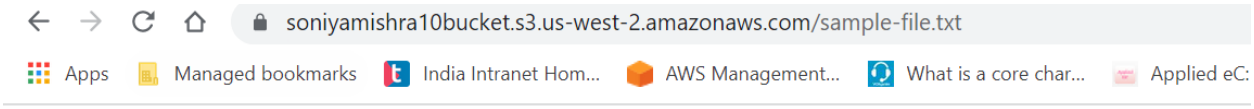

Apps
Managed bookmarks
India Intranet Hom...
AWS Management...
What is a core char...
Applied eC: MuleSo...
Anypoint Platform
aws
Services
ec2
awsstudent @ 1098-3627-6
New EC2 Experience
Tell us what you think
EC2 Dashboard
EC2 Global View
Events
Tags
Limits
Instances
Instances New
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances New
Dedicated Hosts
Resources
EC2 Global view
You are using the following Amazon EC2 resources in the US West (Oregon) Region:
Instances (running) 1
Dedicated Hosts 0
Elastic IPs 0
Instances 1
Key pairs 1
Load balancers 0
Placement groups 0
Security groups 3
Snapshots 0
Volumes 1
Easily size, configure, and deploy Microsoft SQL Server Always On availability groups on AWS using the AWS Launch Wizard for SQL Server. Learn more
Account attributes
Supported platforms
VPC
Default VPC
vpc-be64dcc6
Settings
EBS encryption
Zones
EC2 Serial Console
Default credit specification
Console experiments


ec2
awsstudent @ 1098-3627-6268
Oregon
Support
Instances (1/1) Info
Connect
Instance state
Actions
Launch instances
Filter instances
1
Instance state: running
Clear filters
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Bastion Host
i-06a75dab13a74f24f
Running
t3.micro
2/2 checks passed


Apps
Managed bookmarks
India Intranet Hom...
AWS Management...
What is a core char...
Applied eC: MuleSo...
Anypoint
aws
Services
ec2
EC2 > Instances > i-06a75dab13a74f24f > Connect to instance
Connect to instance Info
Connect to your instance i-06a75dab13a74f24f (Bastion Host) using any of these options
EC2 Instance Connect
Session Manager
SSH client
EC2 Serial Console
Session Manager usage:
Connect to your instance without SSH keys or a bastion host.
Sessions are secured using an AWS Key Management Service key.
You can log session commands and details in an Amazon S3 bucket or CloudWatch Logs log group.
Configure sessions on the Session Manager Preferences page.
Cancel
Connect

```
sh-4.2$ cd ~
sh-4.2$ pwd
/home/ssm-user
sh-4.2$ aws s3 ls
2021-10-14 08:49:56 ql-cf-templates-1634201394-7213c174eb04f30c-us-west-2
2021-10-14 08:49:58 qltrail-lab-2543-1634201397
2021-10-14 08:54:22 soniyamishra10bucket
sh-4.2$ aws s3 ls s3://soniyamishra10bucket
2021-10-14 08:55:04      86065 new-report.png
2021-10-14 09:10:23        113 sample-file.txt
sh-4.2$ cd reports
sh-4.2$ ls
dolphins.jpg  files.zip  report-test1.txt  report-test2.txt  report-test3.txt  whale.jpg
sh-4.2$ pwd
/home/ssm-user/reports
sh-4.2$ aws s3 ls s3://soniyamishra10bucket
2021-10-14 08:55:04      86065 new-report.png
2021-10-14 09:10:23        113 sample-file.txt
sh-4.2$ ls
dolphins.jpg  files.zip  report-test1.txt  report-test2.txt  report-test3.txt  whale.jpg
sh-4.2$ aws s3 cp report-test1.txt s3://soniyamishra10bucket
upload: ./report-test1.txt to s3://soniyamishra10bucket/report-test1.txt
sh-4.2$ aws s3 ls s3://soniyamishra10bucket
2021-10-14 08:55:04      86065 new-report.png
2021-10-14 10:05:14         31 report-test1.txt
2021-10-14 09:10:23        113 sample-file.txt
sh-4.2$ aws s3 cp s3://reportbucket(NUMBER)/sample-file.txt sample-file.txt
sh: syntax error near unexpected token `('
sh-4.2$ aws s3 cp s3://soniyamishra10bucket/sample-file.txt sample-file.txt
```

```
dolphins.jpg  files.zip  report-test1.txt  report-test2.txt  report-test3.txt  whale.jpg
sh-4.2$ pwd
/home/ssm-user/reports
sh-4.2$ aws s3 ls s3://soniyamishra10bucket
2021-10-14 08:55:04      86065 new-report.png
2021-10-14 09:10:23        113 sample-file.txt
sh-4.2$ ls
dolphins.jpg  files.zip  report-test1.txt  report-test2.txt  report-test3.txt  whale.jpg
sh-4.2$ aws s3 cp report-test1.txt s3://soniyamishra10bucket
upload: ./report-test1.txt to s3://soniyamishra10bucket/report-test1.txt
sh-4.2$ aws s3 ls s3://soniyamishra10bucket
2021-10-14 08:55:04      86065 new-report.png
2021-10-14 10:05:14         31 report-test1.txt
2021-10-14 09:10:23        113 sample-file.txt
sh-4.2$ aws s3 cp s3://reportbucket(NUMBER)/sample-file.txt sample-file.txt
sh: syntax error near unexpected token `('
sh-4.2$ aws s3 cp s3://soniyamishra10bucket/sample-file.txt sample-file.txt
download: s3://soniyamishra10bucket/sample-file.txt to ./sample-file.txt
sh-4.2$ ls
dolphins.jpg  files.zip  report-test1.txt  report-test2.txt  report-test3.txt  sample-file.txt  whale.jpg
sh-4.2$
```

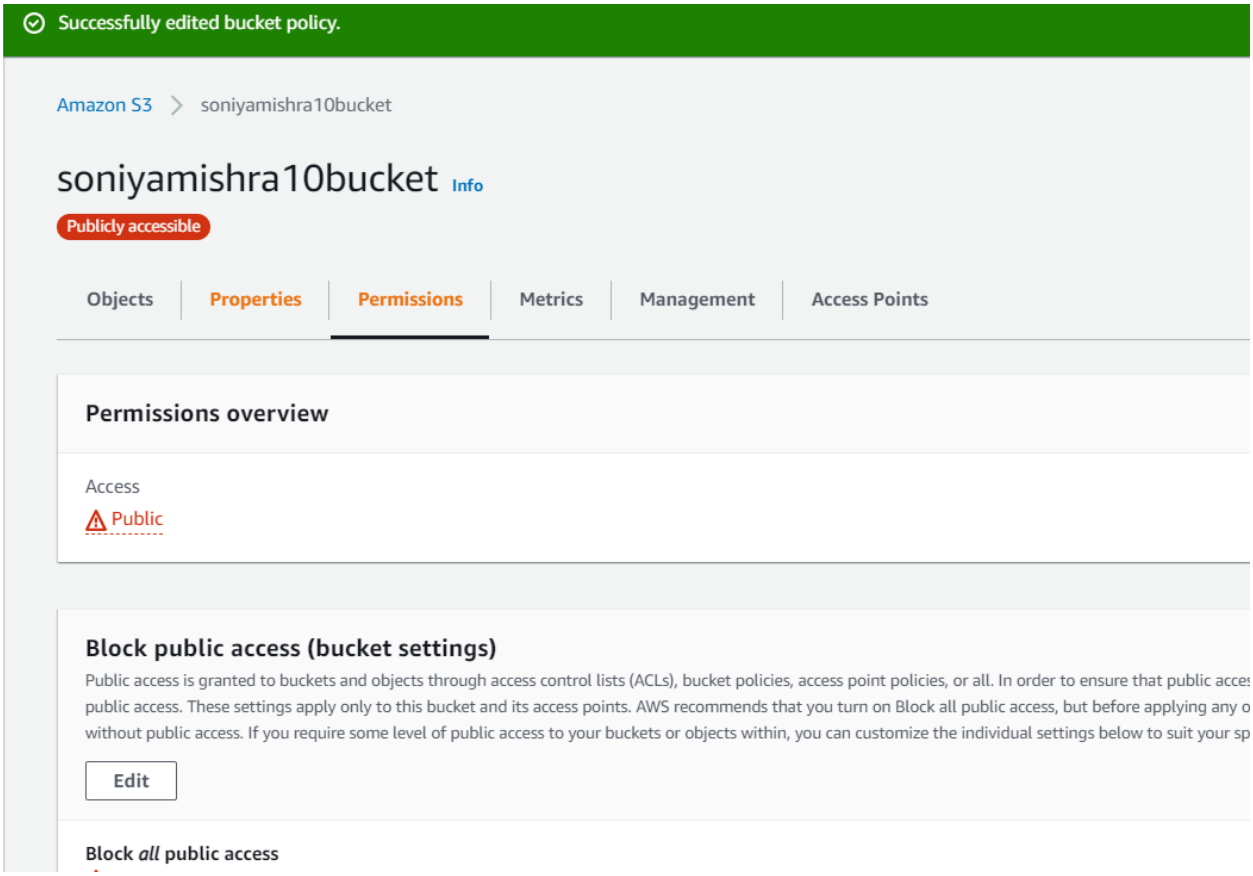


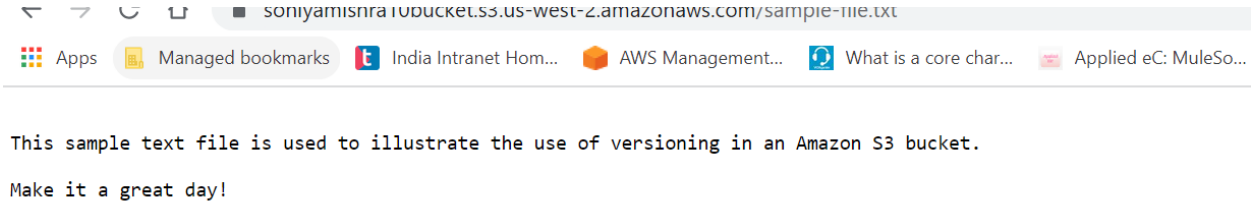
This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
▼<Error>
   <Code>AccessDenied</Code>
   <Message>Access Denied</Message>
   <RequestId>MW7PVQ8AHM20AH11</RequestId>
   <HostId>9W6TFlSFjMC6kiMQUB86s9tl2Dg2RJ2wahORo80BN/XcR7Z71S/0dwBdueSGL6r5nKTzPC/ogag=</HostId>
 </Error>
```

Policy

```
{
    "Version": "2012-10-17",
    "Id": "Policy1634203732430",
    "Statement": [
        {
            "Sid": "Stmt1634203670252",
            "Effect": "Allow",
            "Principal": {
                "AWS": "arn:aws:iam::109836276268:role/EC2InstanceProfileRole"
            },
            "Action": [
                "s3:GetObject",
                "s3:PutObject"
            ],
            "Resource": "arn:aws:s3:::soniyamishra10bucket/*"
        },
        {
            "Sid": "Stmt1634203670252",
            "Effect": "Allow",
            "Principal": "*",
            "Action": "s3:GetObject",
            "Resource": "arn:aws:s3:::soniyamishra10bucket/*"
        }
    ]
}
```


Successfully edited bucket policy.
Amazon S3
soniyamishra10bucket
soniyamishra10bucket
Info
Publicly accessible
Objects
Properties
Permissions
Metrics
Management
Access Points
Permissions overview
Access
Public
Block public access (bucket settings)
Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public acces
public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any o
without public access. If you require some level of public access to your buckets or objects within, you can customize the individual settings below to suit your sp
Edit
Block all public access



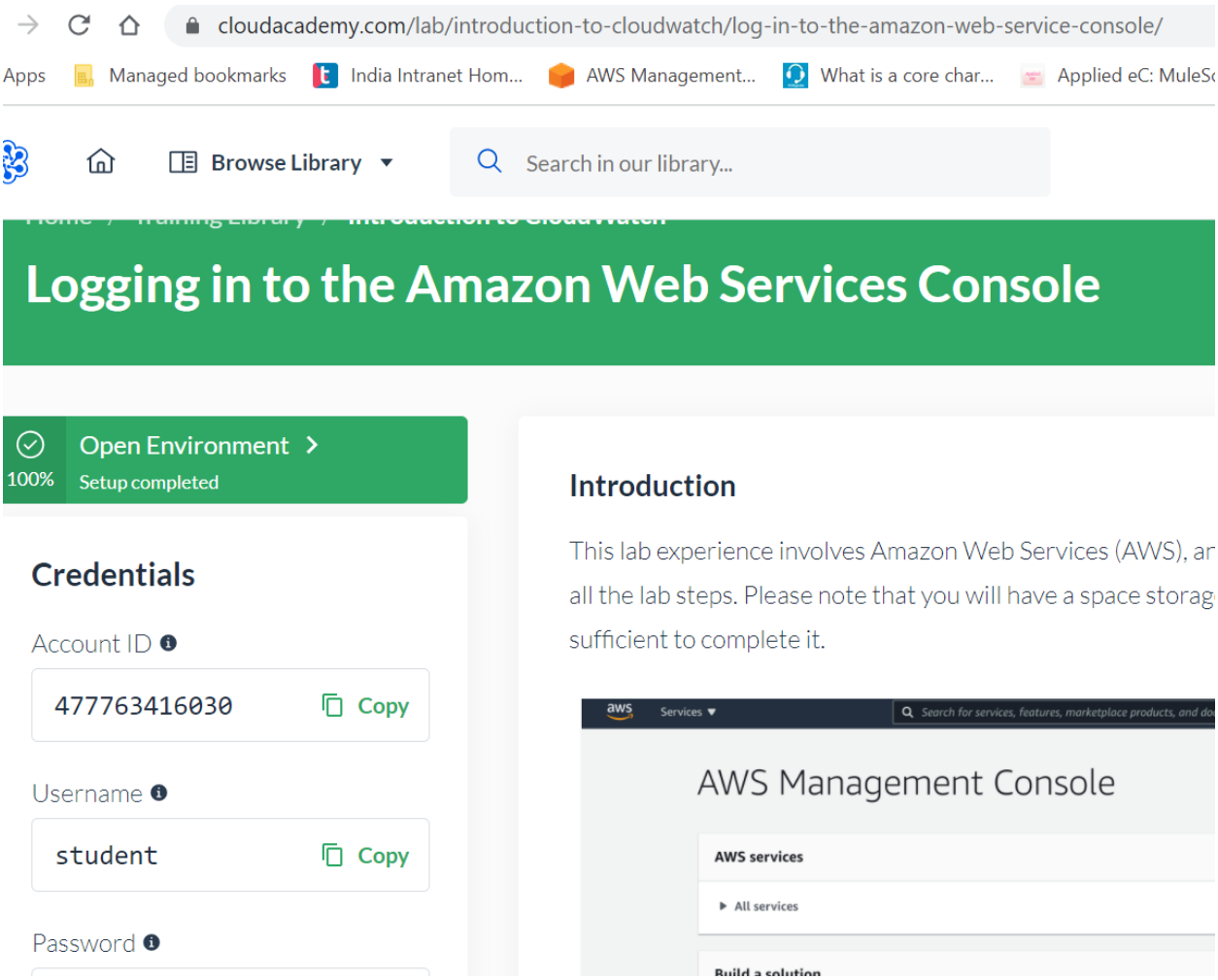
E) Explore versioning

Introduction to CloudWatch

Lab Steps

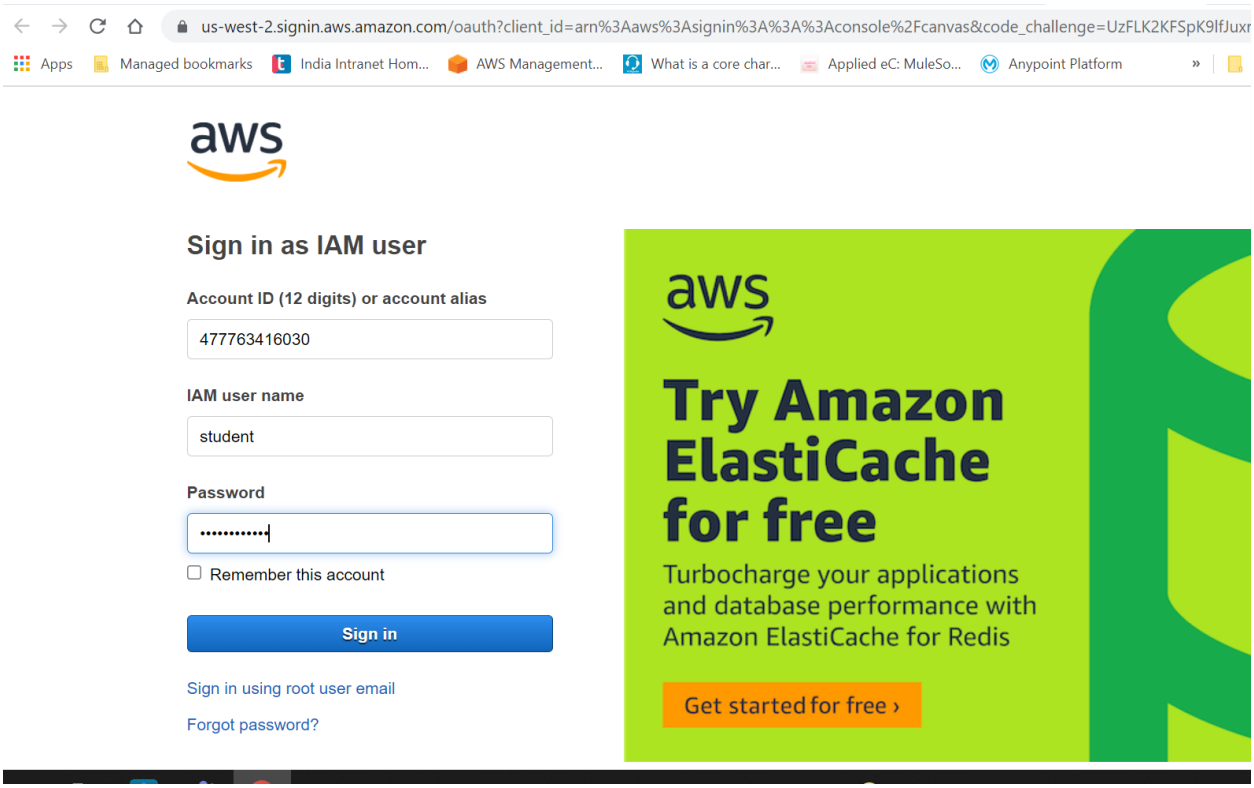
1. **Logging in to the Amazon Web Services Console**

1. To start the lab experience, open the Amazon Console by clicking the **Open Environment** button in the upper-left corner of the lab:

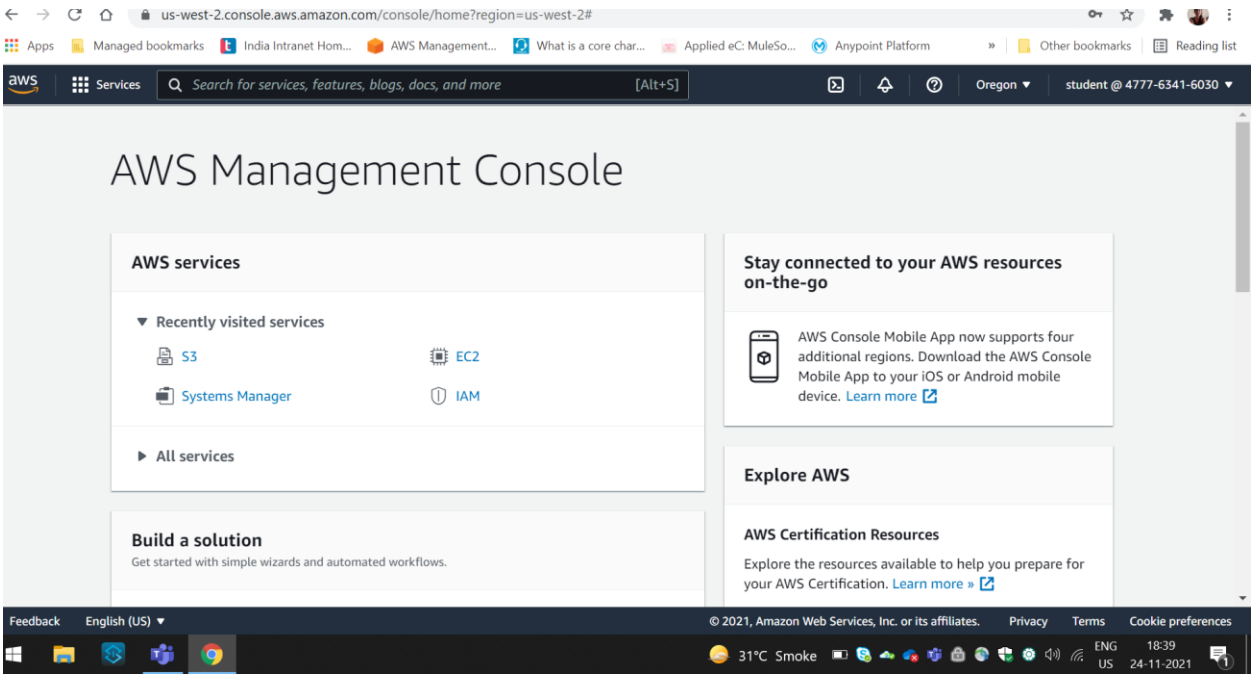


2. Enter the following credentials created just for your lab session, and click **Sign in**:

- **Account ID or alias**: *477763416030*
- **IAM user name**: *student*
- **Password**: *Ca1_cJ4EaIAL*

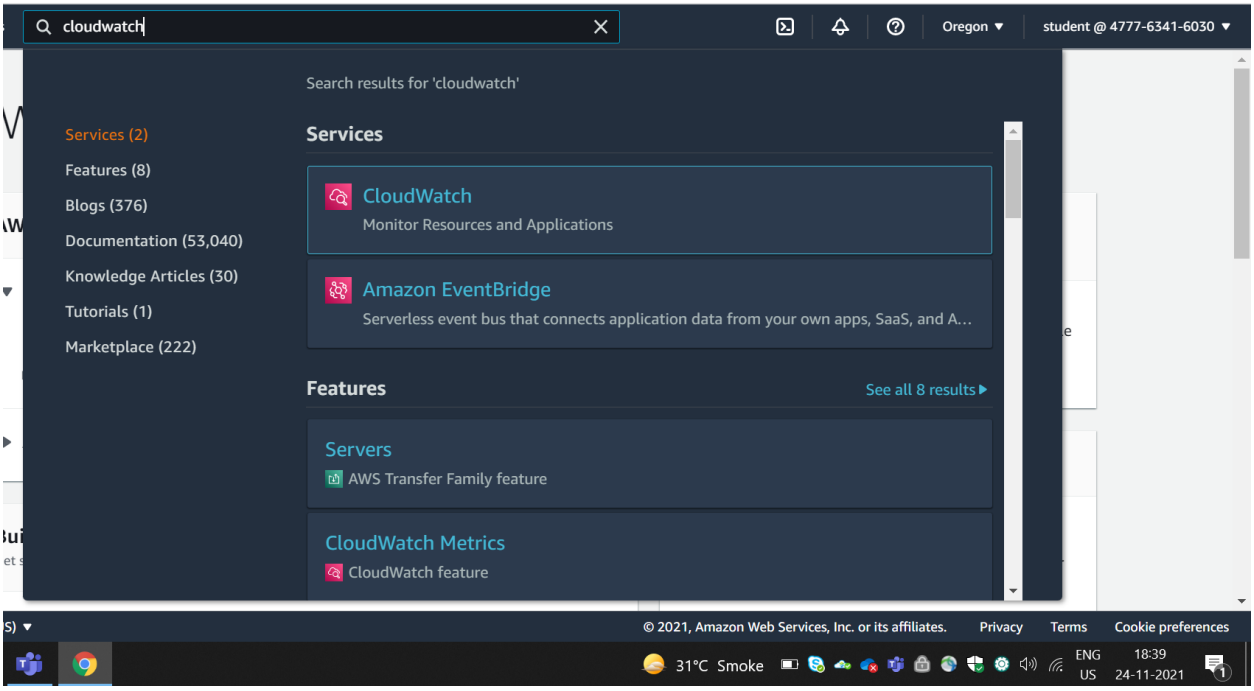


*Select the **US West (Oregon) us-west-2** region using the upper-right drop-down menu on the AWS Management Console:*

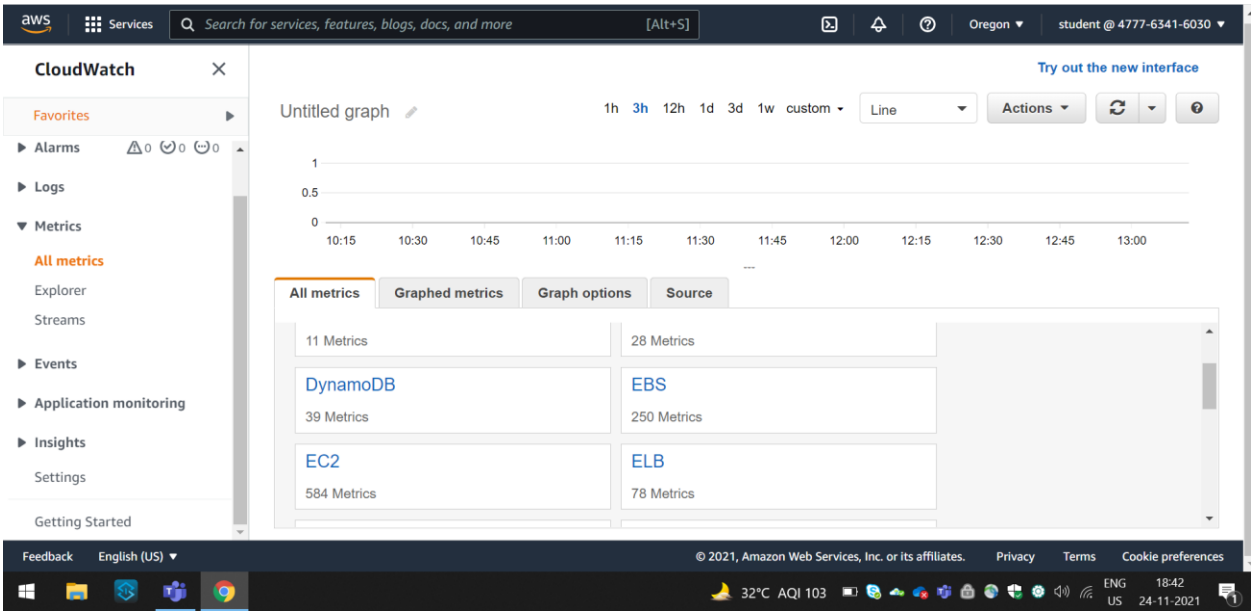


2. Explore CloudWatch

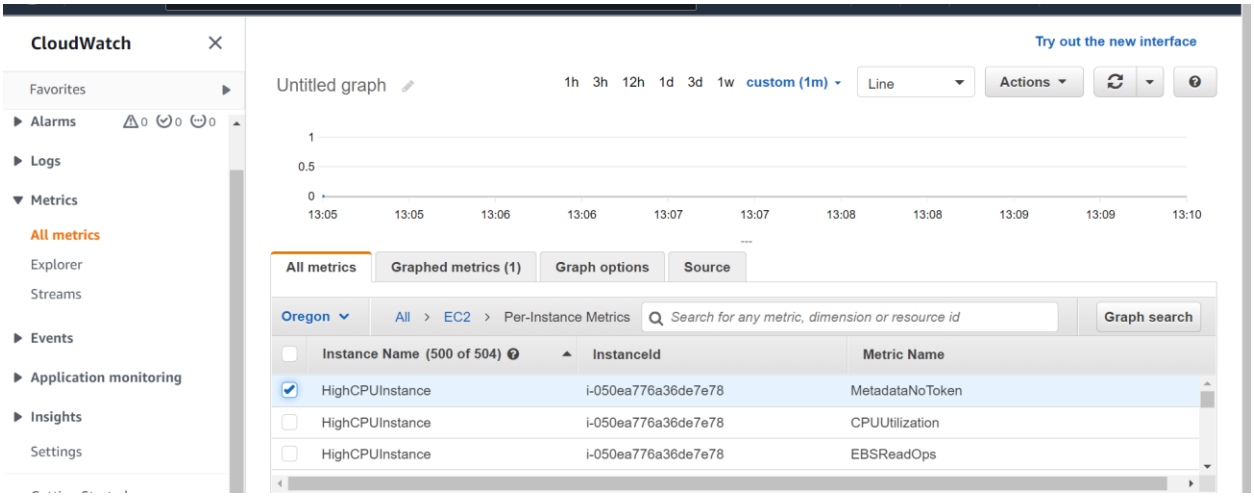
*In the AWS Management Console search bar, enter CloudWatch, and click the **CloudWatch** result under **Services**:*



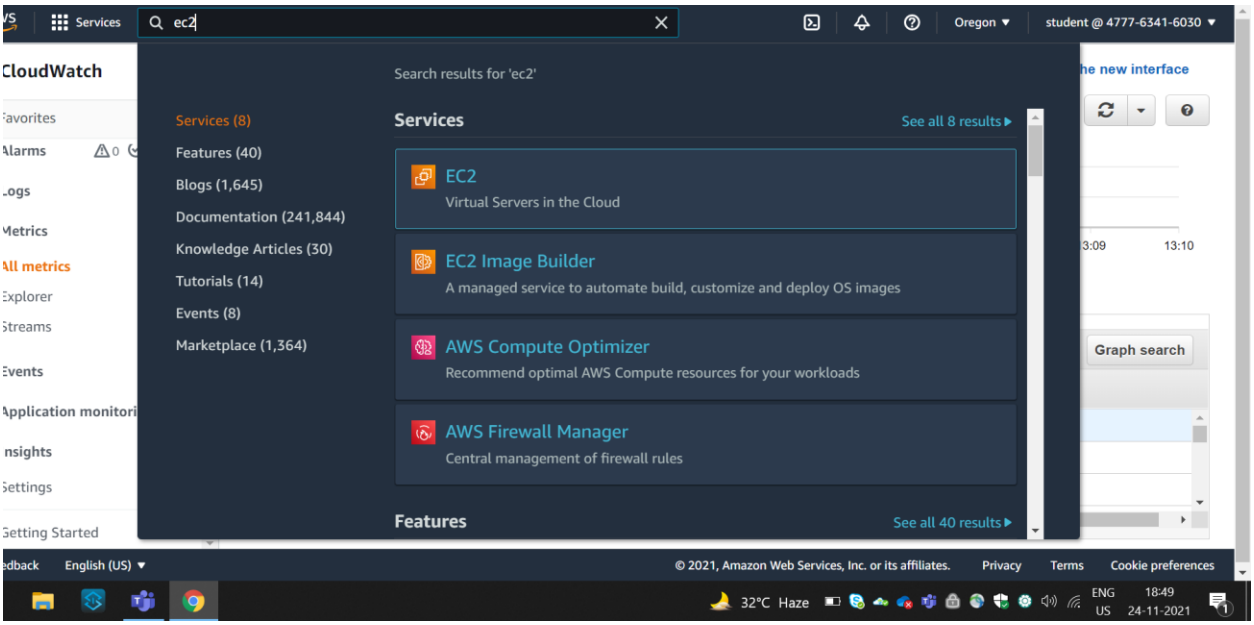
*Click **Metrics** > **All metrics** in the left navigation pane*



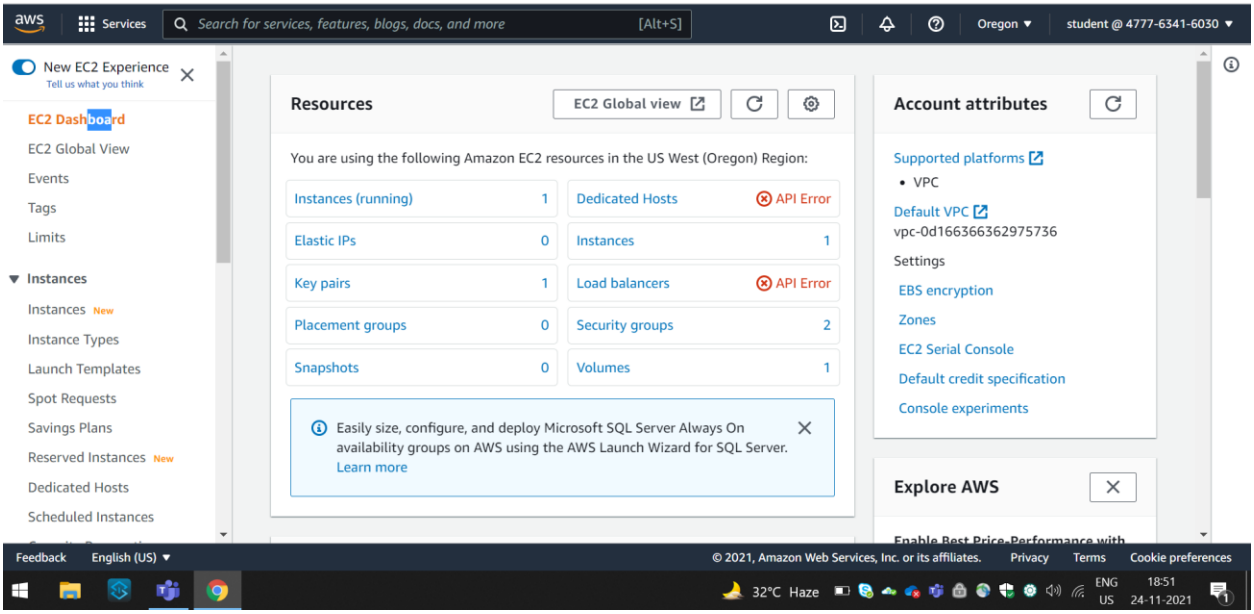
Spend a few minutes to explore what metrics, and namespaces look like in the CloudWatch console



3. **Monitoring EC2 Instances**
   In the AWS Management Console search bar, enter *EC2*, and click the EC2 result under Services:

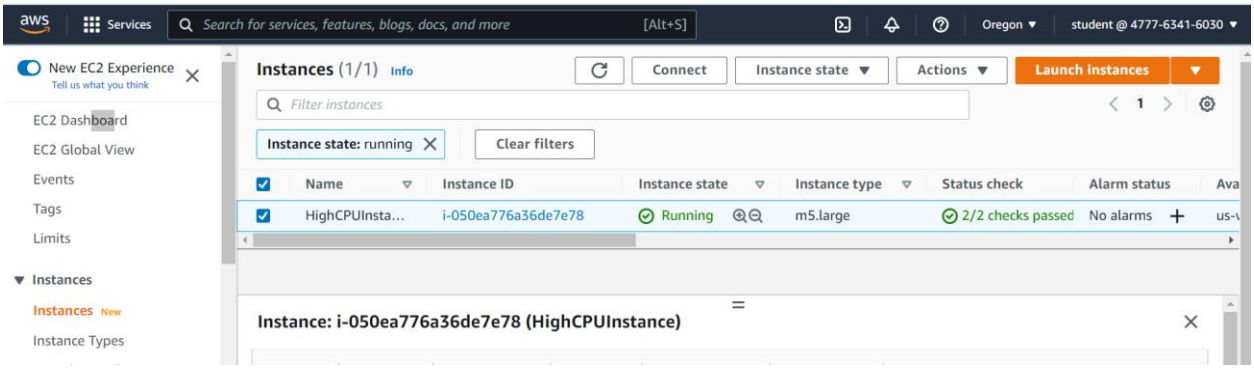


2. Click on **Running Instances** :

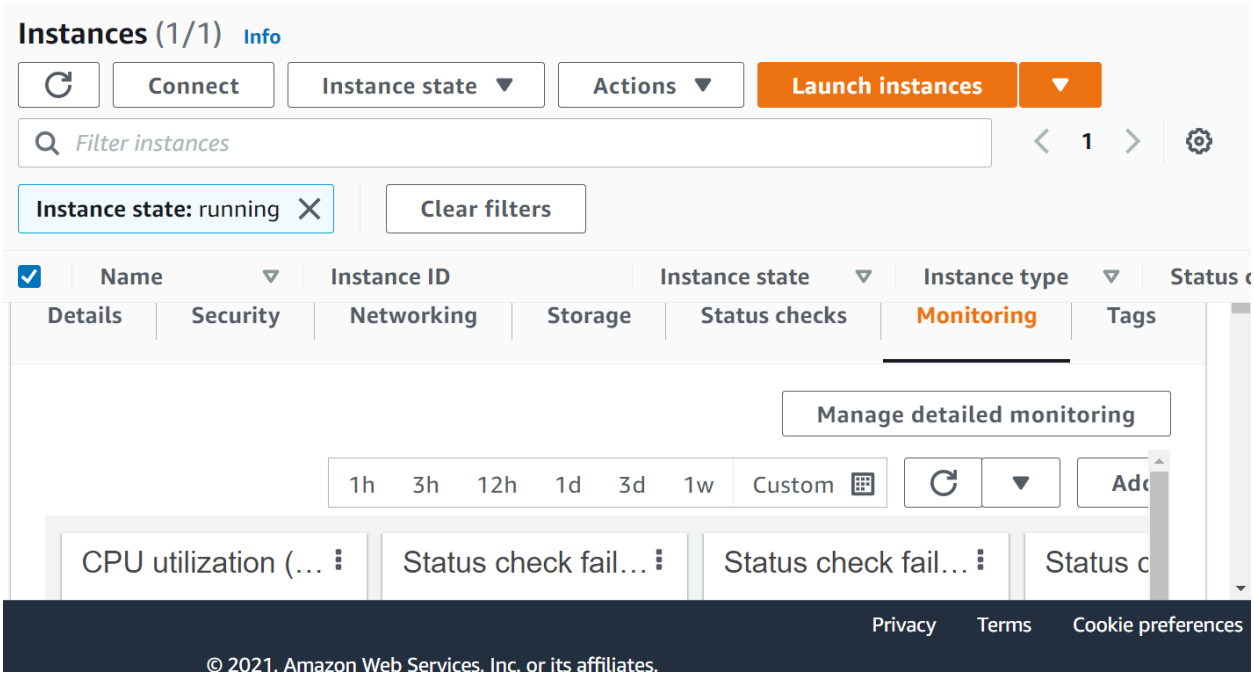


Select the box near the instance name. A wealth of instance information is displayed in the **Details** tab:

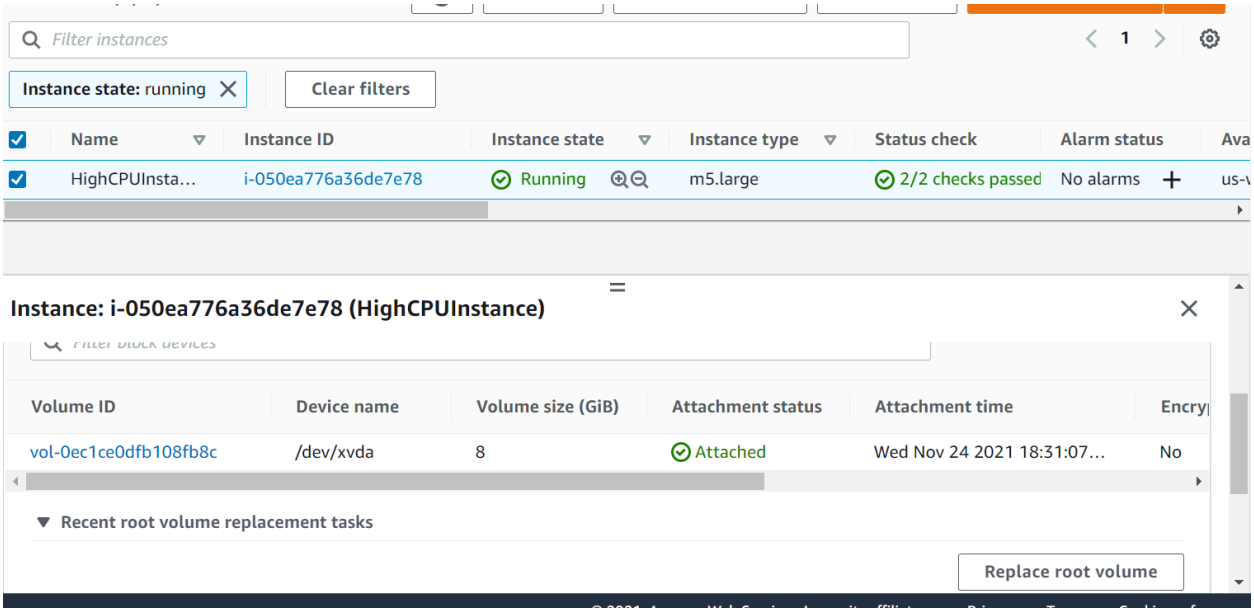
3. Select the box near the instance name



4. Switch to the **Monitoring** tab and take a look at the standard metrics:



5. With the running instance selected, click the **Storage** tab. Scroll down and click on the **Volume Id** (lower right):

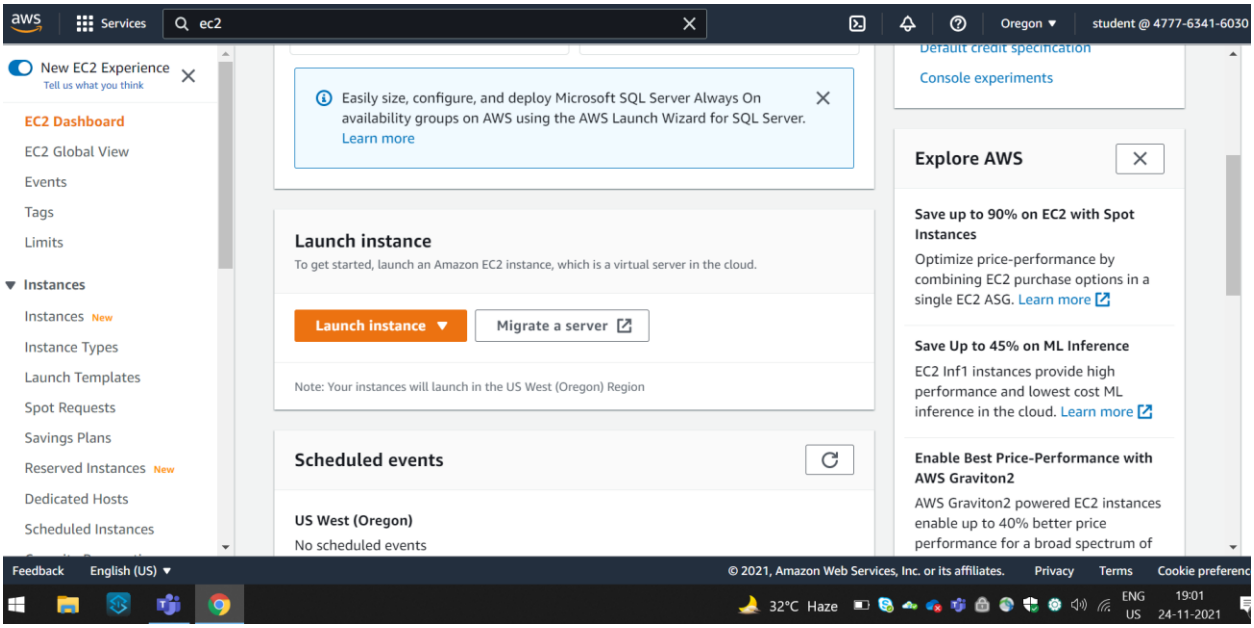


Click on the **Monitoring** tab to see the metrics for this EBS volume:

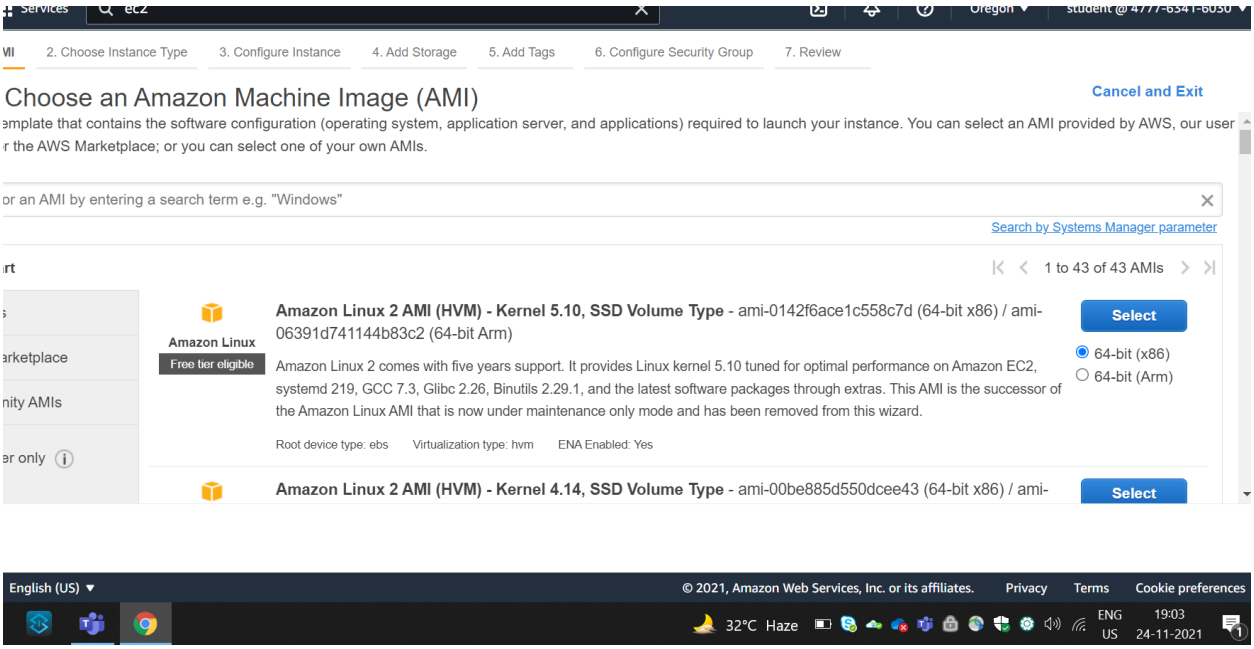
4. Install the EC2 Monitoring Scripts

In the AWS Management Console search bar, enter *EC2*, and click the EC2 result under Services:

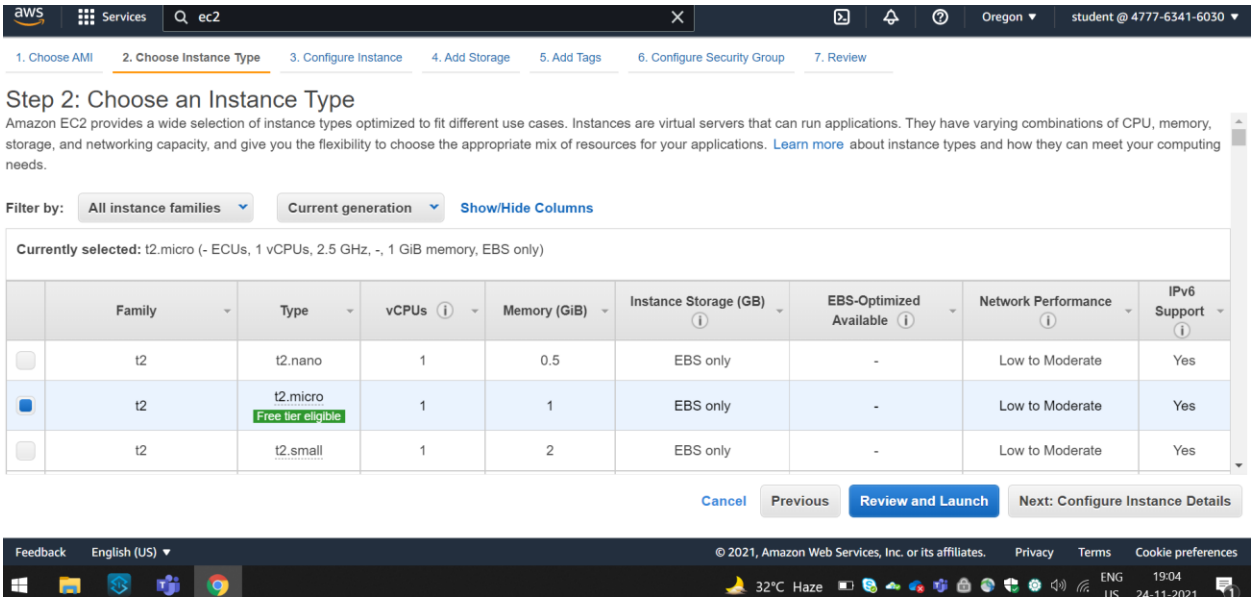
From the Dashboard click on **Launch Instance**:



On Step 1 of the wizard, select Amazon Linux 2 AMI:

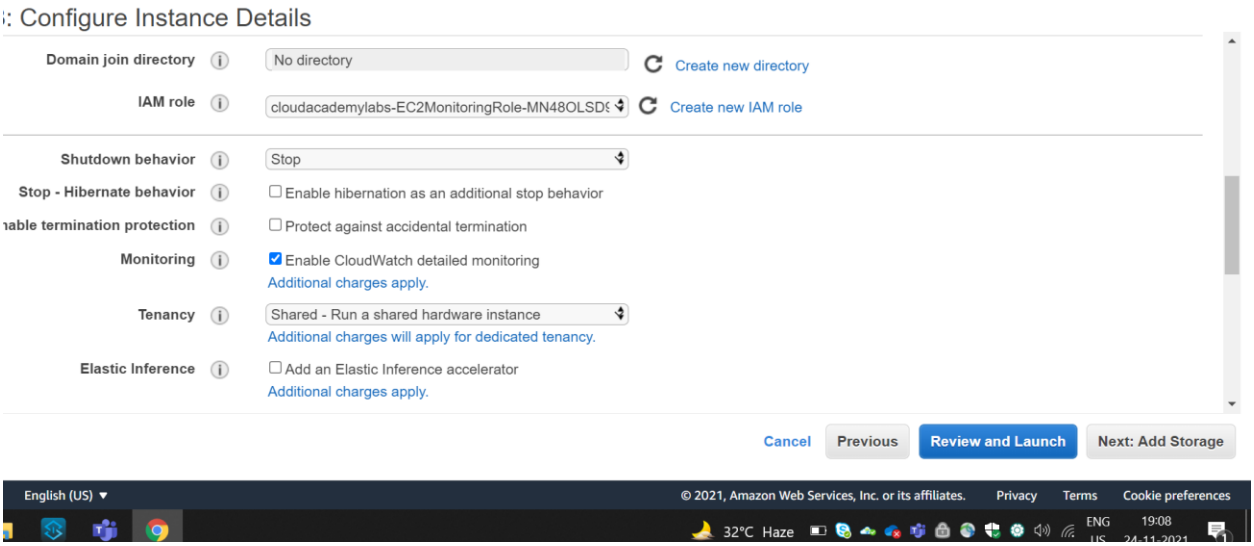


On **Step 2**, select **t2.micro** as the **Instance Type**, then click **Next: Configure Instance Details**.

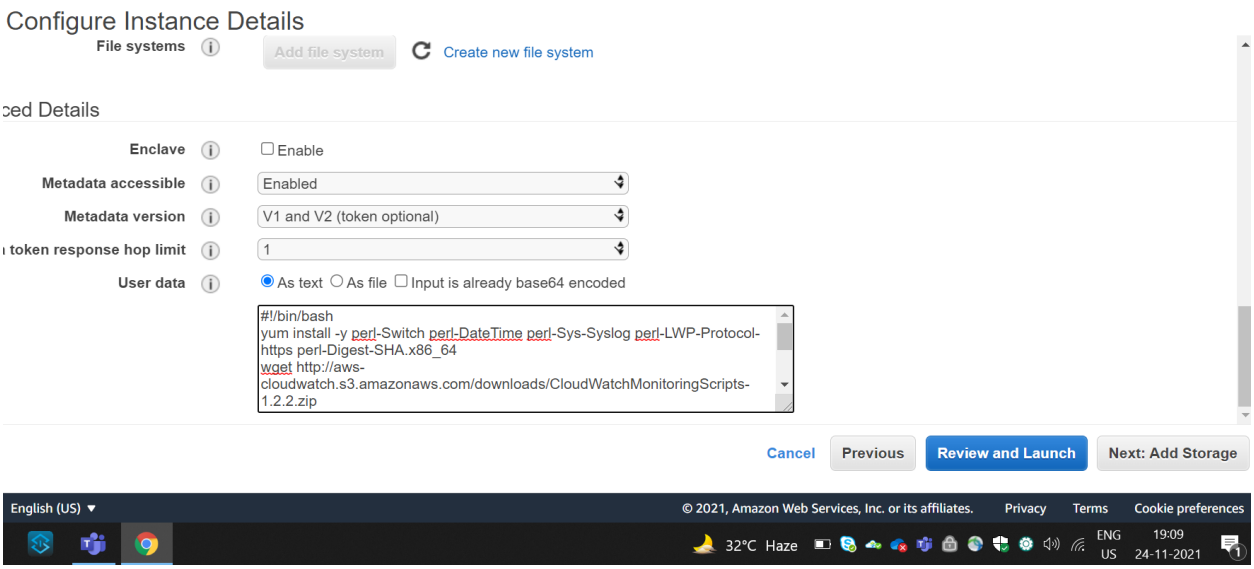


6. Click on **IAM role** and select the IAM role provided. It will have a name that looks similar to cloudacademylabs-

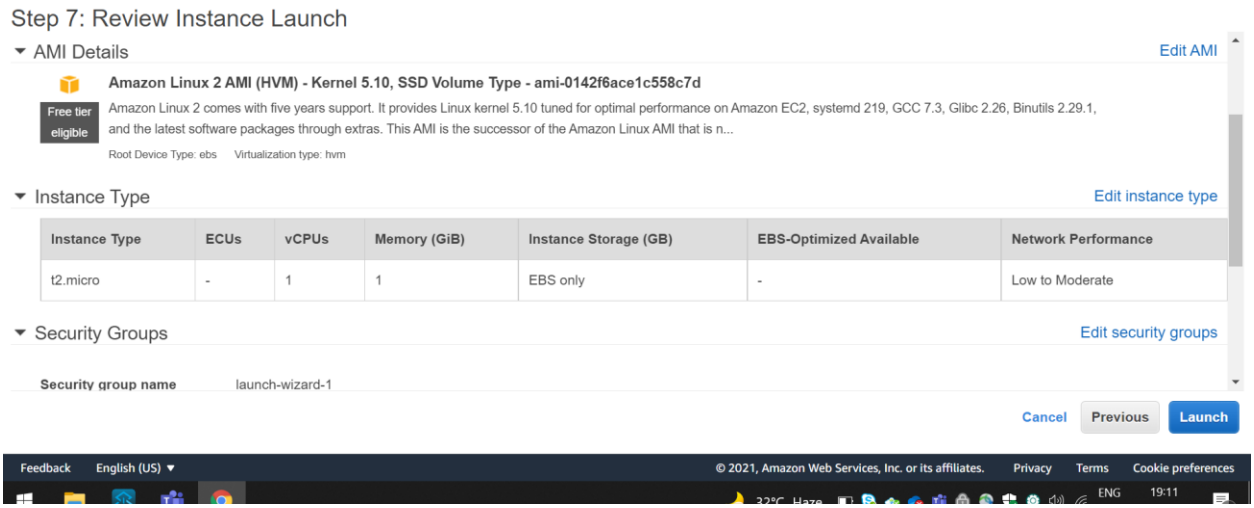
Check the **Enable CloudWatch detailed monitoring** box:

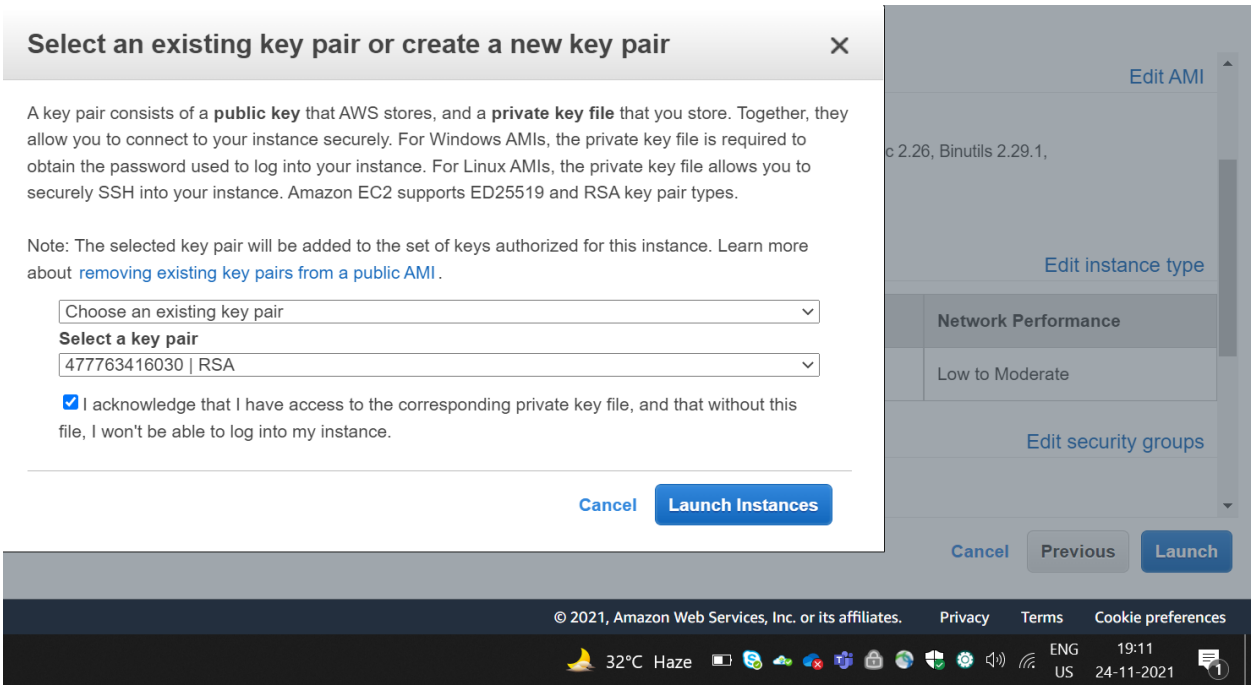


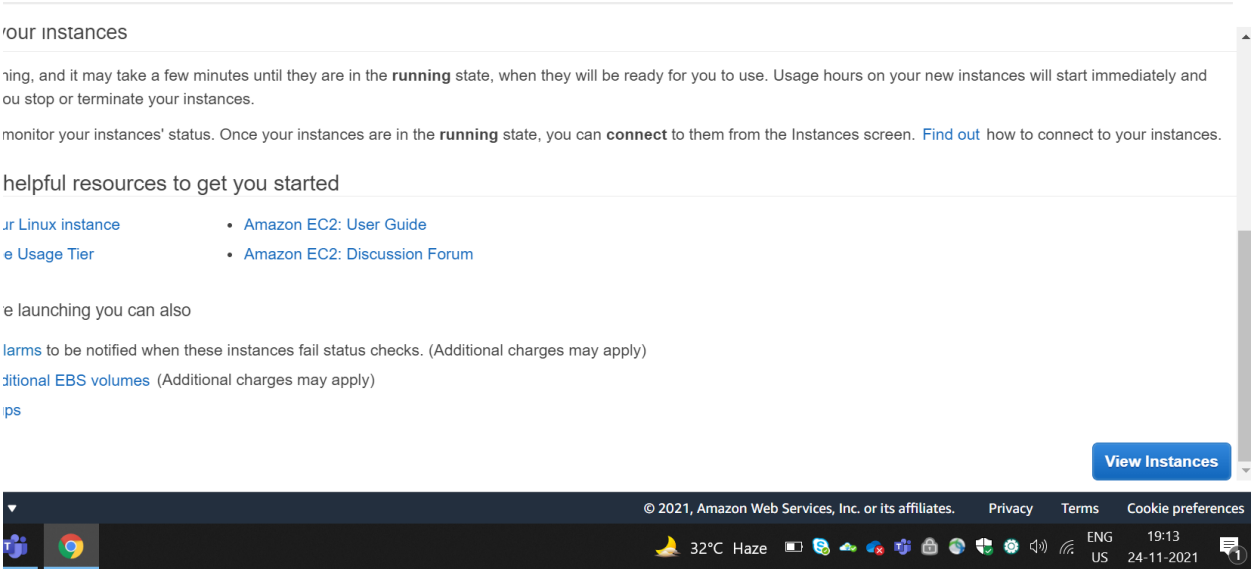
. Copy and paste the following bash script code in the **User data** (**As text**) field:



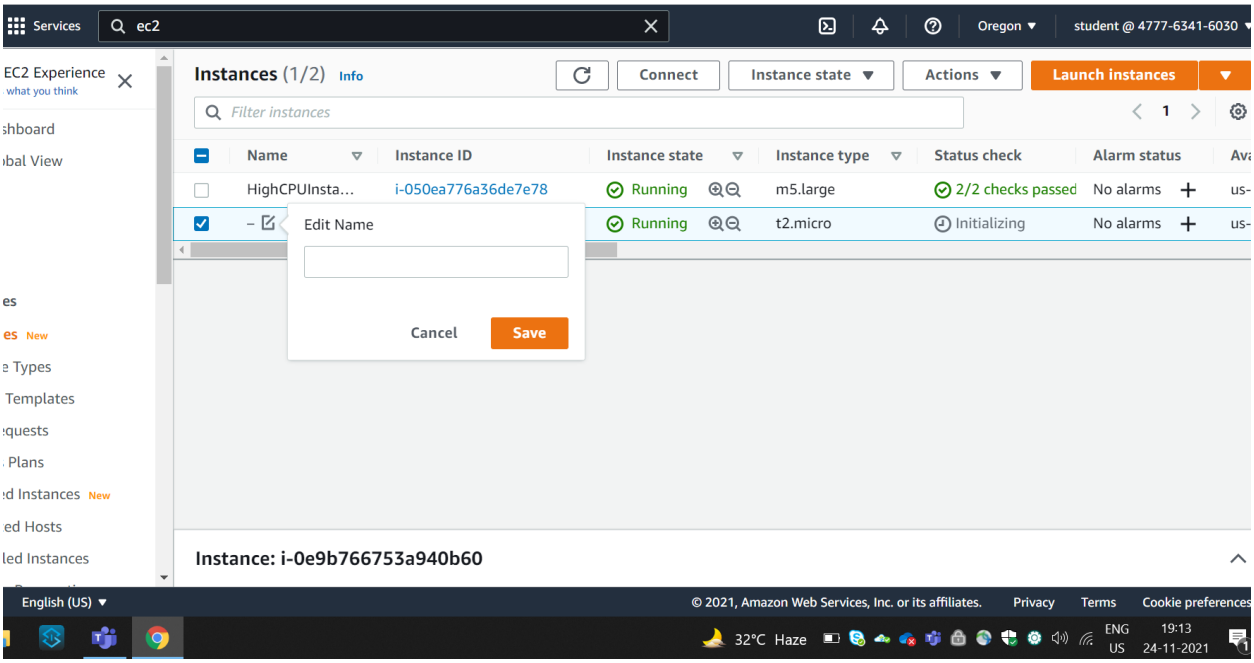
9. Click **Review and Launch**, then **Launch**. A dialog box will appear asking for a Key Pair. Select **Proceed without a key pair**, mark the "**I acknowledge that I will not be able to connect to this instance unless I already know the password built into this AMI**" checkbox and finally click on **Launch Instances**.

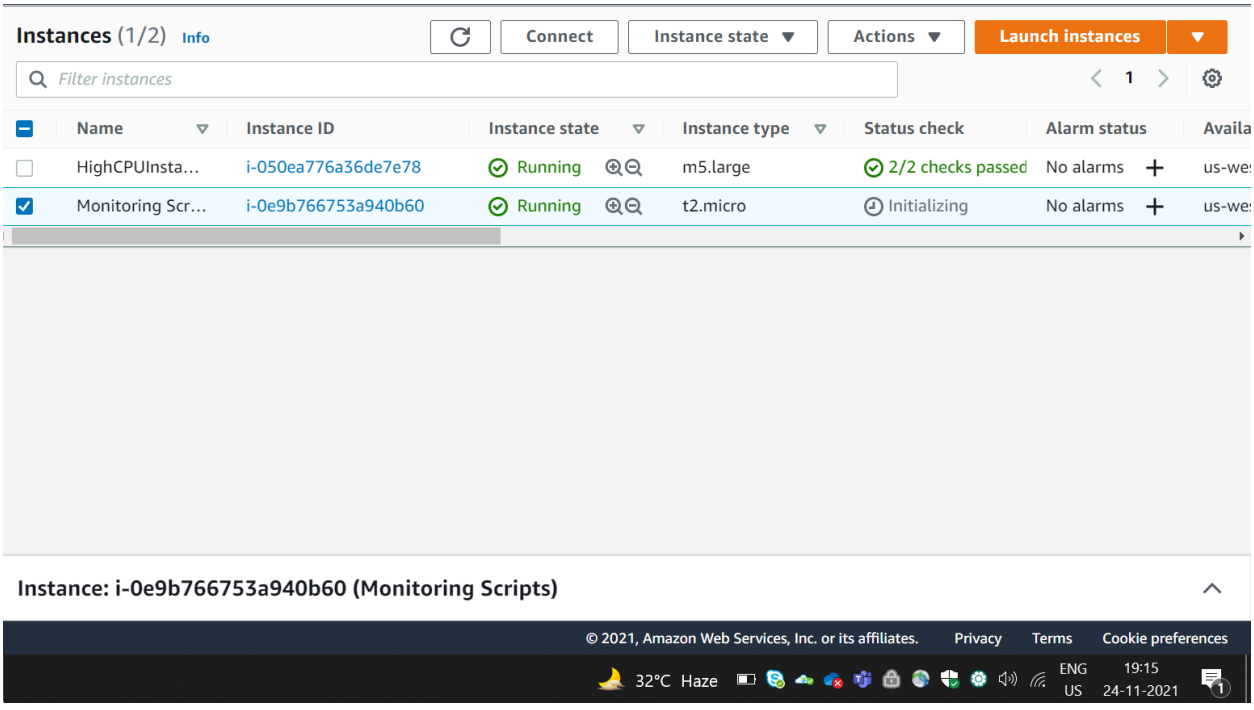




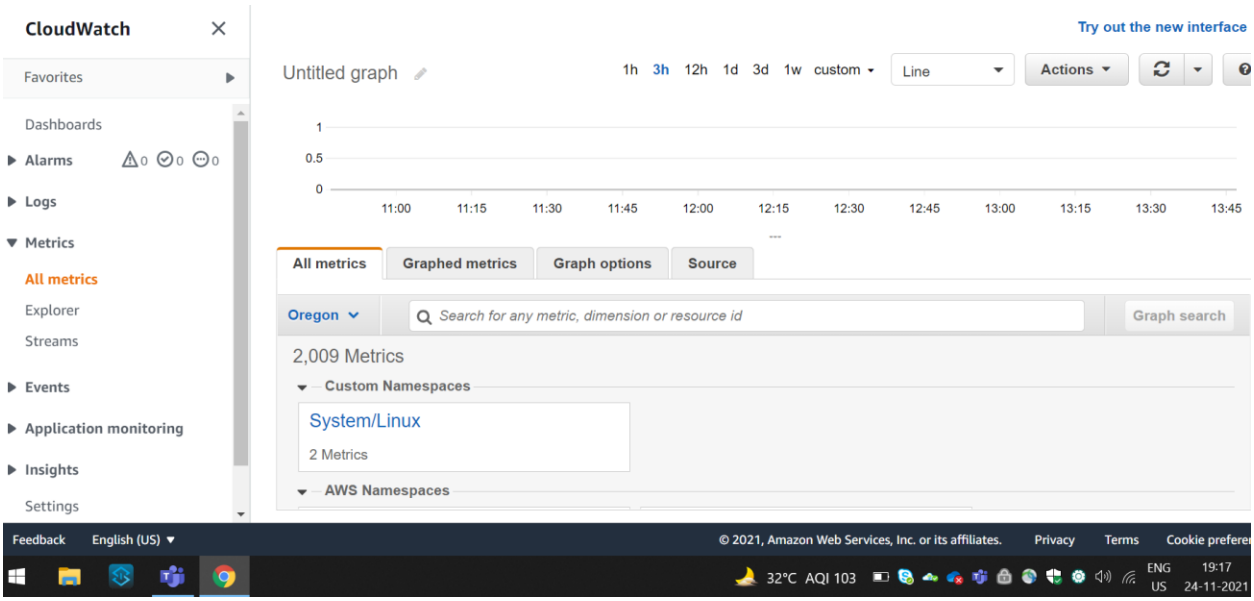


Click **View Instances**. Notice the **Name** for the new instance is blank by default. Although not mandatory, it is helpful to have a name. Move your mouse into the blank space in the **Name** column. It turns to an *edit pencil*. Use the pencil to change your **Instance Name** to *Monitoring Scripts*:





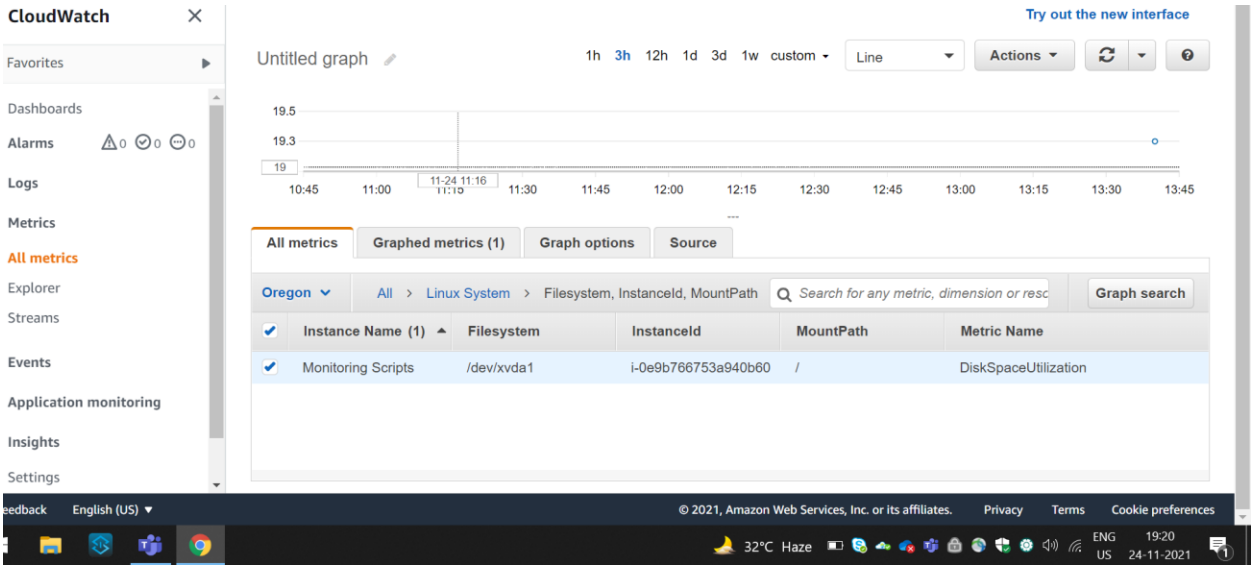
Return to **Services > CloudWatch > Metrics**. Notice that there is a new **Custom Namespace** called **Linux System**:



Click on the new **Linux System** namespace:

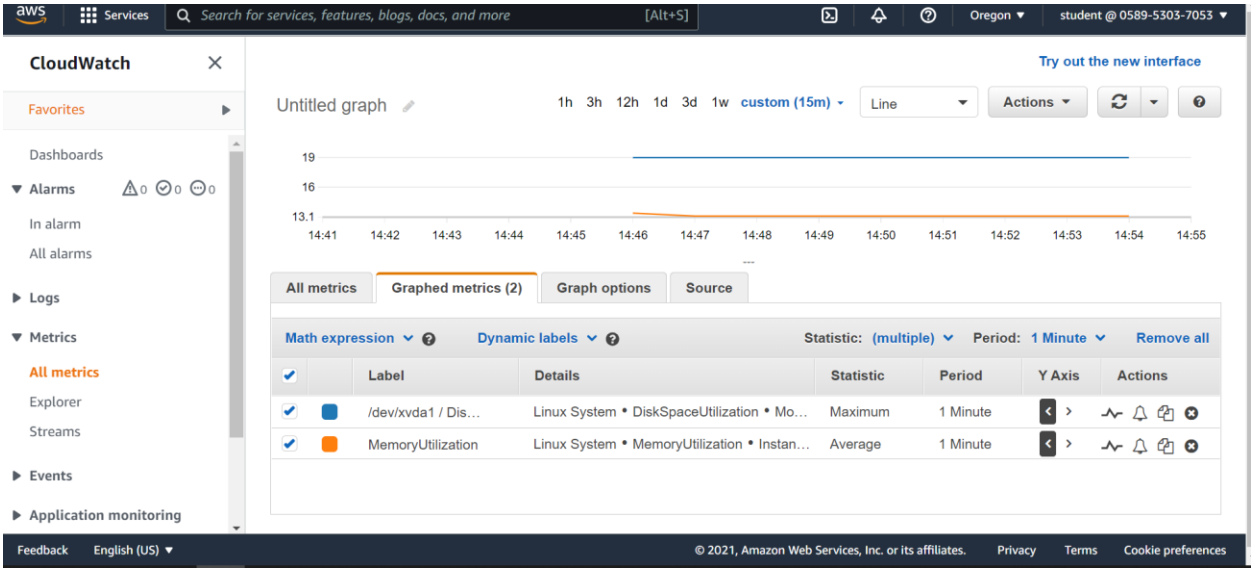
Click the metric on the left (**Filesystem**...), then select the checkbox so the first metric is graphed.

15. Click **Linux System**, so the **Metrics** path is **All > Linux System** again. Now select the metric on the right (**InstanceId**) and select its checkbox as well.



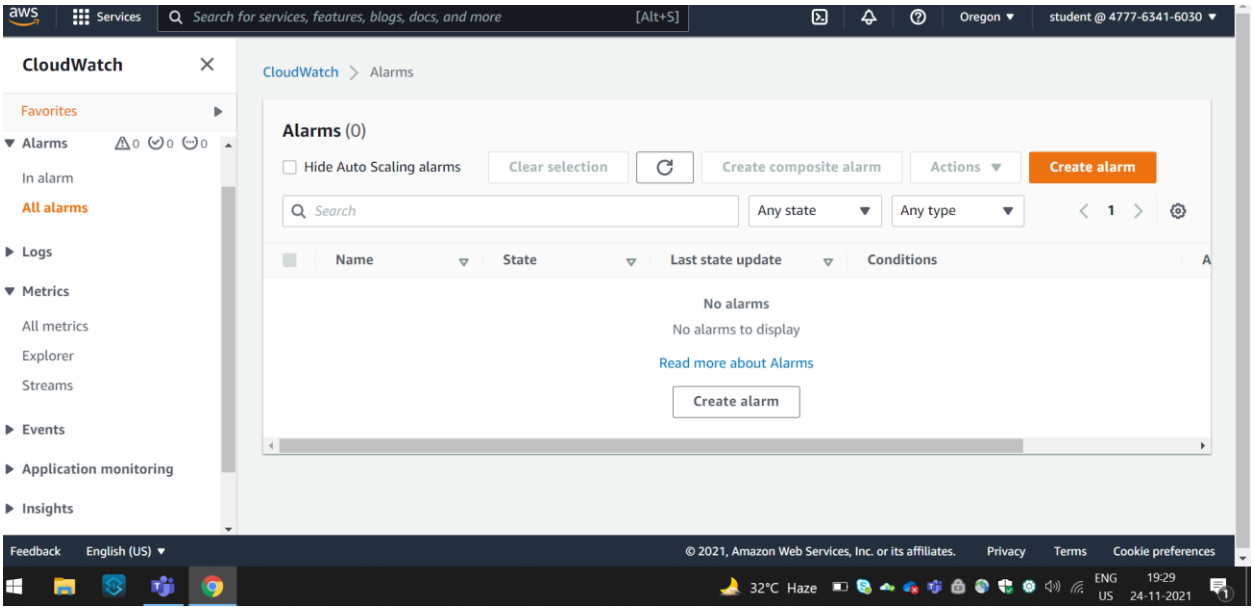
Click the **custom** graph period drop-down above the graph display area and select **15 Minutes**:

Select the **Period** drop-down column menu for each metric in the lower **Graphed metrics** tab and choose **1 Minute**:

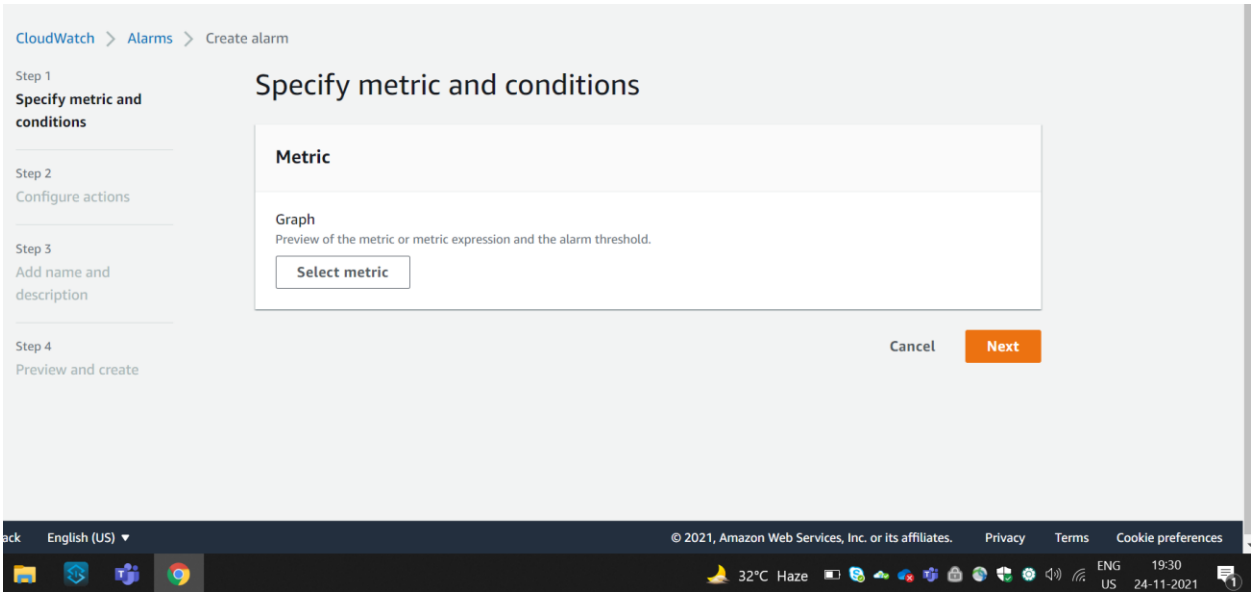


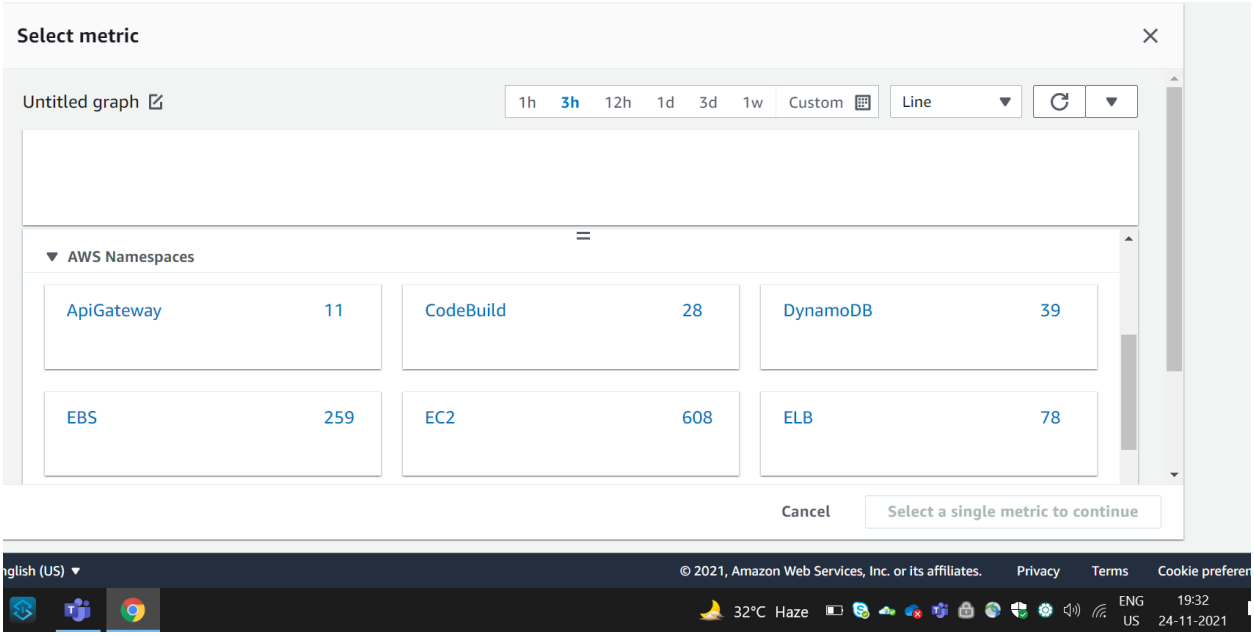
5. Creating Your First CloudWatch Alarm

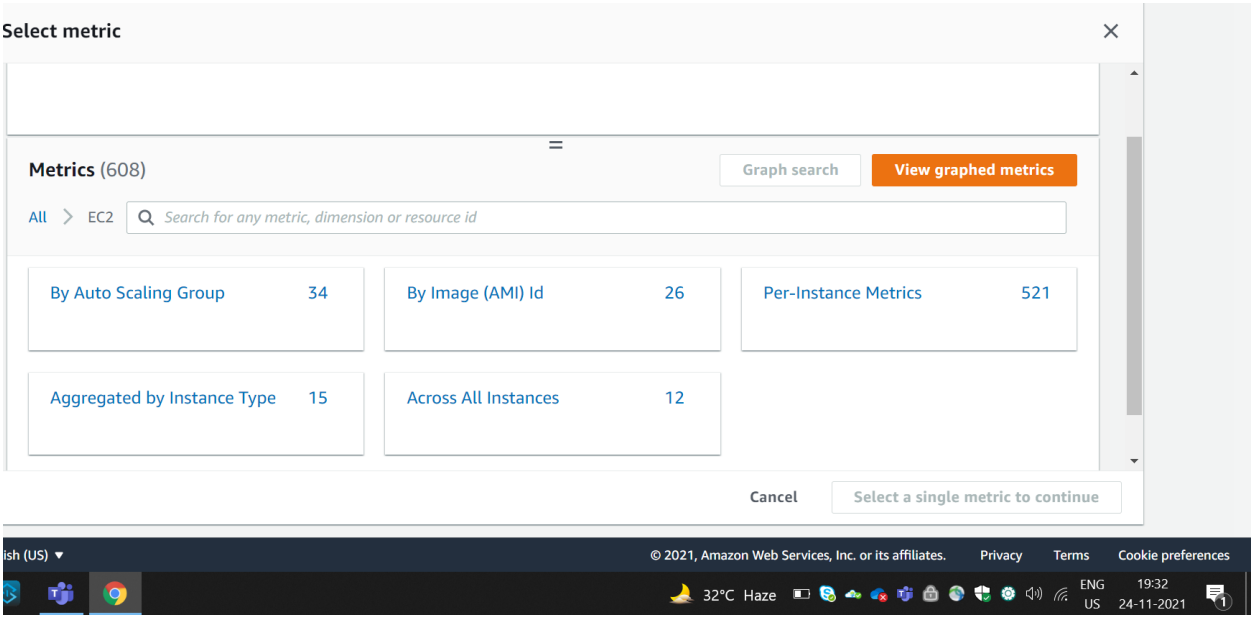
Go to the CloudWatch console and click on Alarms in the left pane:



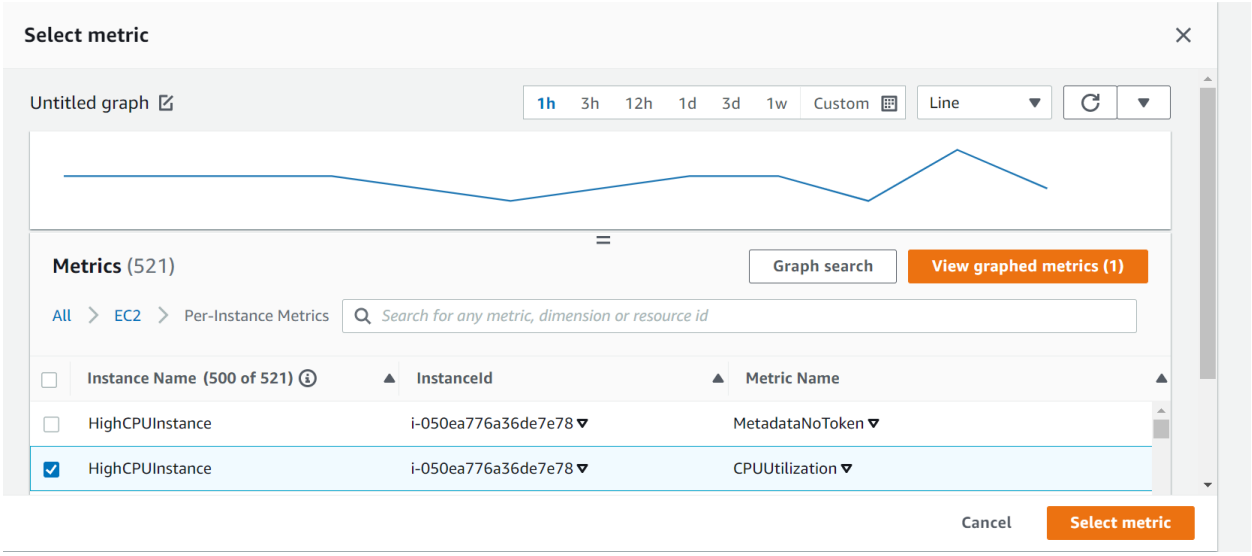
Click **Create Alarm** and click **Select metric**. Select the **EC2** namespace then select **Per-Instance Metrics**:





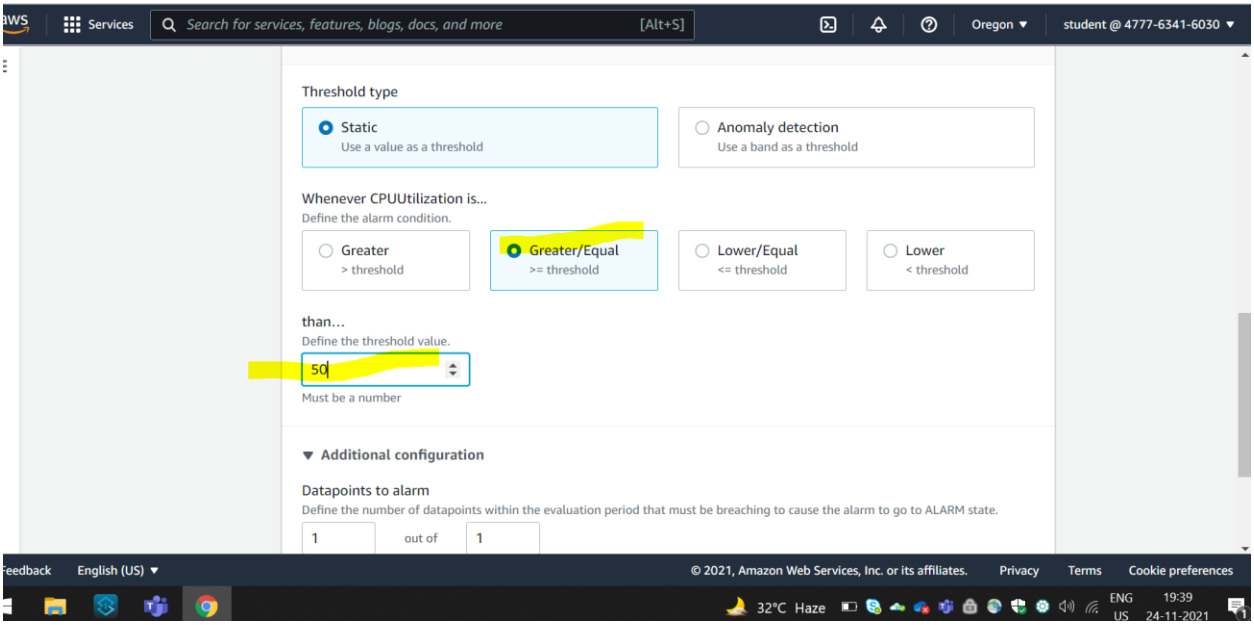


Click **Per-instance metrics** and select the **CPUUtilization Metric Name** for the running **HighCPUInstance**



- ***Whenever High CPU is...:*** **Greater/Equal**
- **Than...:*50***

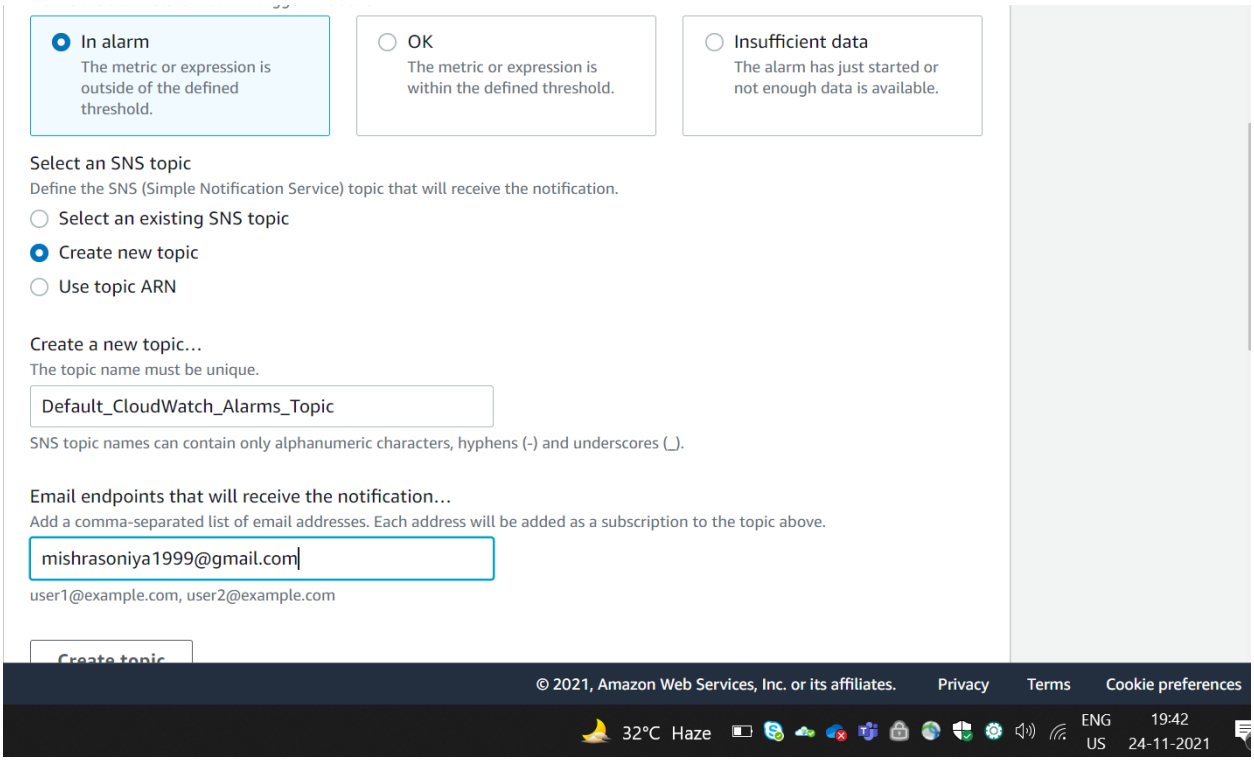
Click Next:



Fill the form as described

- Whenever this alarm state is...: in Alarm
- Select an SNS topic: Create new topic

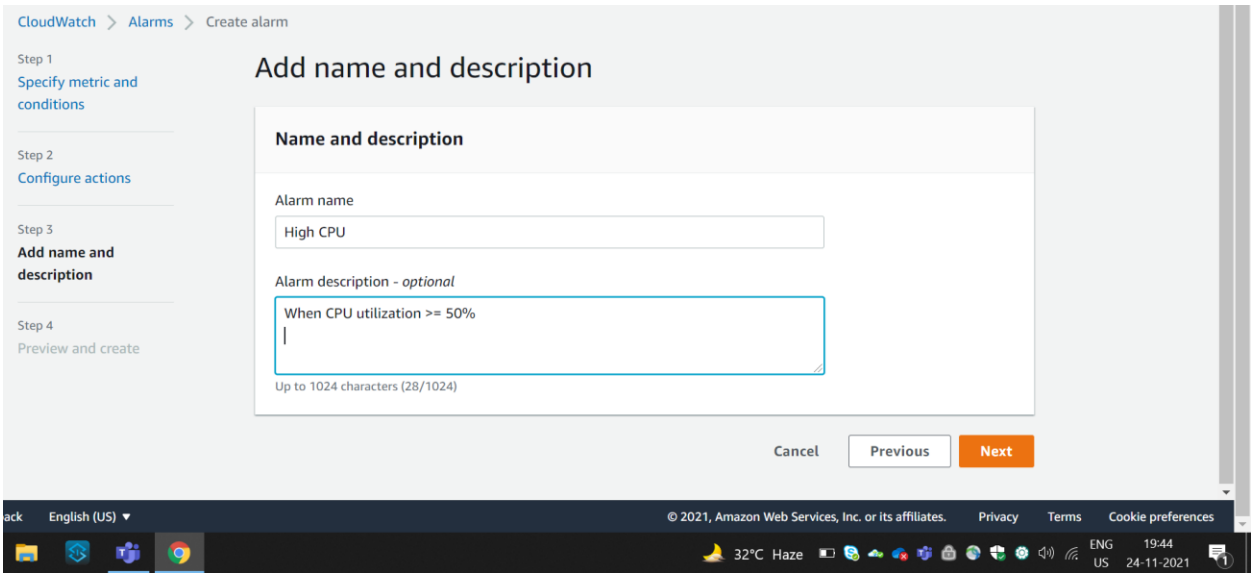
Insert a valid e-mail and click on Create topic.



7. Click **Next** and fill the form as described

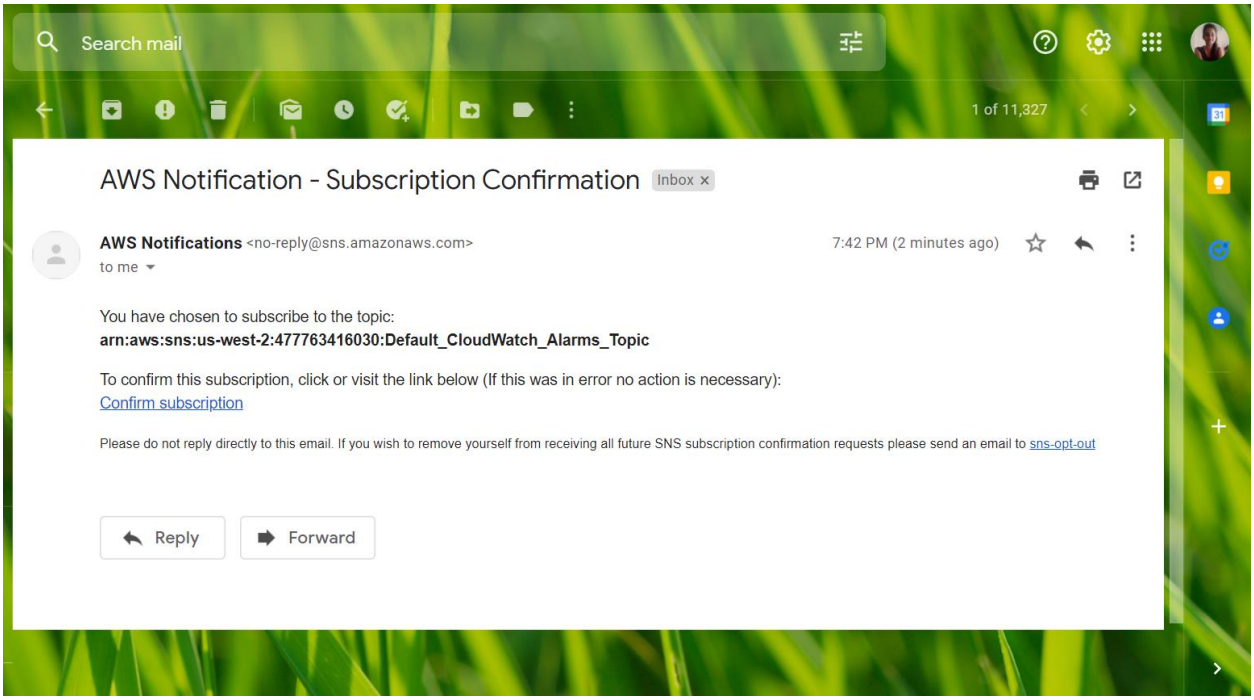
- **Define a unique name**: High CPU
- **Alarm description**: When CPU utilization >= 50%

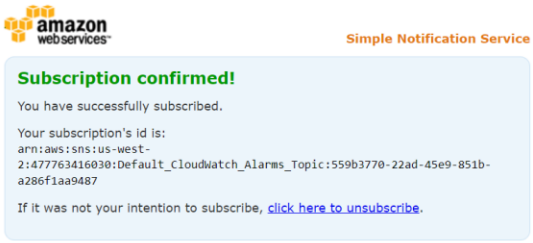
Click **Next**.



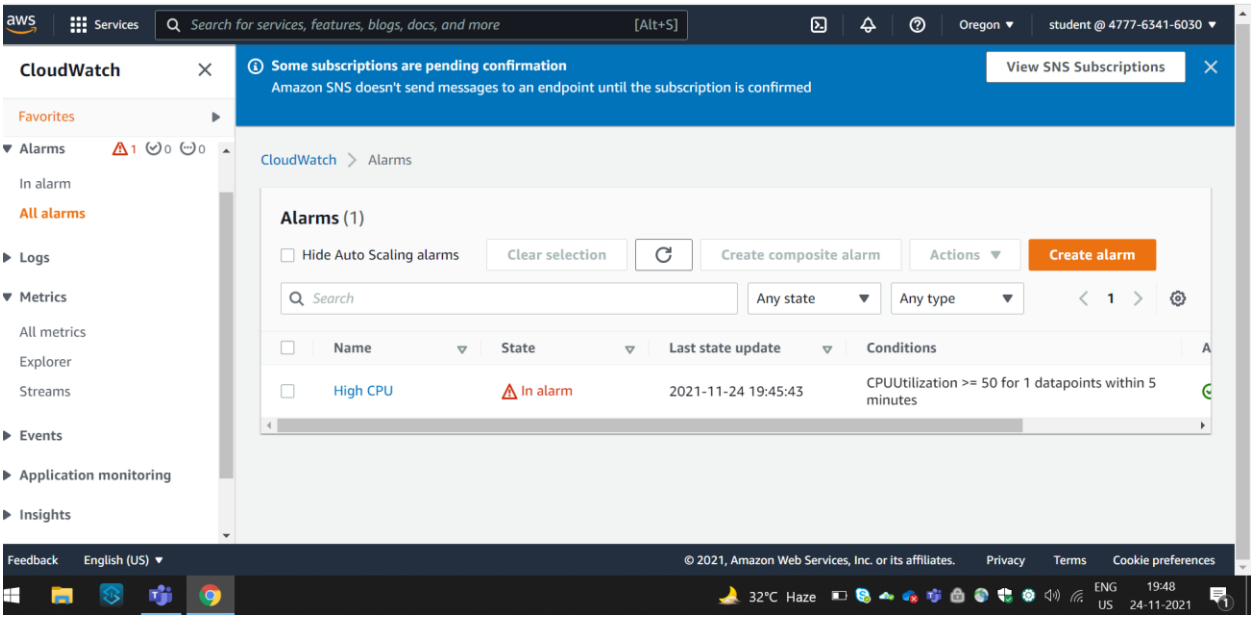
Click **Create Alarm** when ready.

Check for an email from **AWS Notifications**. Open up the email and click the **Confirm subscription** link:

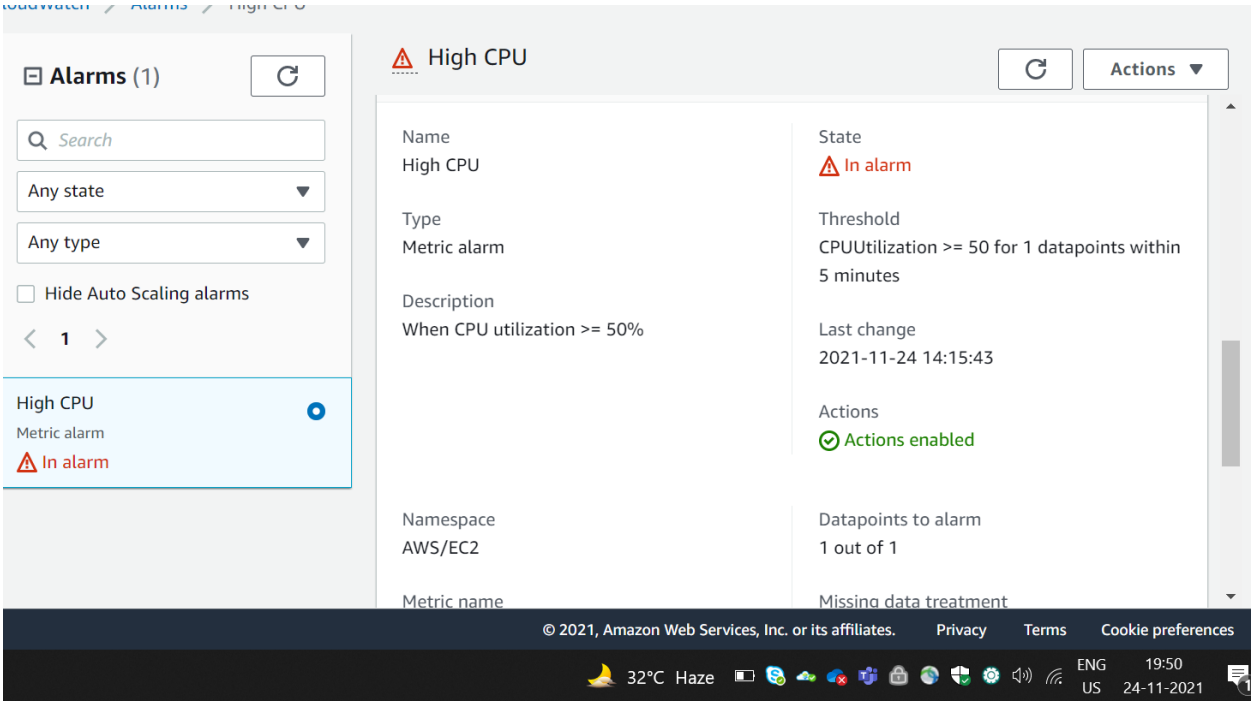


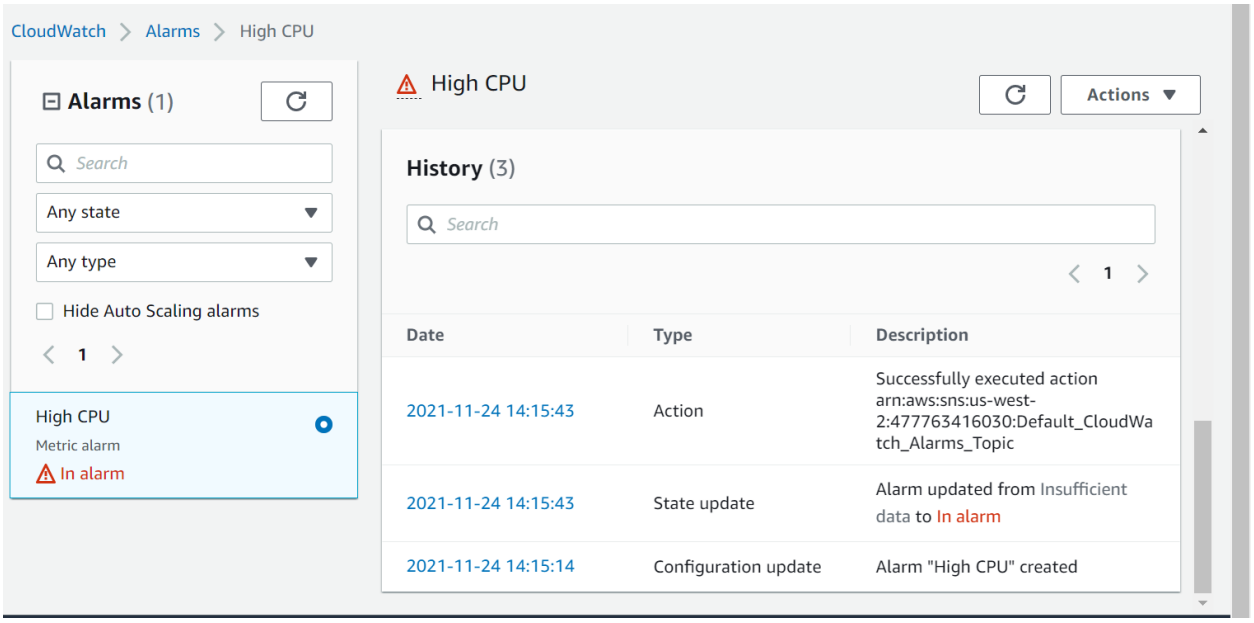


You should be put to the **Alarm** page:



. Click the **Alarm**. You can see very useful information about the alarm itself. In the **Details** tab there is a general overview of the alarm, and in the **History** tab you can see up to the last 50 states of the alarm:

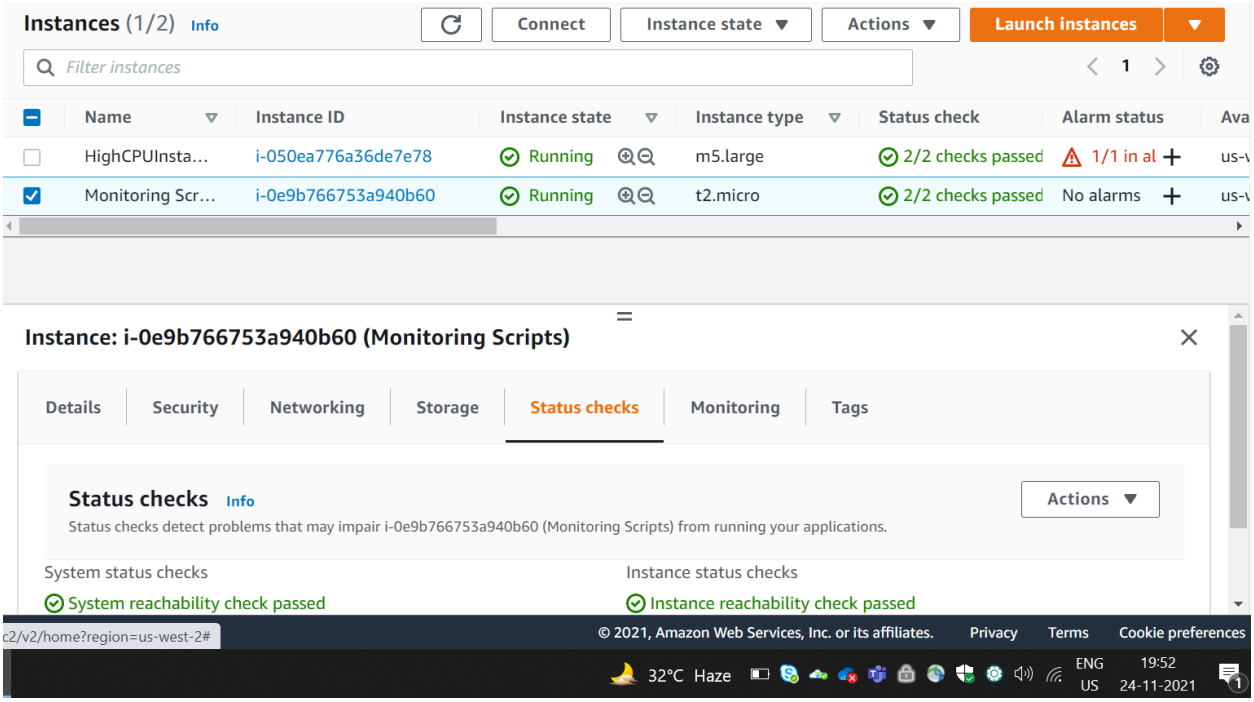




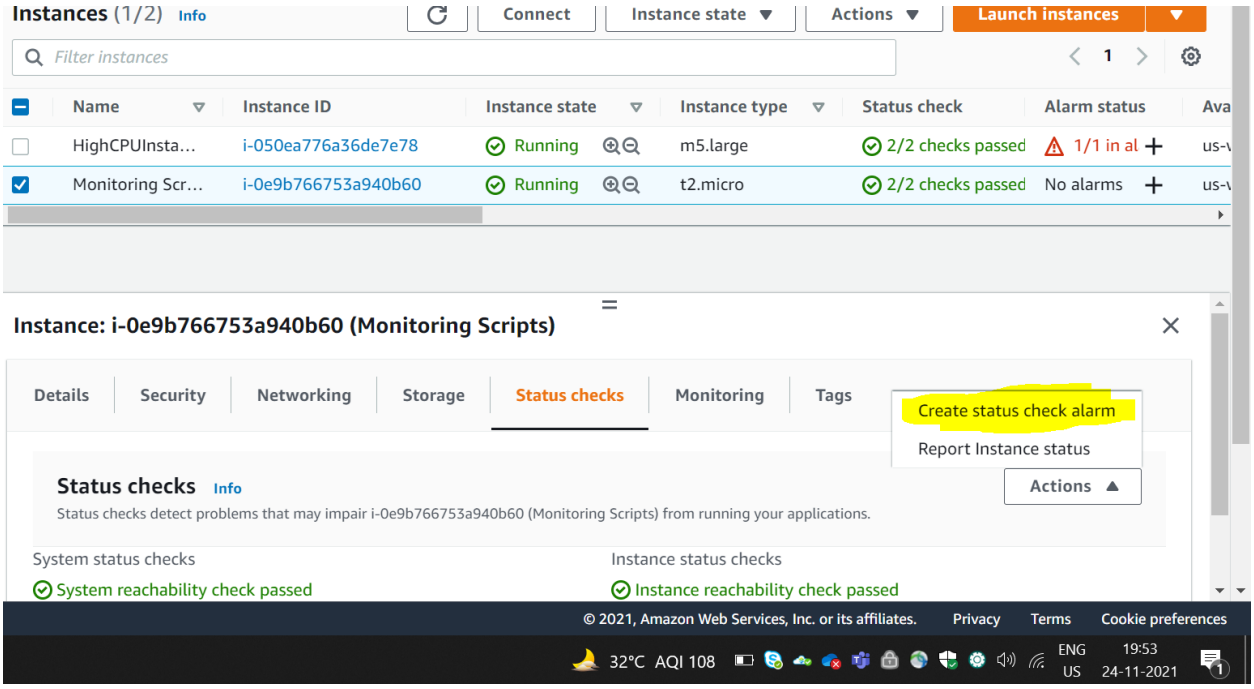
6. Create an Alarm using the EC2 console

1. Navigate to Services > EC2 > Instances.

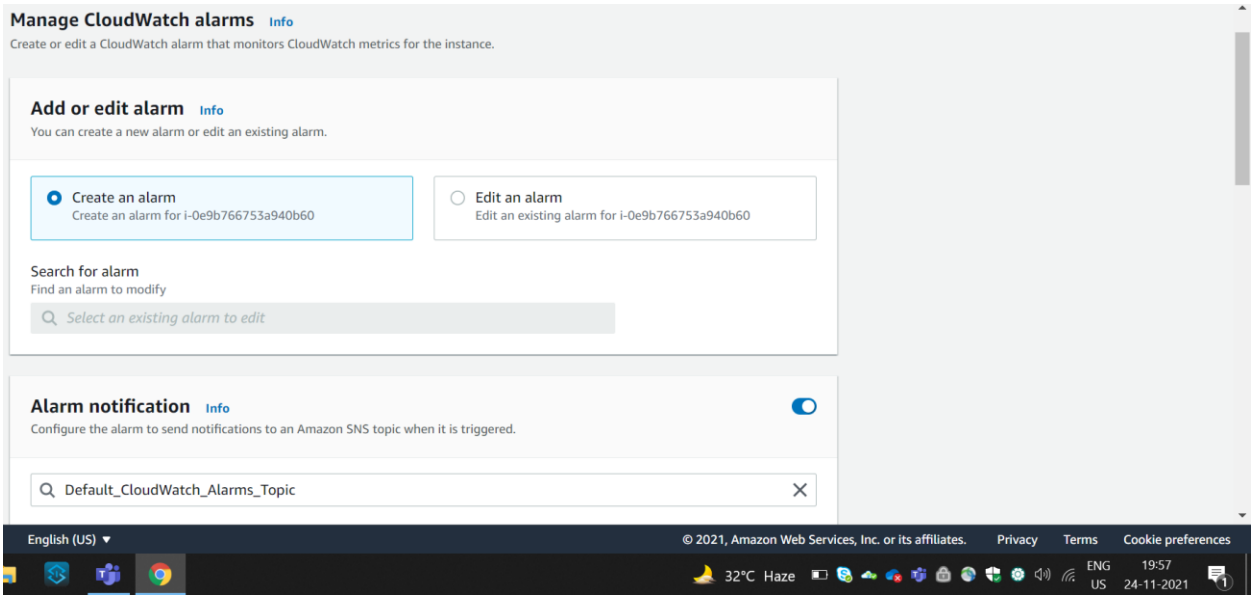
Select the **Monitoring Scripts** instance, then switch to the **Status Checks** tab:



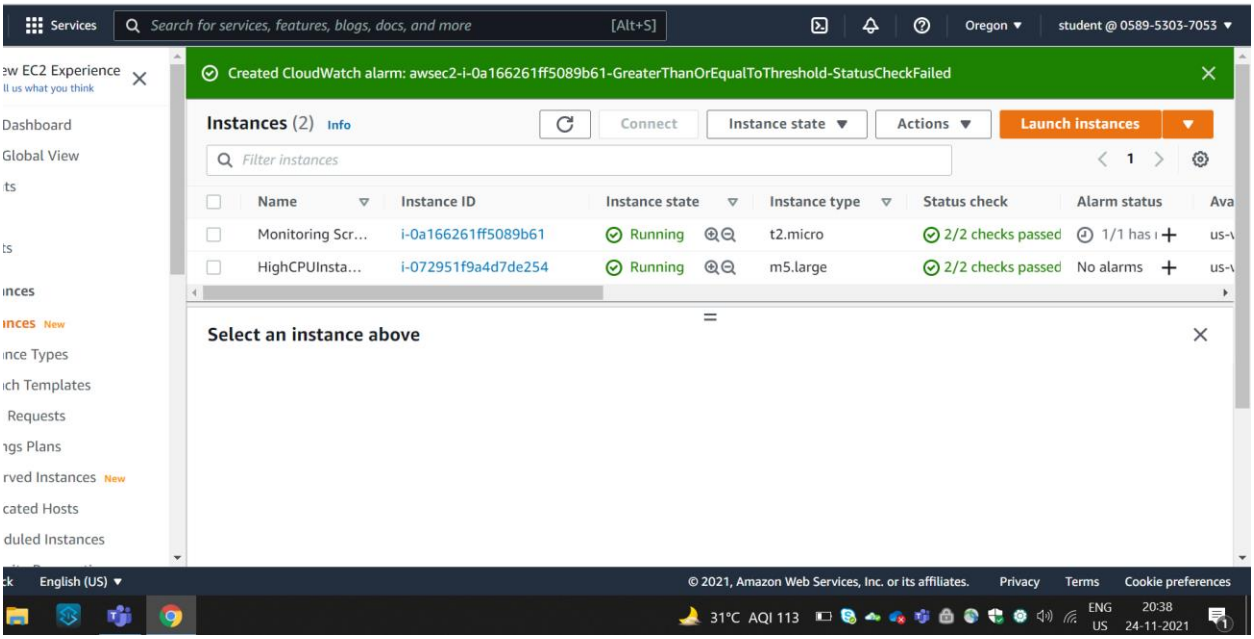
. Click **Actions** > **Create Status Check Alarm**. A **Create Alarm** dialog is presented so you can configure the details of the alarm:

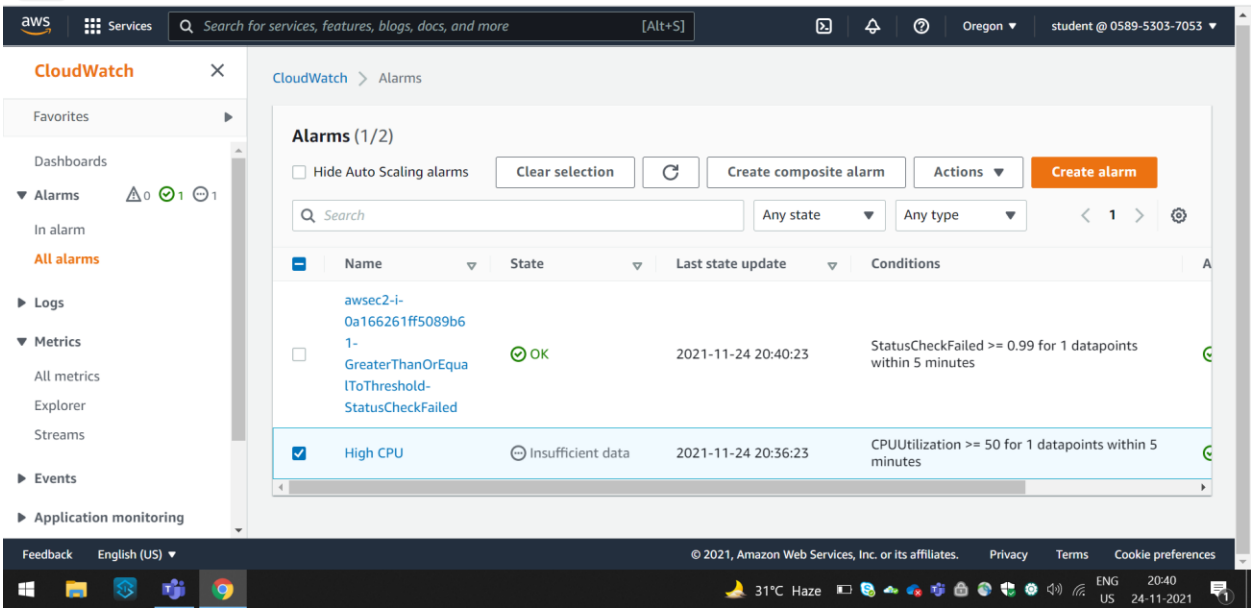


For the **Alarm notification**, select the SNS topic name and valid email you set up before.



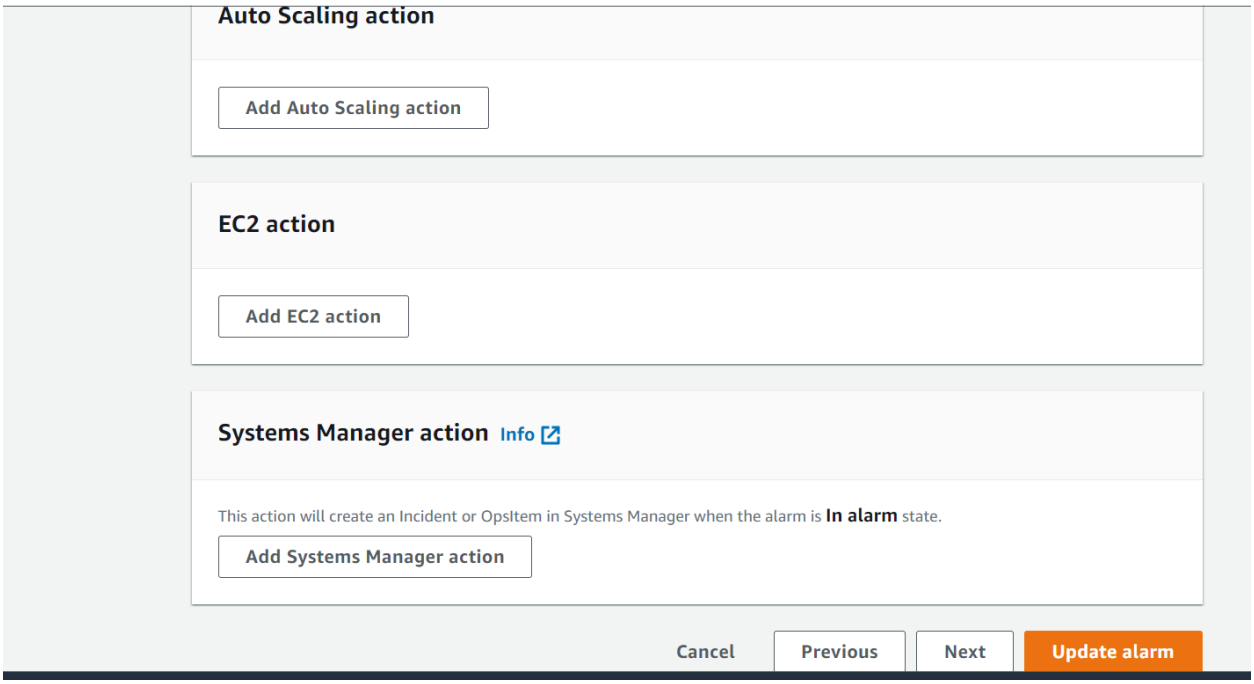
Return to the **Alarms** page in the CloudWatch console.





Select the **High CPU** alarm and then **Actions > Edit**:

. Click on **Next** and click on **Add EC2 action**. Select **Reboot this instance**.

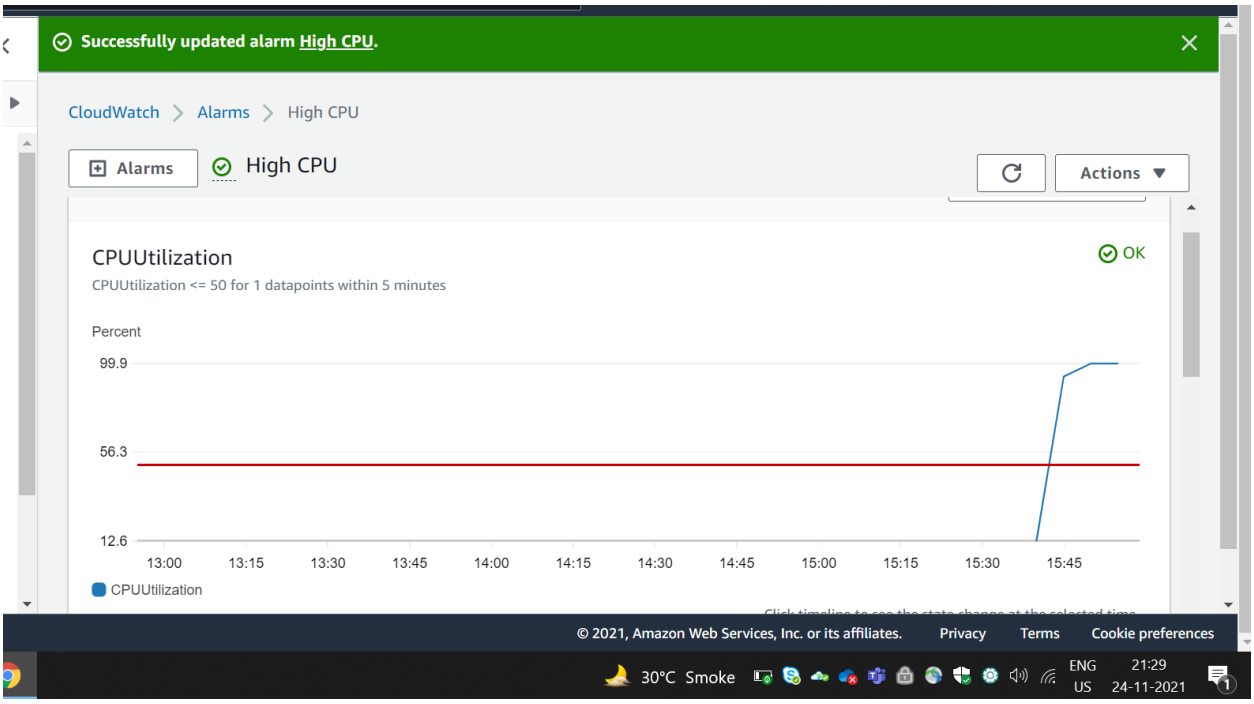


Select the **High CPU Alarm** and choose **Actions** > **Modify**. Simply toggle the relationship from **>=** to **<=**. Save the changes and refresh the page to ensure the alarm has

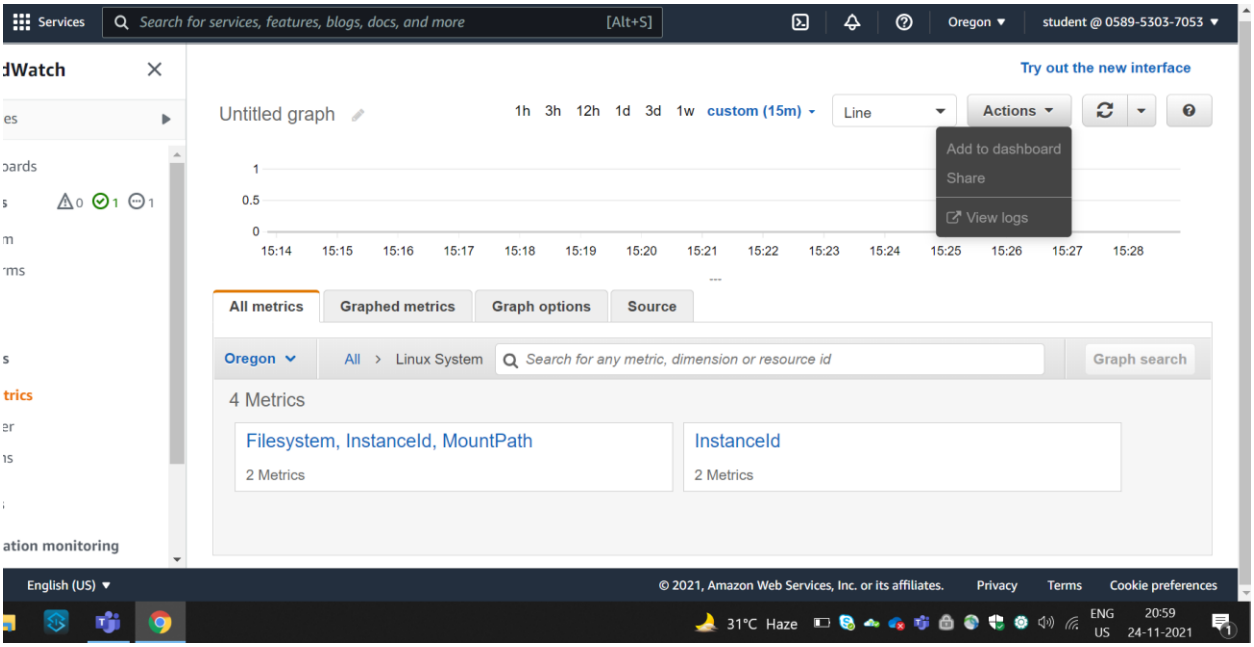
transitioned to the **OK** state. Then toggle the condition back to **>=** and save the alarm to have it transition to the **ALARM** state.

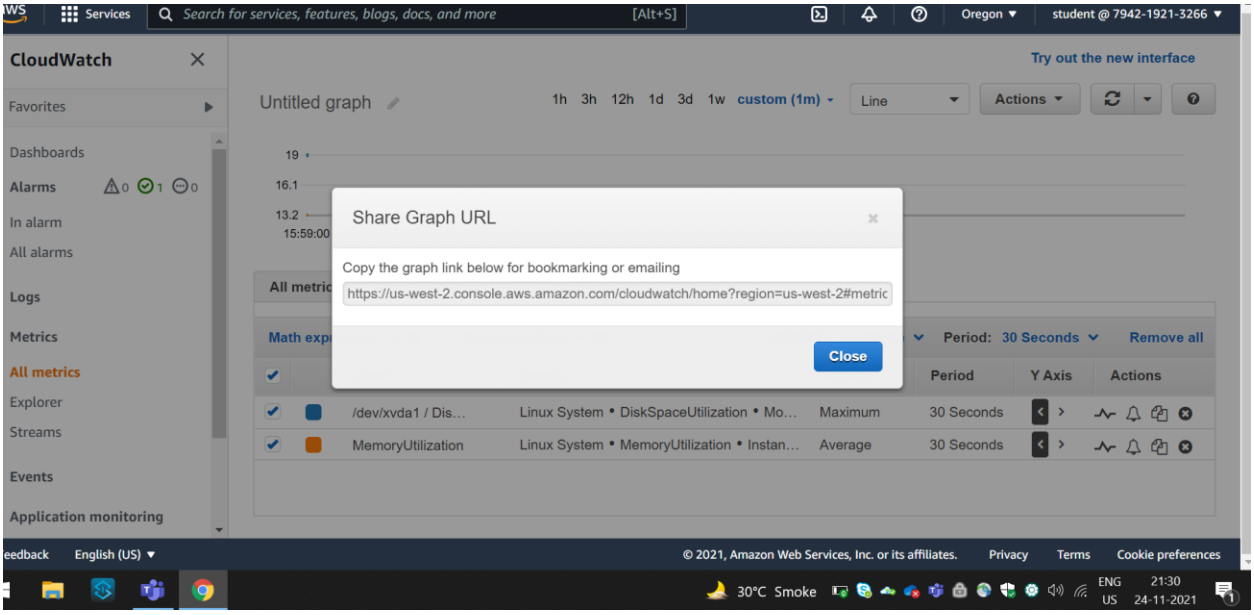
pend a few minutes in the **Instances** page of the EC2 console and watch

CloudWatch reboot the instance when the **Alarm Status** changes to **ALARM**.



7. Sharing CloudWatch Metrics with others


Services
Search for services, features, blogs, docs, and more
[Alt+S]
Oregon
student @ 0589-5303-7053
dWatch
Try out the new interface
Untitled graph
1h 3h 12h 1d 3d 1w custom (15m)
Line
Actions
Add to dashboard
Share
View logs
1
0.5
0
15:14 15:15 15:16 15:17 15:18 15:19 15:20 15:21 15:22 15:23 15:24 15:25 15:26 15:27 15:28
All metrics
Graphed metrics
Graph options
Source
Oregon
All > Linux System
Search for any metric, dimension or resource id
Graph search
4 Metrics
Filesystem, InstanceId, MountPath
2 Metrics
InstanceId
2 Metrics
ation monitoring
English (US)
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
31°C Haze
ENG
US
20:59
24-11-2021

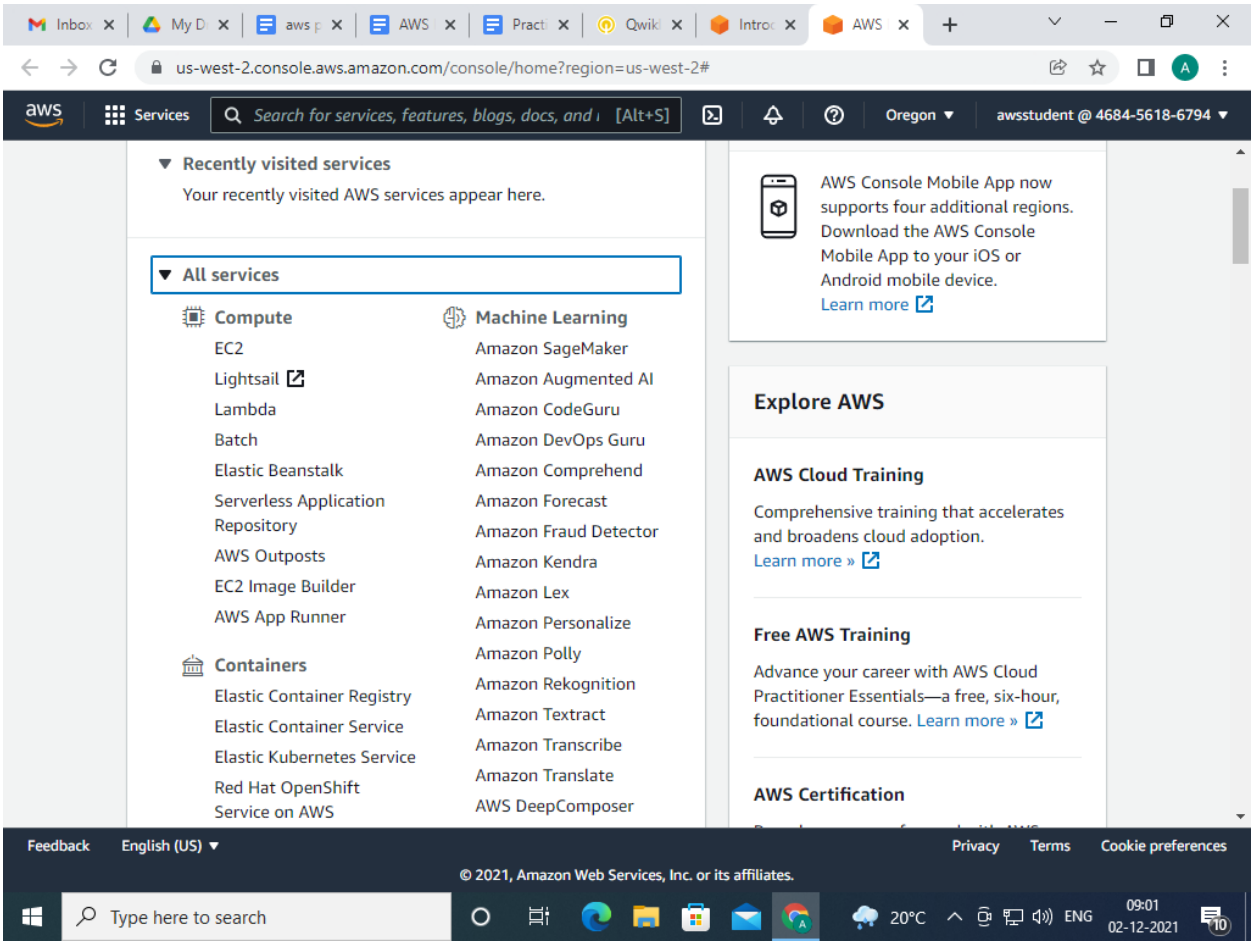

Services
Search for services, features, blogs, docs, and more
[Alt+S]
Oregon
student @ 7942-1921-3266
CloudWatch
Try out the new interface
Favorites
Dashboards
Alarms
In alarm
All alarms
Logs
Metrics
All metrics
Explorer
Streams
Events
Application monitoring
Untitled graph
1h 3h 12h 1d 3d 1w custom (1m)
Line
Actions
19
16.1
13.2
15:59:00
Share Graph URL
Copy the graph link below for bookmarking or emailing
https://us-west-2.console.aws.amazon.com/cloudwatch/home?region=us-west-2#metric
Close
Period: 30 Seconds
Remove all
Period
Y Axis
Actions
/dev/xvda1 / Dis...
Linux System • DiskSpaceUtilization • Mo...
Maximum
30 Seconds
MemoryUtilization
Linux System • MemoryUtilization • Instan...
Average
30 Seconds
English (US)
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
30°C Smoke
ENG
US
21:30
24-11-2021

Practical No. 4

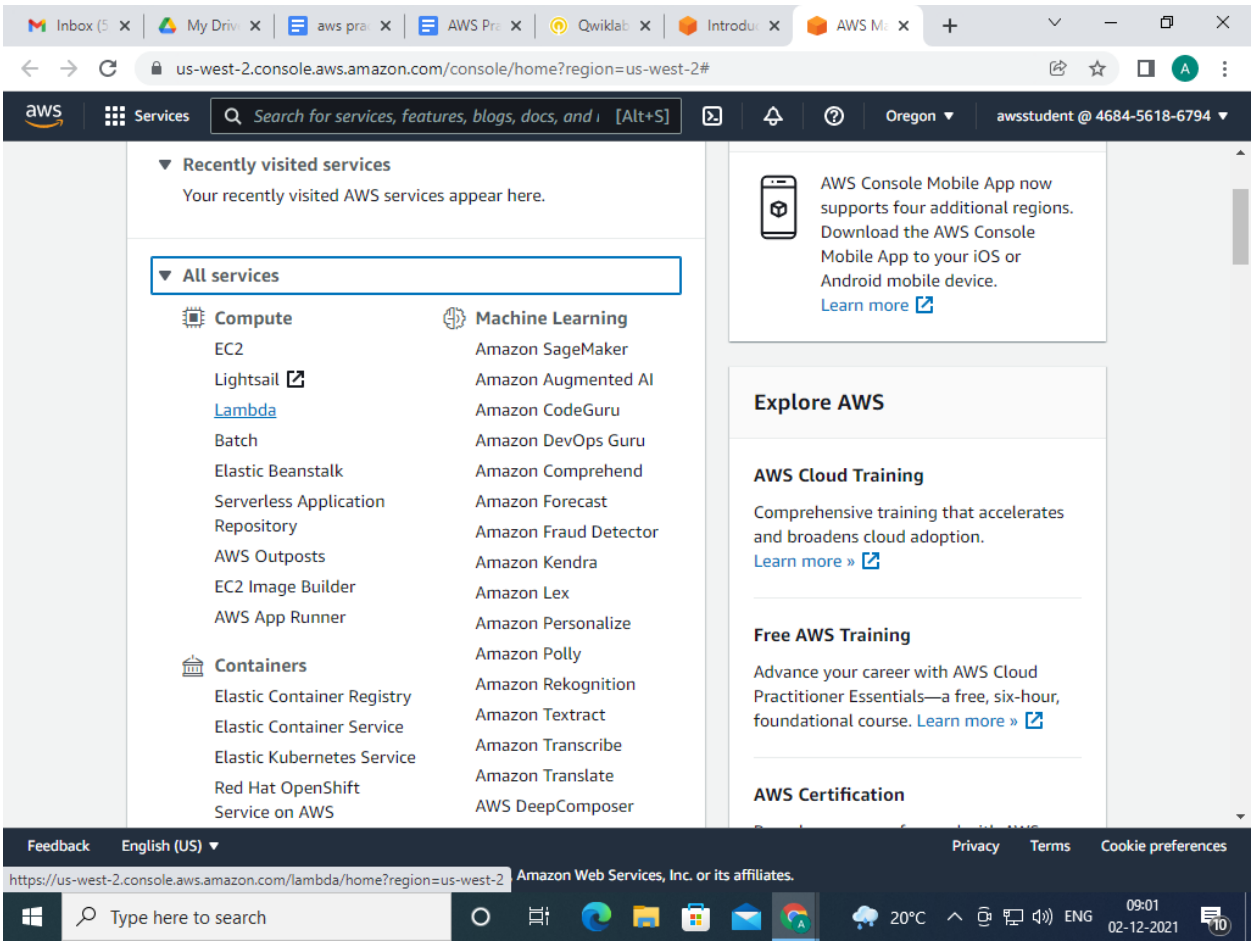
Introduction to Amazon API Gateway

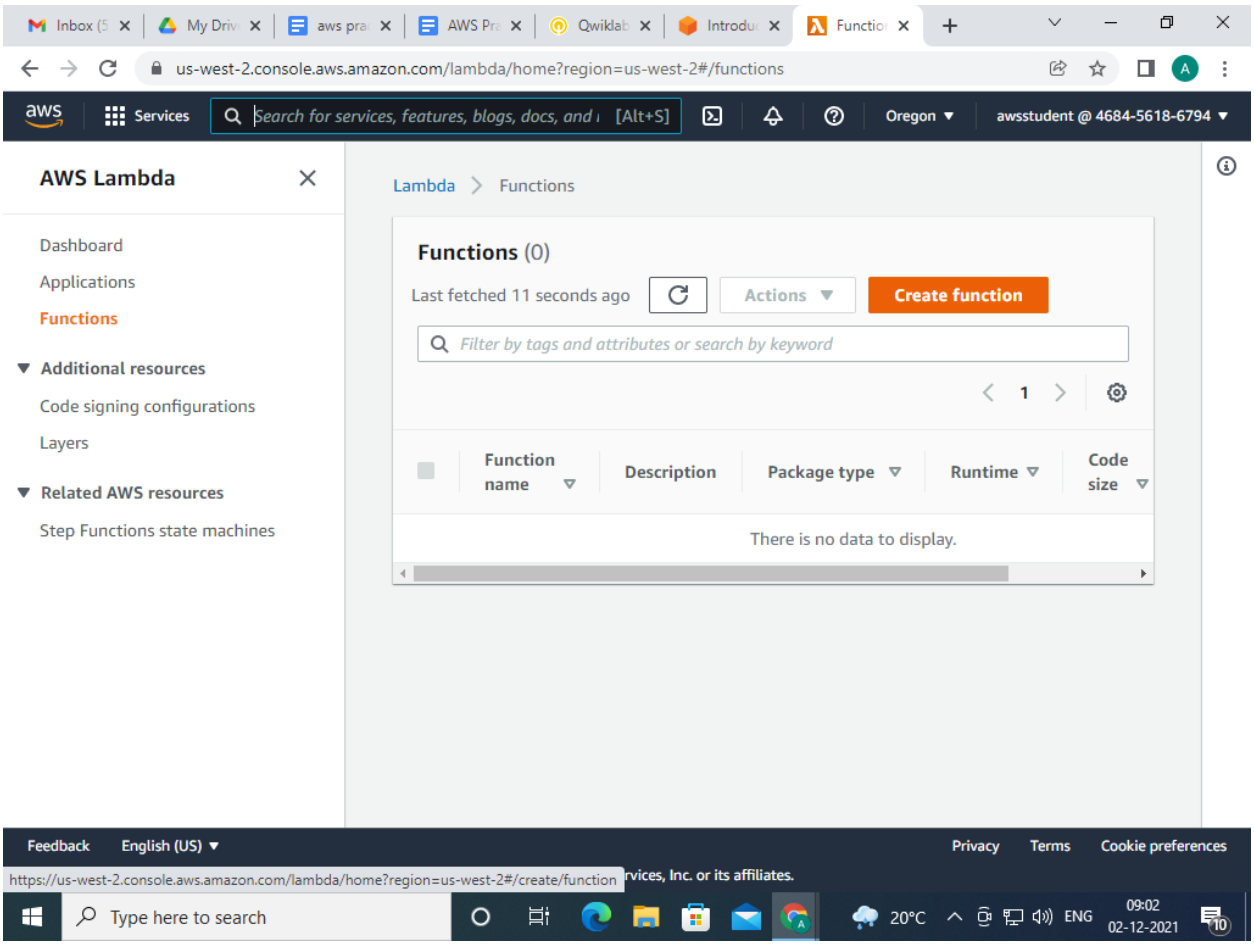
Aim: A) Create a Lambda Function

B) Test the Lambda function Conclusion

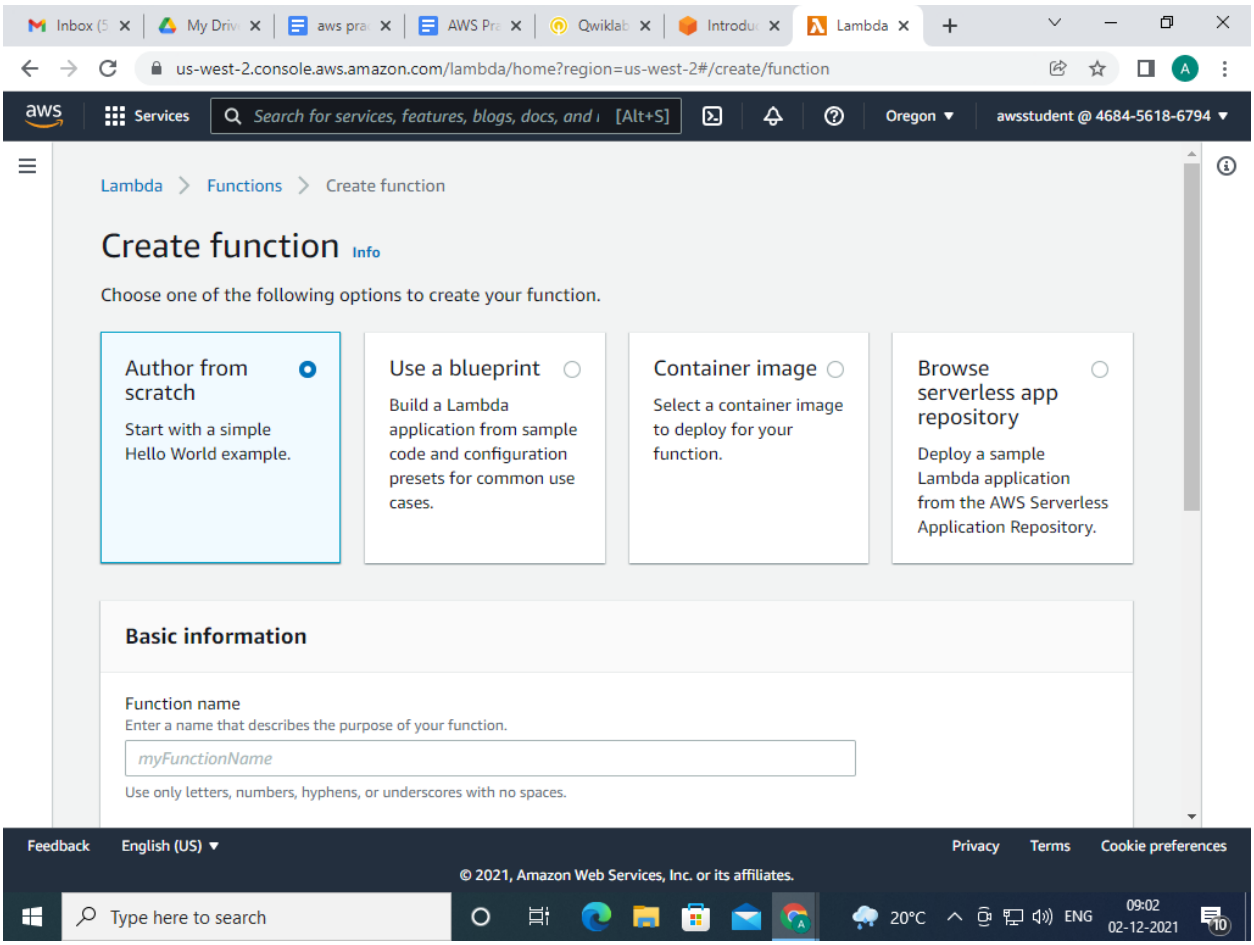


Click on lambda

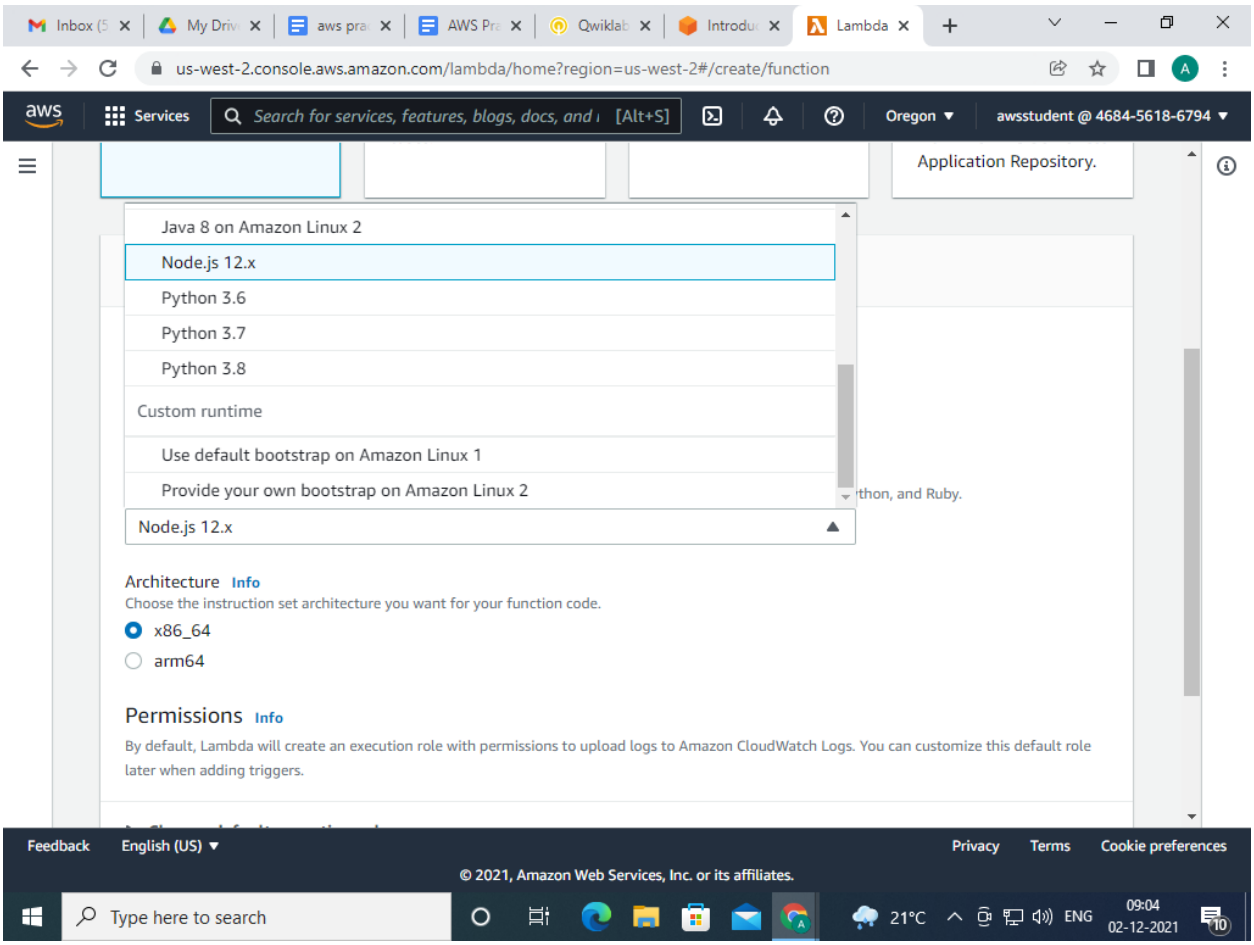

us-west-2.console.aws.amazon.com/console/home?region=us-west-2#
Services
Search for services, features, blogs, docs, and [Alt+S]
Oregon
awsstudent @ 4684-5618-6794
Recently visited services
Your recently visited AWS services appear here.
All services
Compute
EC2
Lightsail
Lambda
Batch
Elastic Beanstalk
Serverless Application Repository
AWS Outposts
EC2 Image Builder
AWS App Runner
Containers
Elastic Container Registry
Elastic Container Service
Elastic Kubernetes Service
Red Hat OpenShift Service on AWS
Machine Learning
Amazon SageMaker
Amazon Augmented AI
Amazon CodeGuru
Amazon DevOps Guru
Amazon Comprehend
Amazon Forecast
Amazon Fraud Detector
Amazon Kendra
Amazon Lex
Amazon Personalize
Amazon Polly
Amazon Rekognition
Amazon Textract
Amazon Transcribe
Amazon Translate
AWS DeepComposer
AWS Console Mobile App now supports four additional regions. Download the AWS Console Mobile App to your iOS or Android mobile device.
Learn more
Explore AWS
AWS Cloud Training
Comprehensive training that accelerates and broadens cloud adoption.
Learn more »
Free AWS Training
Advance your career with AWS Cloud Practitioner Essentials—a free, six-hour, foundational course. Learn more »
AWS Certification
Feedback
English (US)
Privacy
Terms
Cookie preferences
https://us-west-2.console.aws.amazon.com/lambda/home?region=us-west-2
Amazon Web Services, Inc. or its affiliates.
Type here to search
20°C
ENG
09:01
02-12-2021

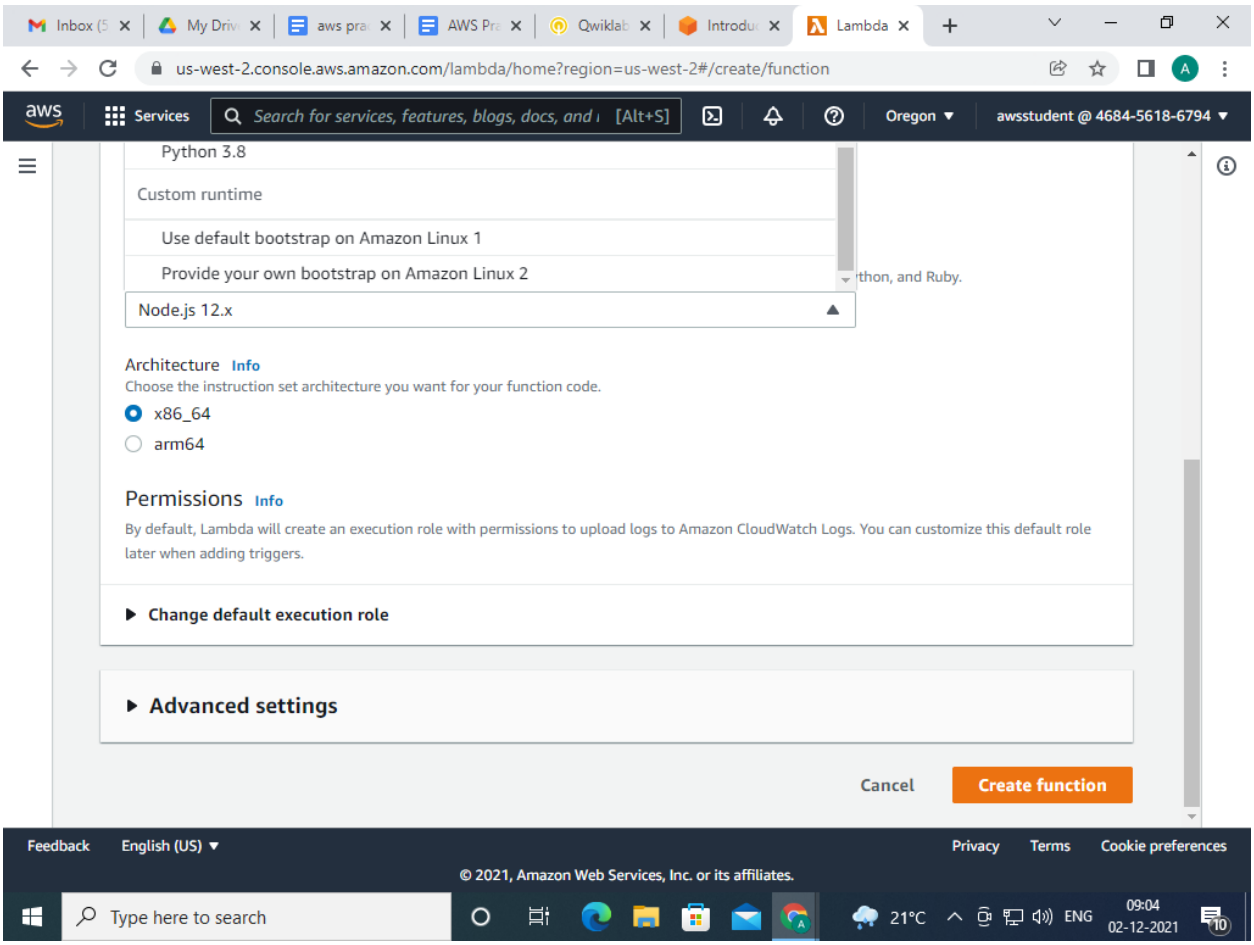


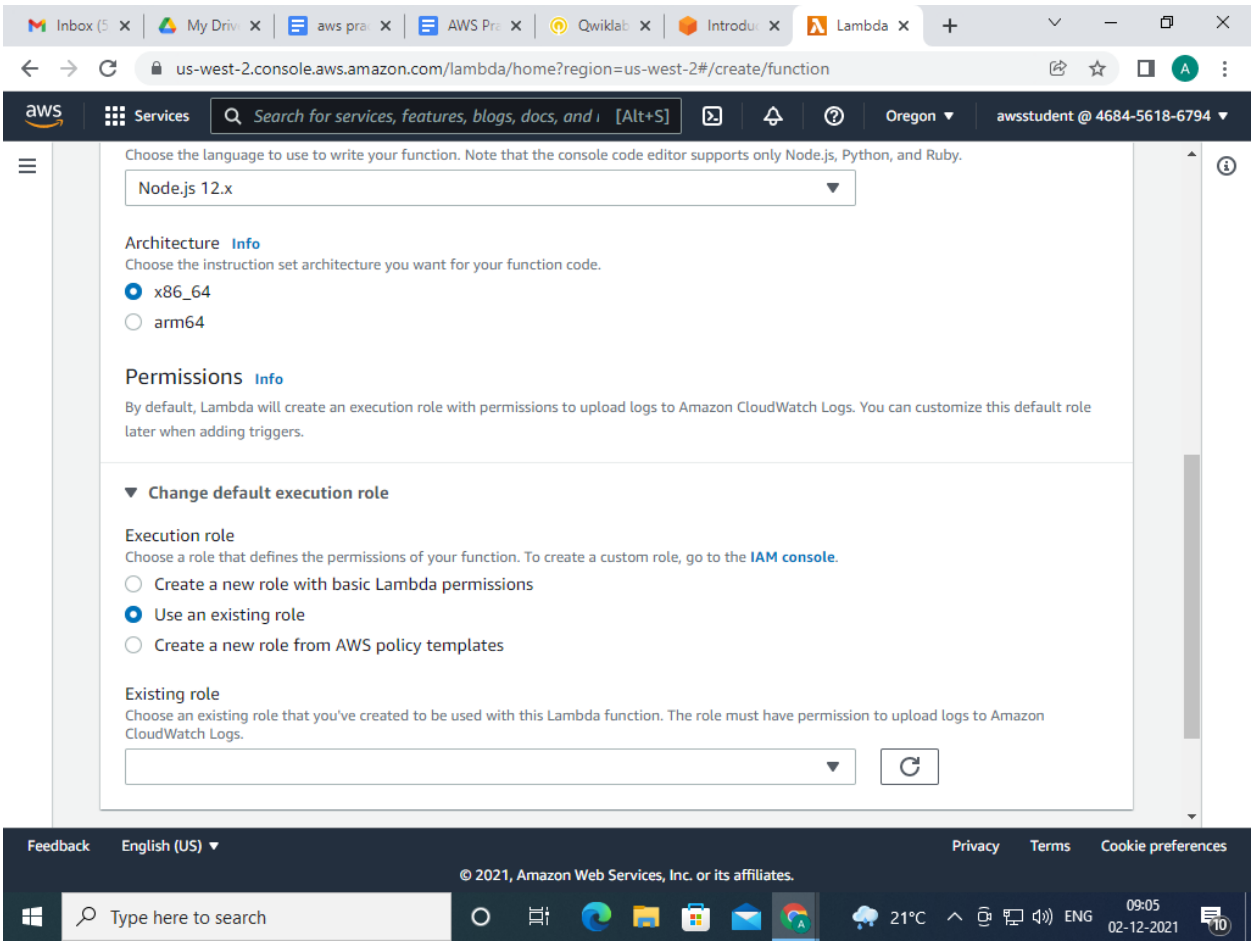
Click on create function

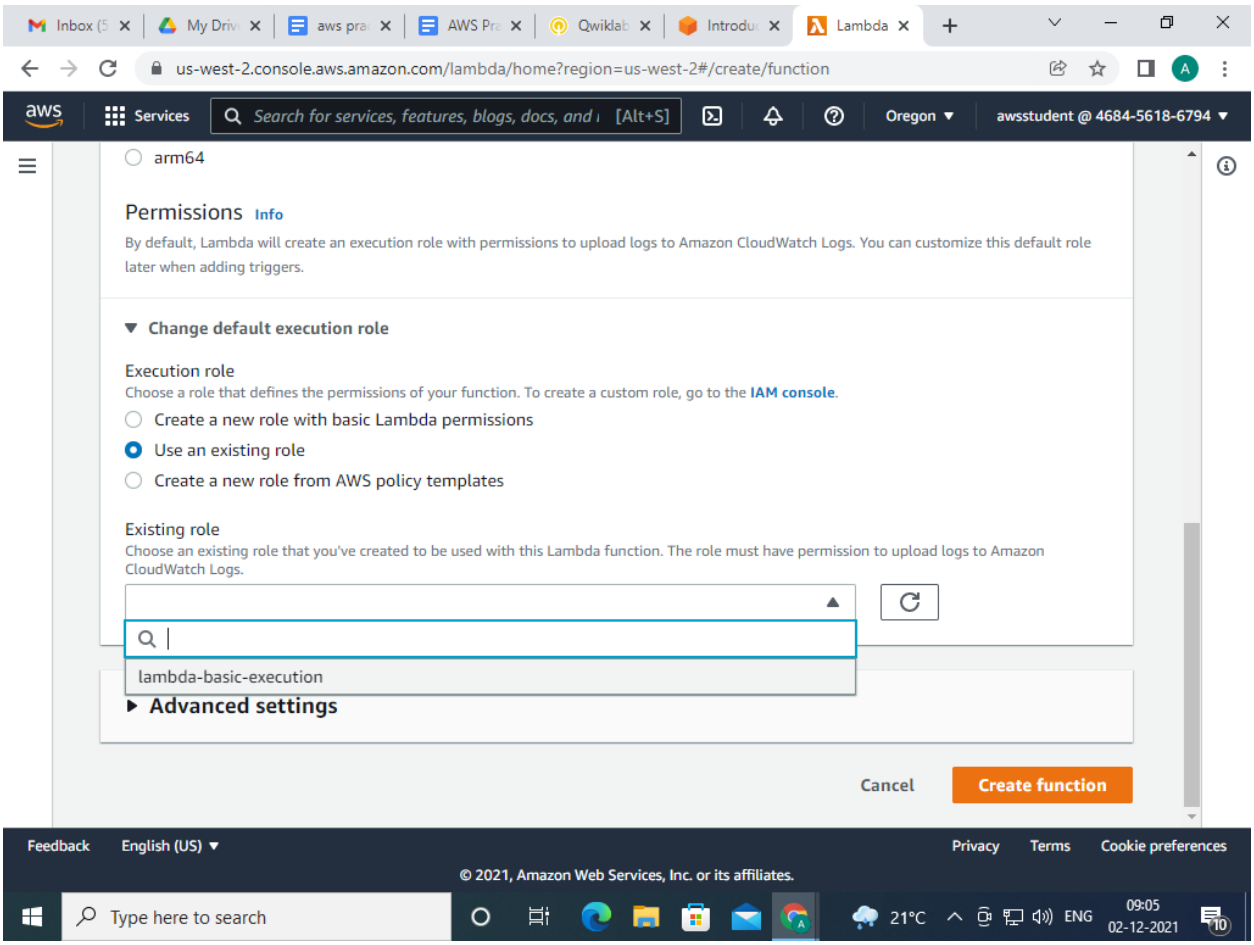


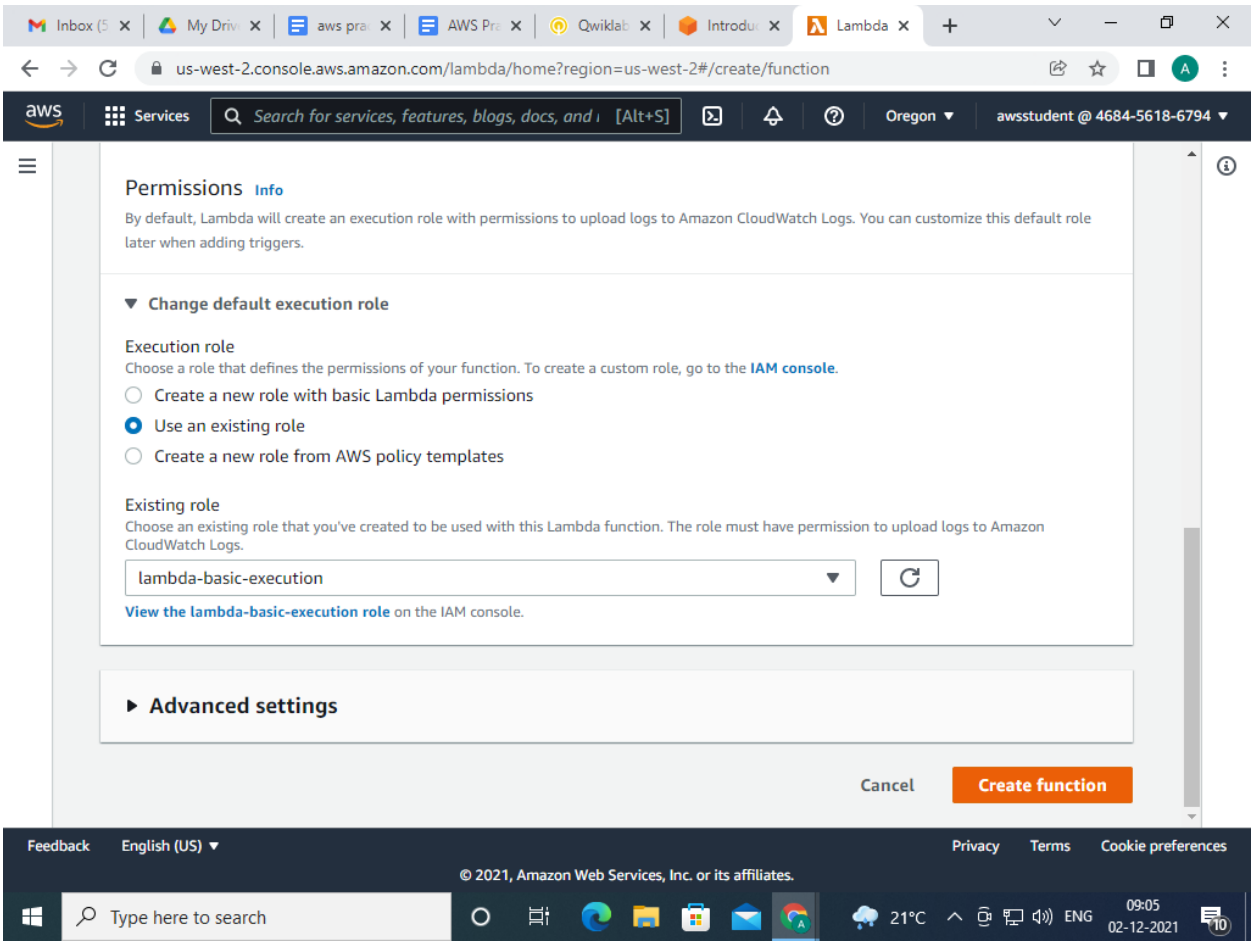
Function name:FAQ

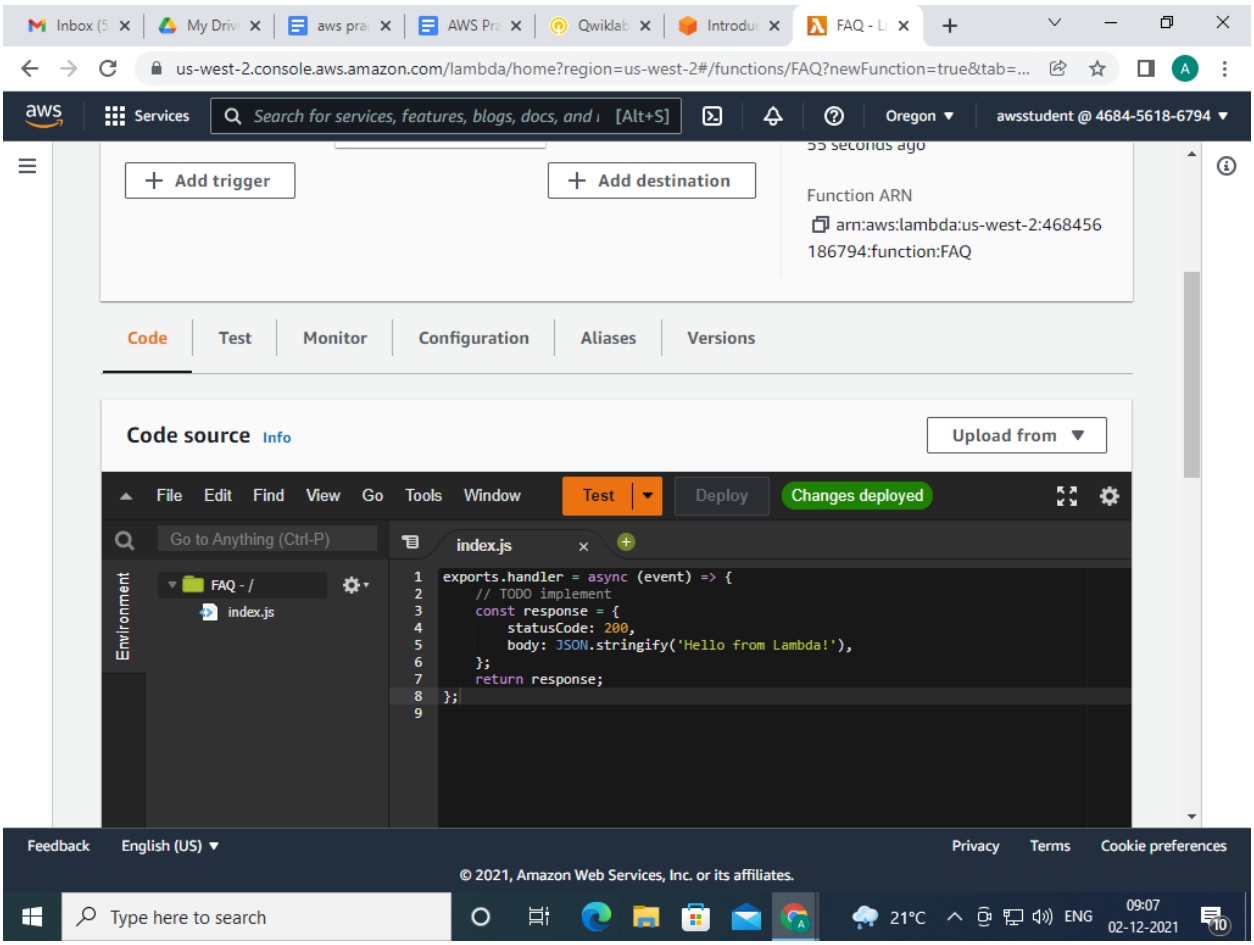

Inbox (5
My Driv
aws pra
AWS Pra
Qwiklab
Introdu
Lambda
us-west-2.console.aws.amazon.com/lambda/home?region=us-west-2#/create/function
aws
Services
Search for services, features, blogs, docs, and [Alt+S]
Oregon
awsstudent @ 4684-5618-6794
Application Repository.
Java 8 on Amazon Linux 2
Node.js 12.x
Python 3.6
Python 3.7
Python 3.8
Custom runtime
Use default bootstrap on Amazon Linux 1
Provide your own bootstrap on Amazon Linux 2
thon, and Ruby.
Node.js 12.x
Architecture Info
Choose the instruction set architecture you want for your function code.
x86_64
arm64
Permissions Info
By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.
Feedback
English (US)
Privacy
Terms
Cookie preferences
© 2021, Amazon Web Services, Inc. or its affiliates.
Type here to search
21°C
ENG
09:04
02-12-2021


Lambda
us-west-2.console.aws.amazon.com/lambda/home?region=us-west-2#/create/function
Services
Search for services, features, blogs, docs, and [Alt+S]
Oregon
awsstudent @ 4684-5618-6794
Python 3.8
Custom runtime
Use default bootstrap on Amazon Linux 1
Provide your own bootstrap on Amazon Linux 2
thon, and Ruby.
Node.js 12.x
Architecture Info
Choose the instruction set architecture you want for your function code.
x86_64
arm64
Permissions Info
By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.
Change default execution role
Advanced settings
Cancel
Create function
Feedback
English (US)
Privacy
Terms
Cookie preferences
© 2021, Amazon Web Services, Inc. or its affiliates.
Type here to search
21°C
ENG
09:04
02-12-2021

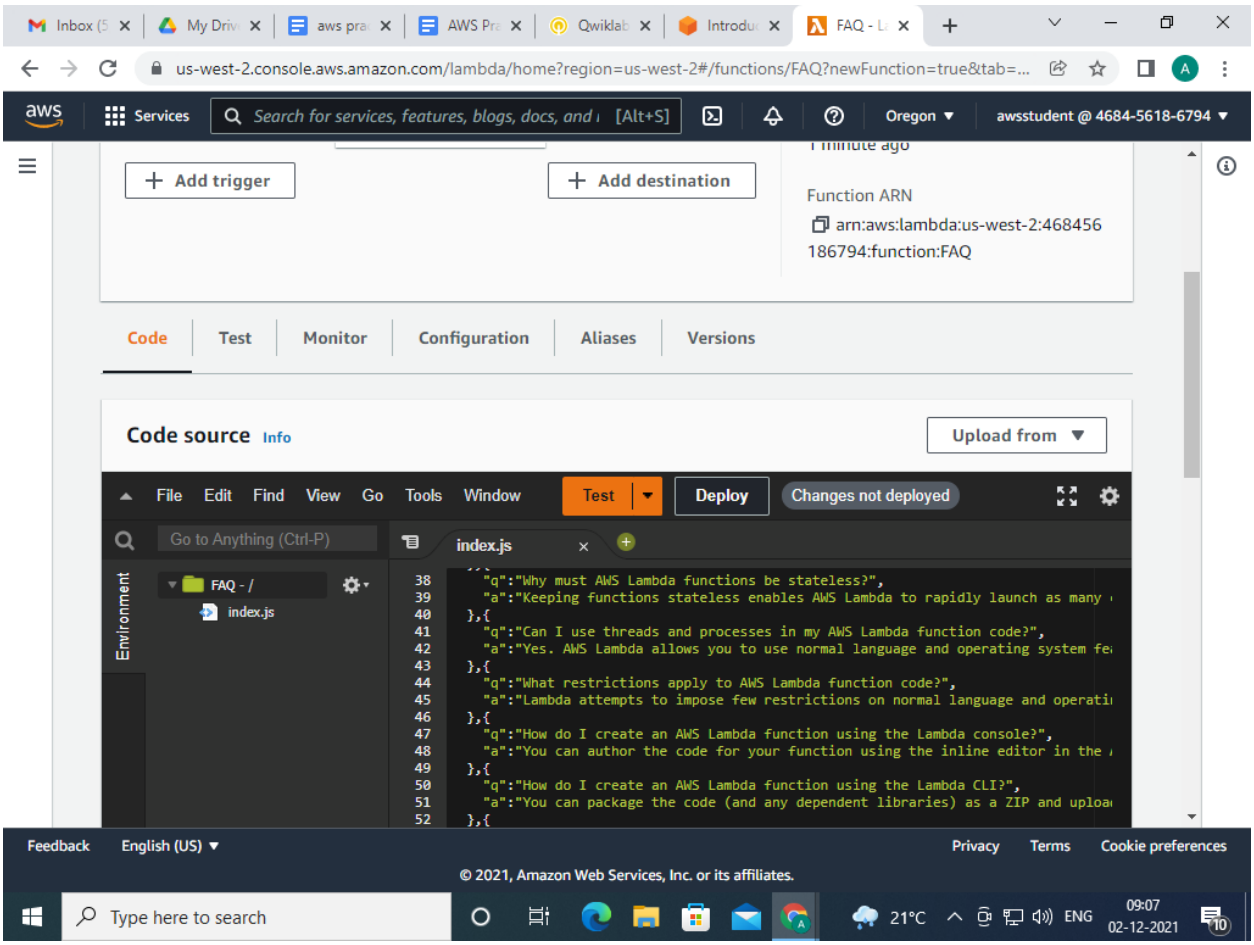

Inbox (5
My Driv
aws pra
AWS Pra
Qwiklab
Introdu
Lambda
us-west-2.console.aws.amazon.com/lambda/home?region=us-west-2#/create/function
aws
Services
Search for services, features, blogs, docs, and [Alt+S]
Oregon
awsstudent @ 4684-5618-6794
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.
Node.js 12.x
Architecture Info
Choose the instruction set architecture you want for your function code.
x86_64
arm64
Permissions Info
By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.
Change default execution role
Execution role
Choose a role that defines the permissions of your function. To create a custom role, go to the IAM console.
Create a new role with basic Lambda permissions
Use an existing role
Create a new role from AWS policy templates
Existing role
Choose an existing role that you've created to be used with this Lambda function. The role must have permission to upload logs to Amazon CloudWatch Logs.
Feedback
English (US)
Privacy
Terms
Cookie preferences
© 2021, Amazon Web Services, Inc. or its affiliates.
Type here to search
21°C
ENG
09:05
02-12-2021


Lambda
us-west-2.console.aws.amazon.com/lambda/home?region=us-west-2#/create/function
Services
Search for services, features, blogs, docs, and [Alt+S]
Oregon
awsstudent @ 4684-5618-6794
arm64
Permissions Info
By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.
Change default execution role
Execution role
Choose a role that defines the permissions of your function. To create a custom role, go to the IAM console.
Create a new role with basic Lambda permissions
Use an existing role
Create a new role from AWS policy templates
Existing role
Choose an existing role that you've created to be used with this Lambda function. The role must have permission to upload logs to Amazon CloudWatch Logs.
lambda-basic-execution
Advanced settings
Cancel
Create function
Feedback
English (US)
Privacy
Terms
Cookie preferences
© 2021, Amazon Web Services, Inc. or its affiliates.
Type here to search
21°C
ENG
09:05
02-12-2021

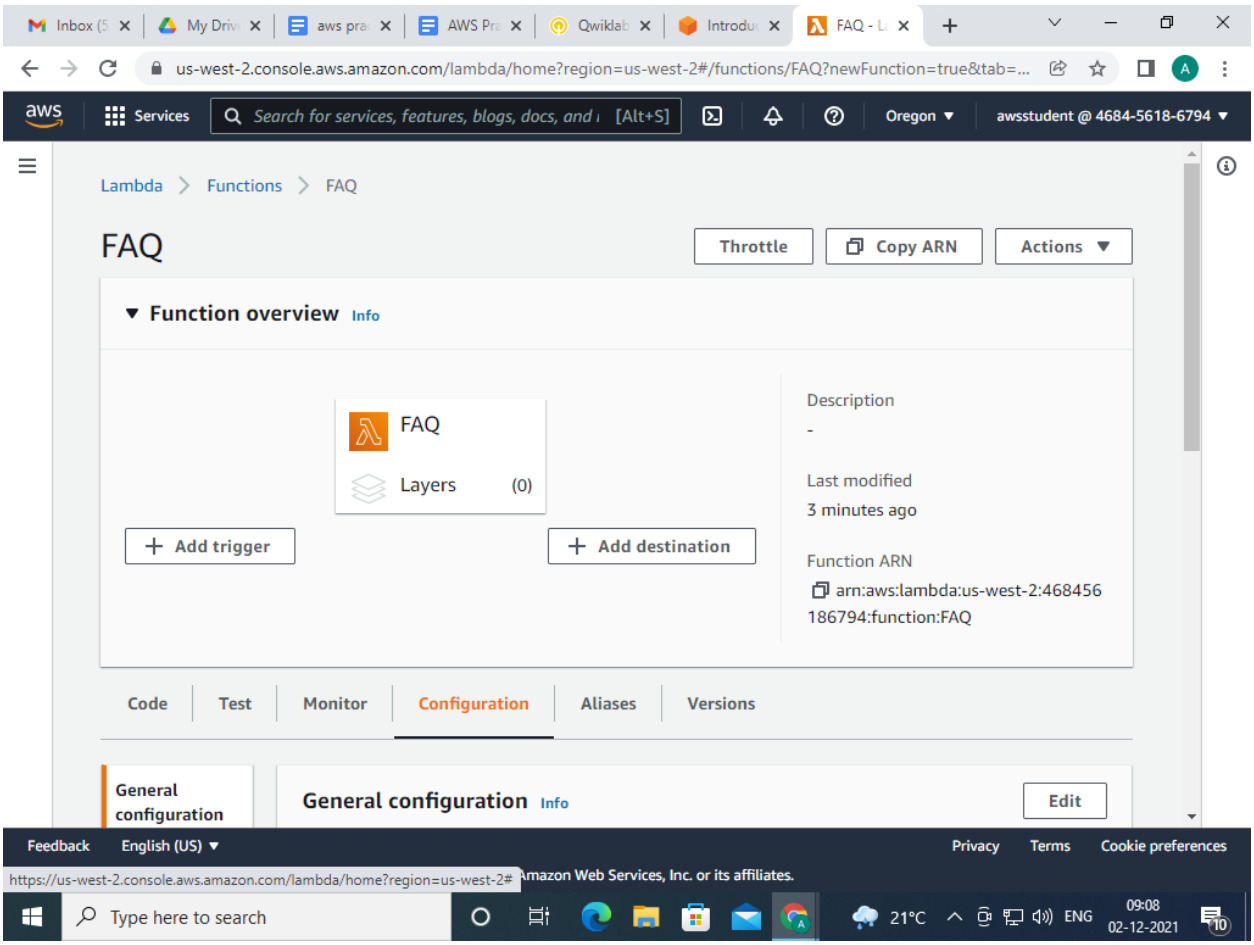

Inbox (5
My Driv
aws pra
AWS Pra
Qwiklab
Introdu
Lambda
us-west-2.console.aws.amazon.com/lambda/home?region=us-west-2#/create/function
aws
Services
Search for services, features, blogs, docs, and [Alt+S]
Oregon
awsstudent @ 4684-5618-6794
Permissions Info
By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.
Change default execution role
Execution role
Choose a role that defines the permissions of your function. To create a custom role, go to the IAM console.
Create a new role with basic Lambda permissions
Use an existing role
Create a new role from AWS policy templates
Existing role
Choose an existing role that you've created to be used with this Lambda function. The role must have permission to upload logs to Amazon CloudWatch Logs.
lambda-basic-execution
View the lambda-basic-execution role on the IAM console.
Advanced settings
Cancel
Create function
Feedback
English (US)
Privacy
Terms
Cookie preferences
© 2021, Amazon Web Services, Inc. or its affiliates.
Type here to search
21°C
ENG
09:05
02-12-2021



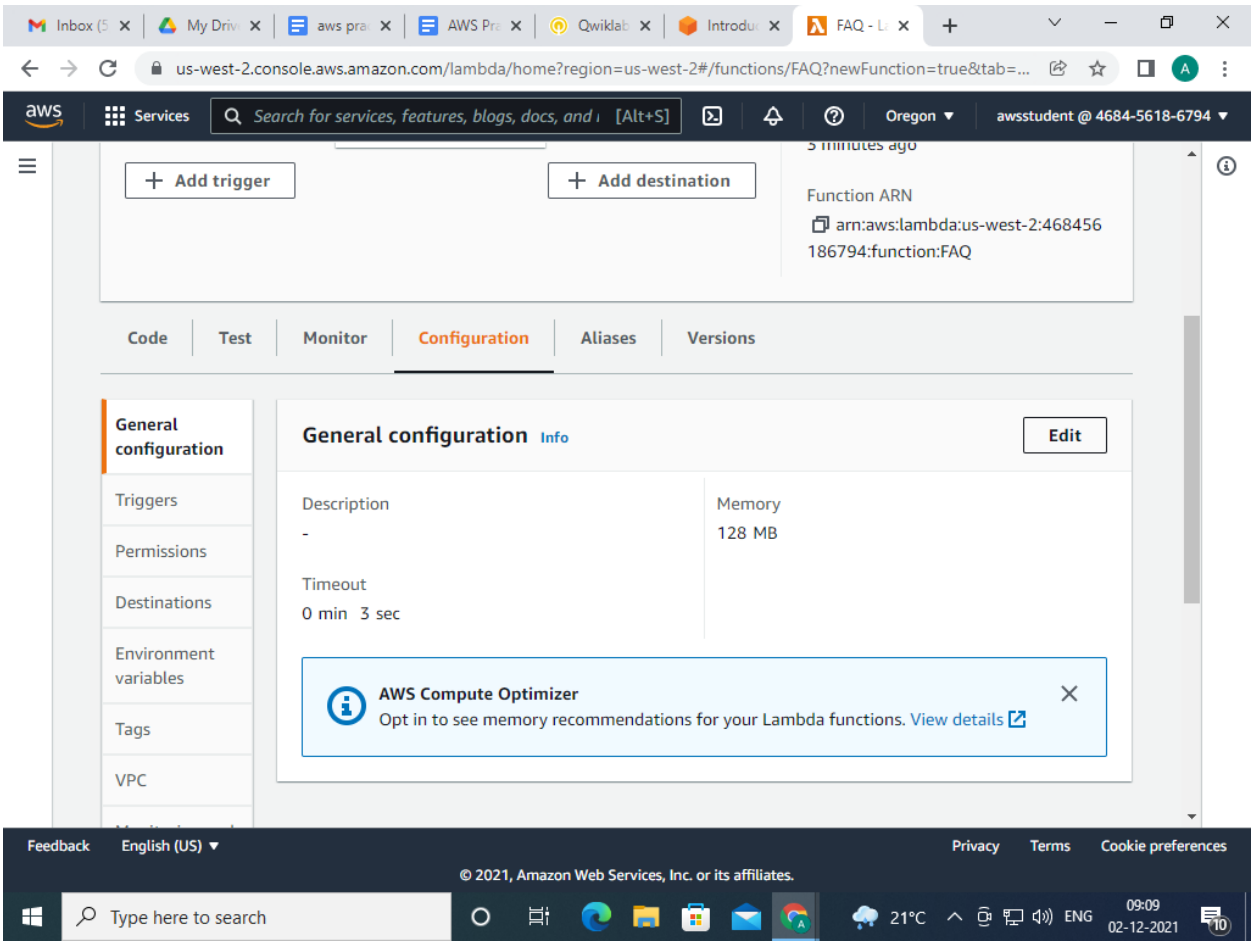
Click on deploy



Click on configuration tab

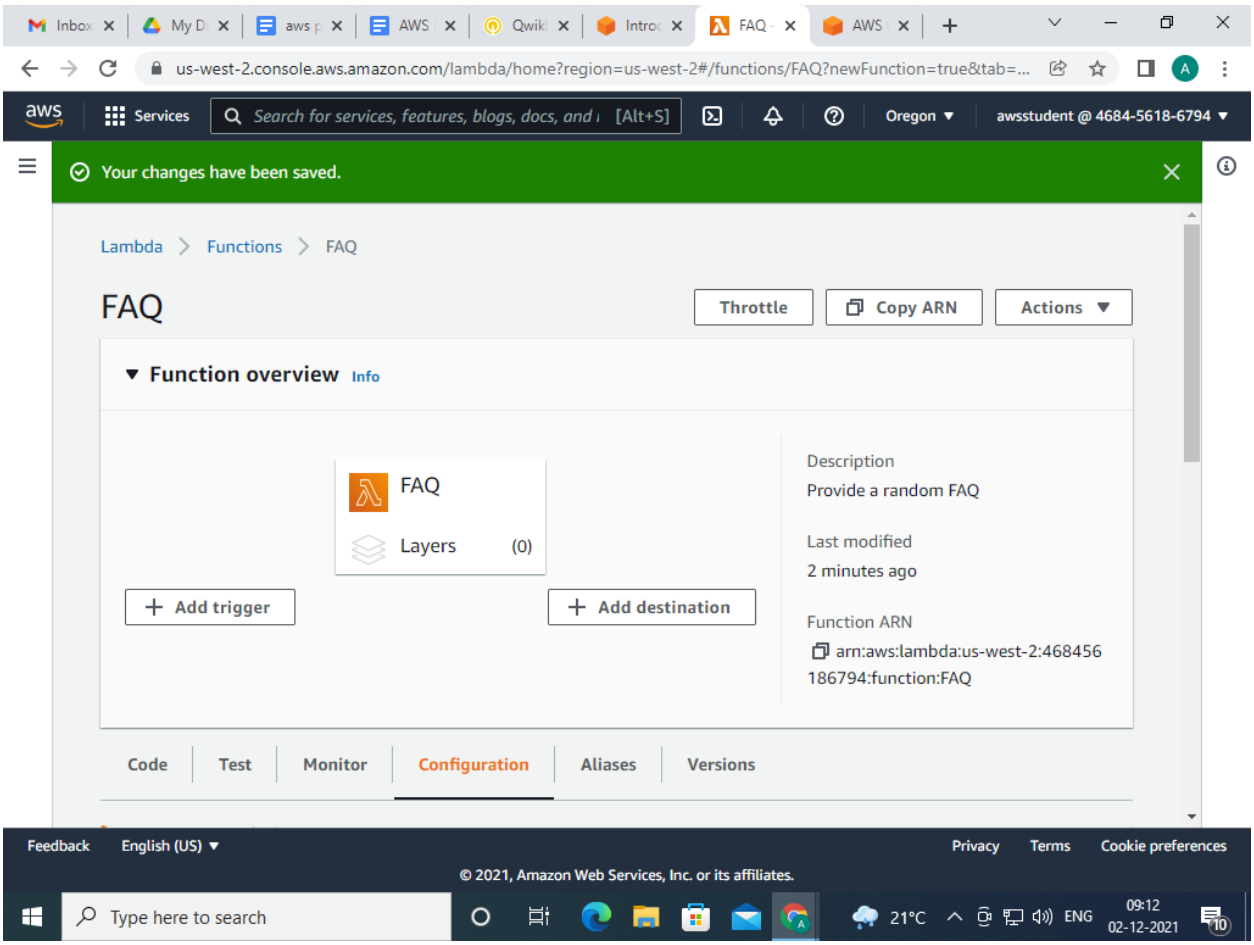


Then click on edit

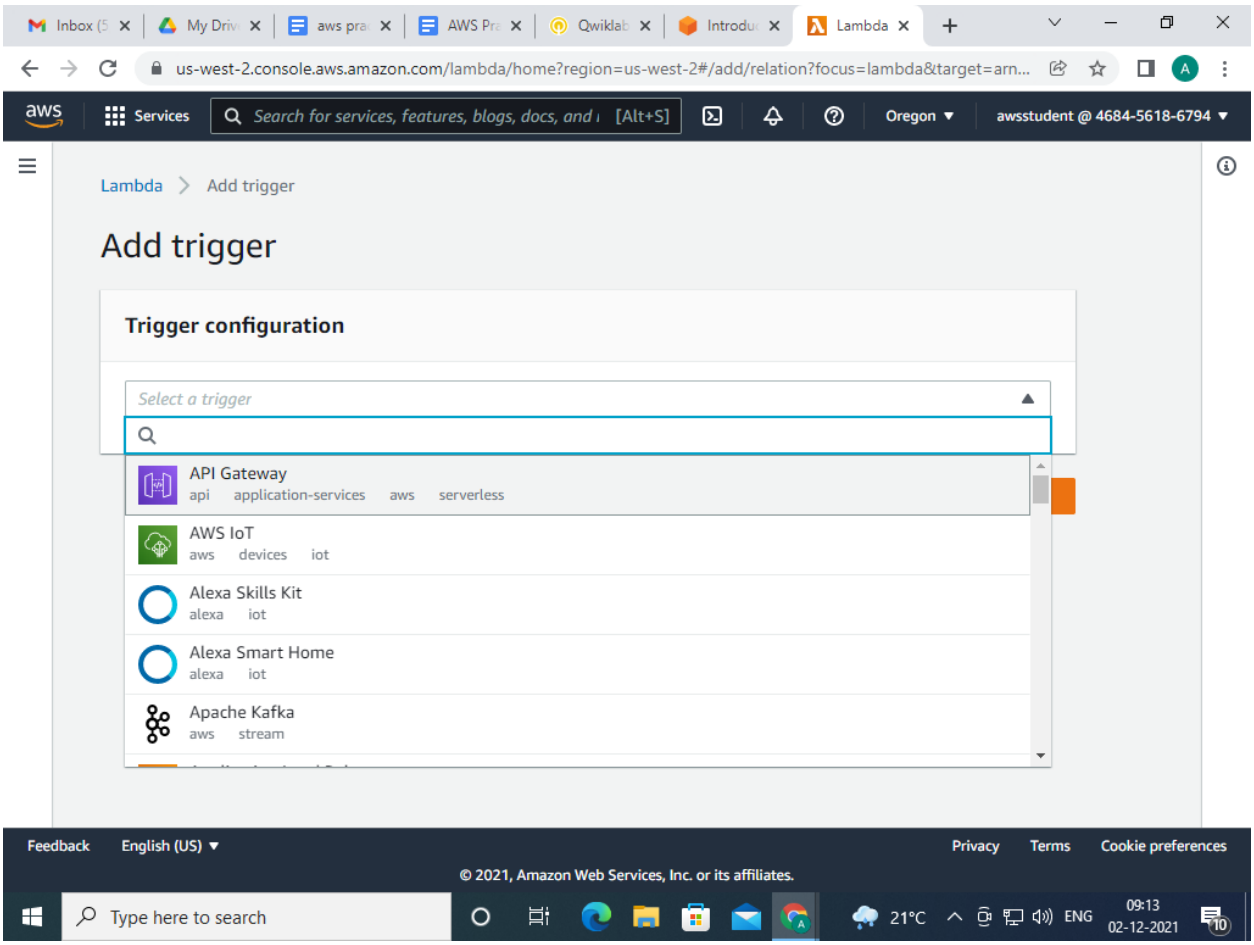


For description enter: Provide a random FAQ

Click on save

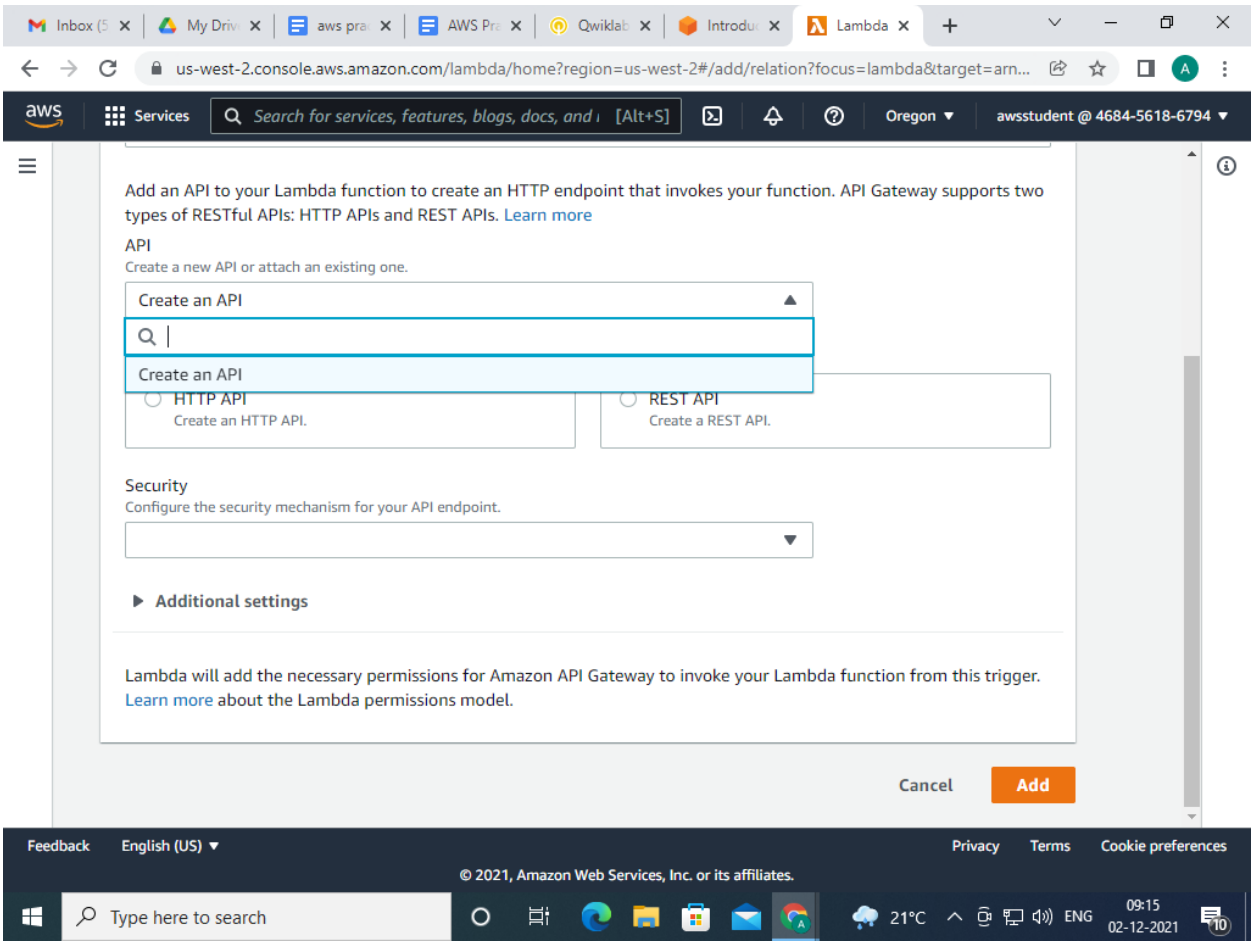


Click on Add Trigger

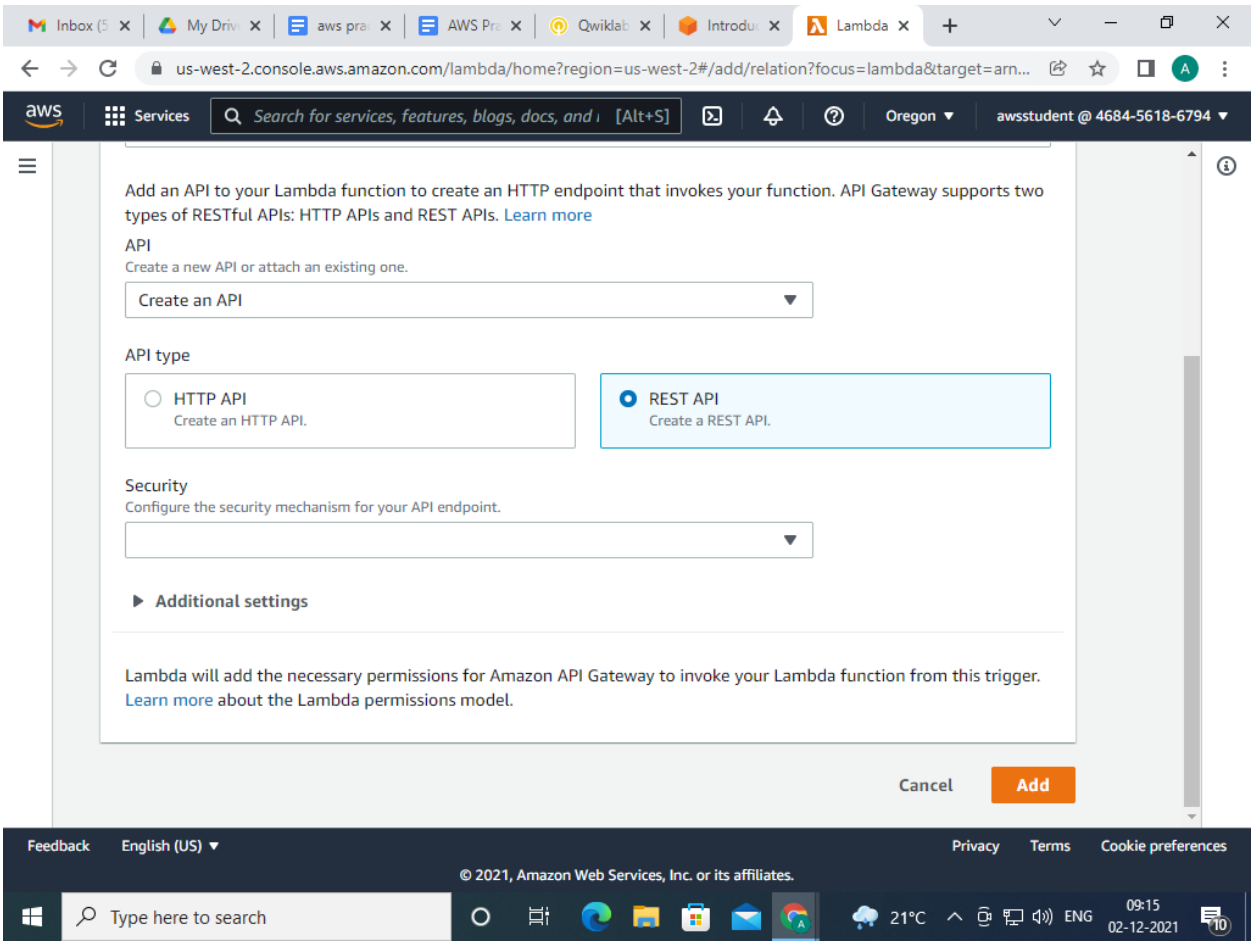


Then select api getway

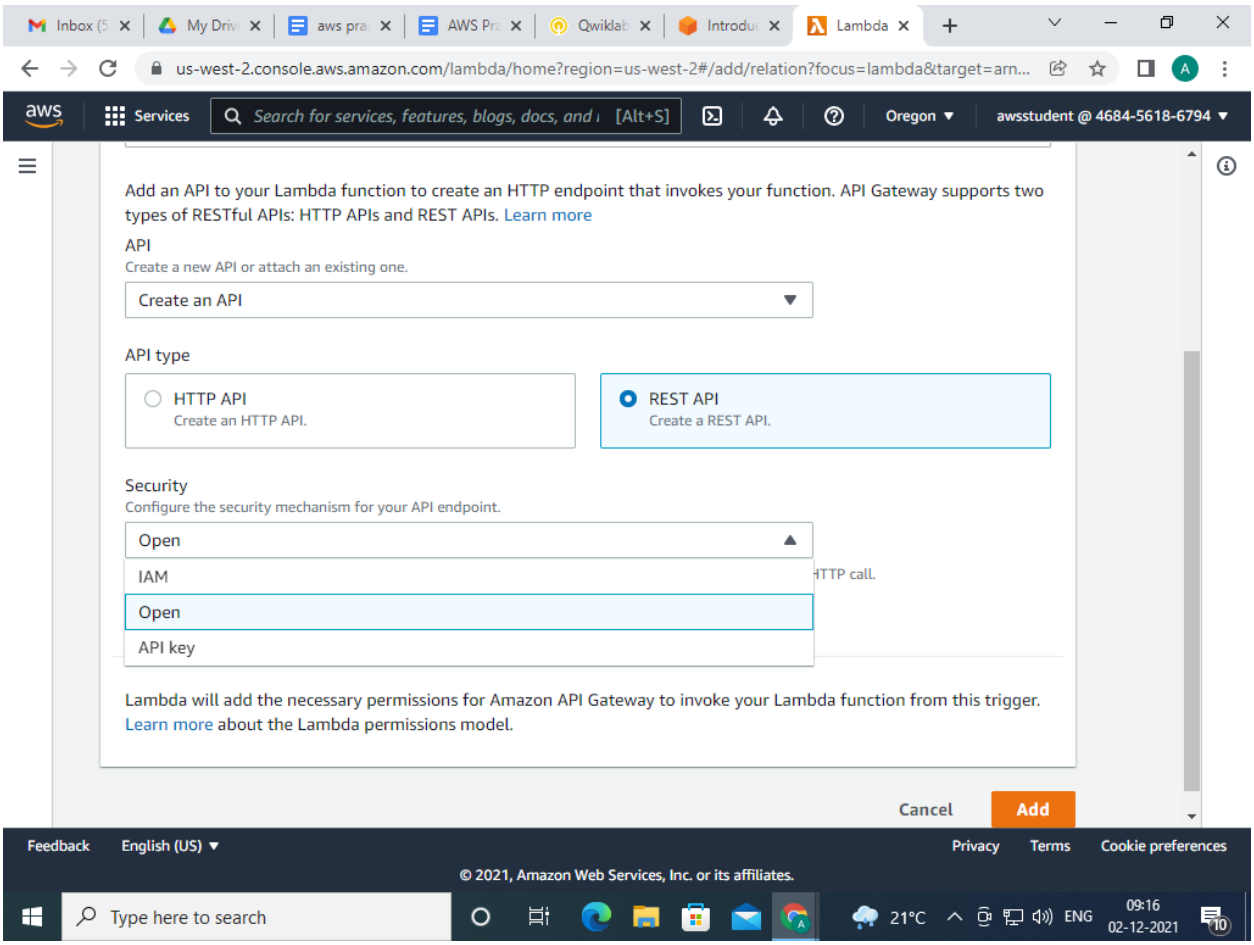
Then create an api



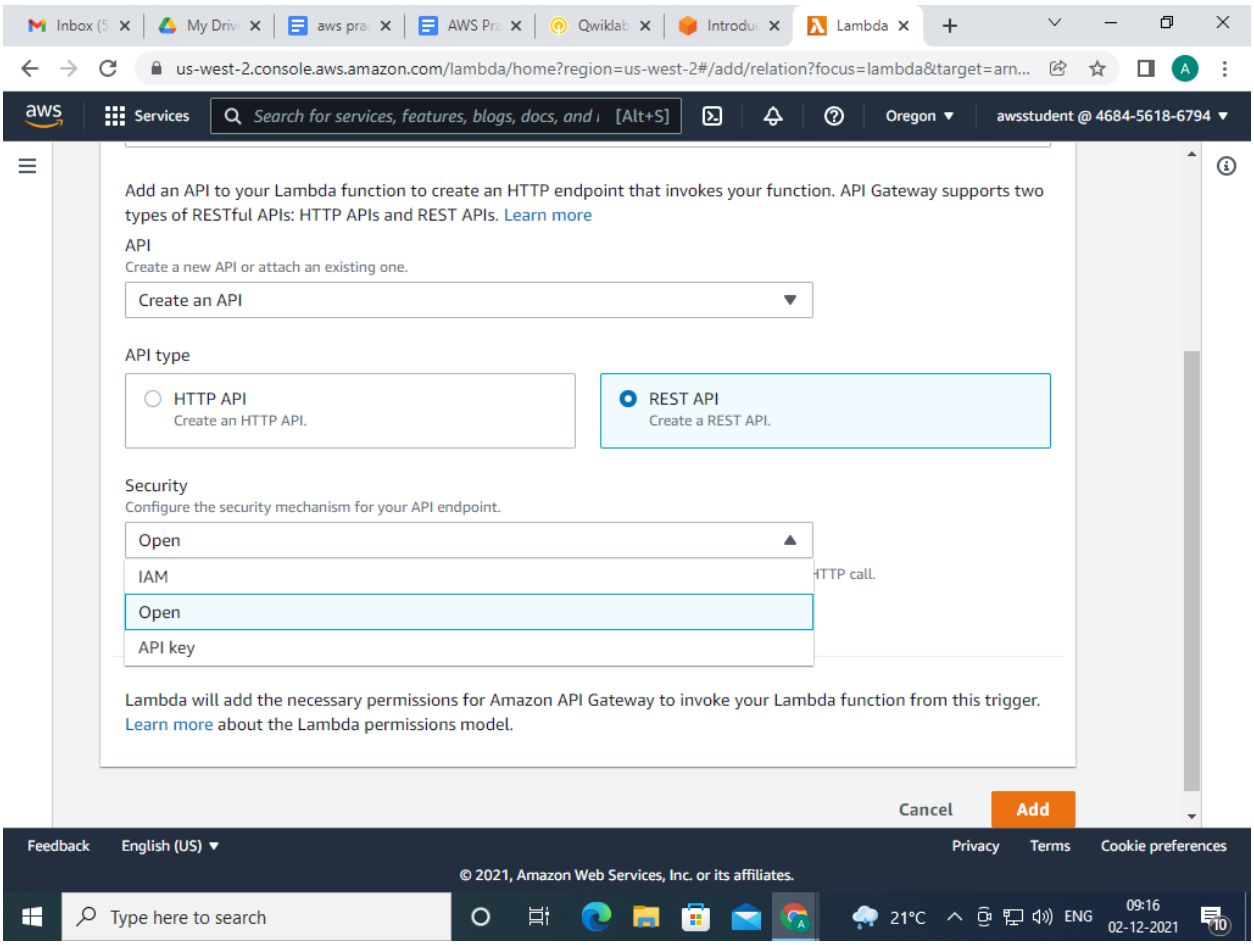
Click on reset Api



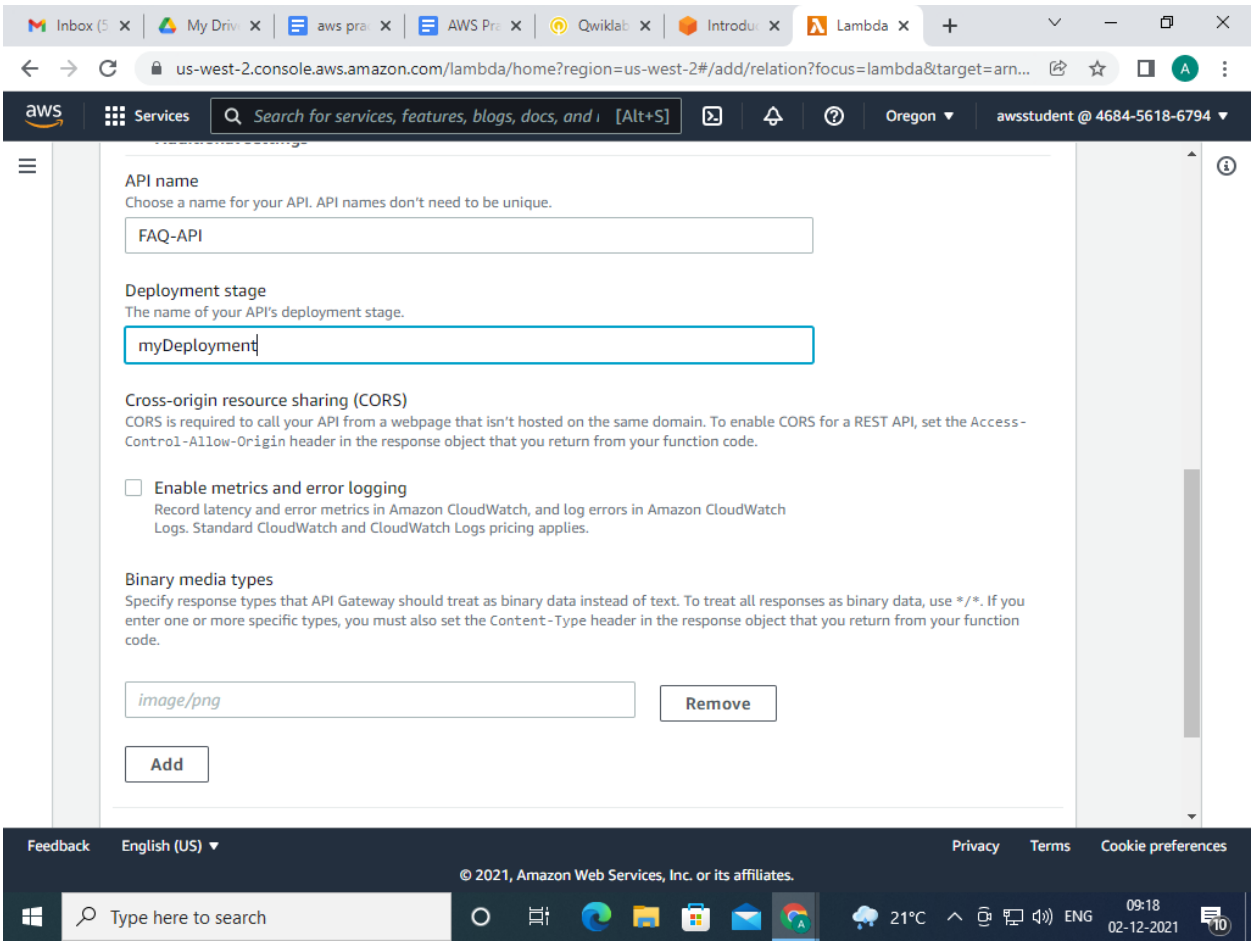
Security then click on open



Then go to additional setting

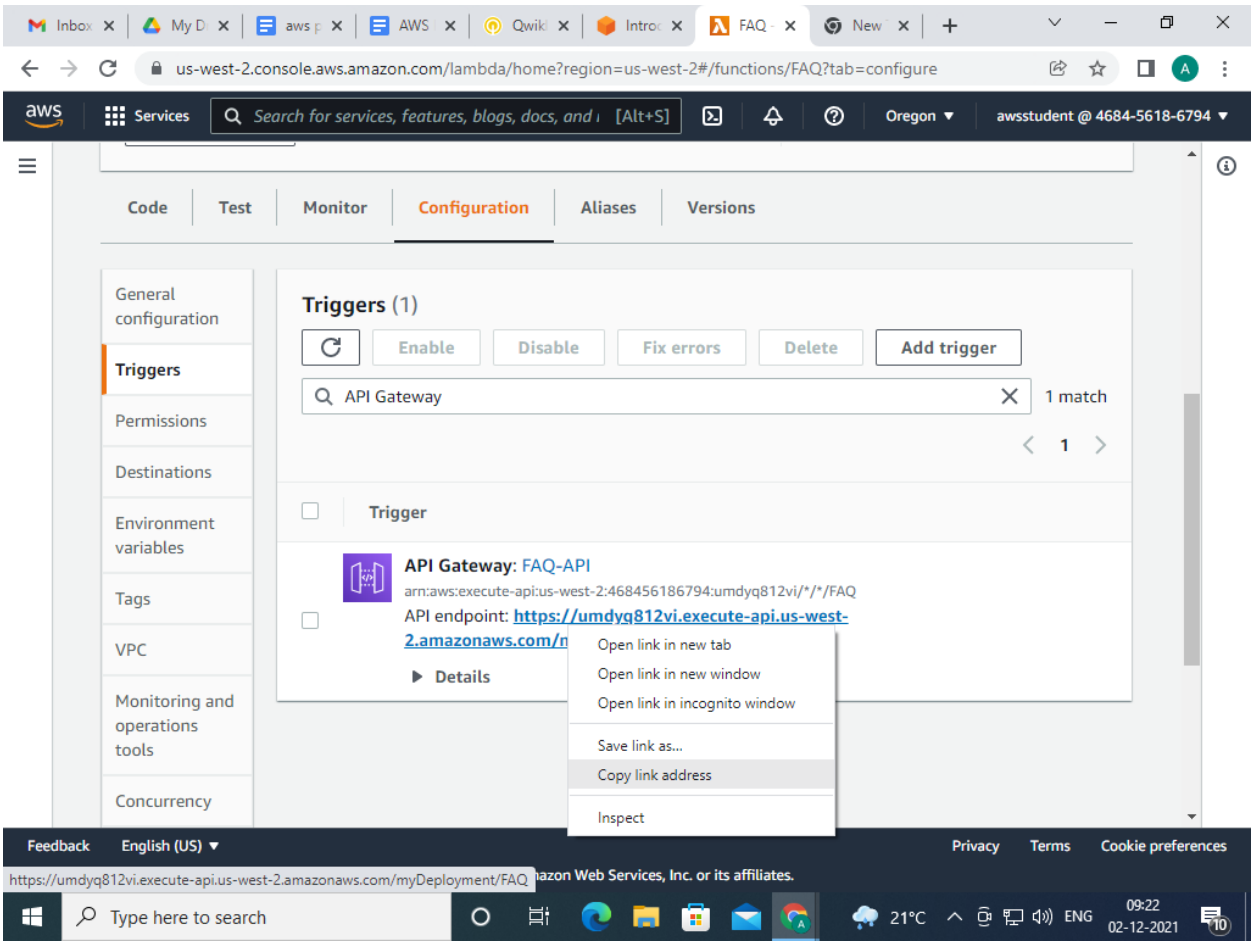


Deployment stage: myDeployment

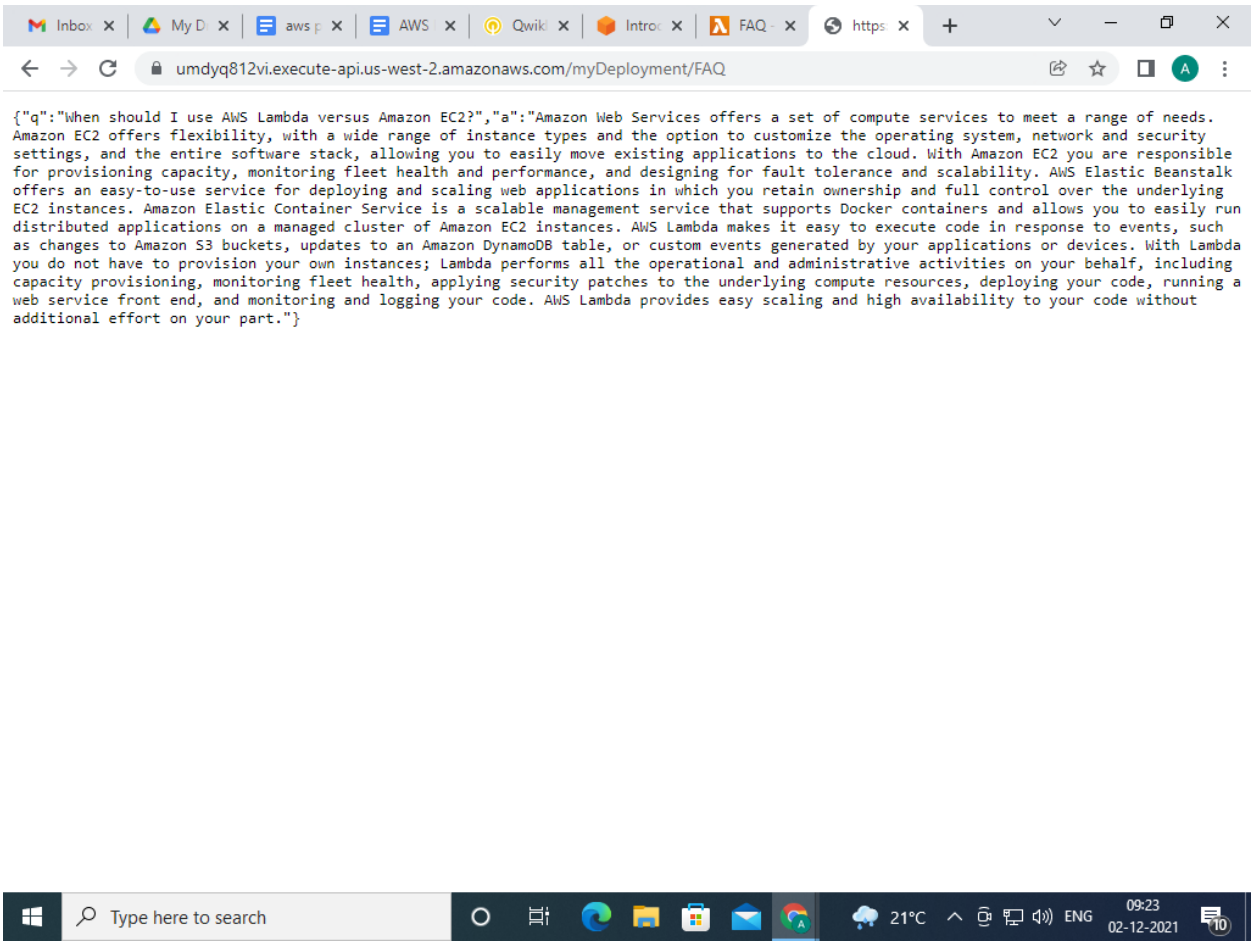


first you scroll down and Then click on add

Task 2: Test the Lambda function

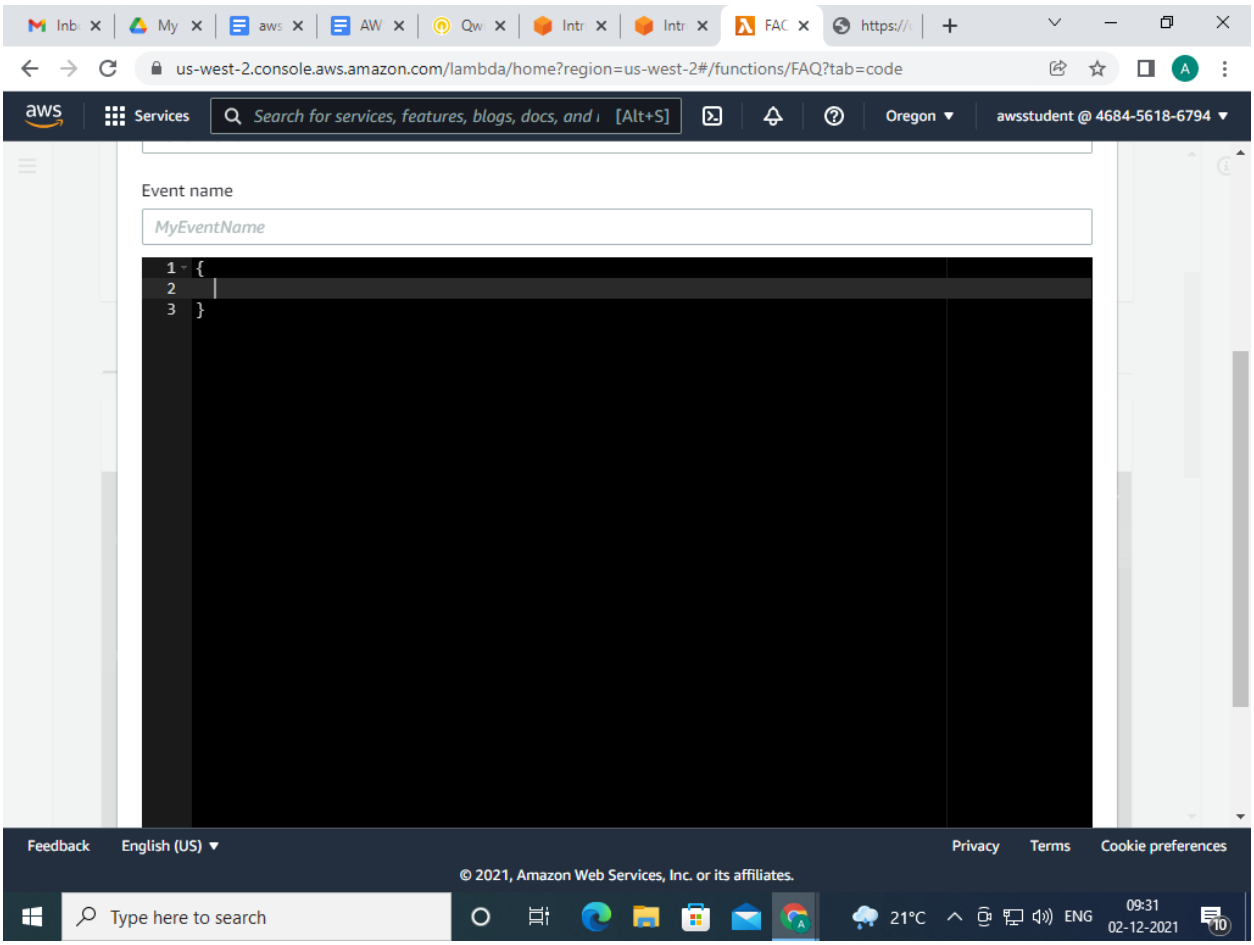


Copy link paste in another tab.

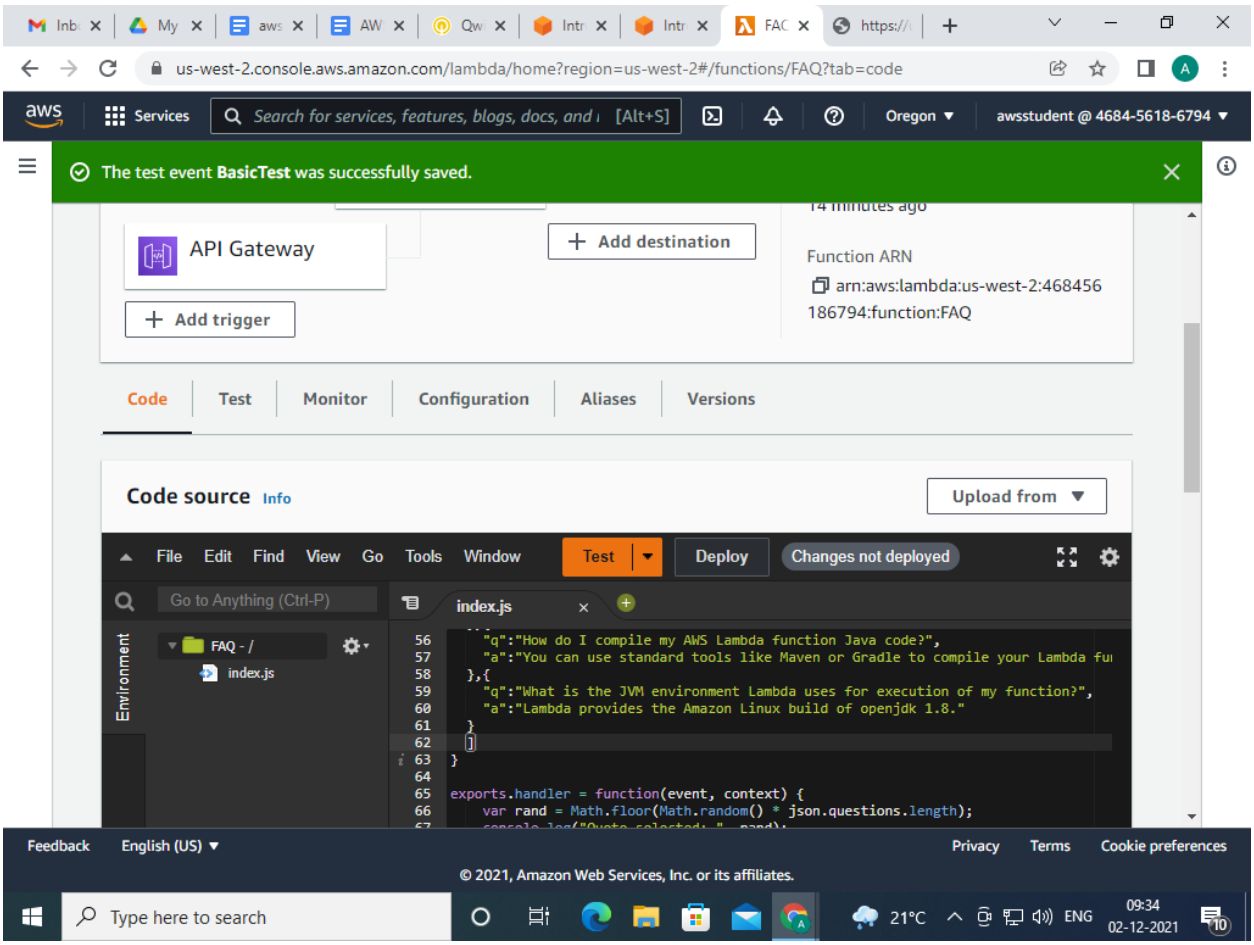


Then close FAQ browser then it show lambda management console

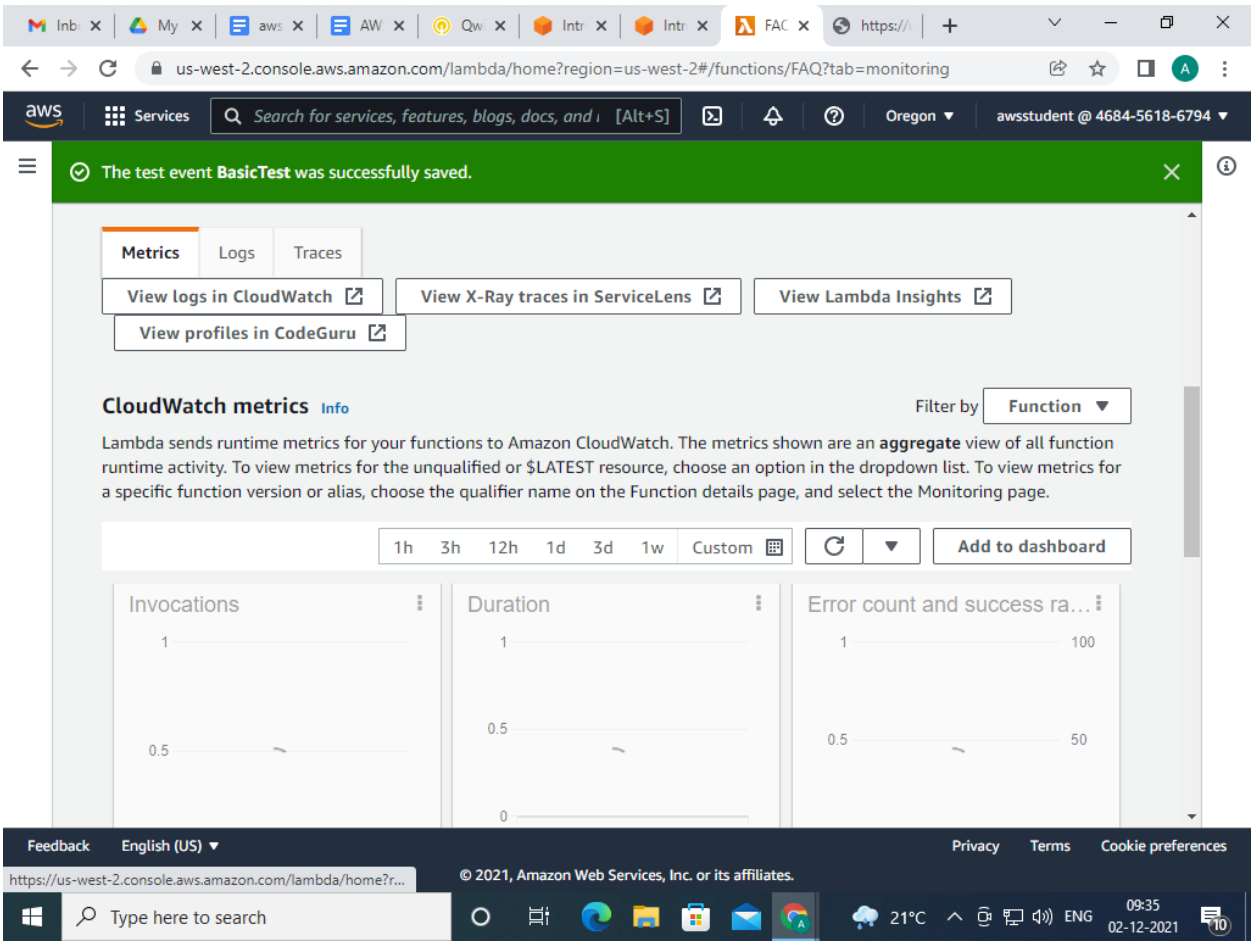
Go to test

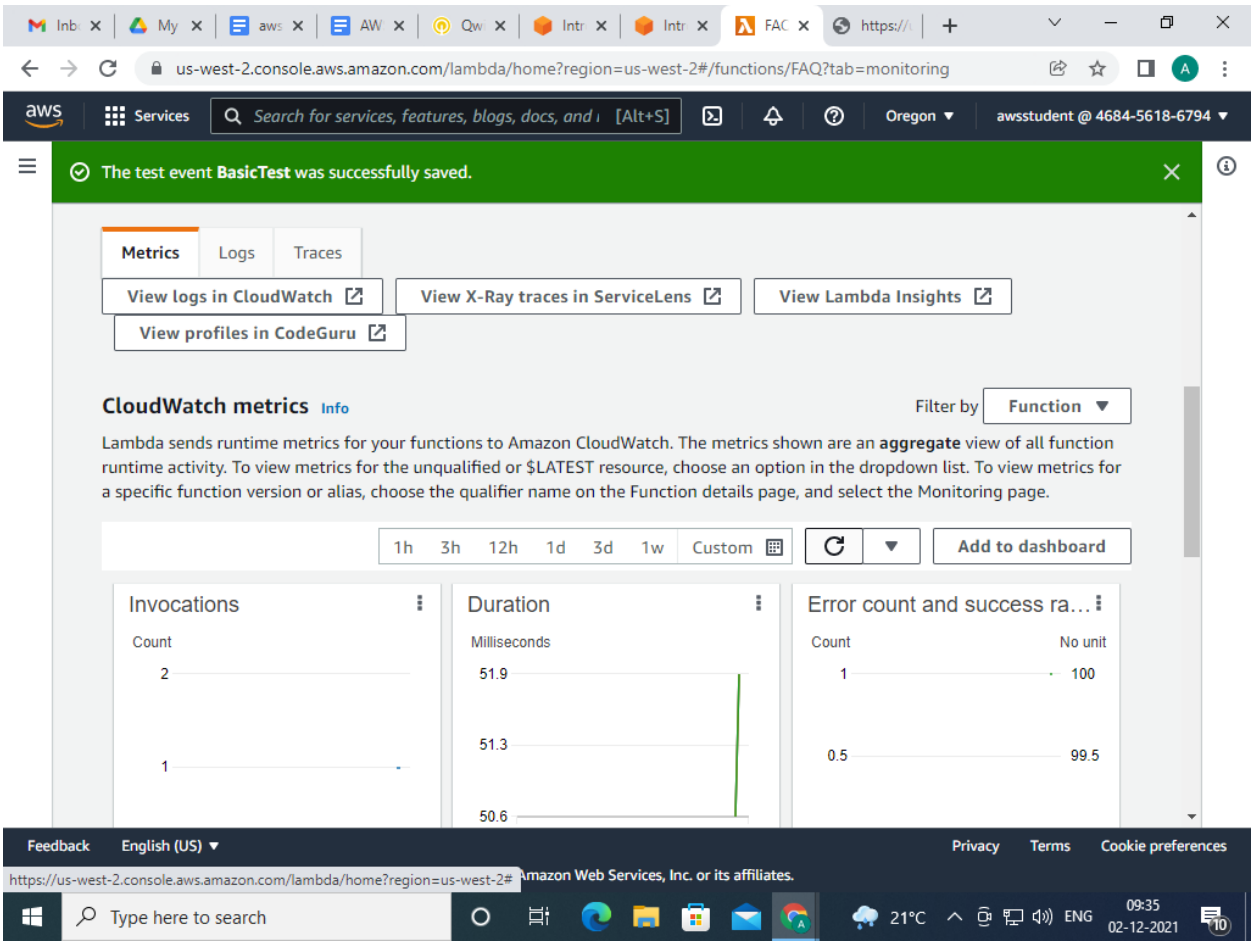


Then click on create



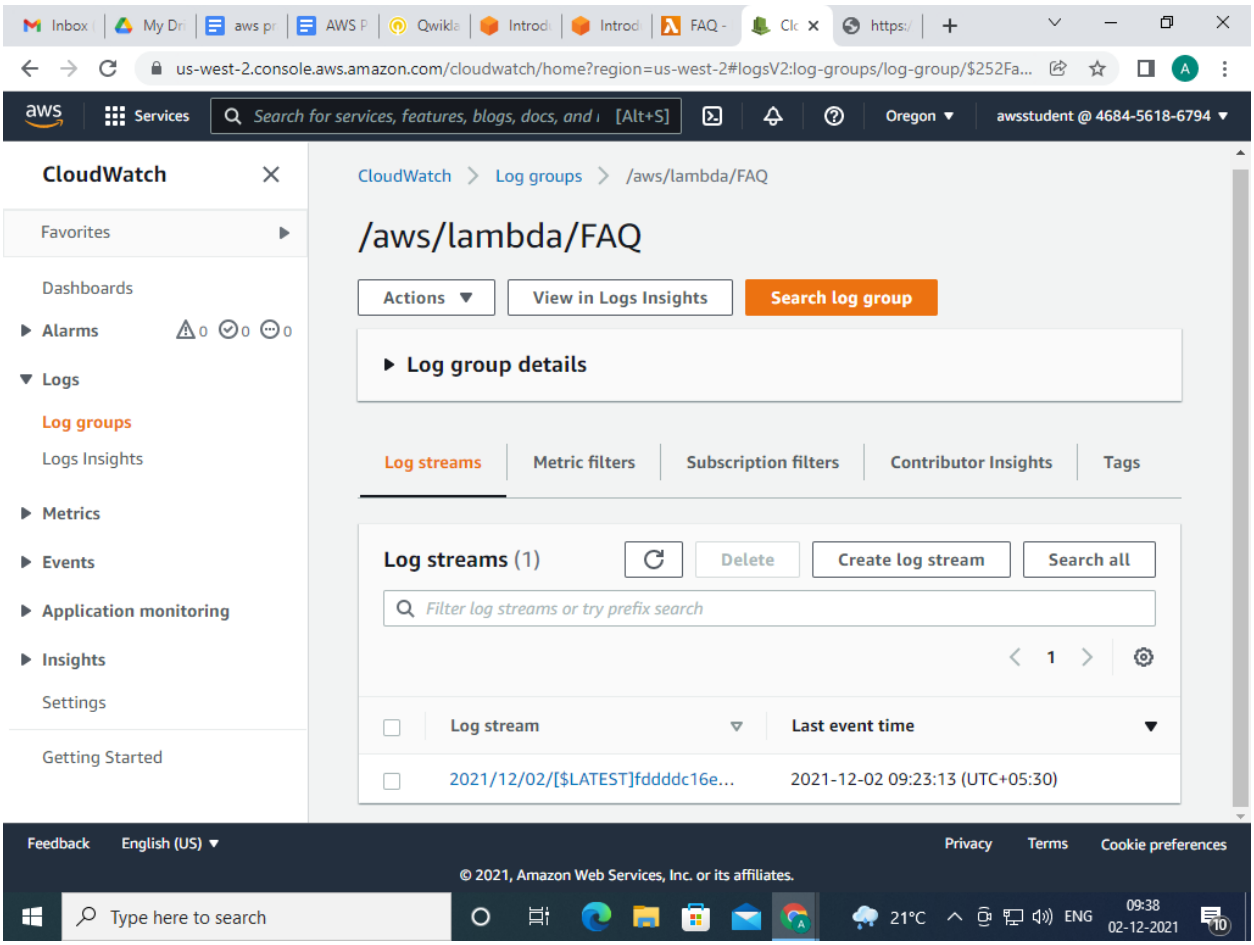
Click on monitor tab

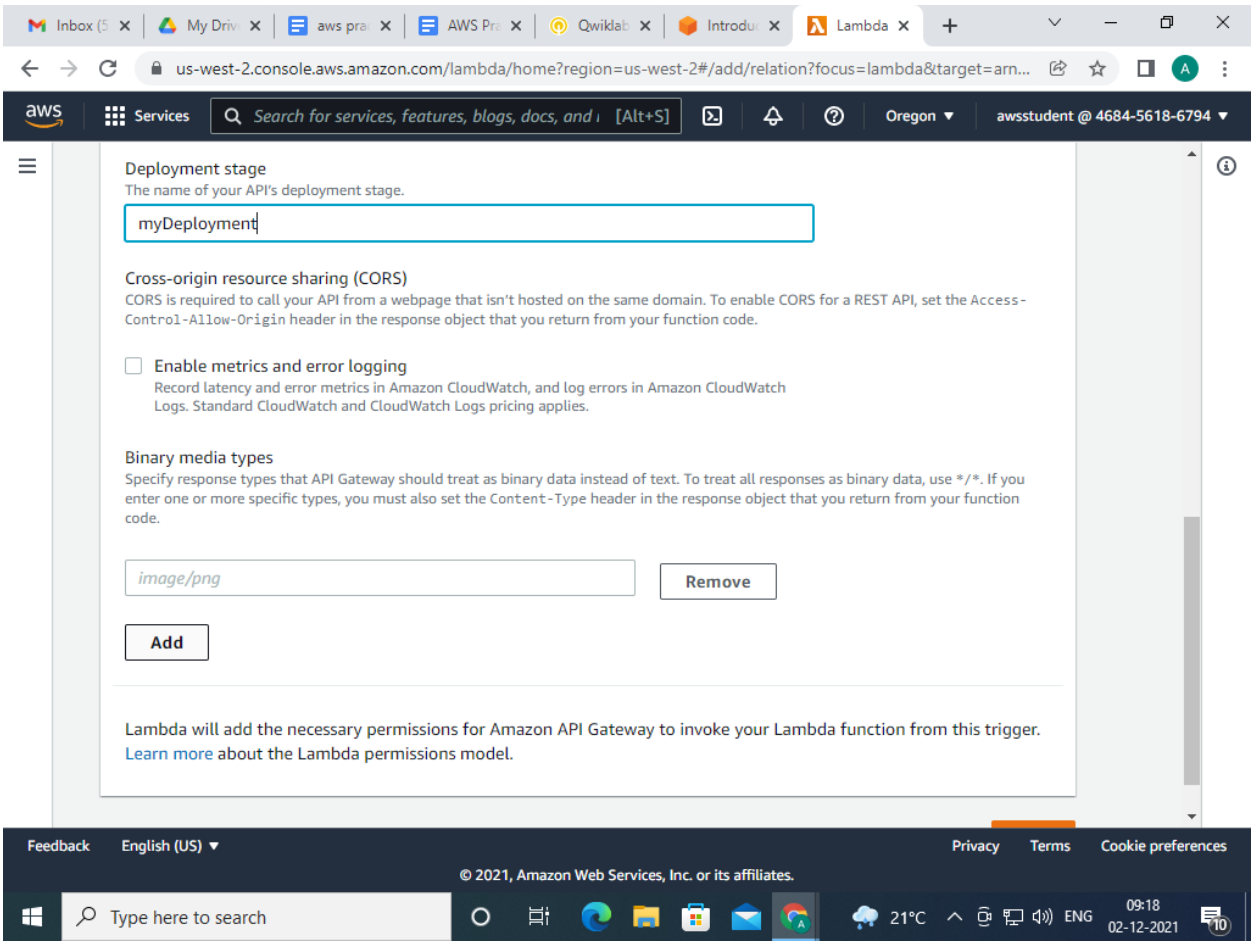

us-west-2.console.aws.amazon.com/lambda/home?region=us-west-2#/functions/FAQ?tab=monitoring
Services
Search for services, features, blogs, docs, and [Alt+S]
Oregon
awsstudent @ 4684-5618-6794
The test event BasicTest was successfully saved.
Metrics
Logs
Traces
View logs in CloudWatch
View X-Ray traces in ServiceLens
View Lambda Insights
View profiles in CodeGuru
CloudWatch metrics Info
Filter by
Function
Lambda sends runtime metrics for your functions to Amazon CloudWatch. The metrics shown are an aggregate view of all function runtime activity. To view metrics for the unqualified or $LATEST resource, choose an option in the dropdown list. To view metrics for a specific function version or alias, choose the qualifier name on the Function details page, and select the Monitoring page.
1h
3h
12h
1d
3d
1w
Custom
Add to dashboard
Invocations
Duration
Error count and success ra...
Feedback
English (US)
Privacy
Terms
Cookie preferences
© 2021, Amazon Web Services, Inc. or its affiliates.
Type here to search
21°C
ENG
09:35
02-12-2021



View logs in cloud watch

Click on Log Stream


us-west-2.console.aws.amazon.com/cloudwatch/home?region=us-west-2#logsV2:log-groups/log-group/$252Fa...
Services
Search for services, features, blogs, docs, and [Alt+S]
Oregon
awsstudent @ 4684-5618-6794
CloudWatch
Favorites
Dashboards
Alarms
Logs
Log groups
Logs Insights
Metrics
Events
Application monitoring
Insights
Settings
Getting Started
CloudWatch > Log groups > /aws/lambda/FAQ
/aws/lambda/FAQ
Actions
View in Logs Insights
Search log group
Log group details
Log streams
Metric filters
Subscription filters
Contributor Insights
Tags
Log streams (1)
Delete
Create log stream
Search all
Filter log streams or try prefix search
Log stream
Last event time
2021/12/02/[$LATEST]fddddc16e...
2021-12-02 09:23:13 (UTC+05:30)
Feedback
English (US)
Privacy
Terms
Cookie preferences
© 2021, Amazon Web Services, Inc. or its affiliates.
Type here to search
21°C
ENG
09:38
02-12-2021


Deployment stage
The name of your API's deployment stage.
myDeployment
Cross-origin resource sharing (CORS)
CORS is required to call your API from a webpage that isn't hosted on the same domain. To enable CORS for a REST API, set the Access-Control-Allow-Origin header in the response object that you return from your function code.
Enable metrics and error logging
Record latency and error metrics in Amazon CloudWatch, and log errors in Amazon CloudWatch Logs. Standard CloudWatch and CloudWatch Logs pricing applies.
Binary media types
Specify response types that API Gateway should treat as binary data instead of text. To treat all responses as binary data, use */*. If you enter one or more specific types, you must also set the Content-Type header in the response object that you return from your function code.
image/png
Remove
Add
Lambda will add the necessary permissions for Amazon API Gateway to invoke your Lambda function from this trigger.
Learn more about the Lambda permissions model.
Feedback
English (US)
Privacy
Terms
Cookie preferences
© 2021, Amazon Web Services, Inc. or its affiliates.
Type here to search
21°C
ENG
09:18
02-12-2021

Practical No. 5

Introduction to Amazon DynamoDB

Aim: A) Create a new table

B) Add data

C) Modify existing items

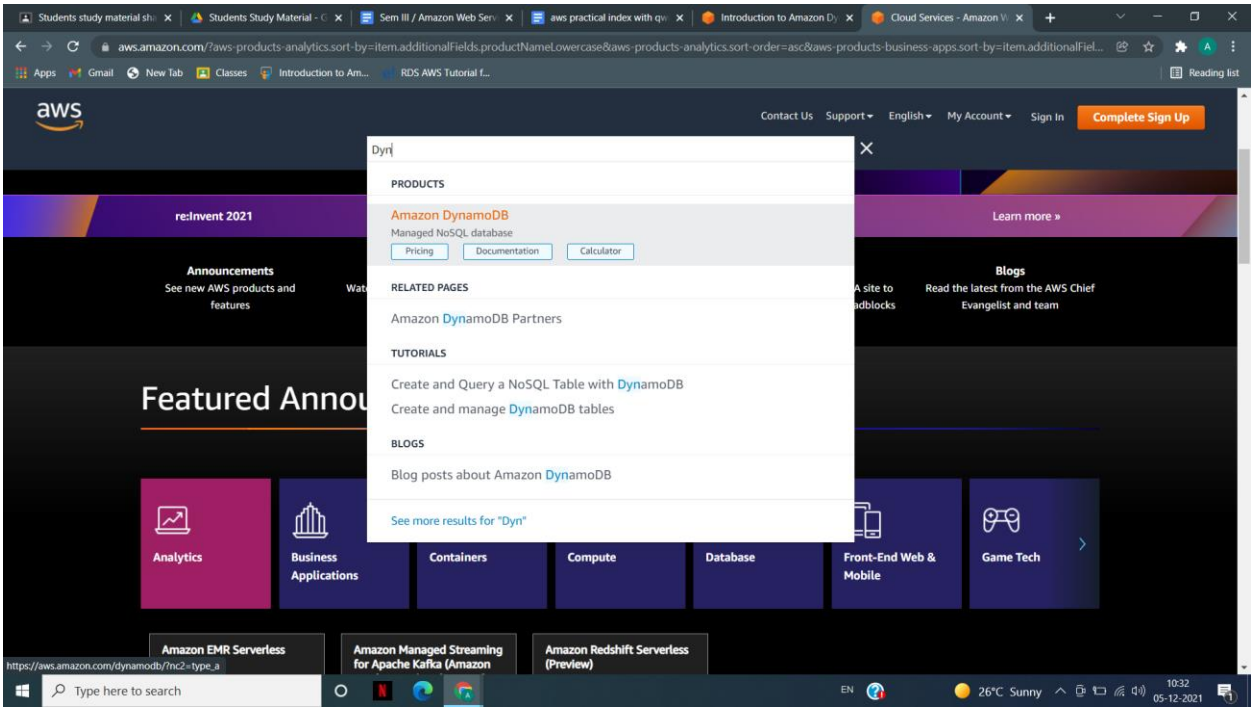
D) Query the table

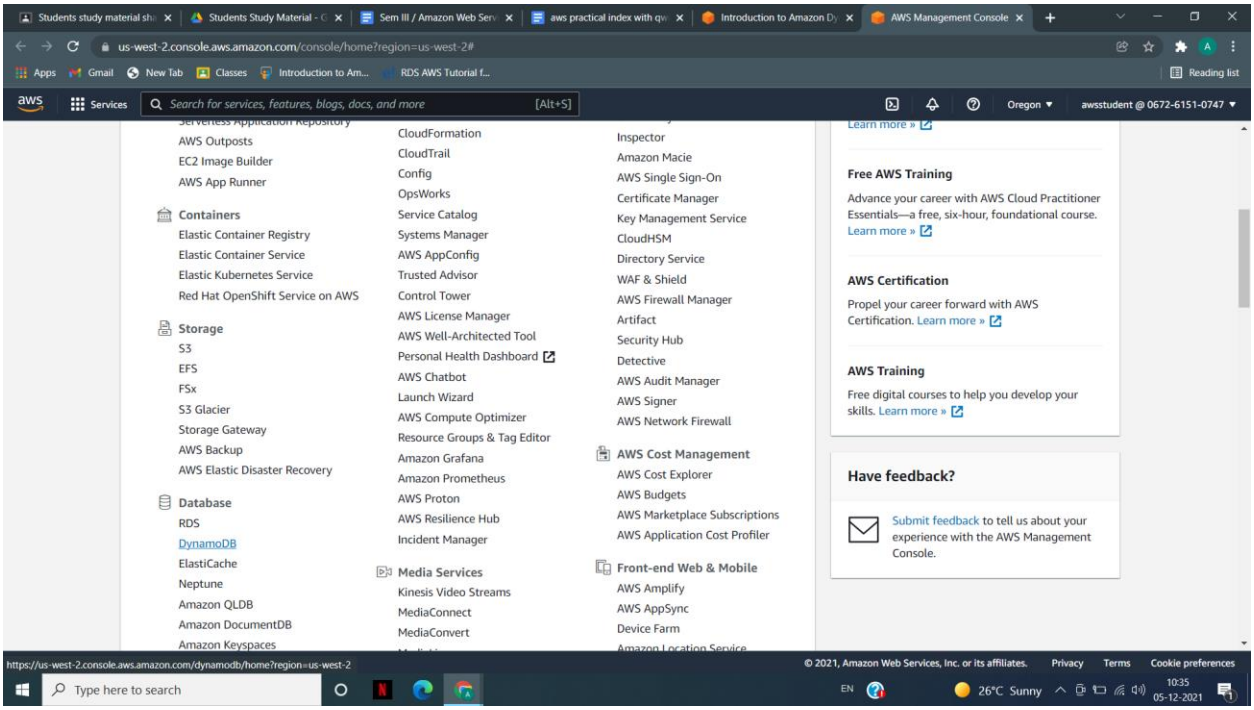
E) Delete the table

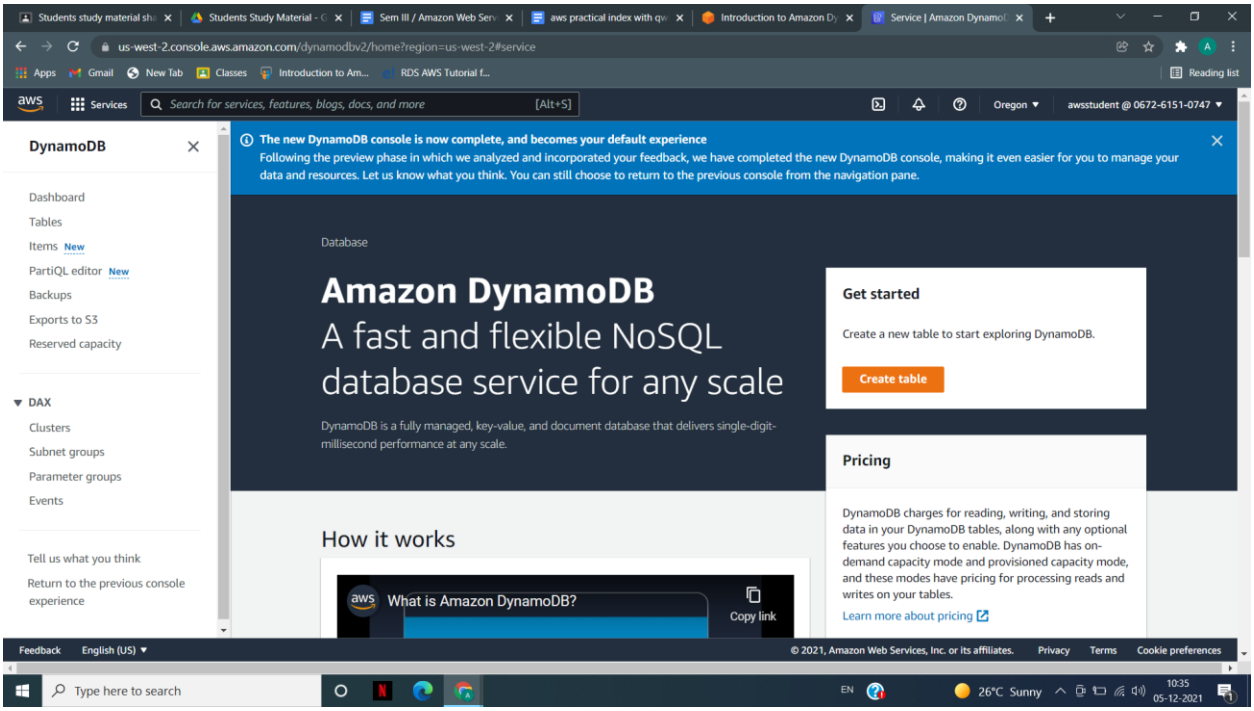
Introduction to Amazon DynamoDB

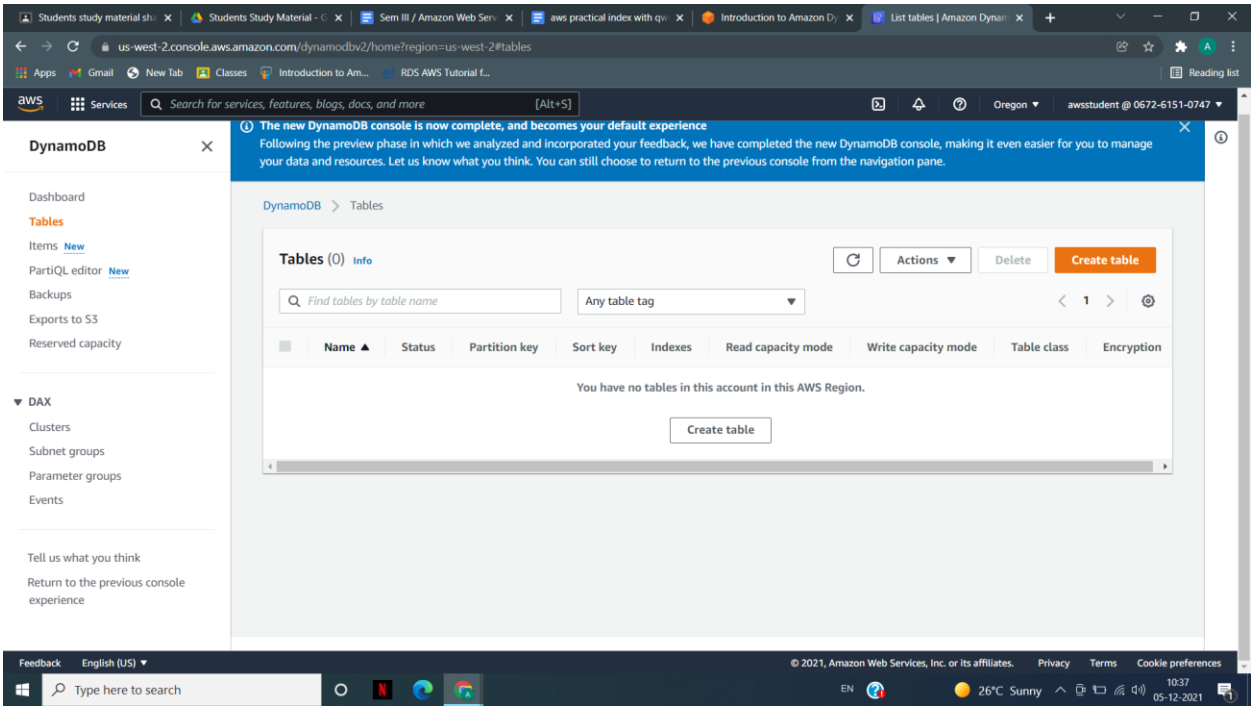
Task 1: Create a new Table

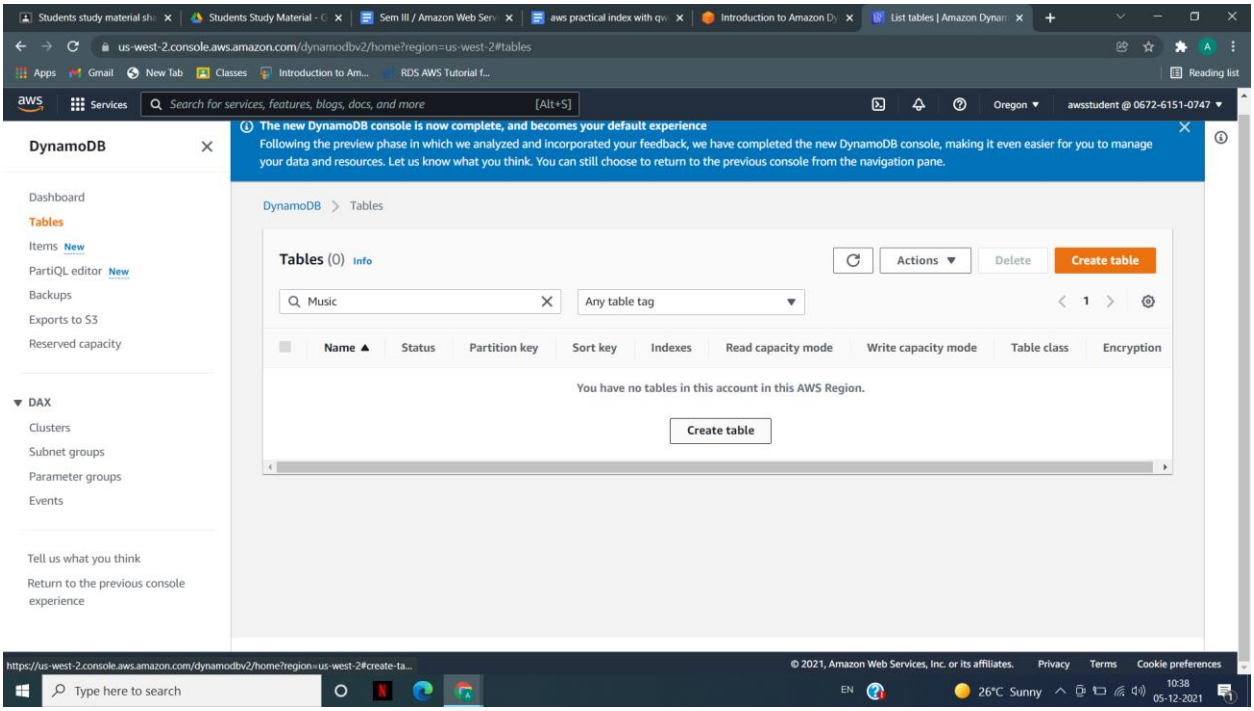
In this task, you will create a new table in DynamoDB named music. Each table requires a primary key that is used to partition data across DynamoDB servers.A table can also have a sort key uniquely identifying each item in a DynamoDB table.

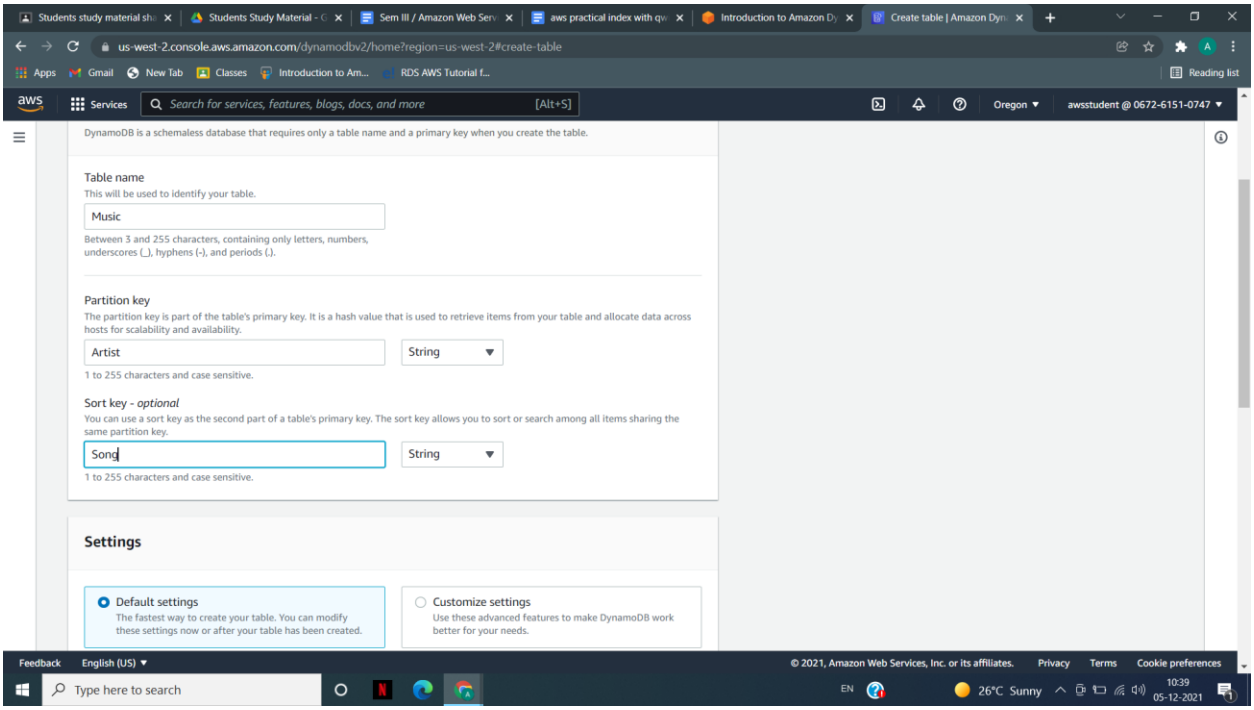

aws
Contact Us
Support
English
My Account
Sign In
Complete Sign Up
Dyn
PRODUCTS
Amazon DynamoDB
Managed NoSQL database
Pricing
Documentation
Calculator
RELATED PAGES
Amazon DynamoDB Partners
TUTORIALS
Create and Query a NoSQL Table with DynamoDB
Create and manage DynamoDB tables
BLOGS
Blog posts about Amazon DynamoDB
See more results for "Dyn"
re:Invent 2021
Learn more »
Announcements
See new AWS products and features
Blogs
Read the latest from the AWS Chief Evangelist and team
Featured Annou
Analytics
Business Applications
Containers
Compute
Database
Front-End Web & Mobile
Game Tech
Amazon EMR Serverless
Amazon Managed Streaming for Apache Kafka (Amazon
Amazon Redshift Serverless (Preview)
https://aws.amazon.com/dynamodb/?nc2=type_a
Type here to search
26°C Sunny
10:32
05-12-2021

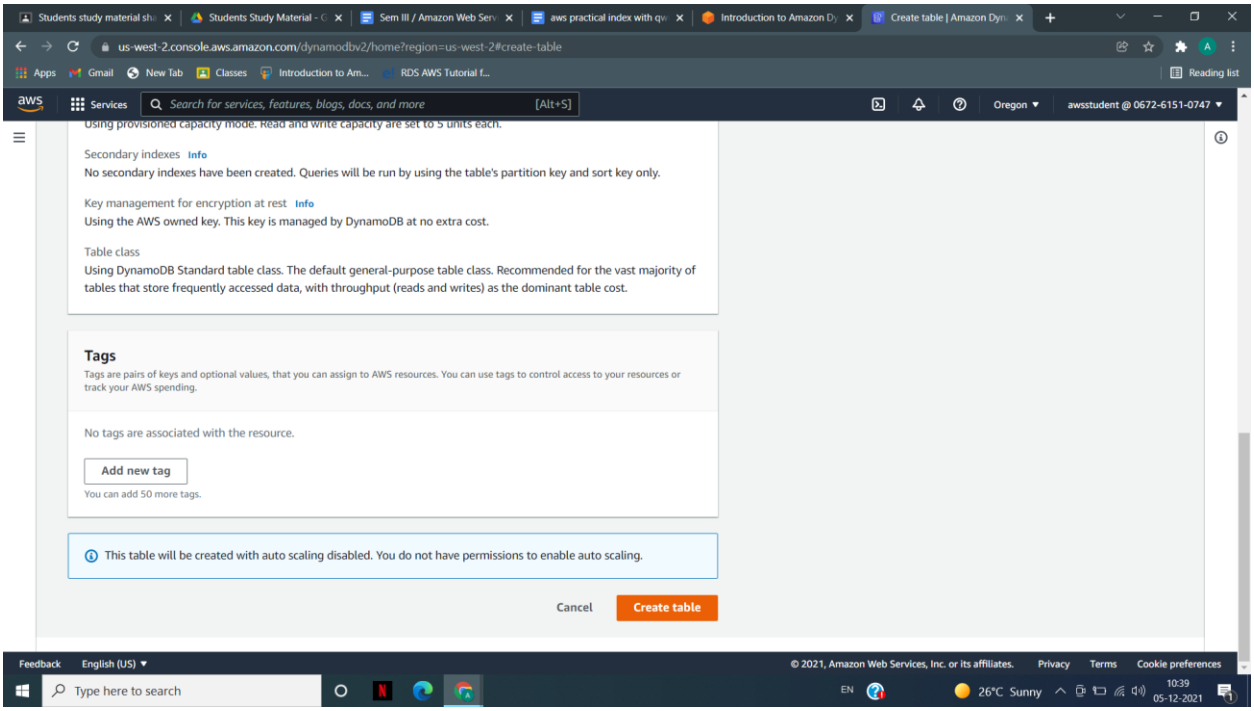

us-west-2.console.aws.amazon.com/console/home?region=us-west-2#
Services
Search for services, features, blogs, docs, and more
[Alt+S]
Oregon
awsstudent @ 0672-6151-0747
AWS Outposts
EC2 Image Builder
AWS App Runner
Containers
Elastic Container Registry
Elastic Container Service
Elastic Kubernetes Service
Red Hat OpenShift Service on AWS
Storage
S3
EFS
FSx
S3 Glacier
Storage Gateway
AWS Backup
AWS Elastic Disaster Recovery
Database
RDS
DynamoDB
ElastiCache
Neptune
Amazon QLDB
Amazon DocumentDB
Amazon Keyspaces
CloudFormation
CloudTrail
Config
OpsWorks
Service Catalog
Systems Manager
AWS AppConfig
Trusted Advisor
Control Tower
AWS License Manager
AWS Well-Architected Tool
Personal Health Dashboard
AWS Chatbot
Launch Wizard
AWS Compute Optimizer
Resource Groups & Tag Editor
Amazon Grafana
Amazon Prometheus
AWS Proton
AWS Resilience Hub
Incident Manager
Media Services
Kinesis Video Streams
MediaConnect
MediaConvert
Inspector
Amazon Macie
AWS Single Sign-On
Certificate Manager
Key Management Service
CloudHSM
Directory Service
WAF & Shield
AWS Firewall Manager
Artifact
Security Hub
Detective
AWS Audit Manager
AWS Signer
AWS Network Firewall
AWS Cost Management
AWS Cost Explorer
AWS Budgets
AWS Marketplace Subscriptions
AWS Application Cost Profiler
Front-end Web & Mobile
AWS Amplify
AWS AppSync
Device Farm
Learn more »
Free AWS Training
Advance your career with AWS Cloud Practitioner Essentials—a free, six-hour, foundational course. Learn more »
AWS Certification
Propel your career forward with AWS Certification. Learn more »
AWS Training
Free digital courses to help you develop your skills. Learn more »
Have feedback?
Submit feedback to tell us about your experience with the AWS Management Console.
https://us-west-2.console.aws.amazon.com/dynamodb/home?region=us-west-2
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
Type here to search
26°C Sunny
10:35
05-12-2021


DynamoDB
Dashboard
Tables
Items New
PartiQL editor New
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience
The new DynamoDB console is now complete, and becomes your default experience
Following the preview phase in which we analyzed and incorporated your feedback, we have completed the new DynamoDB console, making it even easier for you to manage your data and resources. Let us know what you think. You can still choose to return to the previous console from the navigation pane.
Database
Amazon DynamoDB
A fast and flexible NoSQL database service for any scale
DynamoDB is a fully managed, key-value, and document database that delivers single-digit-millisecond performance at any scale.
Get started
Create a new table to start exploring DynamoDB.
Create table
Pricing
DynamoDB charges for reading, writing, and storing data in your DynamoDB tables, along with any optional features you choose to enable. DynamoDB has on-demand capacity mode and provisioned capacity mode, and these modes have pricing for processing reads and writes on your tables.
Learn more about pricing
How it works
What is Amazon DynamoDB?
Copy link
Feedback
English (US)
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

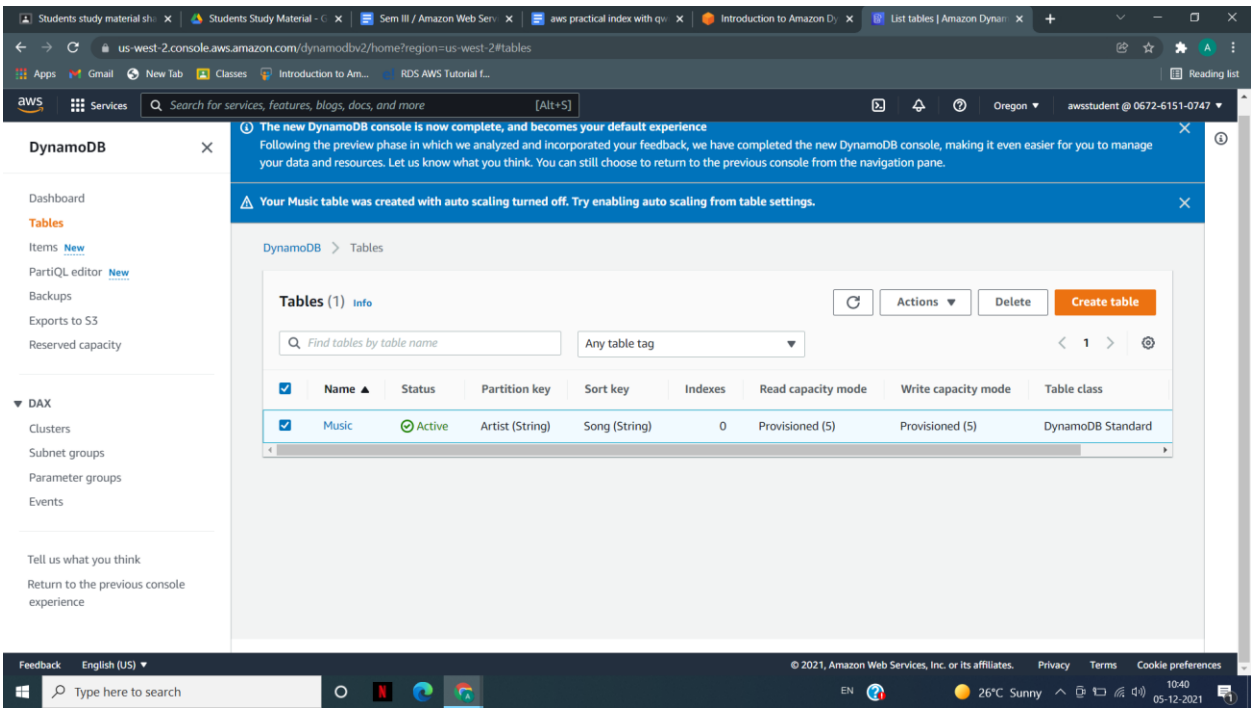

DynamoDB
Dashboard
Tables
Items New
PartiQL editor New
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience
The new DynamoDB console is now complete, and becomes your default experience
Following the preview phase in which we analyzed and incorporated your feedback, we have completed the new DynamoDB console, making it even easier for you to manage your data and resources. Let us know what you think. You can still choose to return to the previous console from the navigation pane.
DynamoDB > Tables
Tables (0) Info
Actions
Delete
Create table
Find tables by table name
Any table tag
Name
Status
Partition key
Sort key
Indexes
Read capacity mode
Write capacity mode
Table class
Encryption
You have no tables in this account in this AWS Region.
Create table
Feedback
English (US)
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

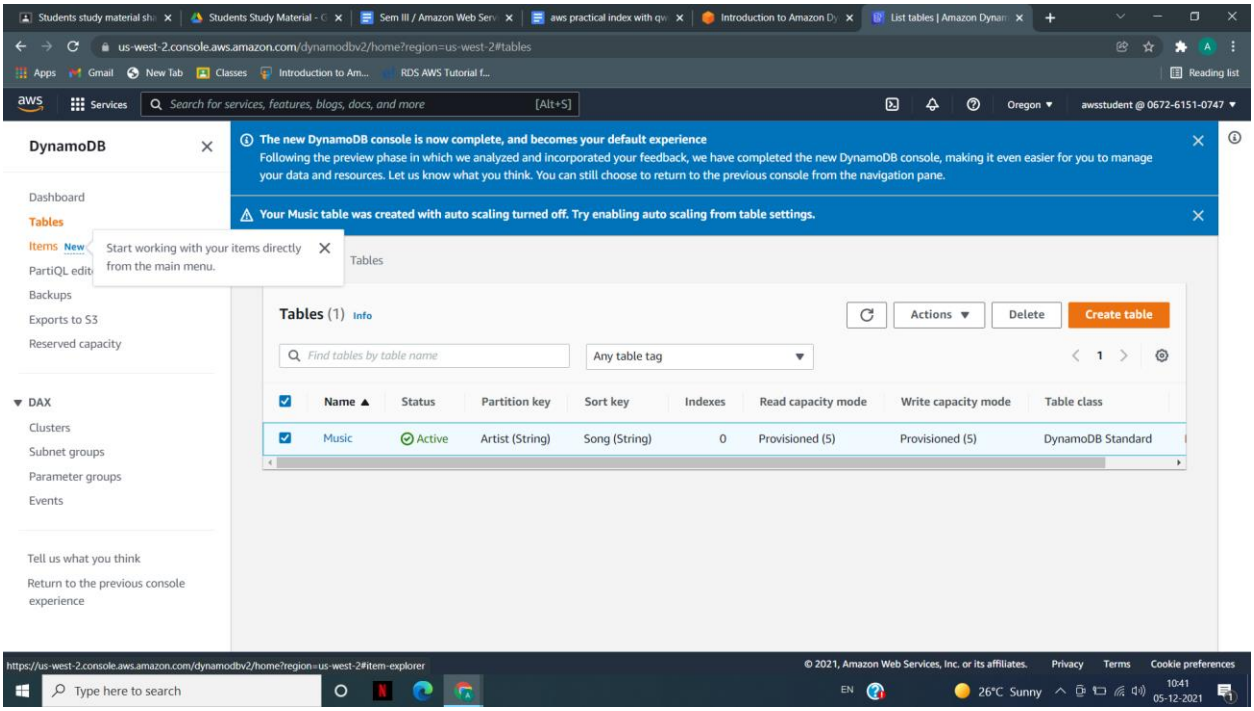

DynamoDB
Dashboard
Tables
Items New
PartiQL editor New
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience
The new DynamoDB console is now complete, and becomes your default experience
Following the preview phase in which we analyzed and incorporated your feedback, we have completed the new DynamoDB console, making it even easier for you to manage your data and resources. Let us know what you think. You can still choose to return to the previous console from the navigation pane.
DynamoDB > Tables
Tables (0) Info
Actions
Delete
Create table
Music
Any table tag
Name
Status
Partition key
Sort key
Indexes
Read capacity mode
Write capacity mode
Table class
Encryption
You have no tables in this account in this AWS Region.
Create table
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

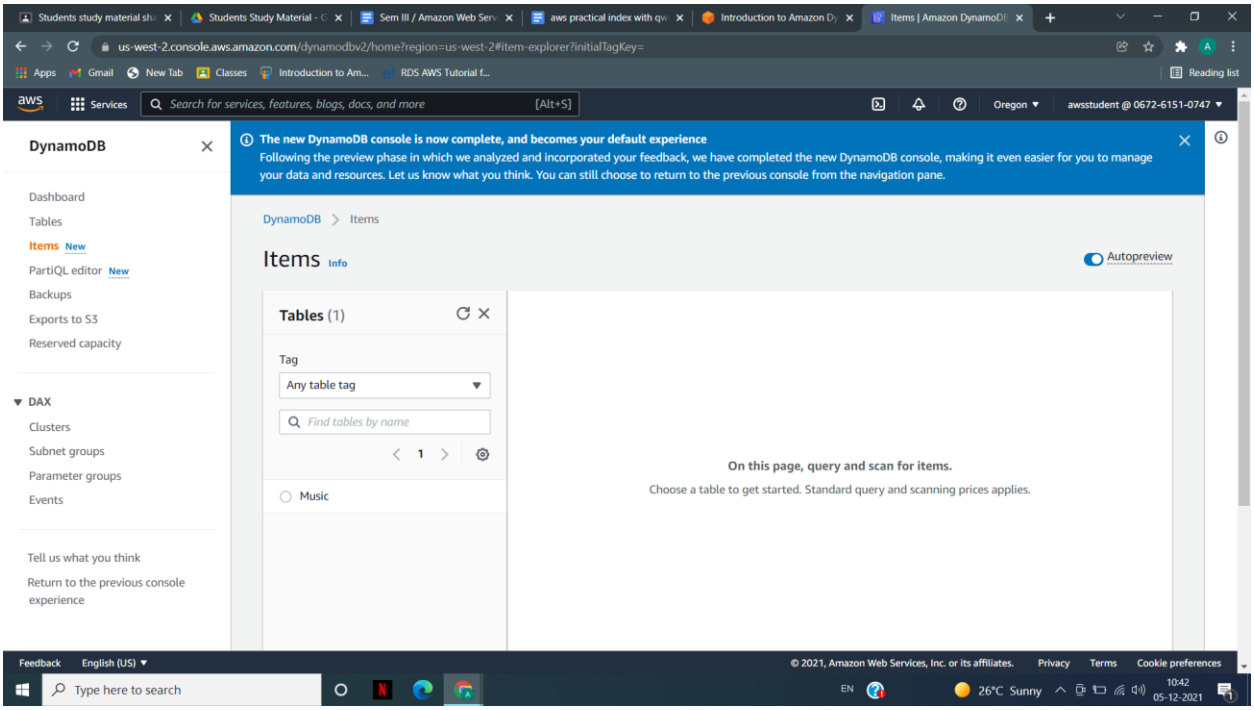

DynamoDB is a schemaless database that requires only a table name and a primary key when you create the table.
Table name
This will be used to identify your table.
Music
Between 3 and 255 characters, containing only letters, numbers, underscores (_), hyphens (-), and periods (.).
Partition key
The partition key is part of the table's primary key. It is a hash value that is used to retrieve items from your table and allocate data across hosts for scalability and availability.
Artist
String
1 to 255 characters and case sensitive.
Sort key - optional
You can use a sort key as the second part of a table's primary key. The sort key allows you to sort or search among all items sharing the same partition key.
Song
String
1 to 255 characters and case sensitive.
Settings
Default settings
The fastest way to create your table. You can modify these settings now or after your table has been created.
Customize settings
Use these advanced features to make DynamoDB work better for your needs.
Feedback
English (US)
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

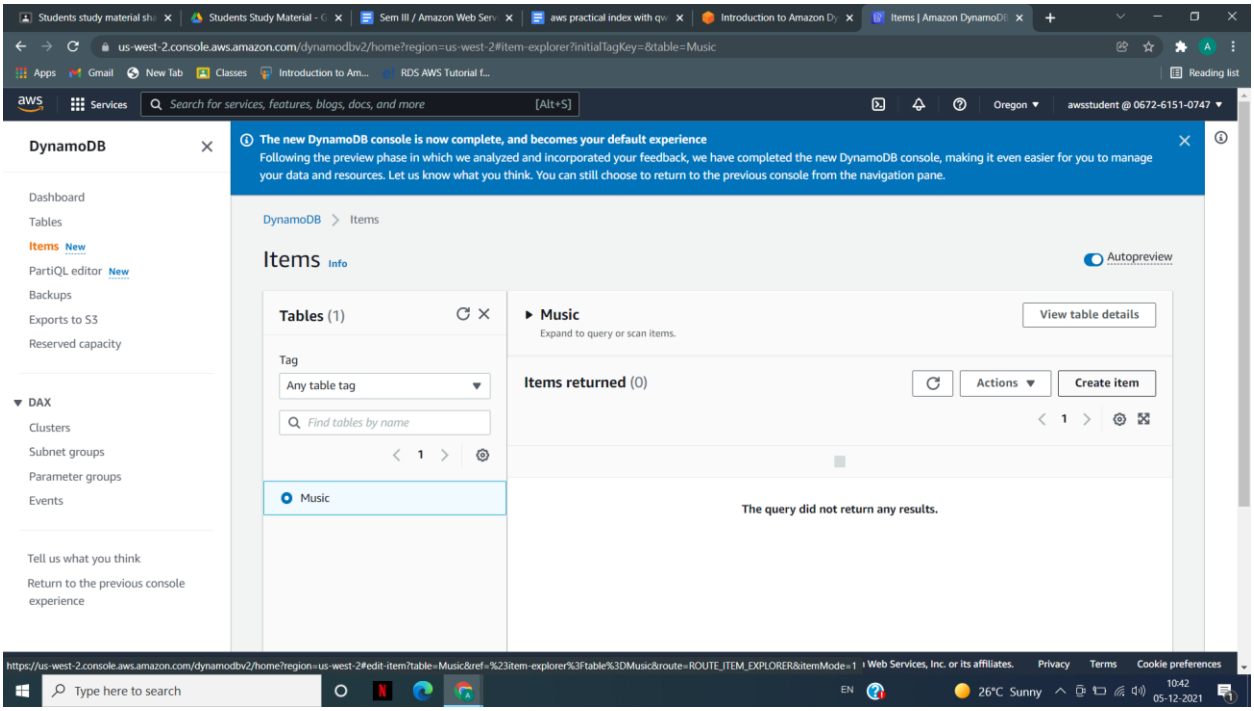


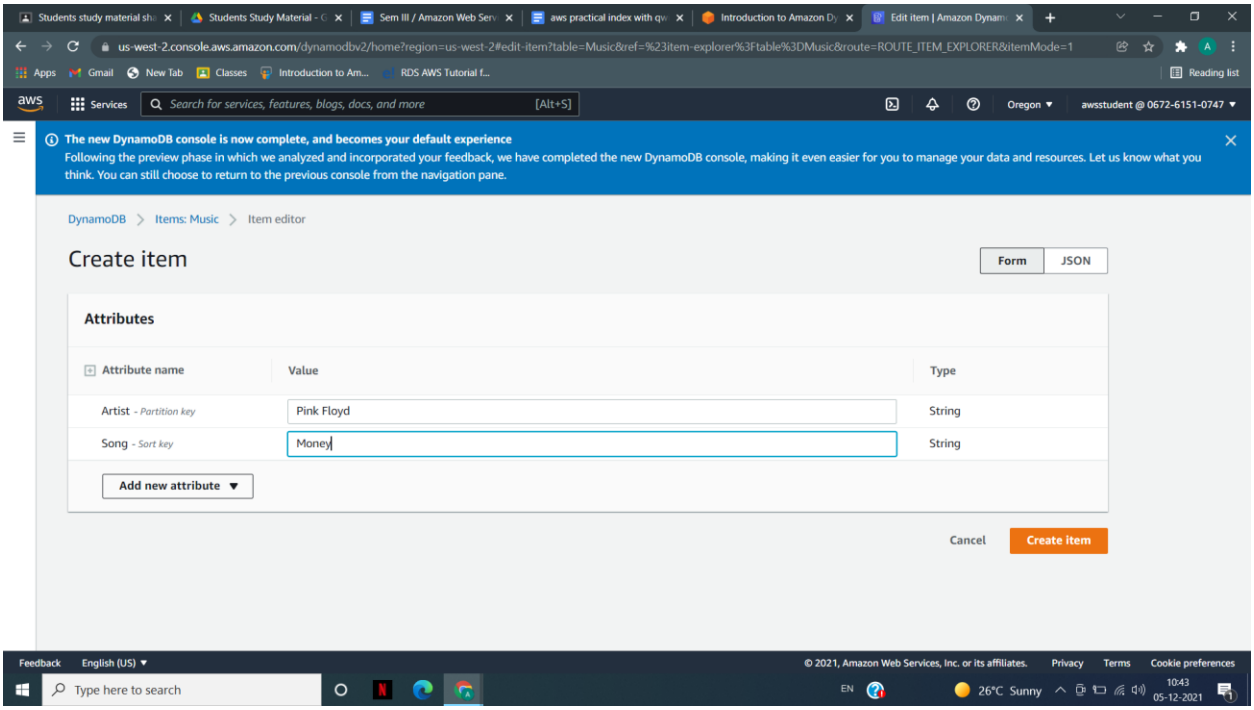
Task 2: ADD DATA

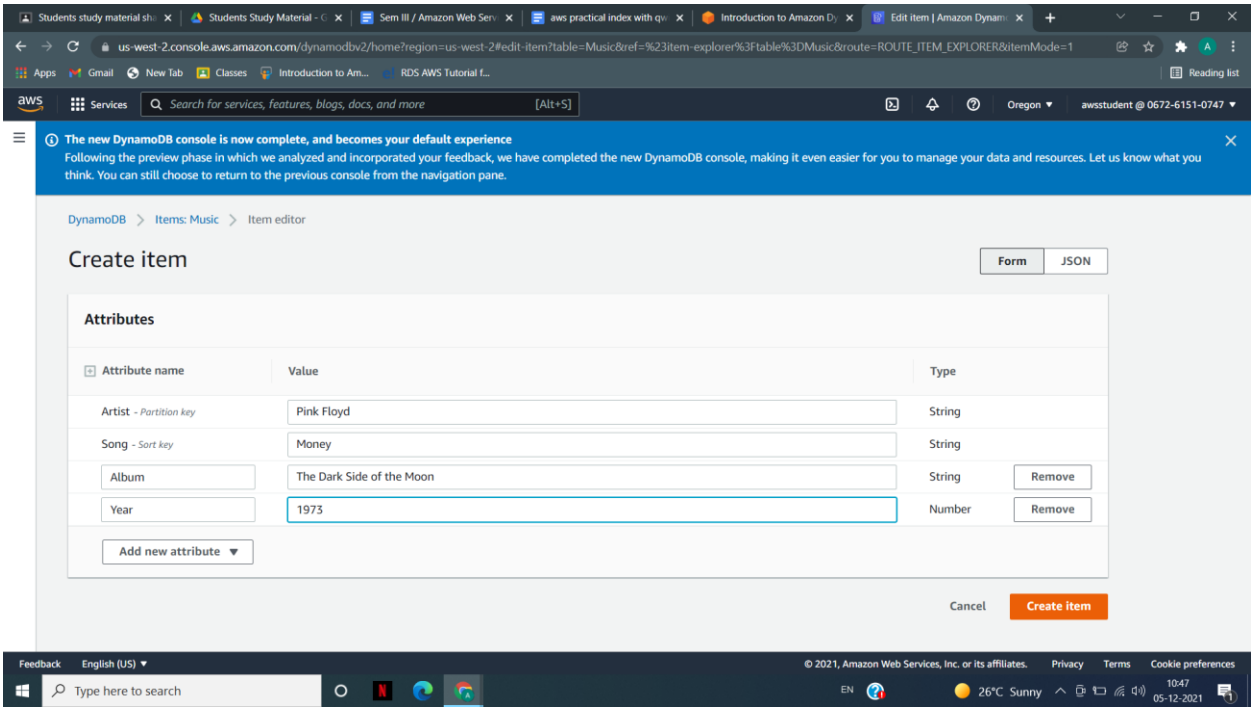


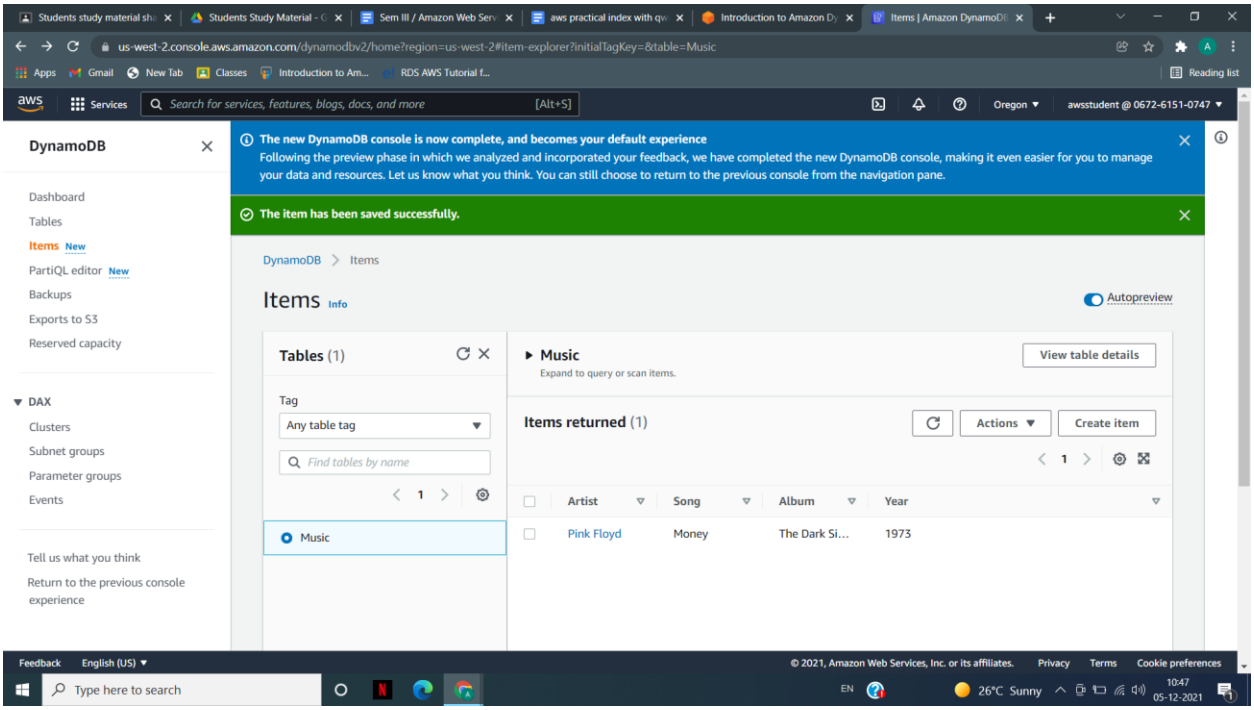

DynamoDB
The new DynamoDB console is now complete, and becomes your default experience
Following the preview phase in which we analyzed and incorporated your feedback, we have completed the new DynamoDB console, making it even easier for you to manage your data and resources. Let us know what you think. You can still choose to return to the previous console from the navigation pane.
Your Music table was created with auto scaling turned off. Try enabling auto scaling from table settings.
Dashboard
Tables
Items New
PartiQL editor
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience
Start working with your items directly from the main menu.
Tables (1) Info
Actions
Delete
Create table
Find tables by table name
Any table tag
Name
Status
Partition key
Sort key
Indexes
Read capacity mode
Write capacity mode
Table class
Music
Active
Artist (String)
Song (String)
0
Provisioned (5)
Provisioned (5)
DynamoDB Standard

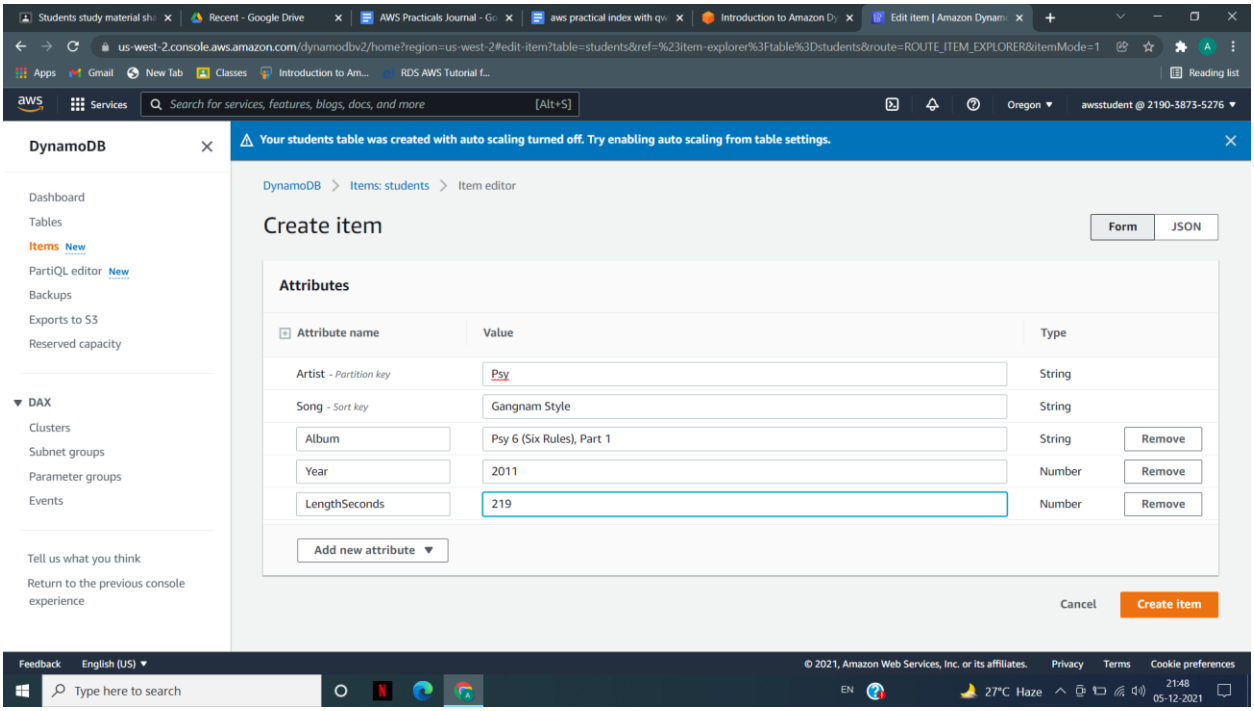

DynamoDB
The new DynamoDB console is now complete, and becomes your default experience
Following the preview phase in which we analyzed and incorporated your feedback, we have completed the new DynamoDB console, making it even easier for you to manage your data and resources. Let us know what you think. You can still choose to return to the previous console from the navigation pane.
DynamoDB > Items
Items Info
Autopreview
Dashboard
Tables
Items New
PartiQL editor New
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience
Tables (1)
Tag
Any table tag
Find tables by name
Music
On this page, query and scan for items.
Choose a table to get started. Standard query and scanning prices applies.

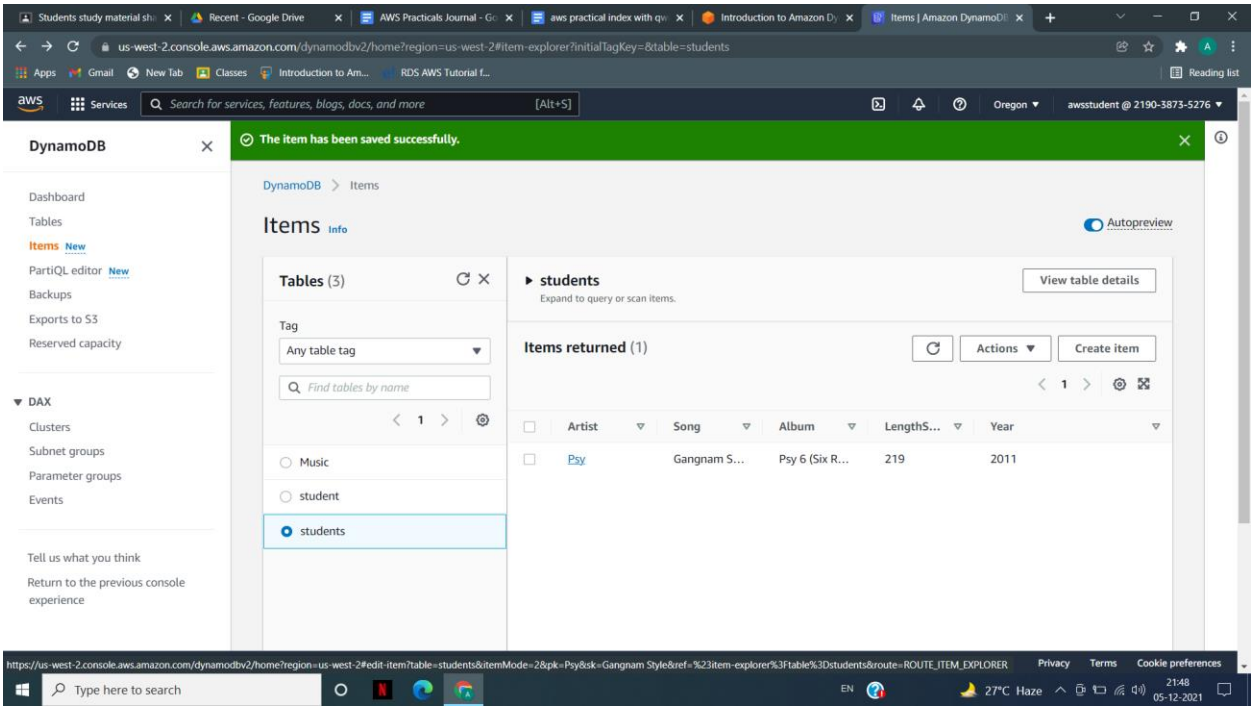

DynamoDB
Dashboard
Tables
Items New
PartiQL editor New
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience
The new DynamoDB console is now complete, and becomes your default experience
Following the preview phase in which we analyzed and incorporated your feedback, we have completed the new DynamoDB console, making it even easier for you to manage your data and resources. Let us know what you think. You can still choose to return to the previous console from the navigation pane.
DynamoDB > Items
Items Info
Autopreview
Tables (1)
Tag
Any table tag
Find tables by name
Music
Music
Expand to query or scan items.
View table details
Items returned (0)
Actions
Create item
The query did not return any results.

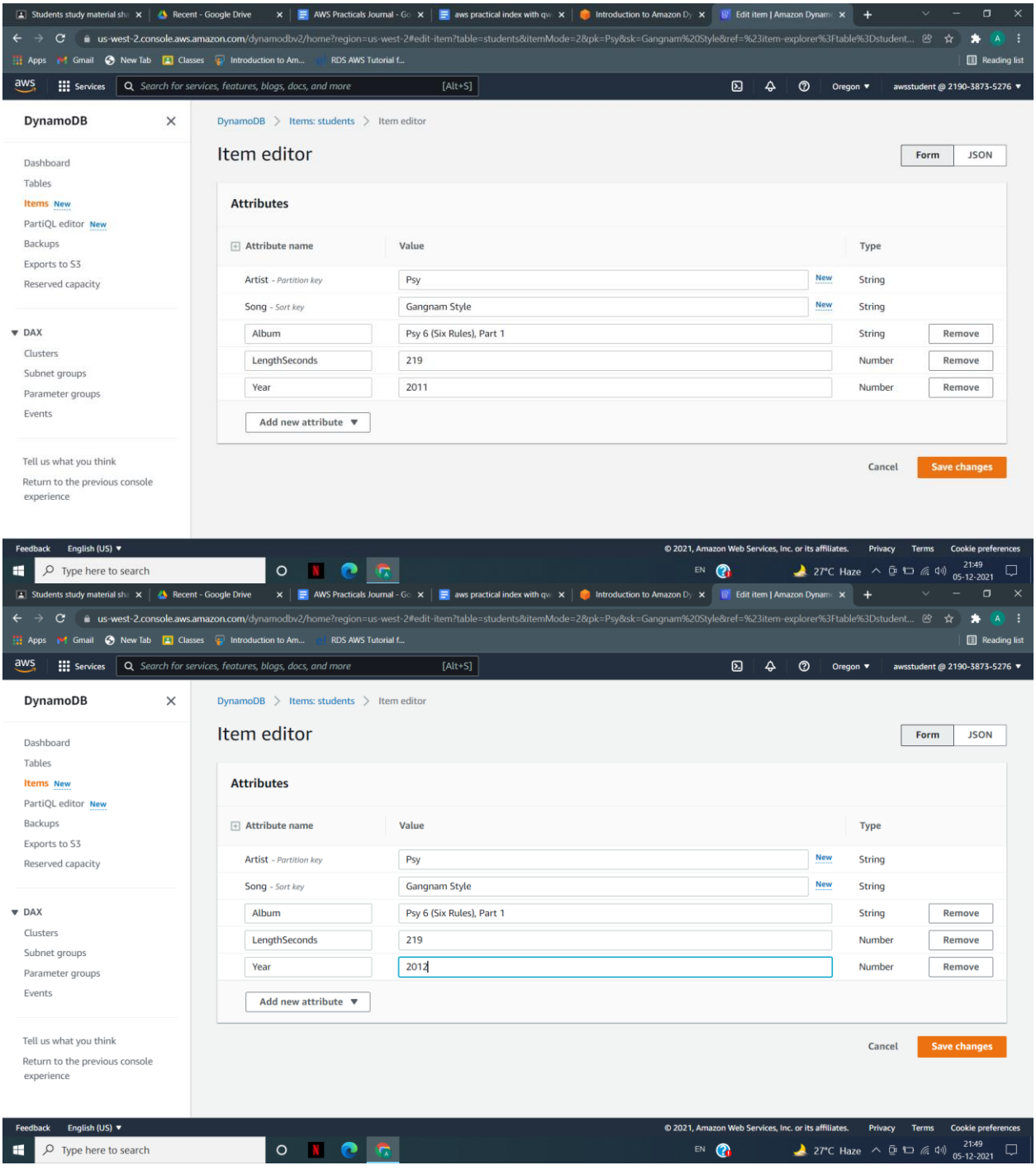

The new DynamoDB console is now complete, and becomes your default experience
Following the preview phase in which we analyzed and incorporated your feedback, we have completed the new DynamoDB console, making it even easier for you to manage your data and resources. Let us know what you think. You can still choose to return to the previous console from the navigation pane.
DynamoDB > Items: Music > Item editor
Create item
Form
JSON
Attributes
Attribute name
Value
Type
Artist - Partition key
Pink Floyd
String
Song - Sort key
Money
String
Add new attribute
Cancel
Create item

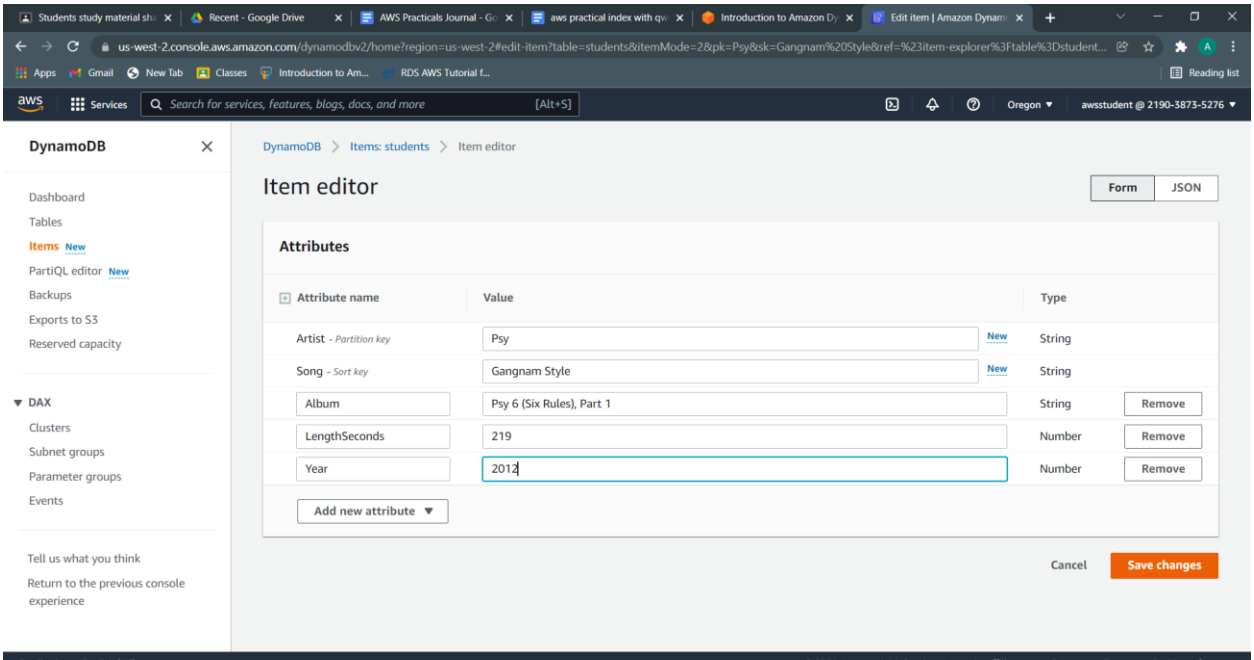

The new DynamoDB console is now complete, and becomes your default experience
Following the preview phase in which we analyzed and incorporated your feedback, we have completed the new DynamoDB console, making it even easier for you to manage your data and resources. Let us know what you think. You can still choose to return to the previous console from the navigation pane.
DynamoDB > Items: Music > Item editor
Create item
Form
JSON
Attributes
Attribute name
Value
Type
Artist - Partition key
Pink Floyd
String
Song - Sort key
Money
String
Album
The Dark Side of the Moon
String
Remove
Year
1973
Number
Remove
Add new attribute
Cancel
Create item

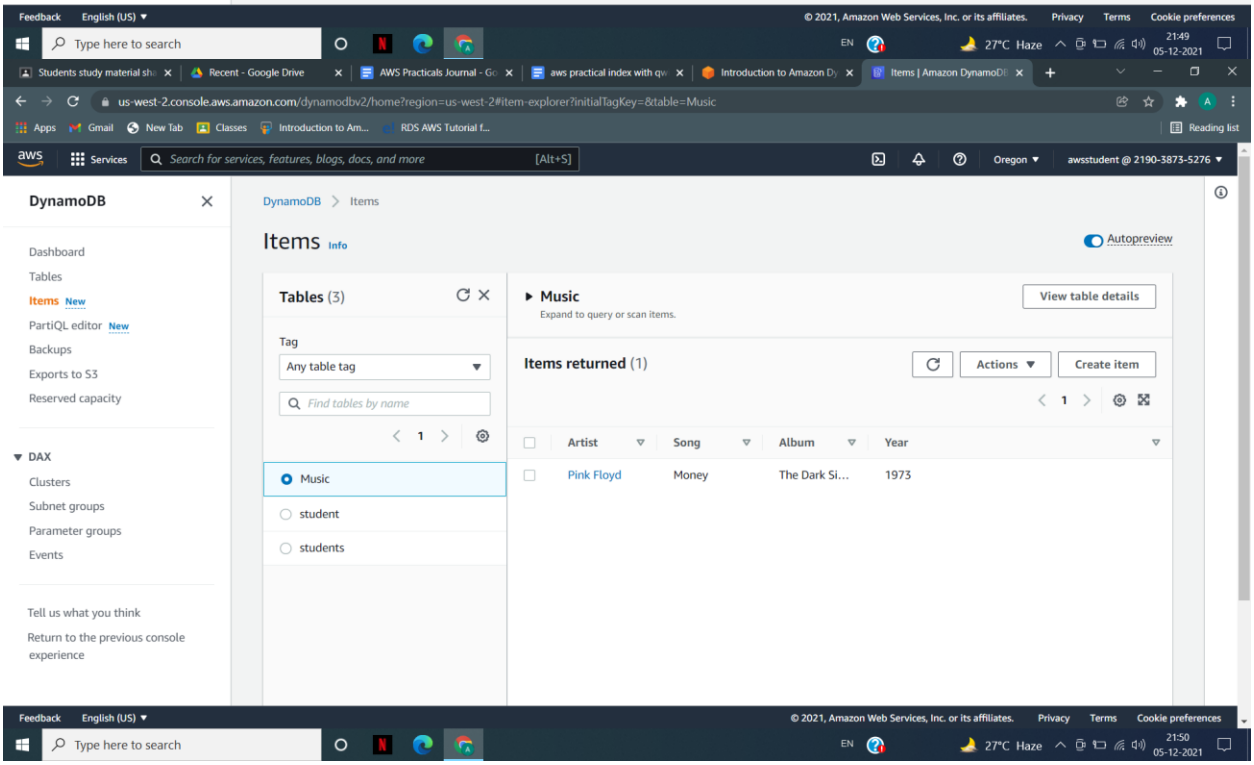

DynamoDB
Dashboard
Tables
Items New
PartiQL editor New
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience
The new DynamoDB console is now complete, and becomes your default experience
Following the preview phase in which we analyzed and incorporated your feedback, we have completed the new DynamoDB console, making it even easier for you to manage your data and resources. Let us know what you think. You can still choose to return to the previous console from the navigation pane.
The item has been saved successfully.
DynamoDB > Items
Items Info
Autopreview
Tables (1)
Tag
Any table tag
Find tables by name
Music
Music
Expand to query or scan items.
View table details
Items returned (1)
Actions
Create item
Artist
Song
Album
Year
Pink Floyd
Money
The Dark Si...
1973

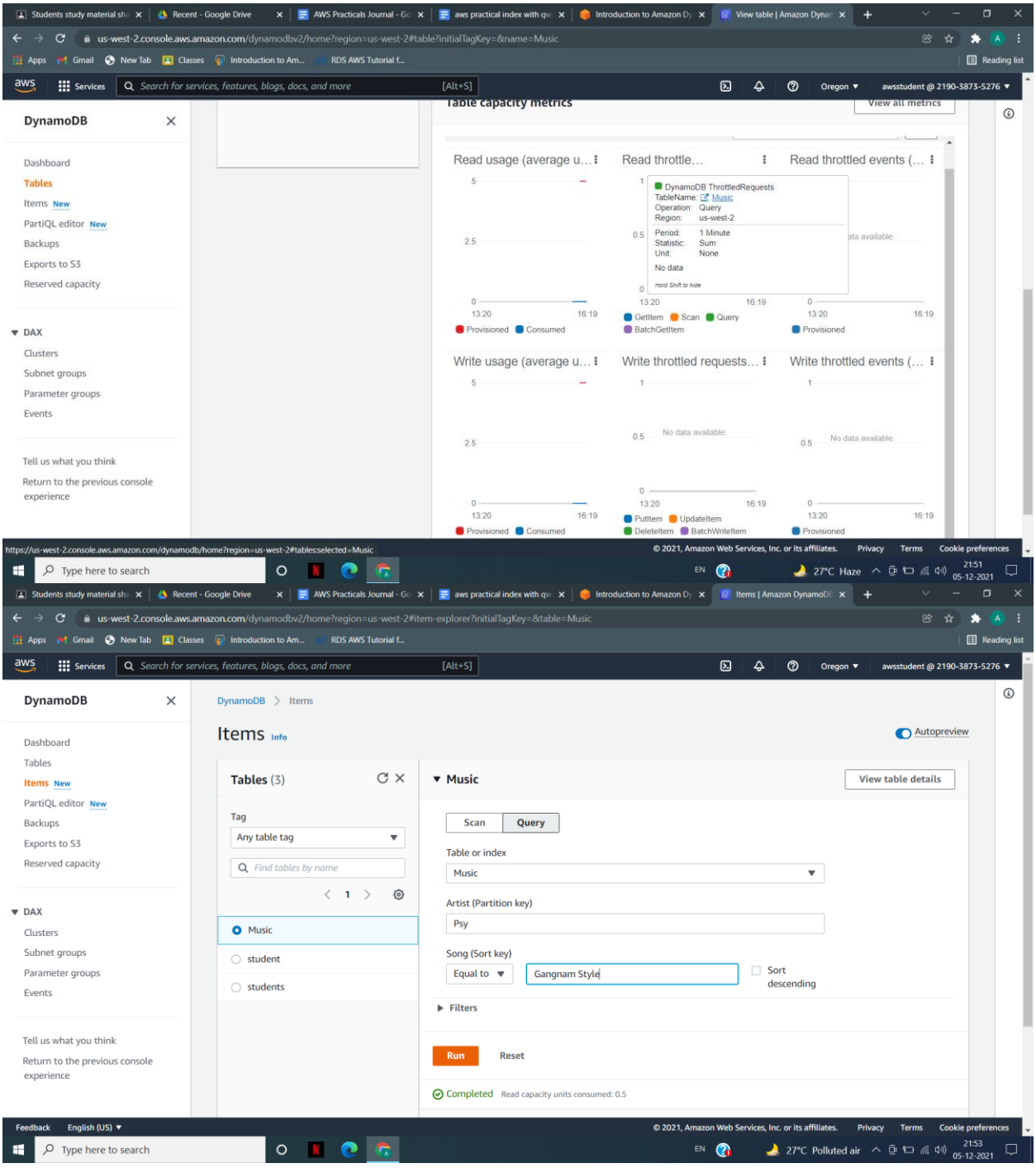

DynamoDB
Your students table was created with auto scaling turned off. Try enabling auto scaling from table settings.
DynamoDB > Items: students > Item editor
Create item
Form
JSON
Attributes
Attribute name
Value
Type
Artist - Partition key
Psy
String
Song - Sort key
Gangnam Style
String
Album
Psy 6 (Six Rules), Part 1
String
Remove
Year
2011
Number
Remove
LengthSeconds
219
Number
Remove
Add new attribute
Cancel
Create item
Dashboard
Tables
Items New
PartiQL editor New
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience

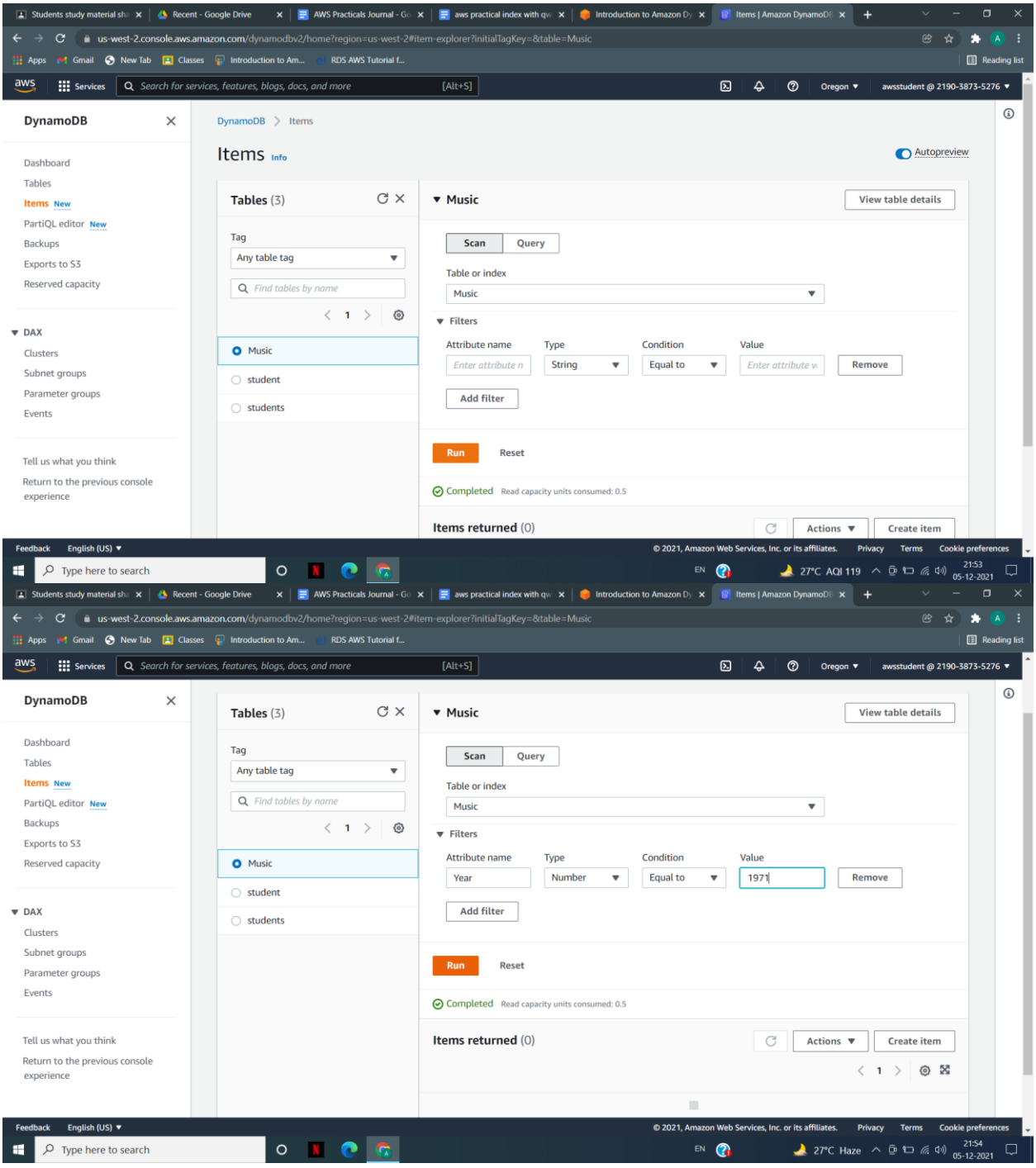

DynamoDB
The item has been saved successfully.
DynamoDB > Items
Items Info
Autopreview
Tables (3)
Tag
Any table tag
Find tables by name
Music
student
students
students
Expand to query or scan items.
View table details
Items returned (1)
Actions
Create item
Artist
Song
Album
LengthS...
Year
Psy
Gangnam S...
Psy 6 (Six R...
219
2011
Dashboard
Tables
Items New
PartiQL editor New
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience

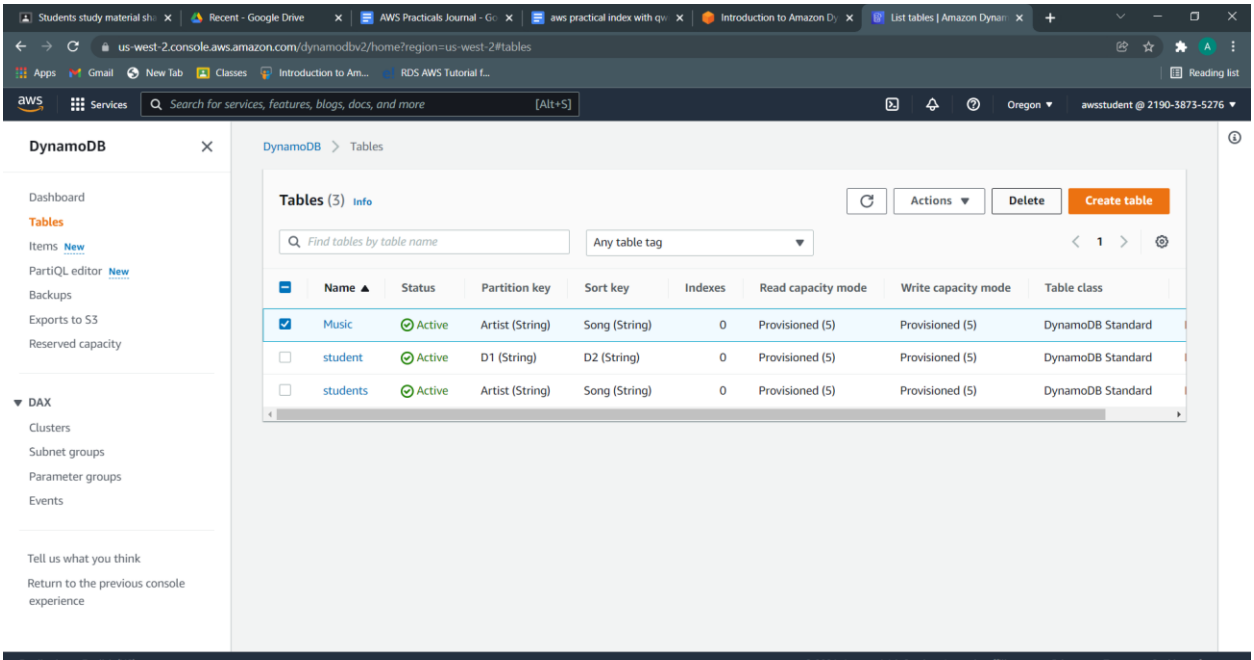

DynamoDB
Dashboard
Tables
Items New
PartiQL editor New
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience
DynamoDB > Items: students > Item editor
Item editor
Form
JSON
Attributes
Attribute name
Value
Type
Artist - Partition key
Psy
New
String
Song - Sort key
Gangnam Style
New
String
Album
Psy 6 (Six Rules), Part 1
String
Remove
LengthSeconds
219
Number
Remove
Year
2011
Number
Remove
Add new attribute
Cancel
Save changes
Year
2012

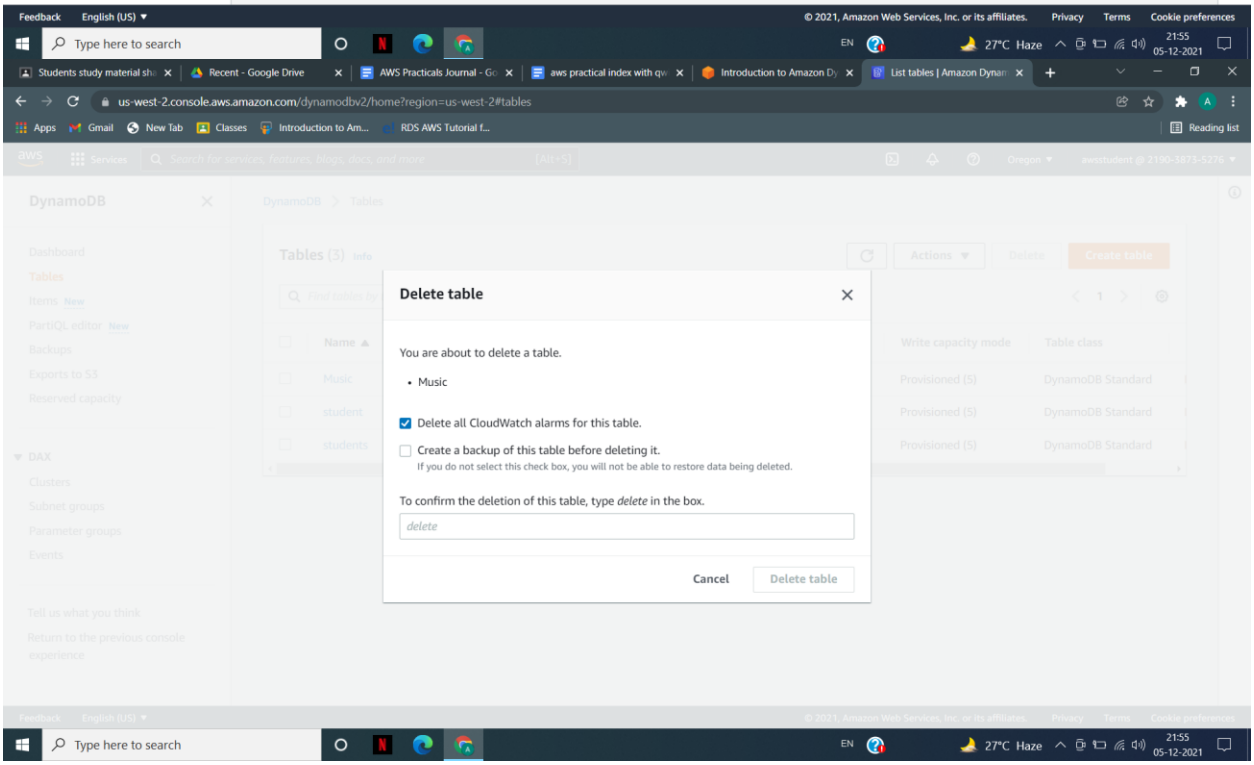

DynamoDB
Dashboard
Tables
Items New
PartiQL editor New
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience
DynamoDB > Items: students > Item editor
Item editor
Form
JSON
Attributes
Attribute name
Value
Type
Artist - Partition key
Psy
New
String
Song - Sort key
Gangnam Style
New
String
Album
Psy 6 (Six Rules), Part 1
String
Remove
LengthSeconds
219
Number
Remove
Year
2012
Number
Remove
Add new attribute
Cancel
Save changes

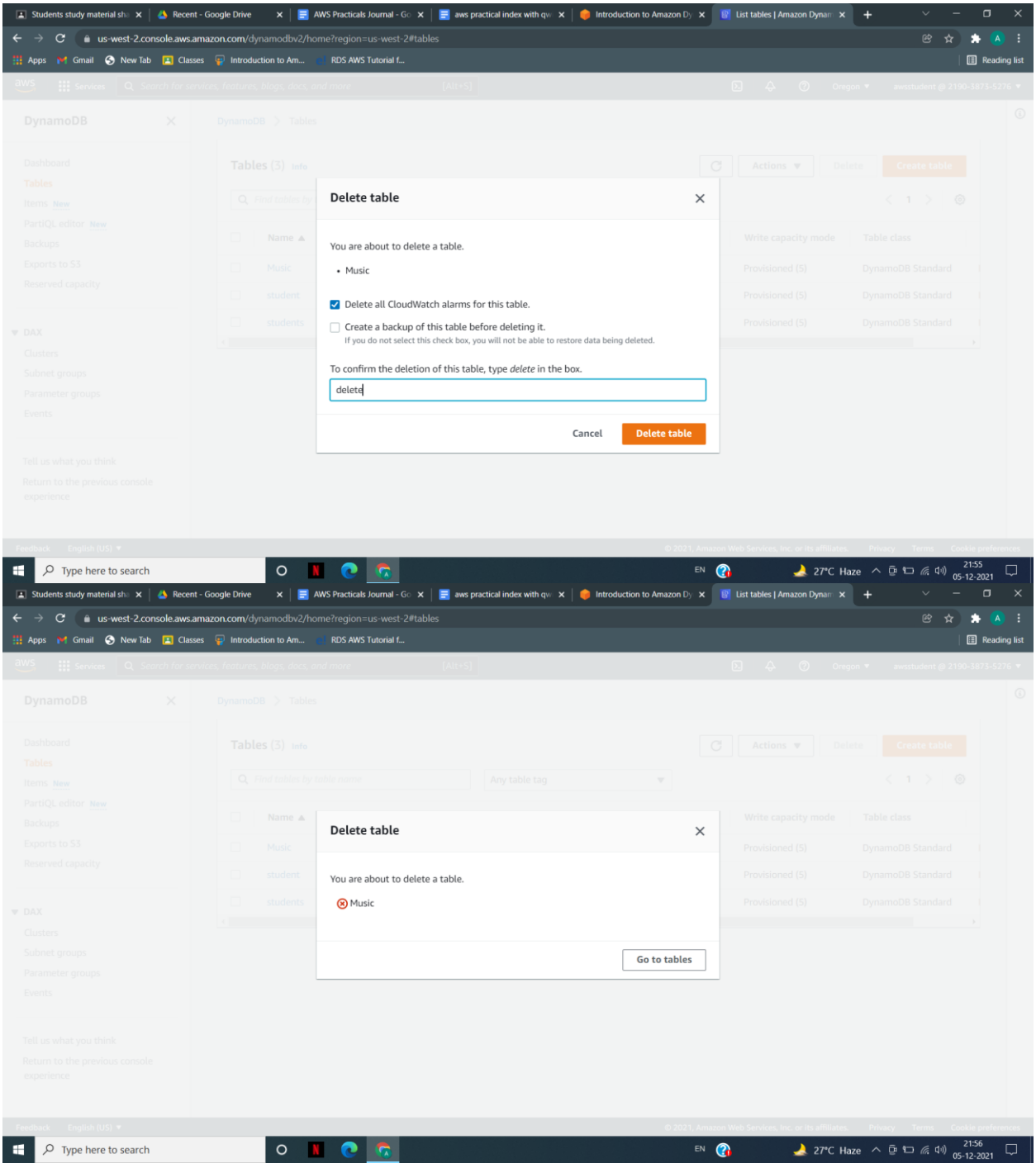

DynamoDB
Dashboard
Tables
Items New
PartiQL editor New
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience
DynamoDB > Items
Items Info
Autopreview
Tables (3)
Tag
Any table tag
Find tables by name
Music
student
students
Music
Expand to query or scan items.
View table details
Items returned (1)
Actions
Create item
Artist
Song
Album
Year
Pink Floyd
Money
The Dark Si...
1973

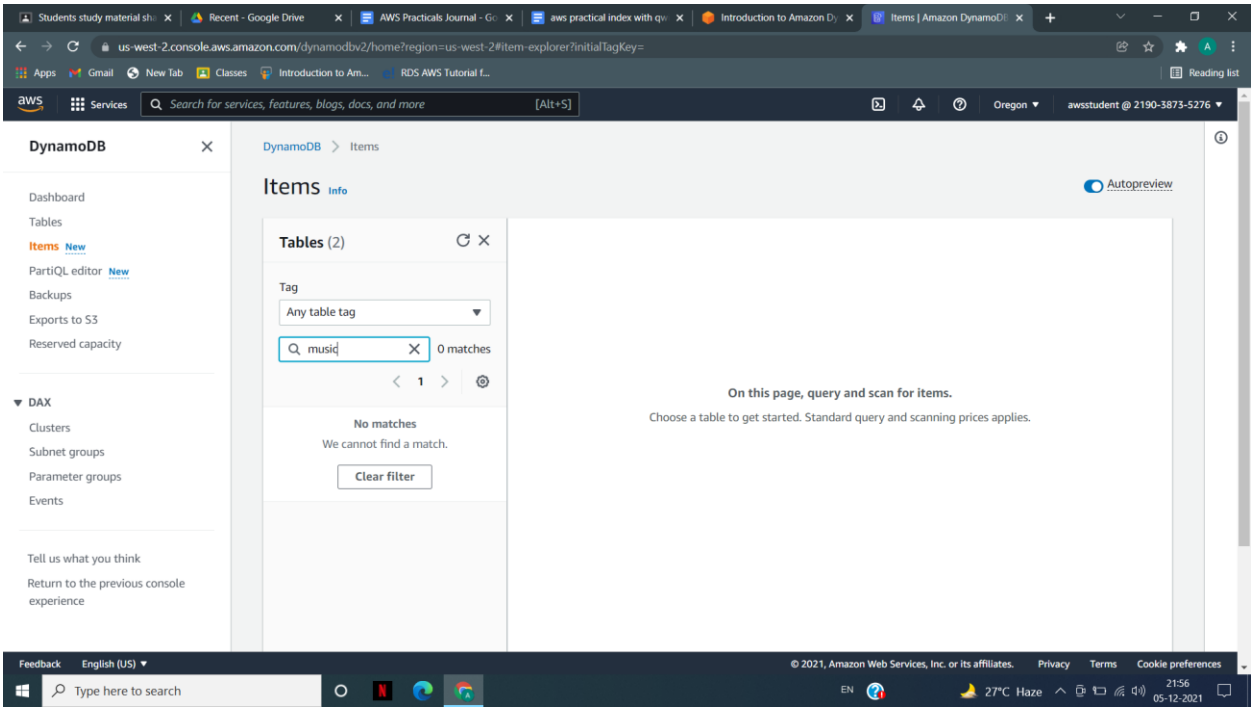

DynamoDB
Dashboard
Tables
Items New
PartiQL editor New
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience
Table capacity metrics
View all metrics
Read usage (average u...
Read throttle...
Read throttled events (...
DynamoDB ThrottledRequests
TableName: Music
Operation: Query
Region: us-west-2
Period: 1 Minute
Statistic: Sum
Unit: None
No data
Hold Shift to hide
Provisioned Consumed
GetItem Scan Query BatchGetItem
Provisioned
Write usage (average u...
Write throttled requests...
Write throttled events (...
No data available.
PutItem UpdateItem DeleteItem BatchWriteItem
Provisioned Consumed
Provisioned
DynamoDB > Items
Items Info
Autopreview
Tables (3)
Tag
Any table tag
Find tables by name
Music
student
students
Music
View table details
Scan Query
Table or index
Music
Artist (Partition key)
Psy
Song (Sort key)
Equal to
Gangnam Style
Sort descending
Filters
Run
Reset
Completed
Read capacity units consumed: 0.5
Feedback
English (US)
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


us-west-2.console.aws.amazon.com/dynamodbv2/home?region=us-west-2#item-explorer?initialTagKey=&table=Music
DynamoDB
Items
Autopreview
Tables (3)
Tag
Any table tag
Find tables by name
Music
student
students
Scan
Query
Table or index
Filters
Attribute name
Type
Condition
Value
String
Equal to
Remove
Add filter
Run
Reset
Completed
Read capacity units consumed: 0.5
Items returned (0)
Actions
Create item
Year
Number
1971
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


DynamoDB
Dashboard
Tables
Items New
PartiQL editor New
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience
DynamoDB > Tables
Tables (3) Info
Actions
Delete
Create table
Find tables by table name
Any table tag
Name
Status
Partition key
Sort key
Indexes
Read capacity mode
Write capacity mode
Table class
Music Active Artist (String) Song (String) 0 Provisioned (5) Provisioned (5) DynamoDB Standard
student Active D1 (String) D2 (String) 0 Provisioned (5) Provisioned (5) DynamoDB Standard
students Active Artist (String) Song (String) 0 Provisioned (5) Provisioned (5) DynamoDB Standard


Delete table
You are about to delete a table.
Music
Delete all CloudWatch alarms for this table.
Create a backup of this table before deleting it.
If you do not select this check box, you will not be able to restore data being deleted.
To confirm the deletion of this table, type delete in the box.
delete
Cancel
Delete table


Delete table
You are about to delete a table.
Music
Delete all CloudWatch alarms for this table.
Create a backup of this table before deleting it.
If you do not select this check box, you will not be able to restore data being deleted.
To confirm the deletion of this table, type delete in the box.
delete
Cancel
Delete table
Delete table
You are about to delete a table.
Music
Go to tables


DynamoDB
Dashboard
Tables
Items New
PartiQL editor New
Backups
Exports to S3
Reserved capacity
DAX
Clusters
Subnet groups
Parameter groups
Events
Tell us what you think
Return to the previous console experience
DynamoDB > Items
Items Info
Autopreview
Tables (2)
Tag
Any table tag
music
0 matches
1
No matches
We cannot find a match.
Clear filter
On this page, query and scan for items.
Choose a table to get started. Standard query and scanning prices applies.
Feedback
English (US)
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
Type here to search
27°C Haze
21:56
05-12-2021

Practical No. 6

Introduction to Amazon Redshift

Aim: A) Launch an amazon redshift cluster

B) Launch Pgweb to communicate with the redshift cluster

C) Create a table

D) Load sample data from amazon S3

E) Query data

Introduction to Virtual Private Cloud (VPC)

Lab Steps

Logging in to the Amazon Web Services Console

Creating a VPC

Creating a VPC subnet

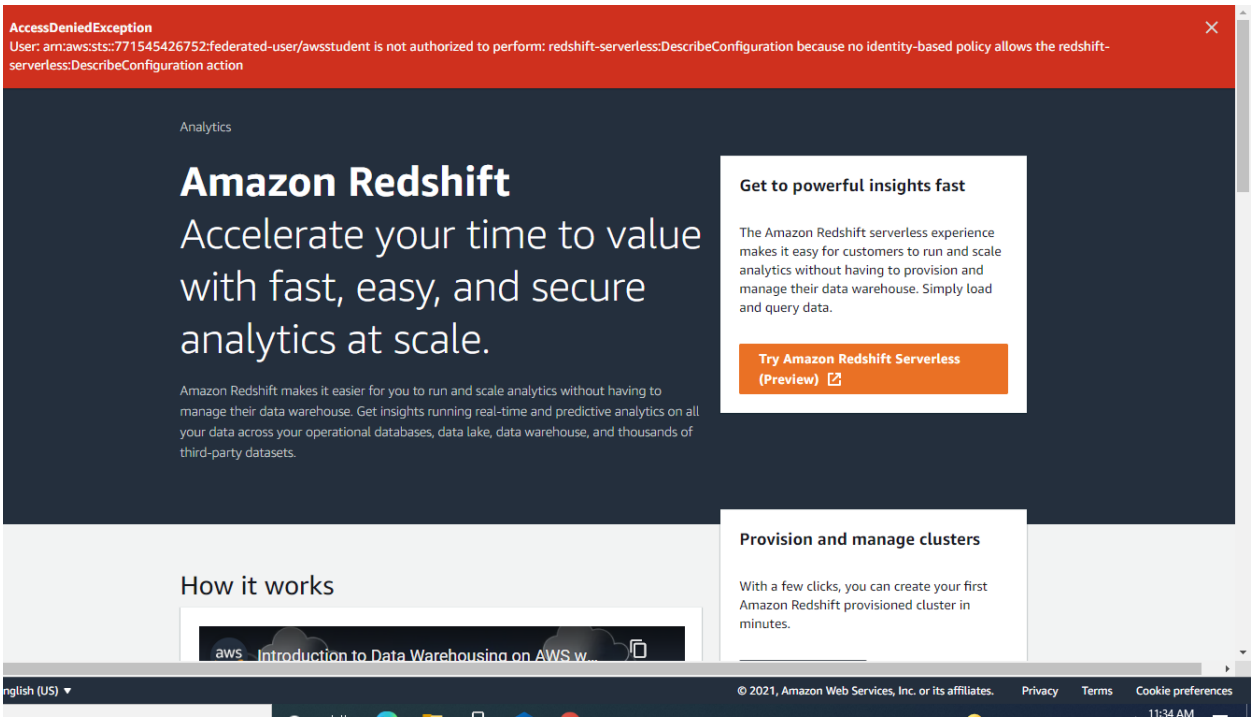
Creating a VPC Internet Gateway

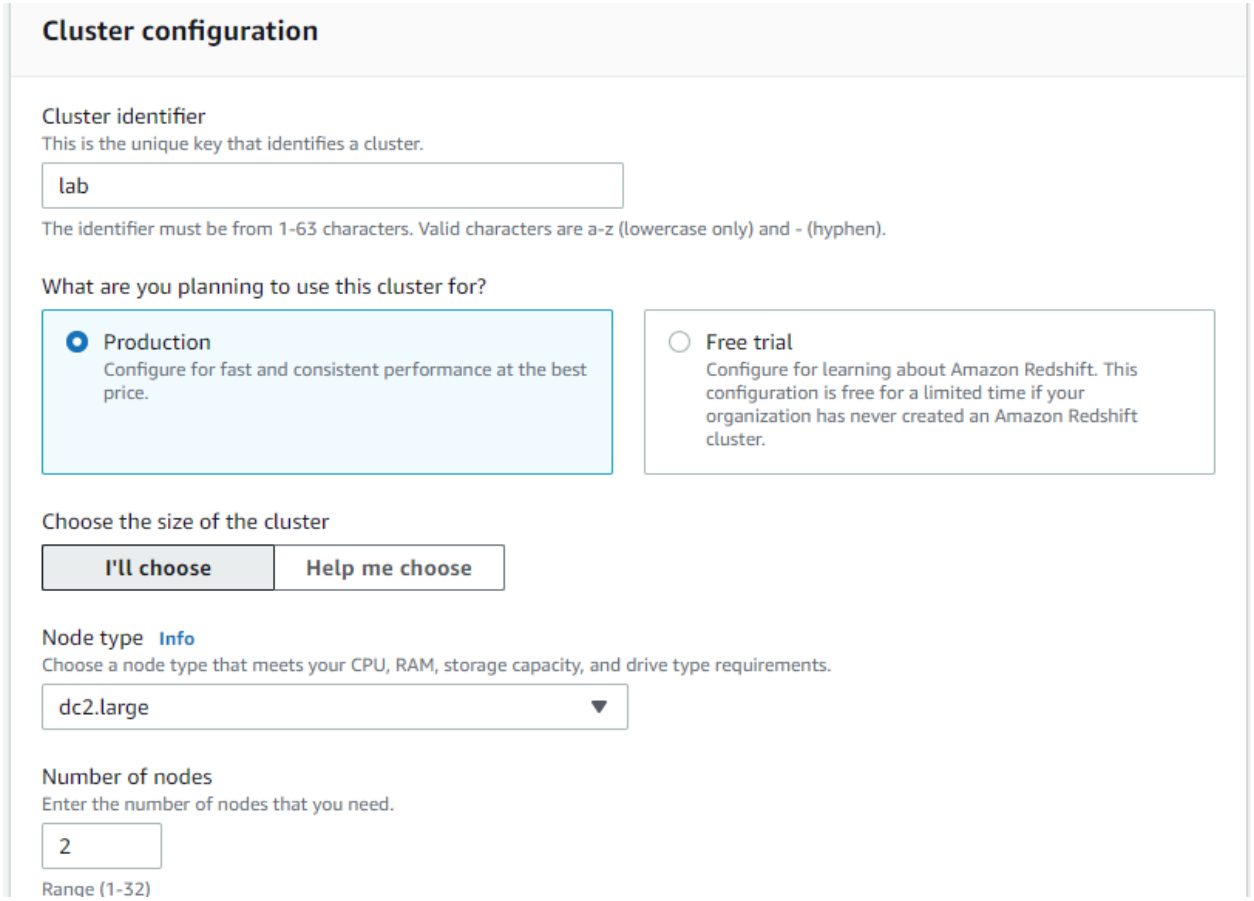
Connecting the Internet Gateway to the VPC Route Table

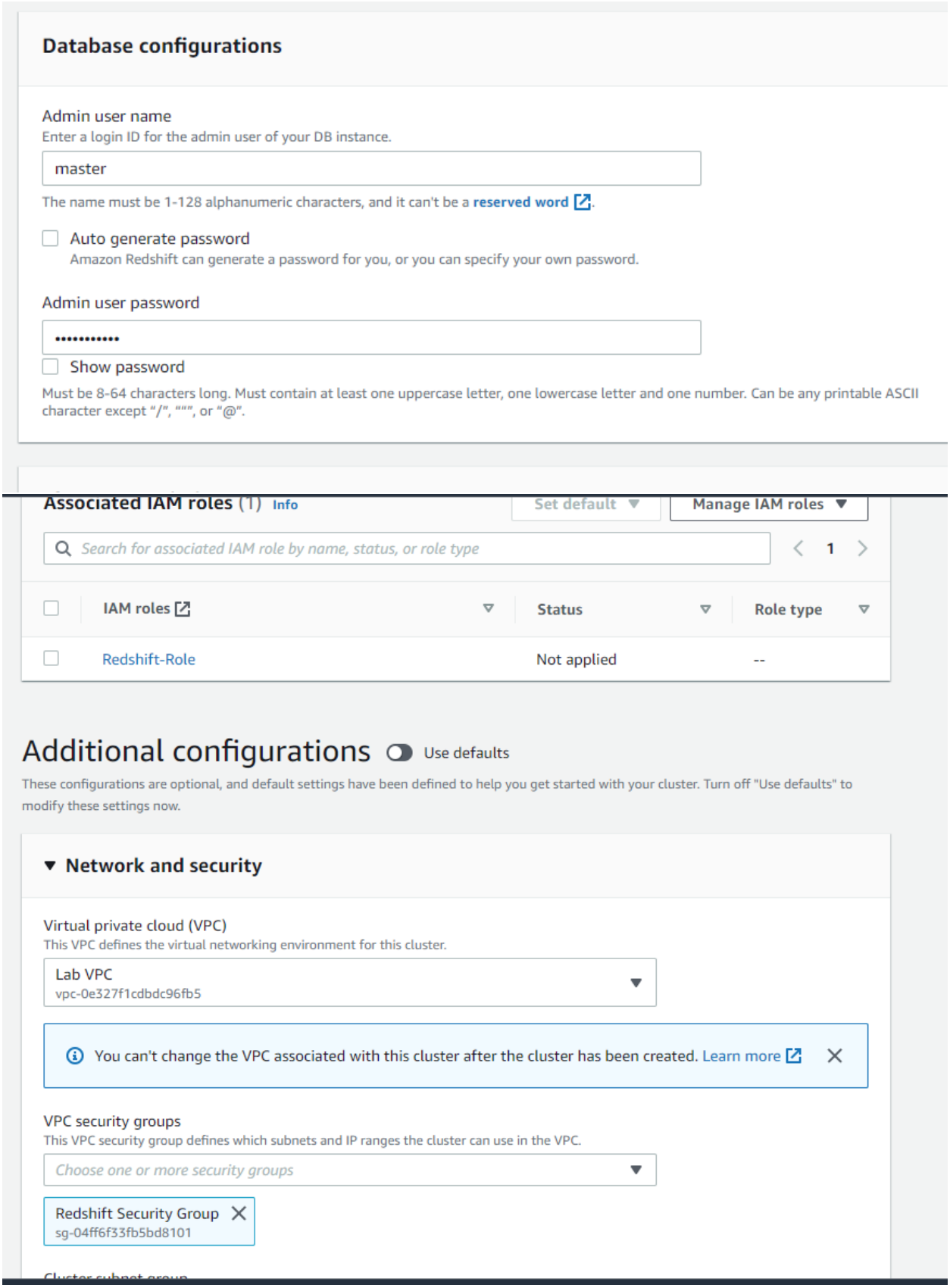
Creating an EC2 instance

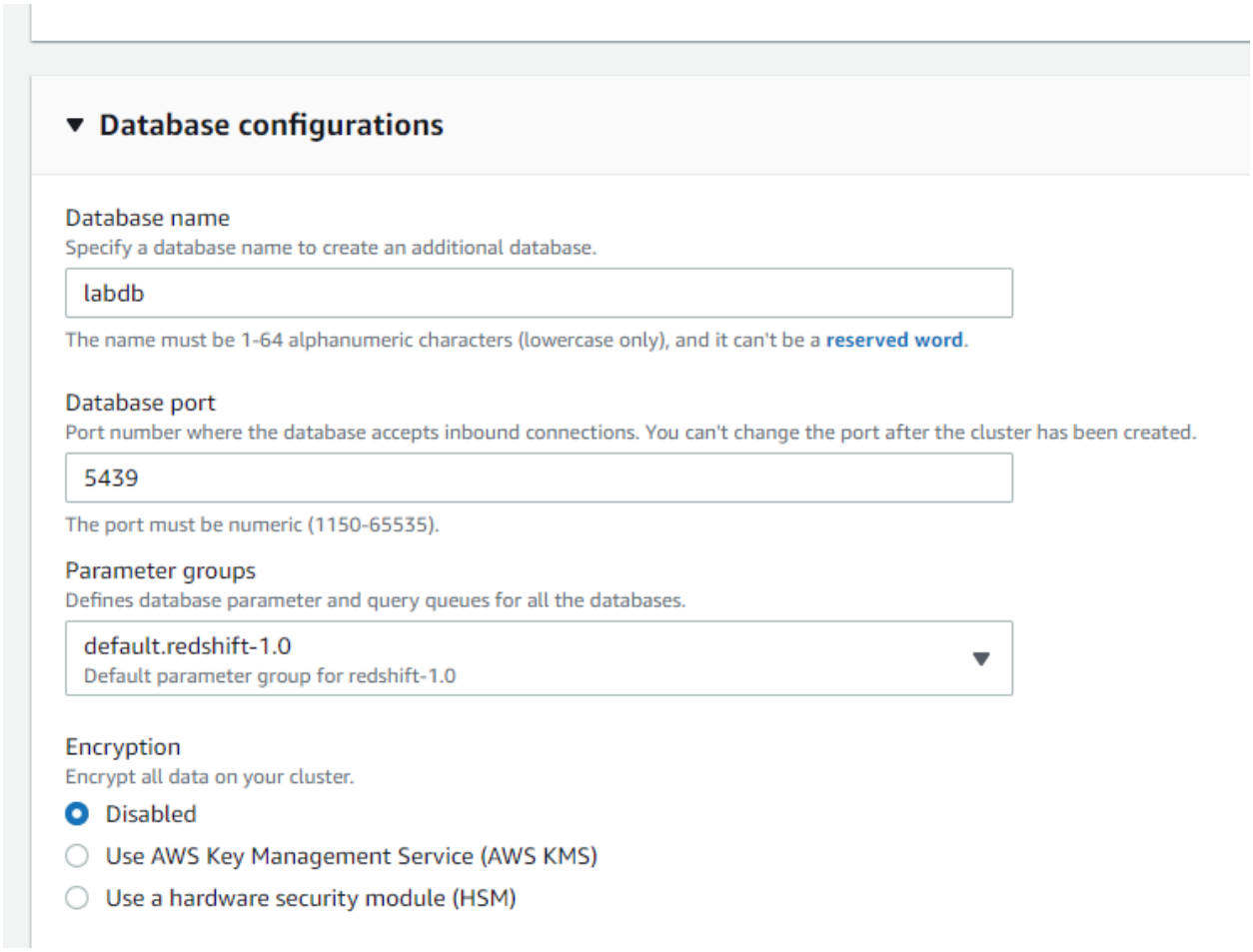
Allocating and Associating an Elastic IP

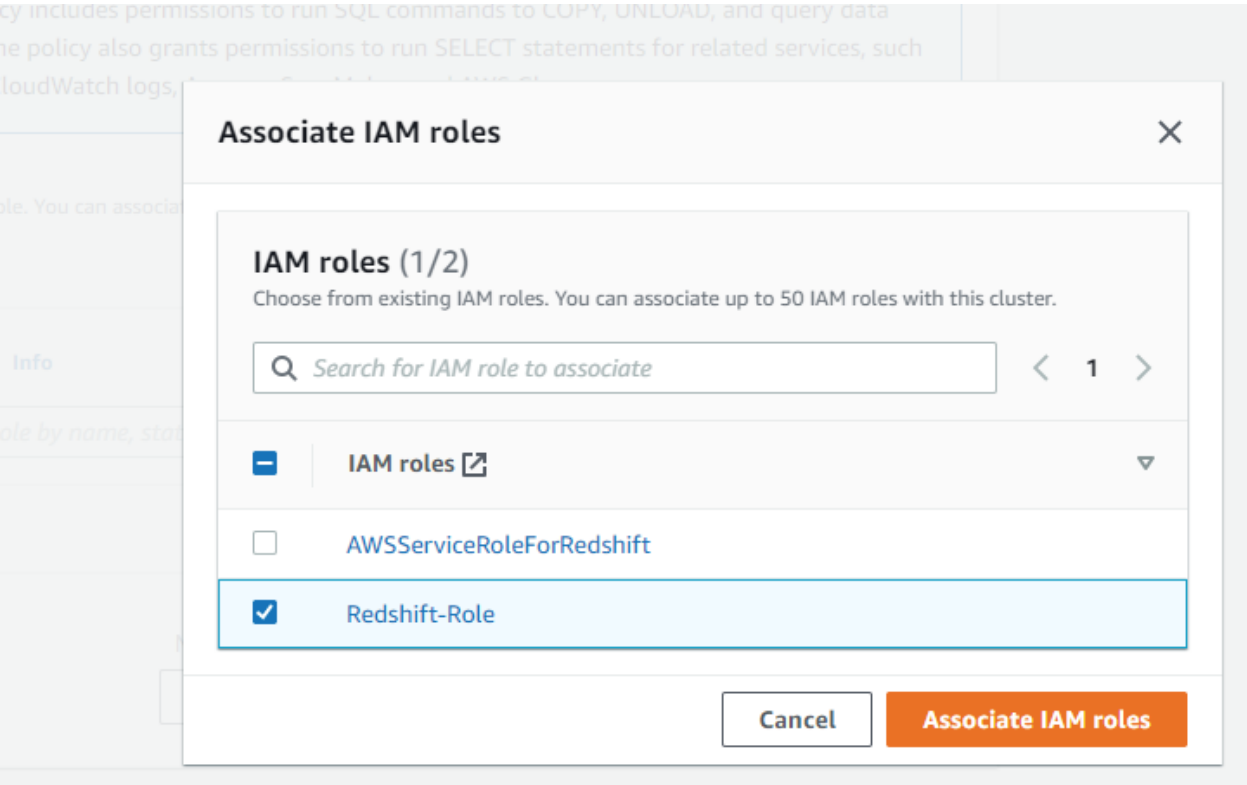
A) **Launch an amazon redshift cluster**

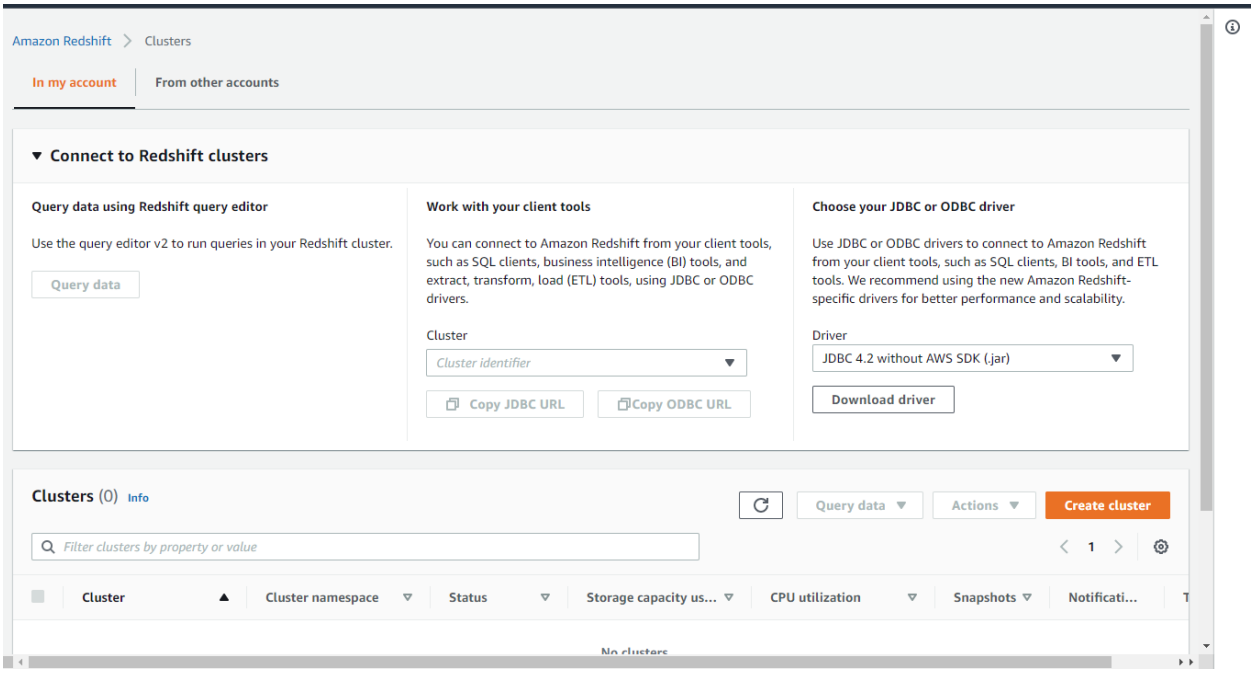

AccessDeniedException
User: arn:aws:sts::771545426752:federated-user/awsstudent is not authorized to perform: redshift-serverless:DescribeConfiguration because no identity-based policy allows the redshift-serverless:DescribeConfiguration action
Analytics
Amazon Redshift
Accelerate your time to value with fast, easy, and secure analytics at scale.
Amazon Redshift makes it easier for you to run and scale analytics without having to manage their data warehouse. Get insights running real-time and predictive analytics on all your data across your operational databases, data lake, data warehouse, and thousands of third-party datasets.
Get to powerful insights fast
The Amazon Redshift serverless experience makes it easy for customers to run and scale analytics without having to provision and manage their data warehouse. Simply load and query data.
Try Amazon Redshift Serverless (Preview)
Provision and manage clusters
With a few clicks, you can create your first Amazon Redshift provisioned cluster in minutes.
How it works
aws Introduction to Data Warehousing on AWS w...
nglish (US)
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

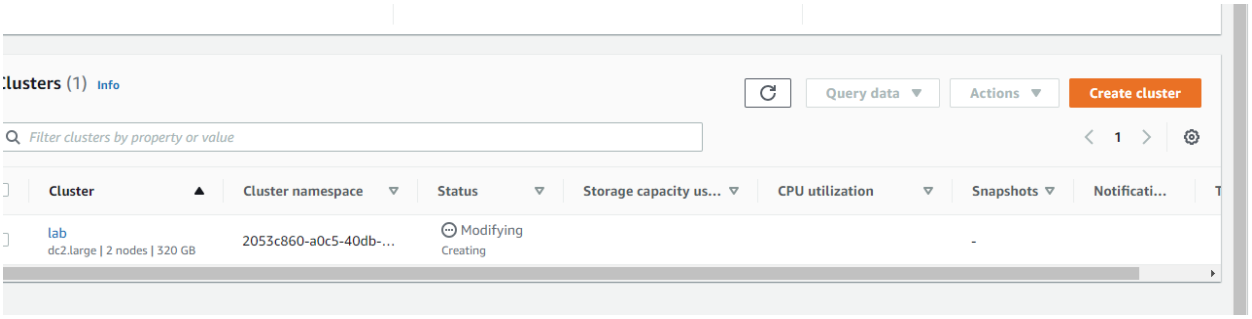

Cluster configuration
Cluster identifier
This is the unique key that identifies a cluster.
lab
The identifier must be from 1-63 characters. Valid characters are a-z (lowercase only) and - (hyphen).
What are you planning to use this cluster for?
Production
Configure for fast and consistent performance at the best price.
Free trial
Configure for learning about Amazon Redshift. This configuration is free for a limited time if your organization has never created an Amazon Redshift cluster.
Choose the size of the cluster
I'll choose
Help me choose
Node type Info
Choose a node type that meets your CPU, RAM, storage capacity, and drive type requirements.
dc2.large
Number of nodes
Enter the number of nodes that you need.
2
Range (1-32)

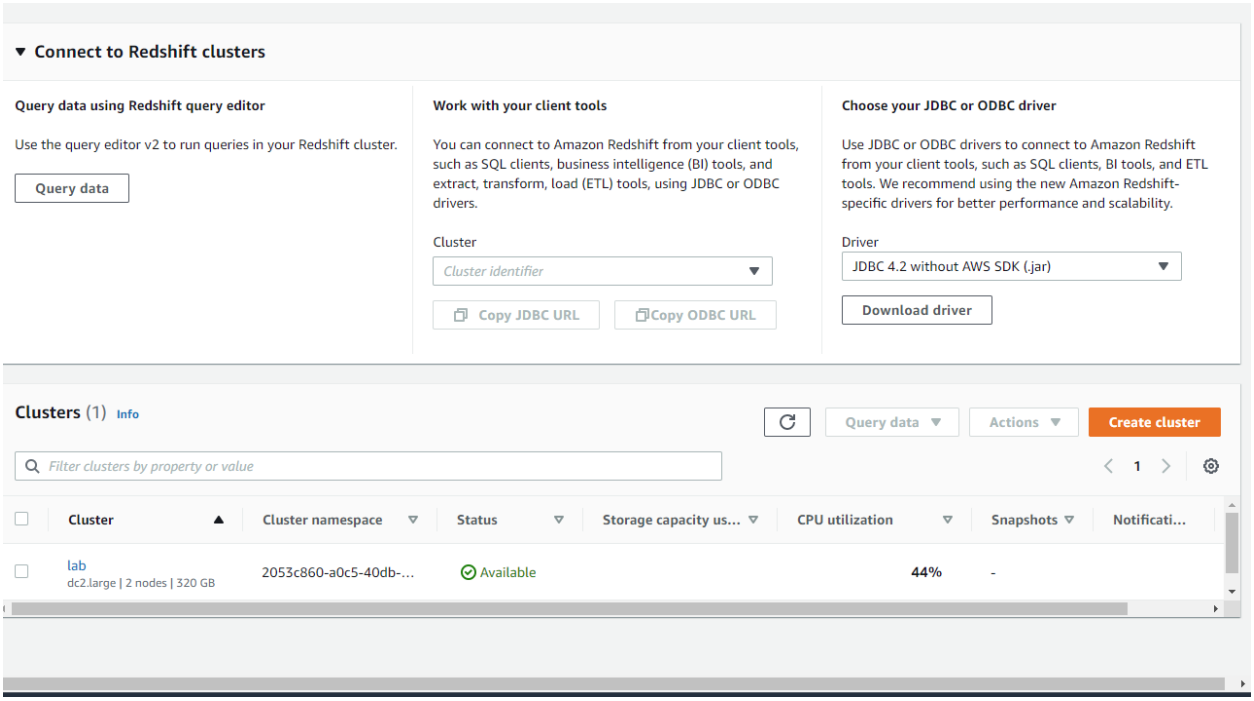

Database configurations
Admin user name
Enter a login ID for the admin user of your DB instance.
master
The name must be 1-128 alphanumeric characters, and it can't be a reserved word.
Auto generate password
Amazon Redshift can generate a password for you, or you can specify your own password.
Admin user password
Show password
Must be 8-64 characters long. Must contain at least one uppercase letter, one lowercase letter and one number. Can be any printable ASCII character except "/", """, or "@".
Associated IAM roles (1) Info
Set default
Manage IAM roles
Search for associated IAM role by name, status, or role type
1
IAM roles
Status
Role type
Redshift-Role
Not applied
--
Additional configurations
Use defaults
These configurations are optional, and default settings have been defined to help you get started with your cluster. Turn off "Use defaults" to modify these settings now.
Network and security
Virtual private cloud (VPC)
This VPC defines the virtual networking environment for this cluster.
Lab VPC
vpc-0e327f1cdbdc96fb5
You can't change the VPC associated with this cluster after the cluster has been created. Learn more
VPC security groups
This VPC security group defines which subnets and IP ranges the cluster can use in the VPC.
Choose one or more security groups
Redshift Security Group
sg-04ff6f33fb5bd8101


Database configurations
Database name
Specify a database name to create an additional database.
labdb
The name must be 1-64 alphanumeric characters (lowercase only), and it can't be a reserved word.
Database port
Port number where the database accepts inbound connections. You can't change the port after the cluster has been created.
5439
The port must be numeric (1150-65535).
Parameter groups
Defines database parameter and query queues for all the databases.
default.redshift-1.0
Default parameter group for redshift-1.0
Encryption
Encrypt all data on your cluster.
Disabled
Use AWS Key Management Service (AWS KMS)
Use a hardware security module (HSM)

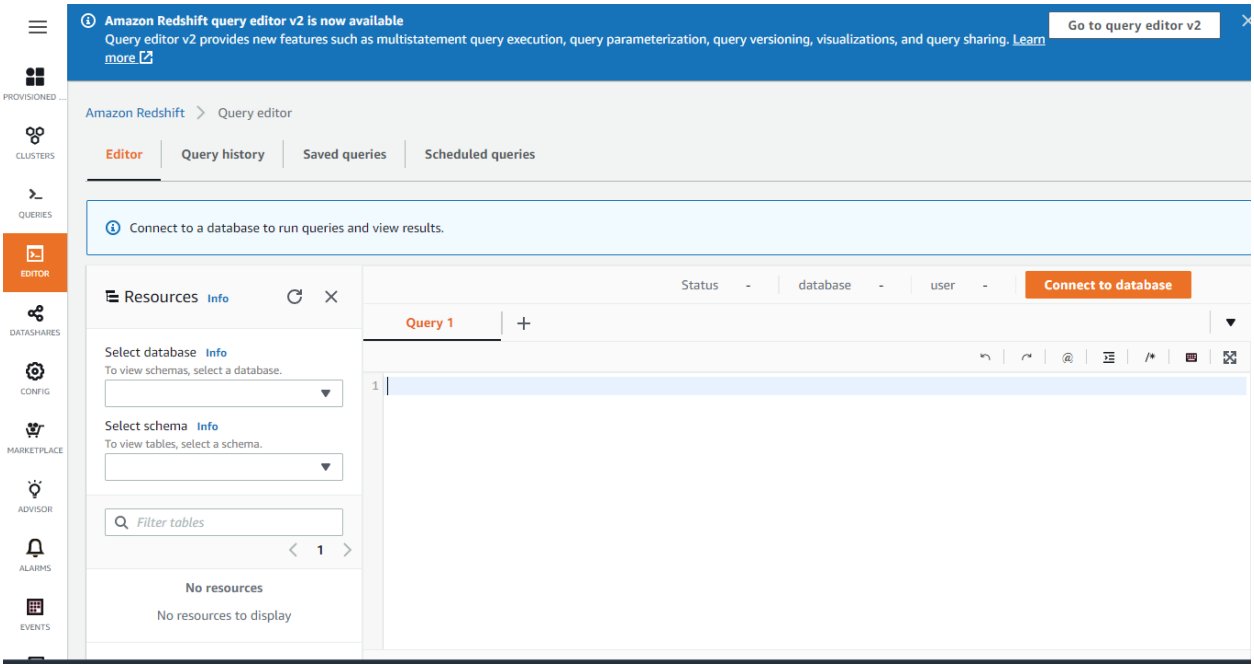

Associate IAM roles
IAM roles (1/2)
Choose from existing IAM roles. You can associate up to 50 IAM roles with this cluster.
Search for IAM role to associate
1
IAM roles
AWSServiceRoleForRedshift
Redshift-Role
Cancel
Associate IAM roles

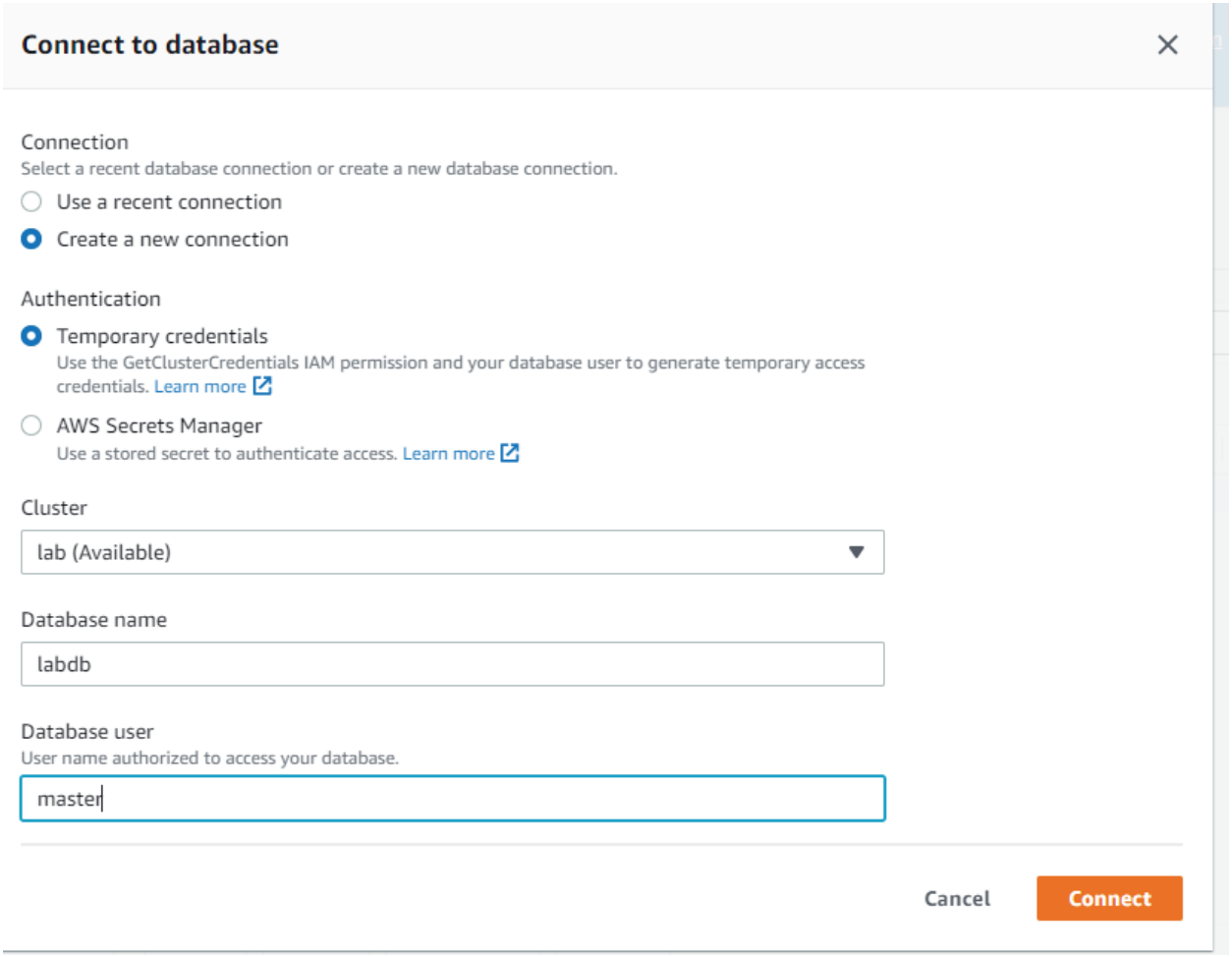

Amazon Redshift
Clusters
In my account
From other accounts
Connect to Redshift clusters
Query data using Redshift query editor
Use the query editor v2 to run queries in your Redshift cluster.
Query data
Work with your client tools
You can connect to Amazon Redshift from your client tools, such as SQL clients, business intelligence (BI) tools, and extract, transform, load (ETL) tools, using JDBC or ODBC drivers.
Cluster
Cluster identifier
Copy JDBC URL
Copy ODBC URL
Choose your JDBC or ODBC driver
Use JDBC or ODBC drivers to connect to Amazon Redshift from your client tools, such as SQL clients, BI tools, and ETL tools. We recommend using the new Amazon Redshift-specific drivers for better performance and scalability.
Driver
JDBC 4.2 without AWS SDK (.jar)
Download driver
Clusters (0) Info
Query data
Actions
Create cluster
Filter clusters by property or value
1
Cluster
Cluster namespace
Status
Storage capacity us...
CPU utilization
Snapshots
Notificati...
No clusters

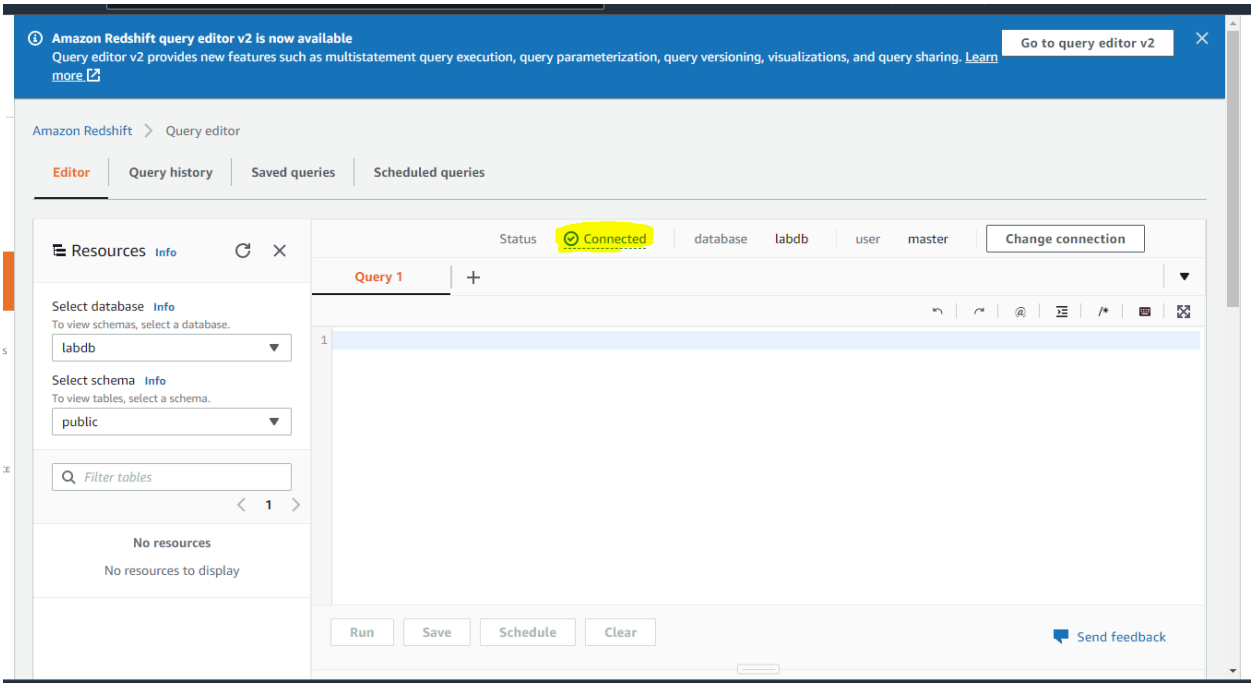




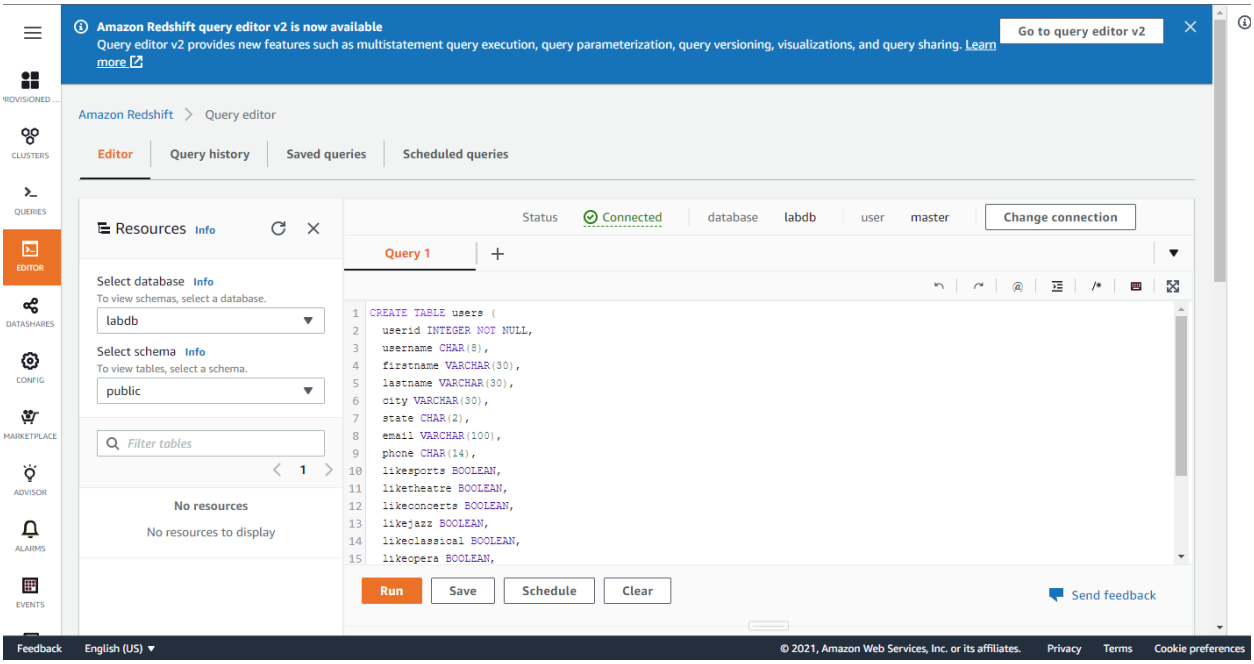
B Launch Pgweb to communicate with the redshift cluster

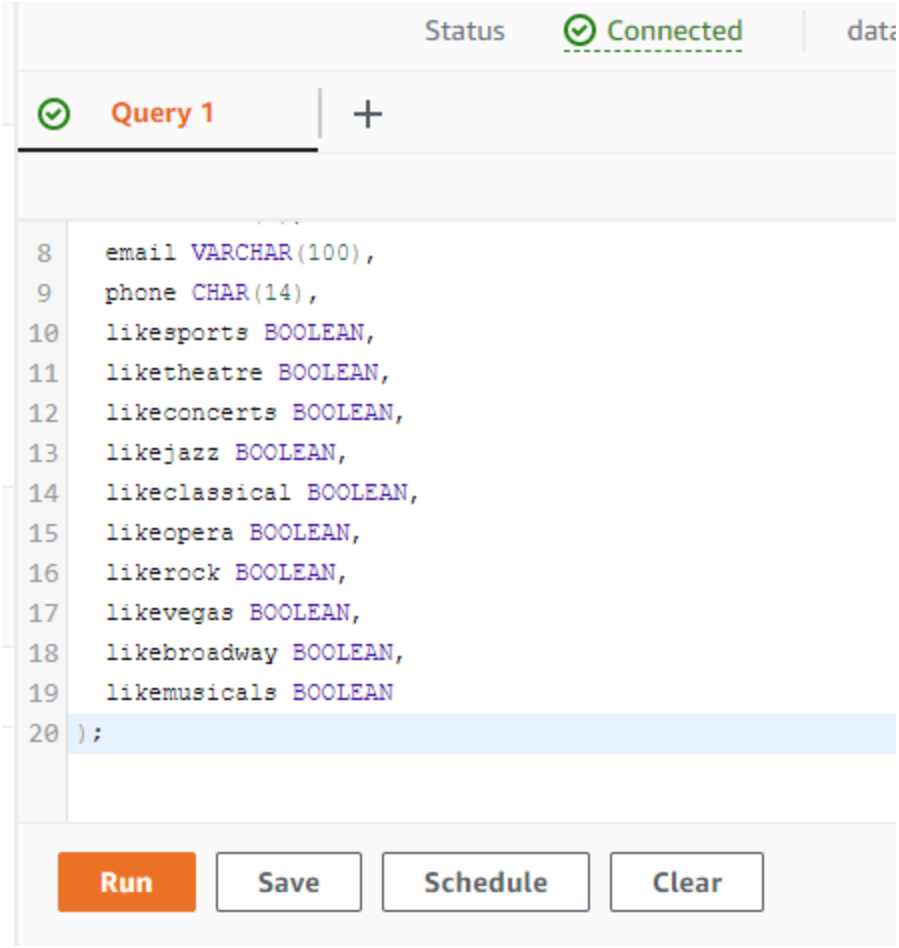

Amazon Redshift query editor v2 is now available
Query editor v2 provides new features such as multistatement query execution, query parameterization, query versioning, visualizations, and query sharing. Learn more
Go to query editor v2
PROVISIONED ...
CLUSTERS
QUERIES
EDITOR
DATASHARES
CONFIG
MARKETPLACE
ADVISOR
ALARMS
EVENTS
Amazon Redshift
Query editor
Editor
Query history
Saved queries
Scheduled queries
Connect to a database to run queries and view results.
Resources Info
Select database Info
To view schemas, select a database.
Select schema Info
To view tables, select a schema.
Filter tables
No resources
No resources to display
Status -
database -
user -
Connect to database
Query 1


Connect to database
Connection
Select a recent database connection or create a new database connection.
Use a recent connection
Create a new connection
Authentication
Temporary credentials
Use the GetClusterCredentials IAM permission and your database user to generate temporary access credentials. Learn more
AWS Secrets Manager
Use a stored secret to authenticate access. Learn more
Cluster
lab (Available)
Database name
labdb
Database user
User name authorized to access your database.
master
Cancel
Connect

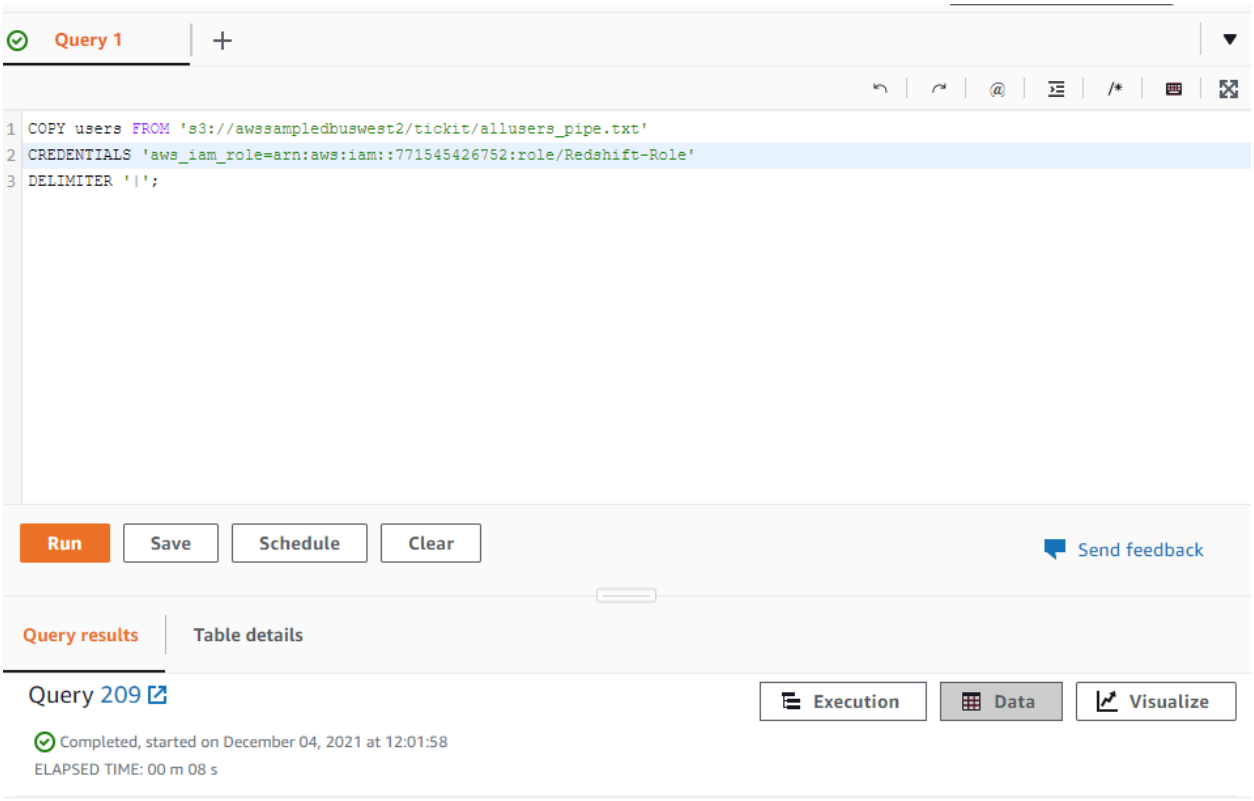


Task 3 Create a table

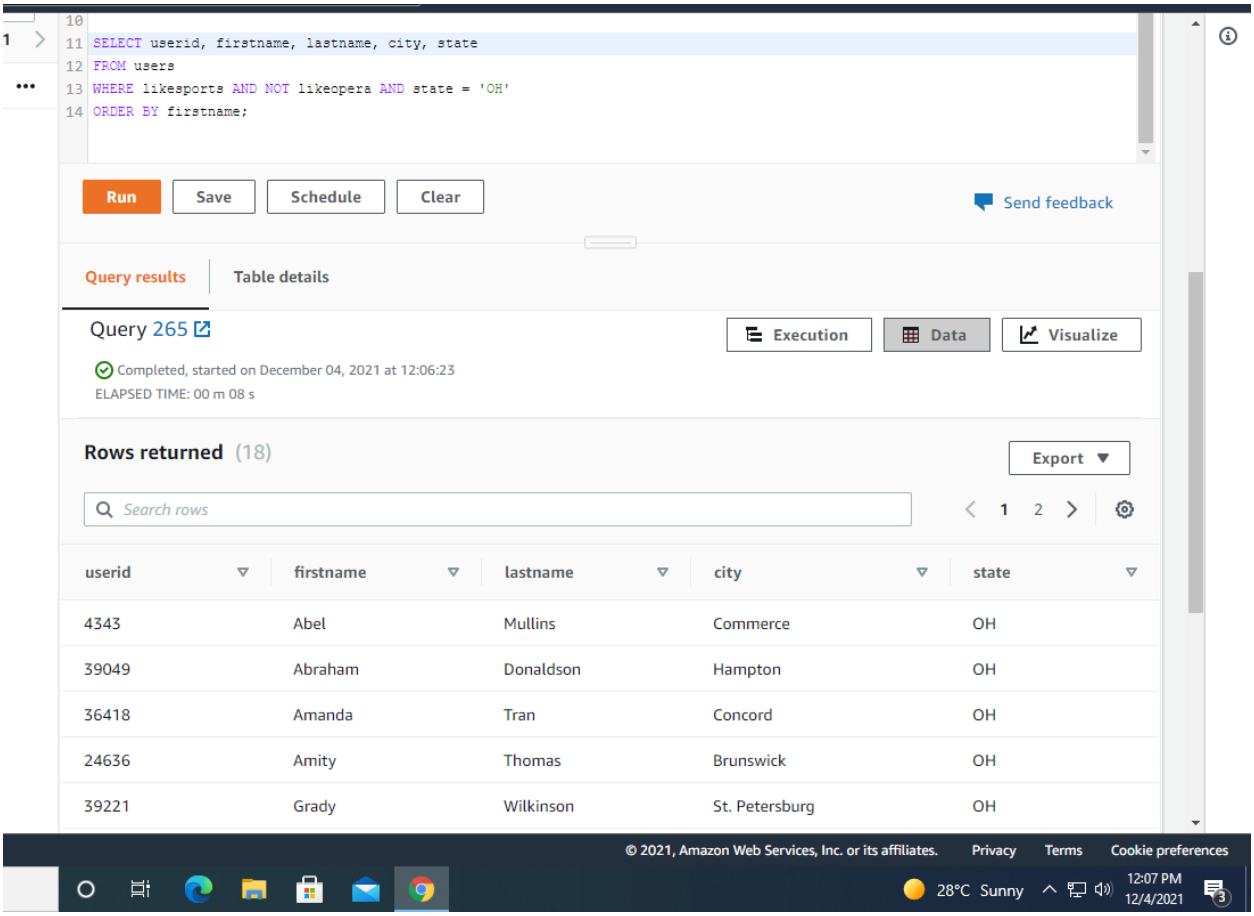


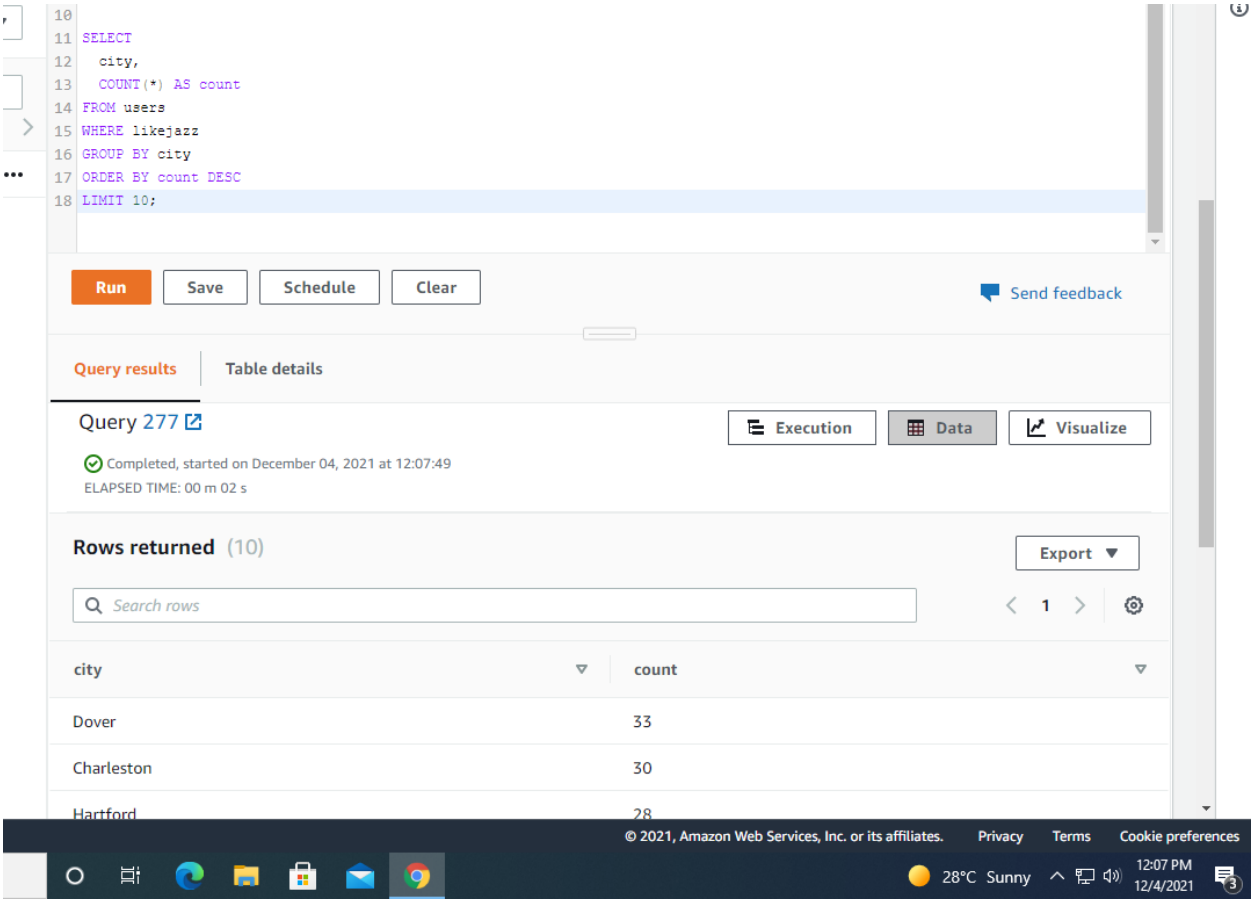


4. Load sample data from amazon S3


Query 1
1 COPY users FROM 's3://awssampledbuswest2/tickit/allusers_pipe.txt'
2 CREDENTIALS 'aws_iam_role=arn:aws:iam::771545426752:role/Redshift-Role'
3 DELIMITER '|';
Run
Save
Schedule
Clear
Send feedback
Query results
Table details
Query 209
Execution
Data
Visualize
Completed, started on December 04, 2021 at 12:01:58
ELAPSED TIME: 00 m 08 s

E Query data


SELECT userid, firstname, lastname, city, state
FROM users
WHERE likesports AND NOT likeopera AND state = 'OH'
ORDER BY firstname;
Run
Save
Schedule
Clear
Send feedback
Query results
Table details
Query 265
Execution
Data
Visualize
Completed, started on December 04, 2021 at 12:06:23
ELAPSED TIME: 00 m 08 s
Rows returned (18)
Export
Search rows
1
2
userid
firstname
lastname
city
state
4343 Abel Mullins Commerce OH
39049 Abraham Donaldson Hampton OH
36418 Amanda Tran Concord OH
24636 Amity Thomas Brunswick OH
39221 Grady Wilkinson St. Petersburg OH
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
28°C Sunny
12:07 PM
12/4/2021


SELECT
city,
COUNT(*) AS count
FROM users
WHERE likejazz
GROUP BY city
ORDER BY count DESC
LIMIT 10;
Run
Save
Schedule
Clear
Send feedback
Query results
Table details
Query 277
Execution
Data
Visualize
Completed, started on December 04, 2021 at 12:07:49
ELAPSED TIME: 00 m 02 s
Rows returned (10)
Export
Search rows
1
city
count
Dover
33
Charleston
30
Hartford
28
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
28°C Sunny
12:07 PM
12/4/2021

Practical No. 7

Introduction to AWS Key management Service

Aim: A) Create KMS master key

B) Configure cloudTrail to store Logs in an S3 Bucket

C) Upload an Image to S3 bucket and encrypt it

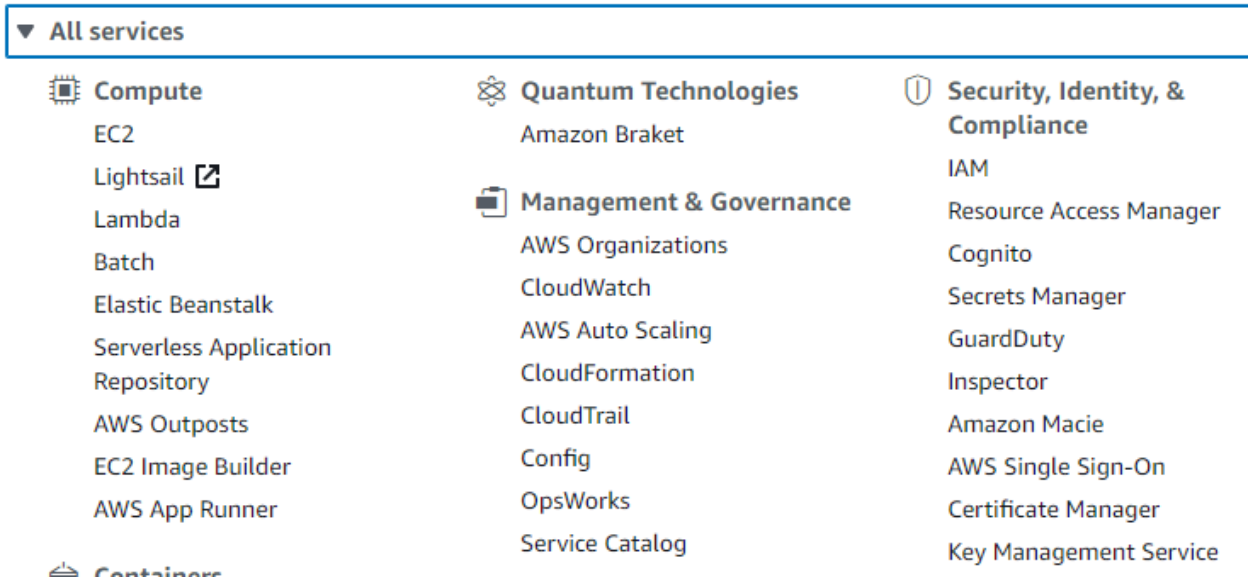
D) Access the encrypted image

E) Monitor KMS activity Using CloudTrail Logs

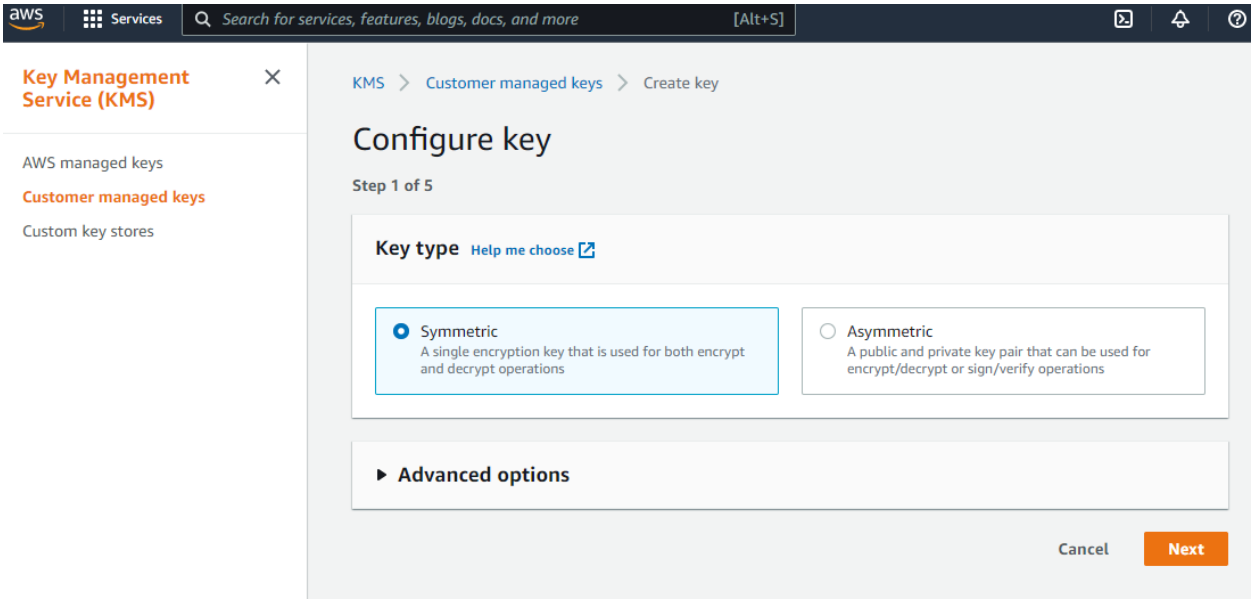
F) Manage encryption keys

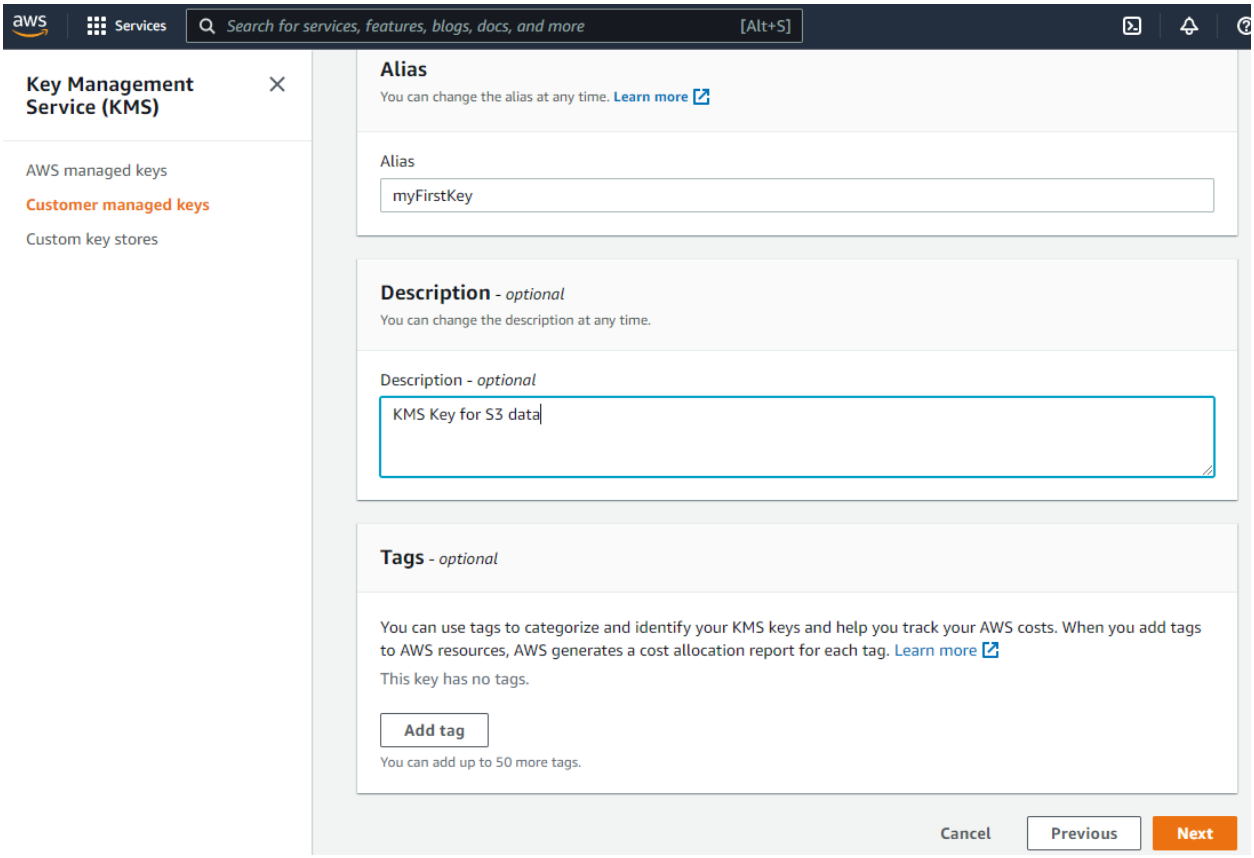
Create Your First Amazon RDS Database
Lab Steps
Logging in to the Amazon Web Services Console
Creating an RDS Subnet Group
Setting up Security Group Rules for Connecting to the RDS Instance
Creating a Database Using RDS
Starting an AWS Systems Manager Session Manager Browser Shell Session
Connecting to RDS and Creating a Database Table
Deleting an RDS Database

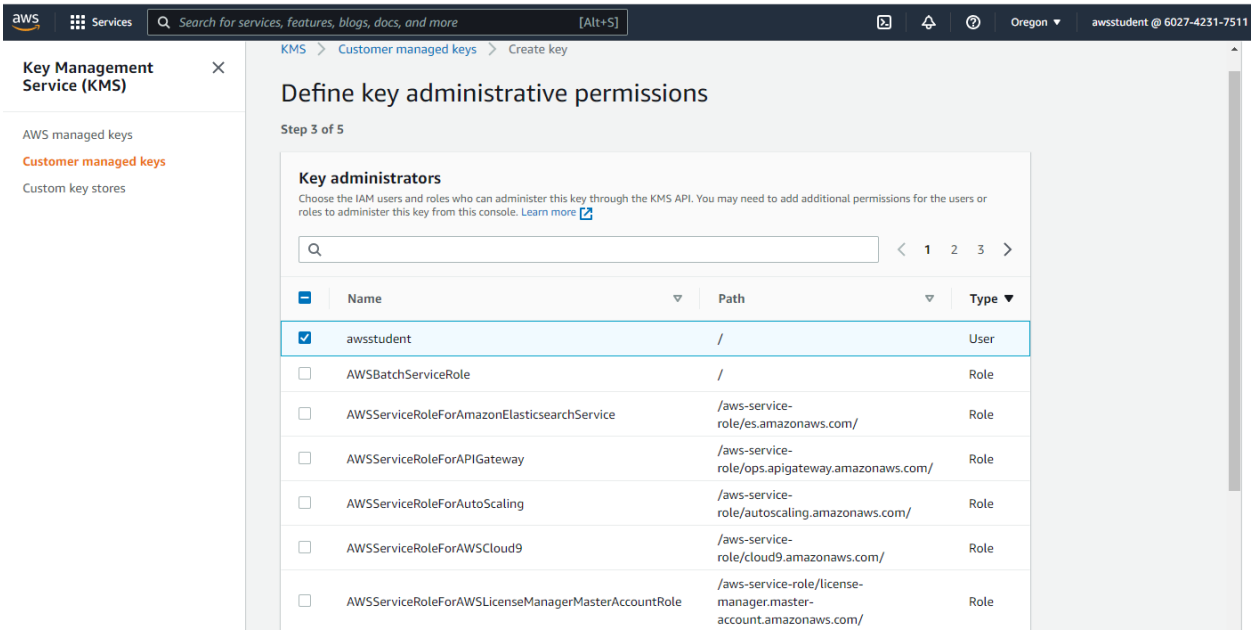
1. Create your KMS Master Key

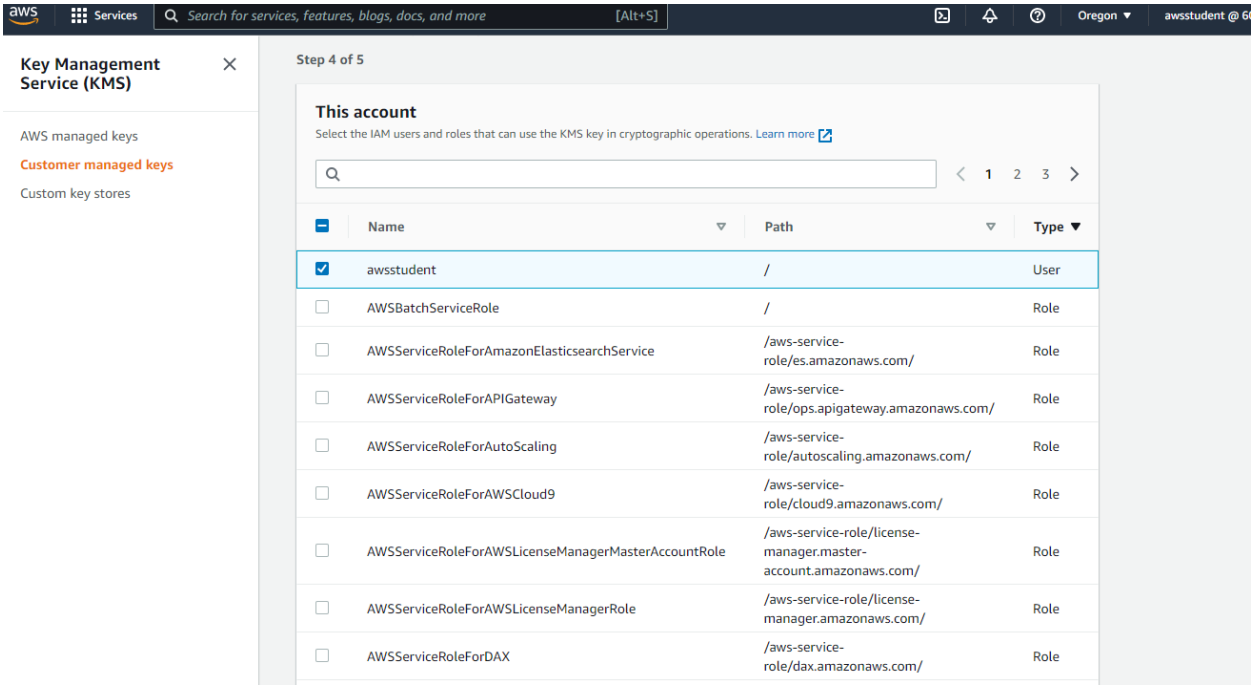

All services
Compute
EC2
Lightsail
Lambda
Batch
Elastic Beanstalk
Serverless Application Repository
AWS Outposts
EC2 Image Builder
AWS App Runner
Quantum Technologies
Amazon Braket
Management & Governance
AWS Organizations
CloudWatch
AWS Auto Scaling
CloudFormation
CloudTrail
Config
OpsWorks
Service Catalog
Security, Identity, & Compliance
IAM
Resource Access Manager
Cognito
Secrets Manager
GuardDuty
Inspector
Amazon Macie
AWS Single Sign-On
Certificate Manager
Key Management Service

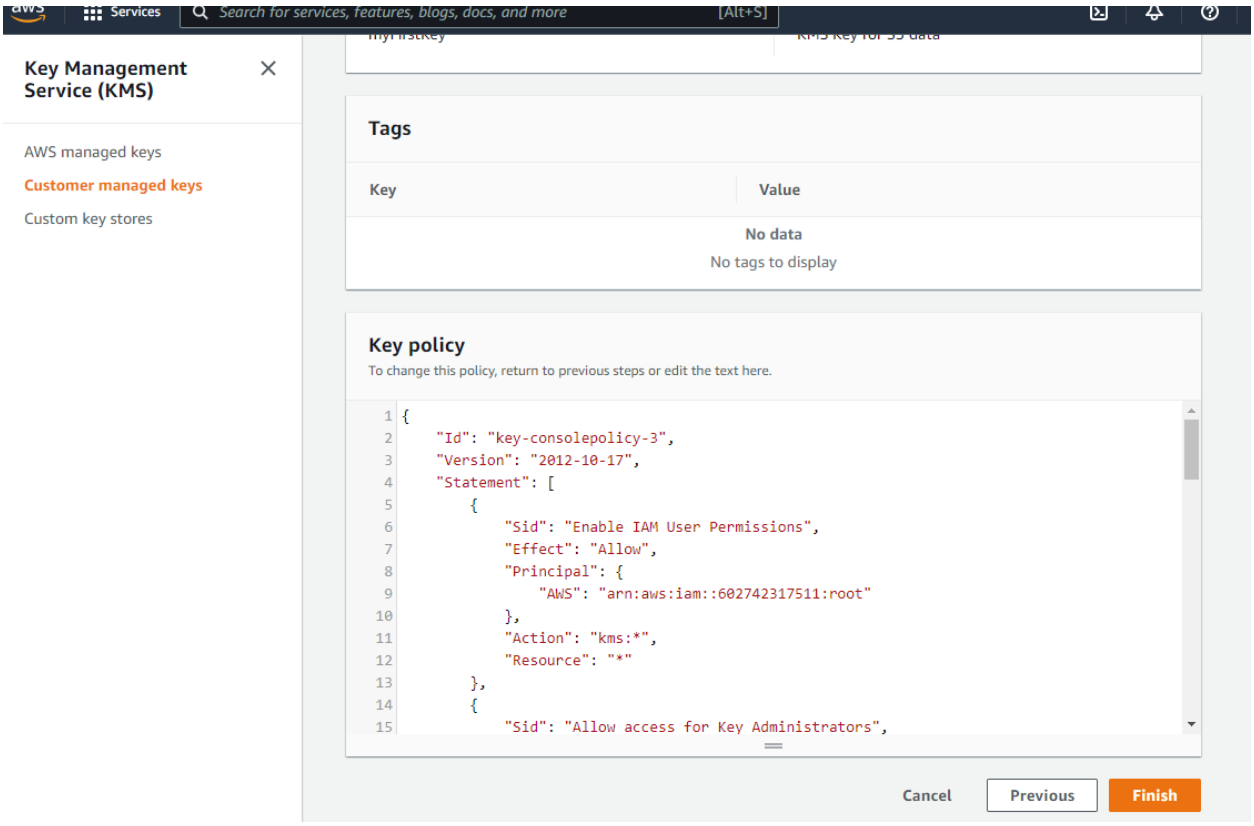

Key Management Service (KMS)
AWS managed keys
Customer managed keys
Custom key stores
Security, Identity & Compliance
AWS Key Management Service
Easily create keys and control encryption across AWS and beyond
AWS Key Management Service (KMS) is a managed service that makes it easy for you to create and manage keys and control the use of encryption across a wide range of AWS services. KMS is a secure and resilient service that uses FIPS 140-2 validated hardware security
Get started now
You can create a key by clicking the button below.
Create a key

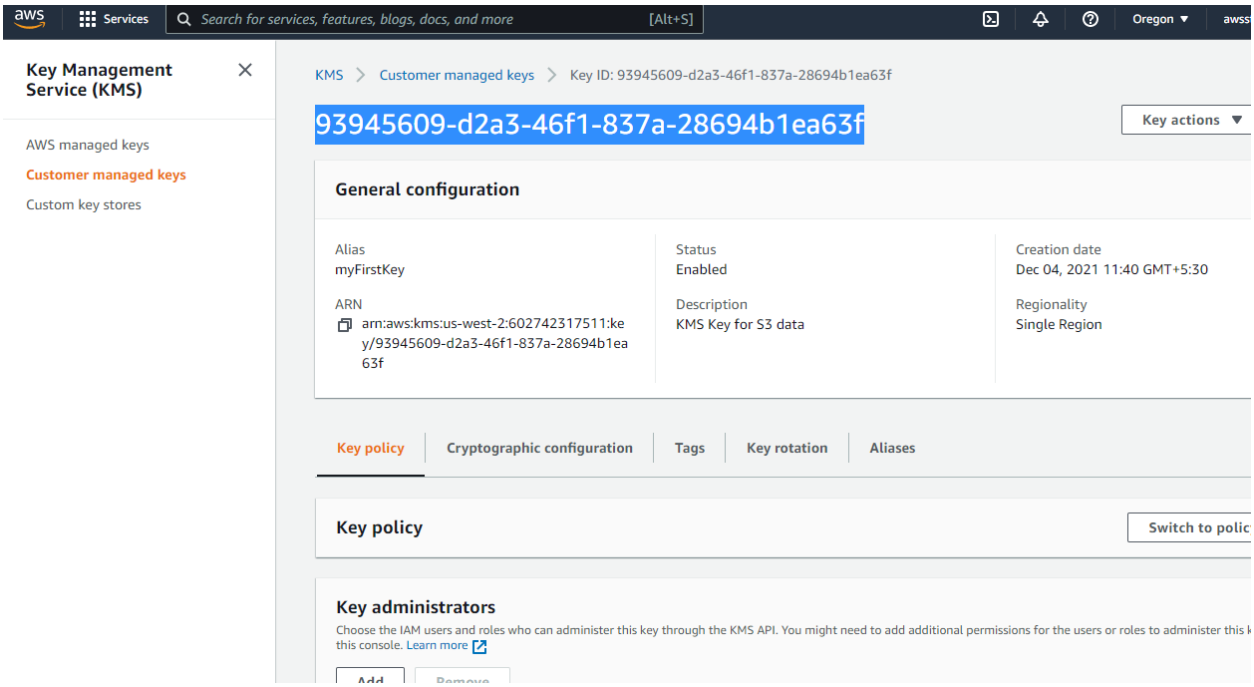

aws
Services
Search for services, features, blogs, docs, and more
[Alt+S]
Key Management Service (KMS)
AWS managed keys
Customer managed keys
Custom key stores
KMS > Customer managed keys > Create key
Configure key
Step 1 of 5
Key type
Help me choose
Symmetric
A single encryption key that is used for both encrypt and decrypt operations
Asymmetric
A public and private key pair that can be used for encrypt/decrypt or sign/verify operations
Advanced options
Cancel
Next


aws
Services
Search for services, features, blogs, docs, and more
[Alt+S]
Key Management Service (KMS)
AWS managed keys
Customer managed keys
Custom key stores
Alias
You can change the alias at any time. Learn more
Alias
myFirstKey
Description - optional
You can change the description at any time.
Description - optional
KMS Key for S3 data
Tags - optional
You can use tags to categorize and identify your KMS keys and help you track your AWS costs. When you add tags to AWS resources, AWS generates a cost allocation report for each tag. Learn more
This key has no tags.
Add tag
You can add up to 50 more tags.
Cancel
Previous
Next

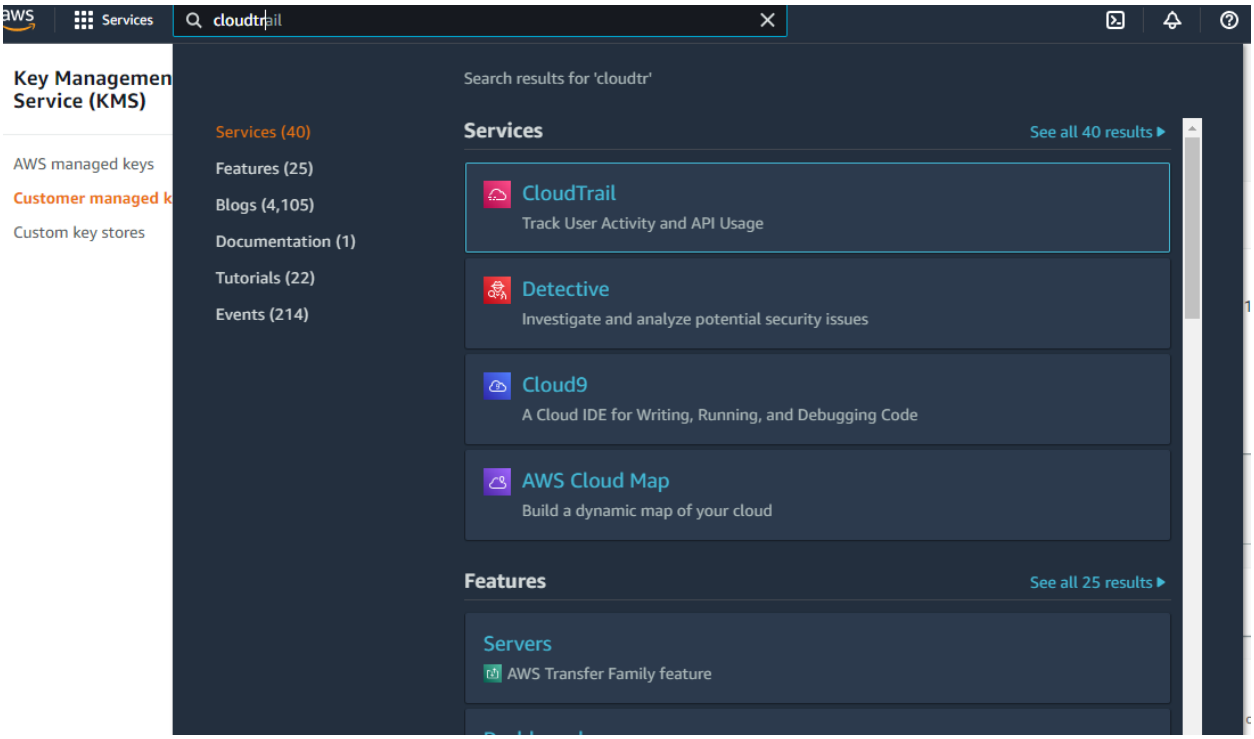

aws
Services
Search for services, features, blogs, docs, and more
[Alt+S]
Oregon
awsstudent @ 6027-4231-7511
Key Management Service (KMS)
AWS managed keys
Customer managed keys
Custom key stores
KMS
Customer managed keys
Create key
Define key administrative permissions
Step 3 of 5
Key administrators
Choose the IAM users and roles who can administer this key through the KMS API. You may need to add additional permissions for the users or roles to administer this key from this console. Learn more
1 2 3
Name
Path
Type
awsstudent / User
AWSBatchServiceRole / Role
AWSServiceRoleForAmazonElasticsearchService /aws-service-role/es.amazonaws.com/ Role
AWSServiceRoleForAPIGateway /aws-service-role/ops.apigateway.amazonaws.com/ Role
AWSServiceRoleForAutoScaling /aws-service-role/autoscaling.amazonaws.com/ Role
AWSServiceRoleForAWSCloud9 /aws-service-role/cloud9.amazonaws.com/ Role
AWSServiceRoleForAWSLicenseManagerMasterAccountRole /aws-service-role/license-manager.master-account.amazonaws.com/ Role

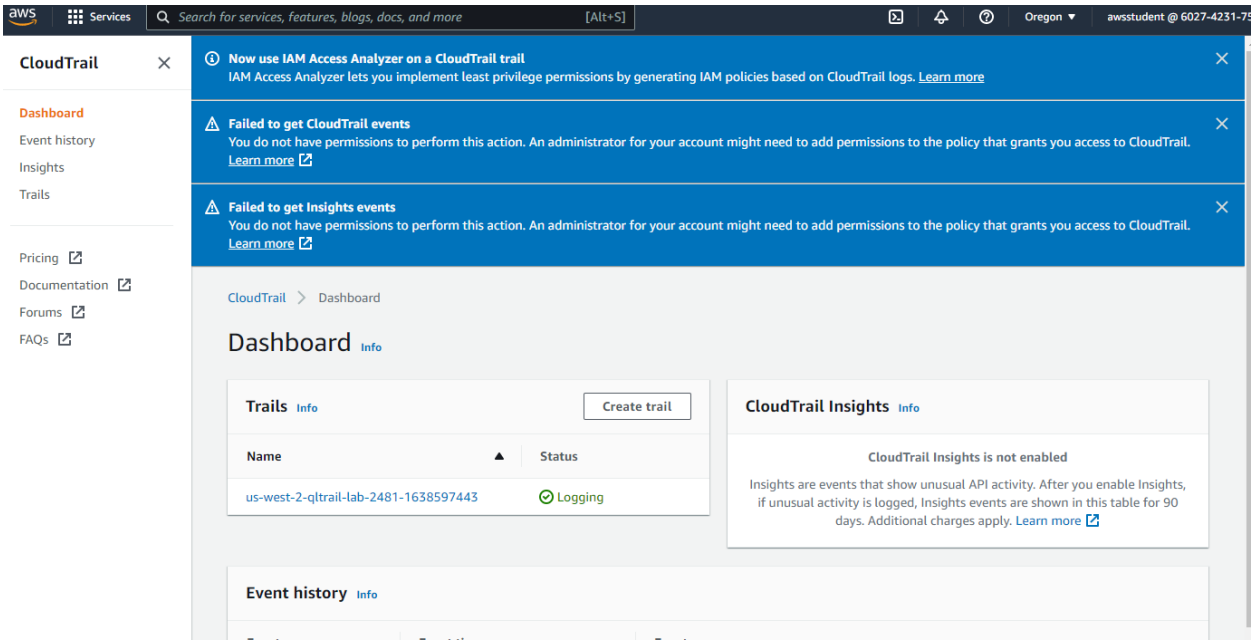

Services
Search for services, features, blogs, docs, and more
[Alt+S]
Oregon
awsstudent @ 6
Key Management Service (KMS)
AWS managed keys
Customer managed keys
Custom key stores
Step 4 of 5
This account
Select the IAM users and roles that can use the KMS key in cryptographic operations. Learn more
1 2 3
Name
Path
Type
awsstudent / User
AWSBatchServiceRole / Role
AWSServiceRoleForAmazonElasticsearchService /aws-service-role/es.amazonaws.com/ Role
AWSServiceRoleForAPIGateway /aws-service-role/ops.apigateway.amazonaws.com/ Role
AWSServiceRoleForAutoScaling /aws-service-role/autoscaling.amazonaws.com/ Role
AWSServiceRoleForAWSCloud9 /aws-service-role/cloud9.amazonaws.com/ Role
AWSServiceRoleForAWSLicenseManagerMasterAccountRole /aws-service-role/license-manager.master-account.amazonaws.com/ Role
AWSServiceRoleForAWSLicenseManagerRole /aws-service-role/license-manager.amazonaws.com/ Role
AWSServiceRoleForDAX /aws-service-role/dax.amazonaws.com/ Role

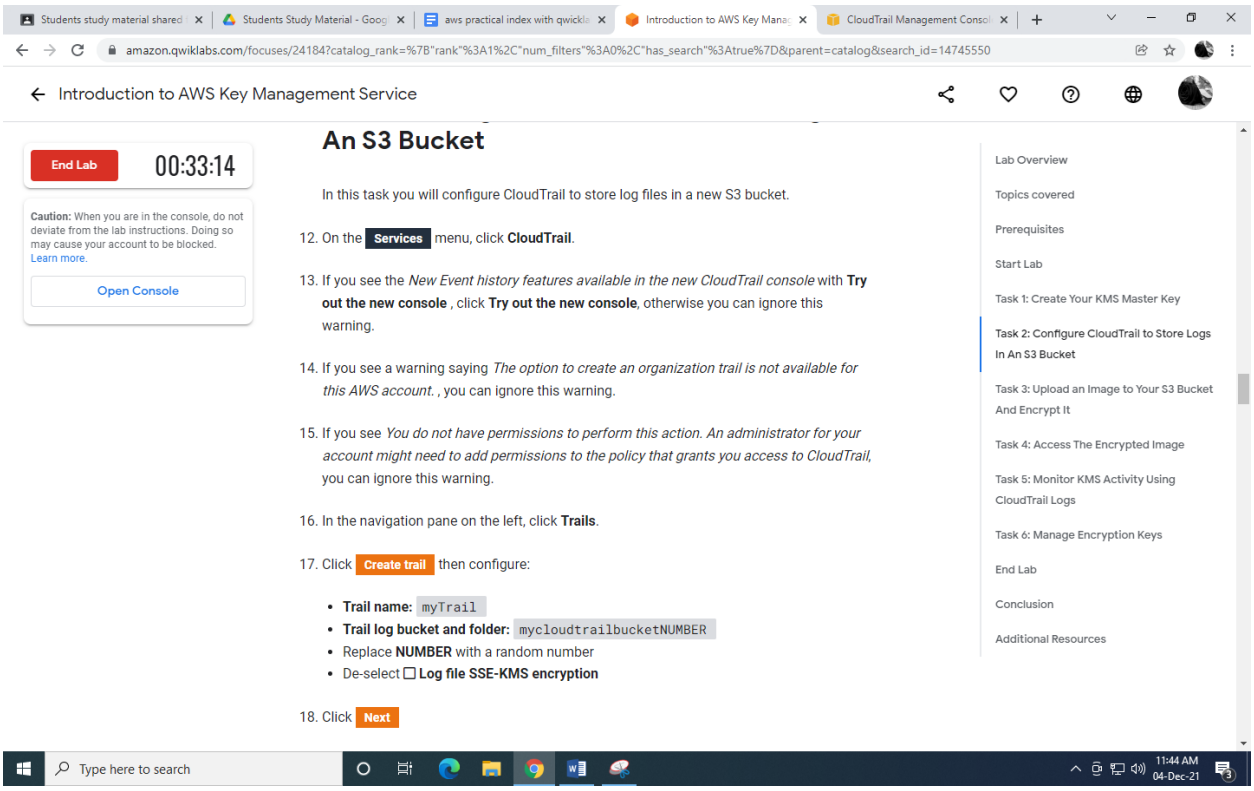

Services
Search for services, features, blogs, docs, and more
[Alt+S]
Key Management Service (KMS)
AWS managed keys
Customer managed keys
Custom key stores
Tags
Key
Value
No data
No tags to display
Key policy
To change this policy, return to previous steps or edit the text here.
{
"Id": "key-consolepolicy-3",
"Version": "2012-10-17",
"Statement": [
{
"Sid": "Enable IAM User Permissions",
"Effect": "Allow",
"Principal": {
"AWS": "arn:aws:iam::602742317511:root"
},
"Action": "kms:*",
"Resource": "*"
},
{
"Sid": "Allow access for Key Administrators",
Cancel
Previous
Finish

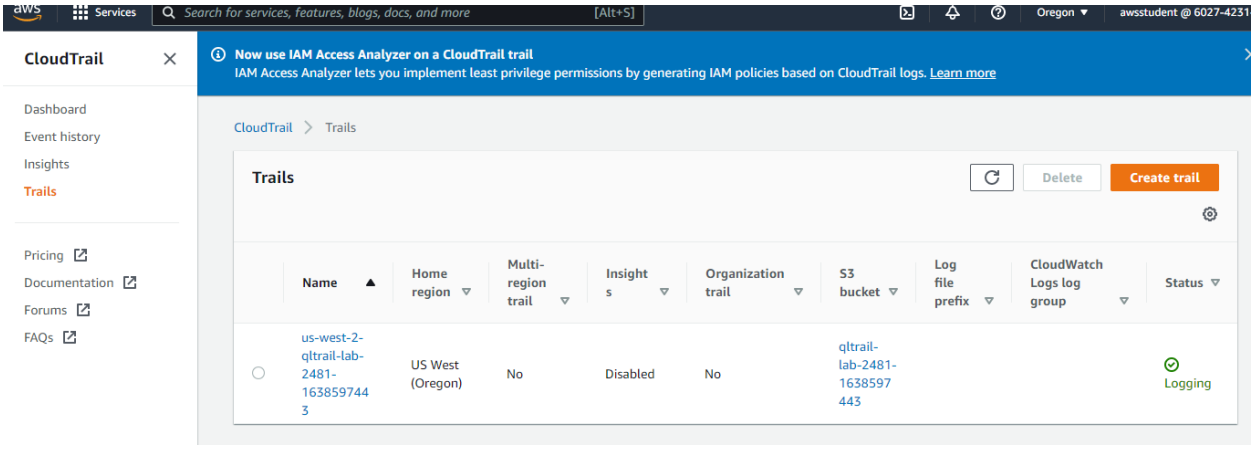


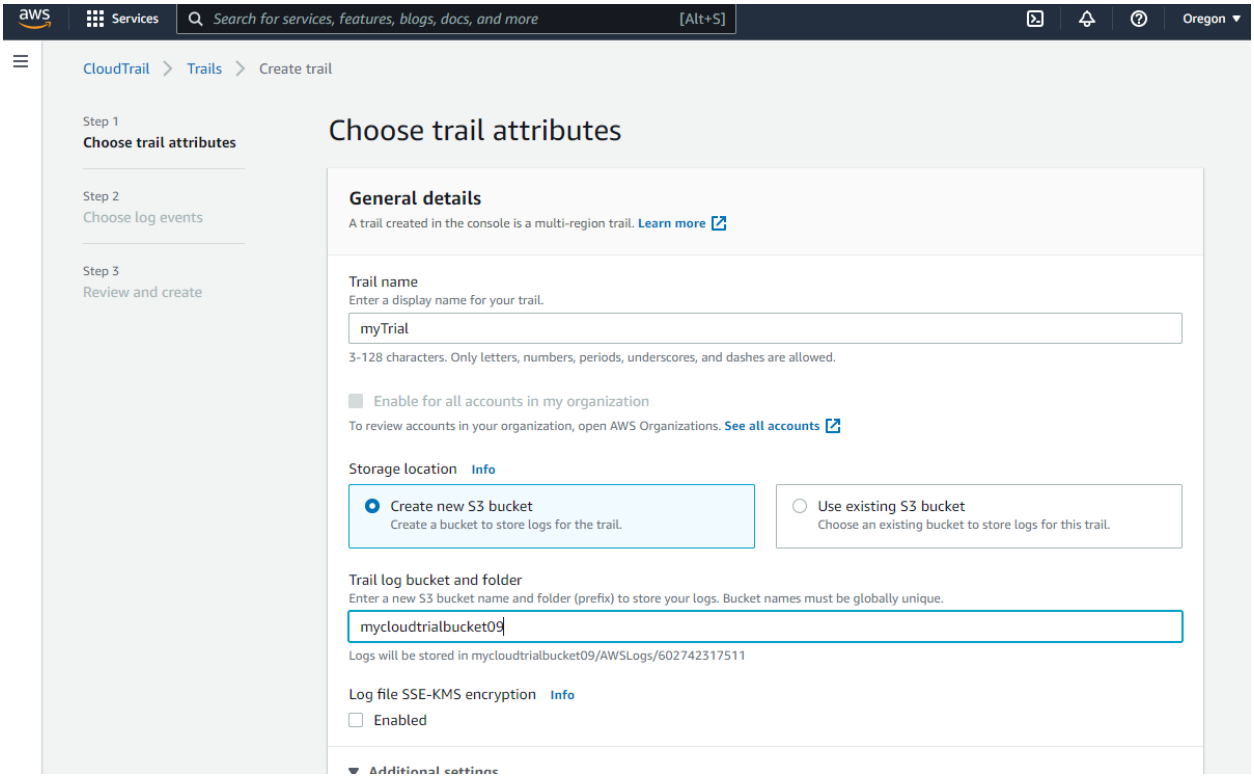
2. Configure CloudTrial to Store Logs in an S3 bucket

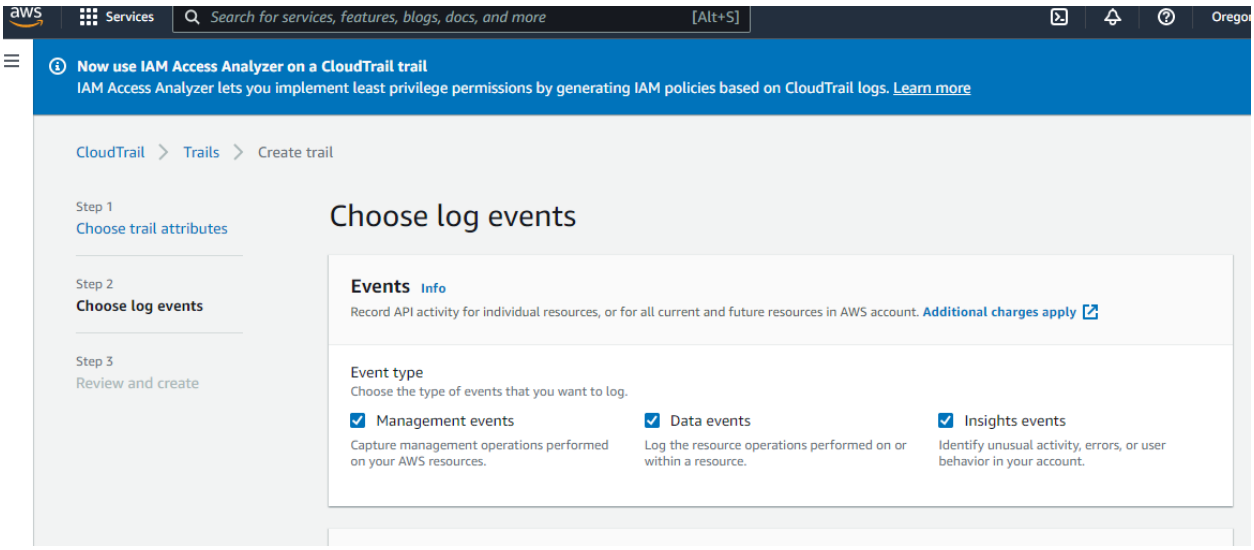


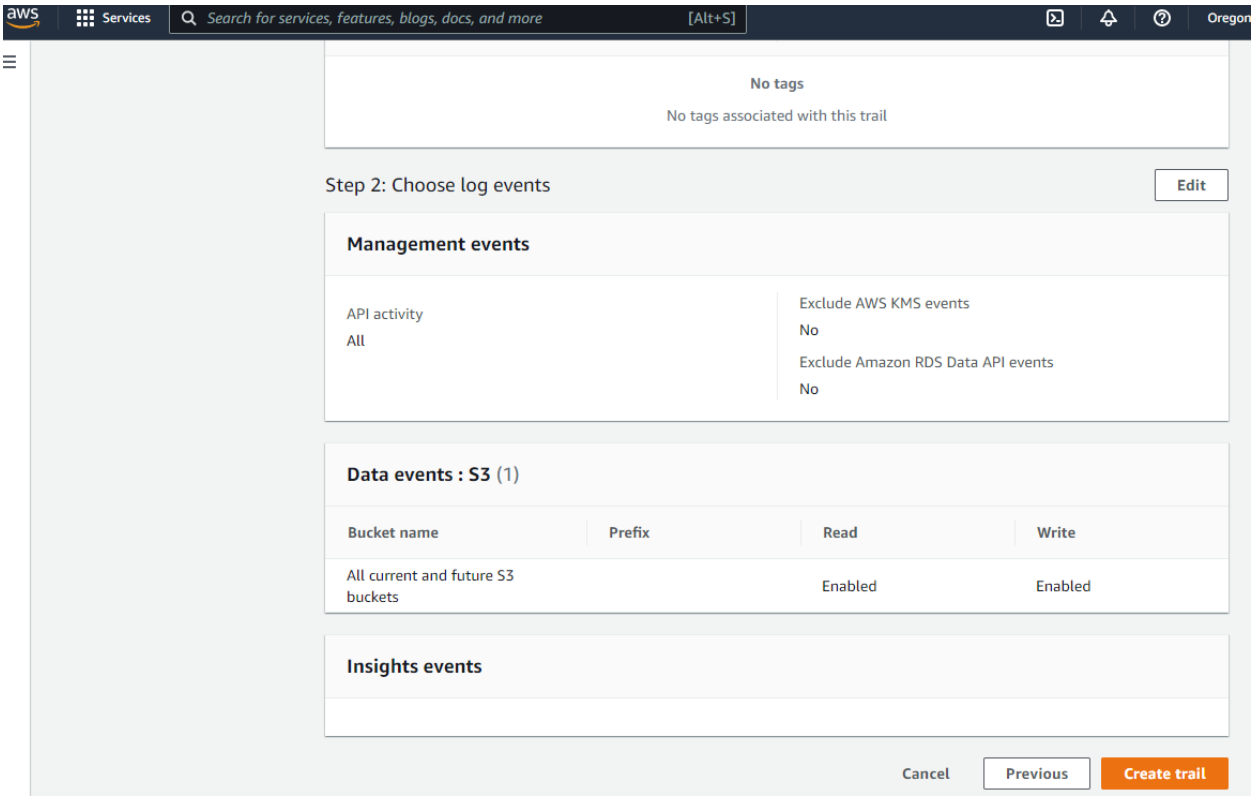

Services
Search for services, features, blogs, docs, and more [Alt+S]
Oregon
awsstudent @ 6027-4231-7
CloudTrail
Dashboard
Event history
Insights
Trails
Pricing
Documentation
Forums
FAQs
Now use IAM Access Analyzer on a CloudTrail trail
IAM Access Analyzer lets you implement least privilege permissions by generating IAM policies based on CloudTrail logs. Learn more
Failed to get CloudTrail events
You do not have permissions to perform this action. An administrator for your account might need to add permissions to the policy that grants you access to CloudTrail.
Learn more
Failed to get Insights events
You do not have permissions to perform this action. An administrator for your account might need to add permissions to the policy that grants you access to CloudTrail.
Learn more
CloudTrail > Dashboard
Dashboard Info
Trails Info
Create trail
Name
Status
us-west-2-qltrail-lab-2481-1638597443
Logging
CloudTrail Insights Info
CloudTrail Insights is not enabled
Insights are events that show unusual API activity. After you enable Insights, if unusual activity is logged, Insights events are shown in this table for 90 days. Additional charges apply. Learn more
Event history Info


Introduction to AWS Key Management Service
End Lab
00:33:14
Caution: When you are in the console, do not deviate from the lab instructions. Doing so may cause your account to be blocked. Learn more.
Open Console
An S3 Bucket
In this task you will configure CloudTrail to store log files in a new S3 bucket.
12. On the Services menu, click CloudTrail.
13. If you see the New Event history features available in the new CloudTrail console with Try out the new console , click Try out the new console, otherwise you can ignore this warning.
14. If you see a warning saying The option to create an organization trail is not available for this AWS account. , you can ignore this warning.
15. If you see You do not have permissions to perform this action. An administrator for your account might need to add permissions to the policy that grants you access to CloudTrail, you can ignore this warning.
16. In the navigation pane on the left, click Trails.
17. Click Create trail then configure:
• Trail name: myTrail
• Trail log bucket and folder: mycloudtrailbucketNUMBER
• Replace NUMBER with a random number
• De-select ☐ Log file SSE-KMS encryption
18. Click Next
Lab Overview
Topics covered
Prerequisites
Start Lab
Task 1: Create Your KMS Master Key
Task 2: Configure CloudTrail to Store Logs In An S3 Bucket
Task 3: Upload an Image to Your S3 Bucket And Encrypt It
Task 4: Access The Encrypted Image
Task 5: Monitor KMS Activity Using CloudTrail Logs
Task 6: Manage Encryption Keys
End Lab
Conclusion
Additional Resources
Type here to search
11:44 AM
04-Dec-21

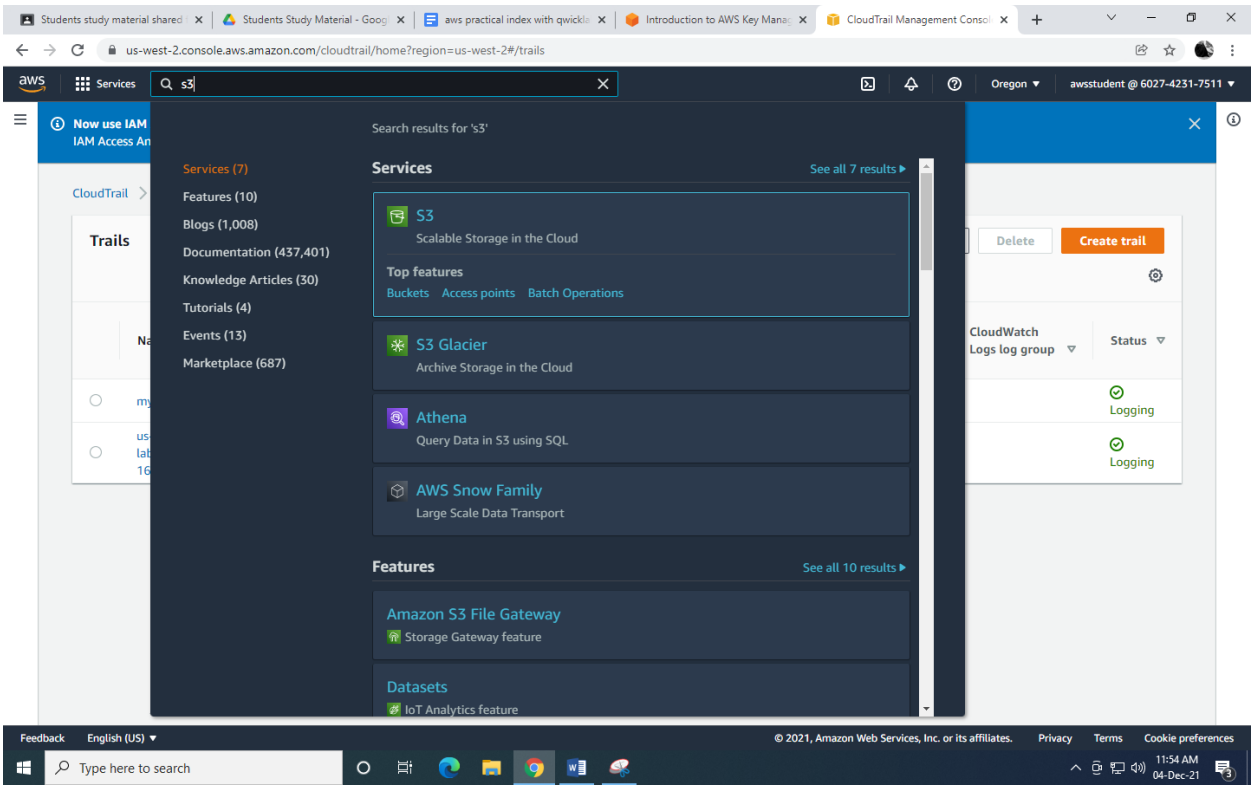

Services
Search for services, features, blogs, docs, and more [Alt+S]
Oregon
awsstudent @ 6027-4231
CloudTrail
Dashboard
Event history
Insights
Trails
Pricing
Documentation
Forums
FAQs
Now use IAM Access Analyzer on a CloudTrail trail
IAM Access Analyzer lets you implement least privilege permissions by generating IAM policies based on CloudTrail logs. Learn more
CloudTrail > Trails
Trails
Delete
Create trail
Name
Home region
Multi-region trail
Insights
Organization trail
S3 bucket
Log file prefix
CloudWatch Logs log group
Status
us-west-2-qltrail-lab-2481-1638597443
US West (Oregon)
No
Disabled
No
qltrail-lab-2481-1638597443
Logging

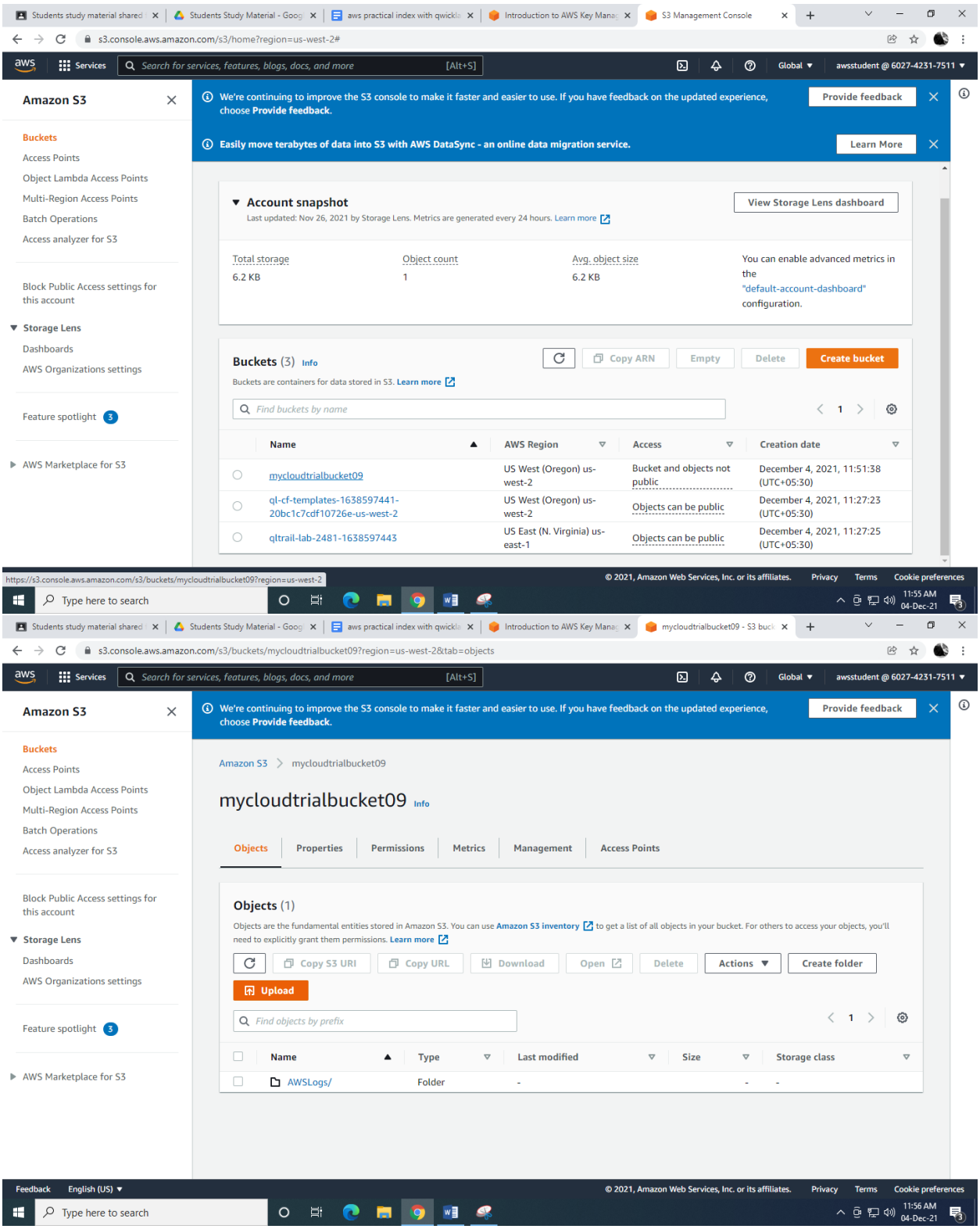

Services
Search for services, features, blogs, docs, and more [Alt+S]
Oregon
CloudTrail > Trails > Create trail
Step 1
Choose trail attributes
Step 2
Choose log events
Step 3
Review and create
Choose trail attributes
General details
A trail created in the console is a multi-region trail. Learn more
Trail name
Enter a display name for your trail.
myTrial
3-128 characters. Only letters, numbers, periods, underscores, and dashes are allowed.
Enable for all accounts in my organization
To review accounts in your organization, open AWS Organizations. See all accounts
Storage location Info
Create new S3 bucket
Create a bucket to store logs for the trail.
Use existing S3 bucket
Choose an existing bucket to store logs for this trail.
Trail log bucket and folder
Enter a new S3 bucket name and folder (prefix) to store your logs. Bucket names must be globally unique.
mycloudtrialbucket09
Logs will be stored in mycloudtrialbucket09/AWSLogs/602742317511
Log file SSE-KMS encryption Info
Enabled
Additional settings

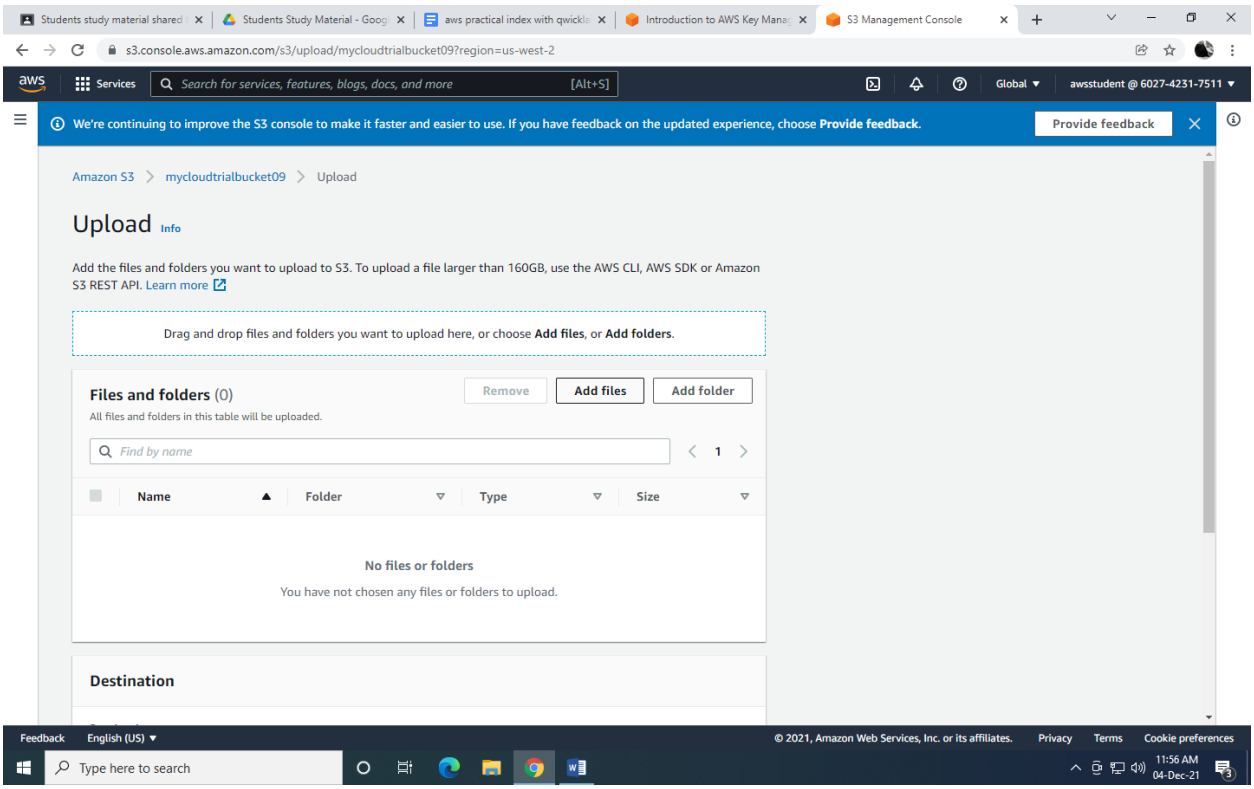


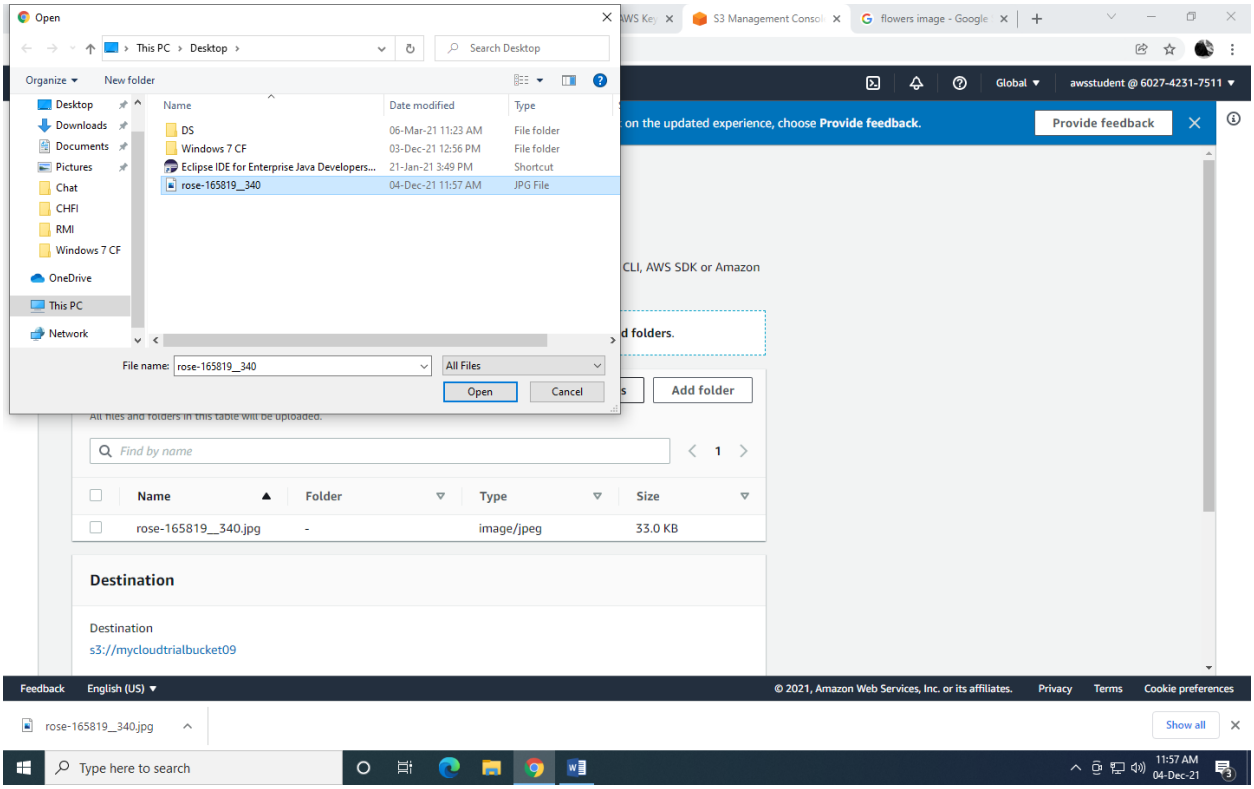


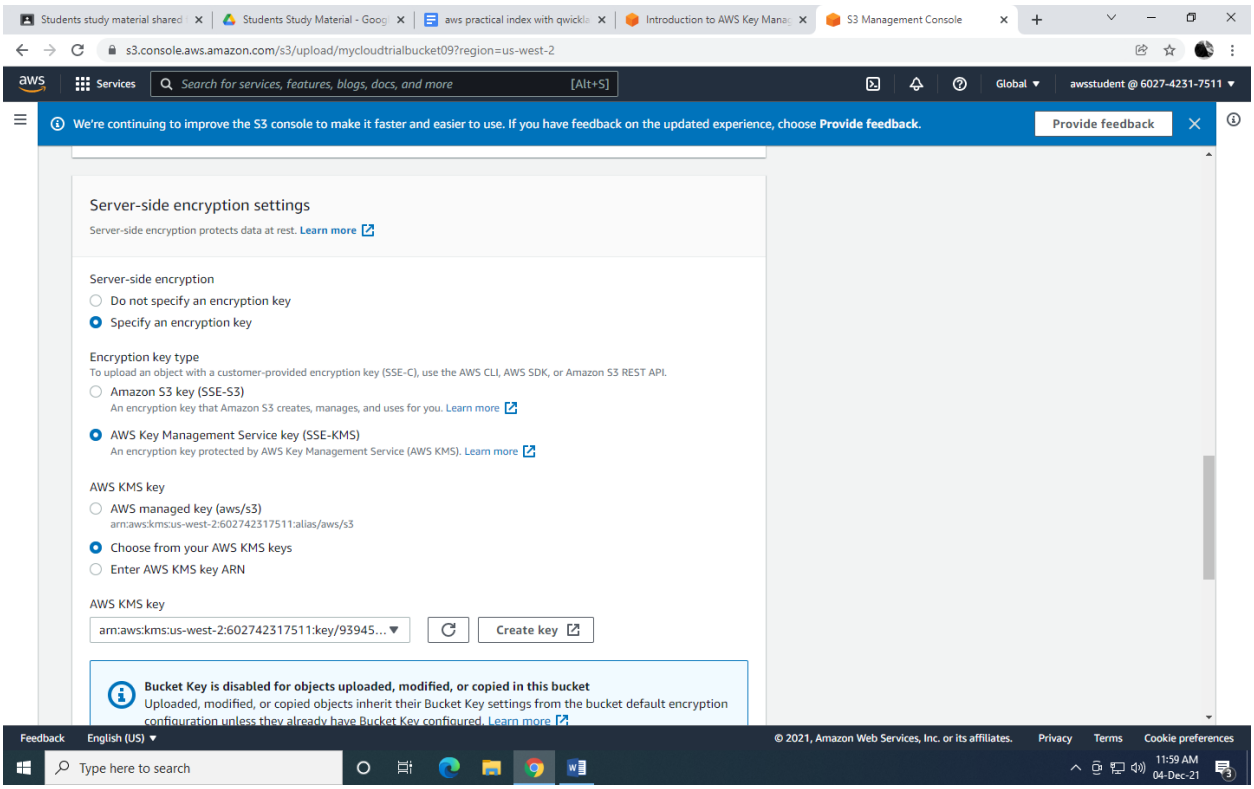
3. Upload an Image to your s3 bucket and encrypt it

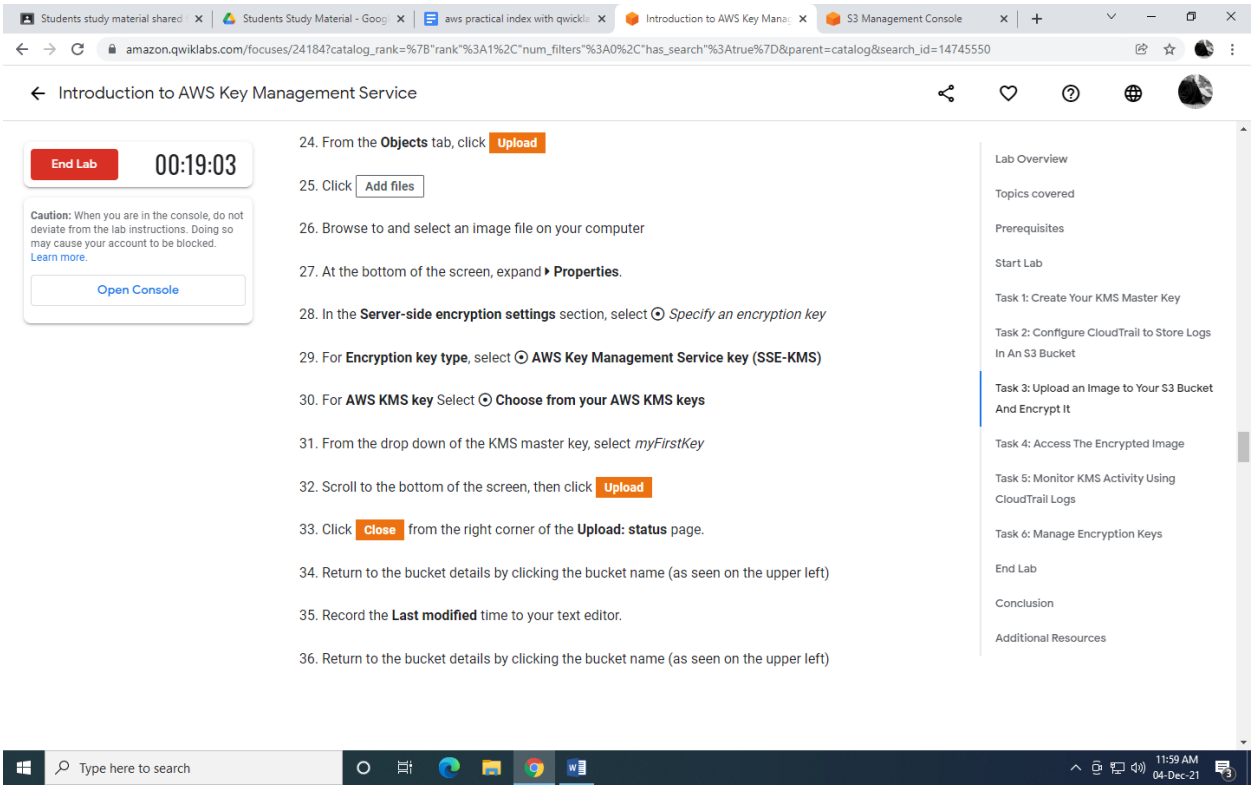

Students study material shared
Students Study Material - Goog
aws practical index with qwickl
Introduction to AWS Key Manag
CloudTrail Management Consol
us-west-2.console.aws.amazon.com/cloudtrail/home?region=us-west-2#/trails
aws
Services
s3
Oregon
awsstudent @ 6027-4231-7511
Now use IAM
IAM Access An
CloudTrail
Trails
Delete
Create trail
CloudWatch
Logs log group
Status
Logging
Logging
Search results for 's3'
Services (7)
Features (10)
Blogs (1,008)
Documentation (437,401)
Knowledge Articles (30)
Tutorials (4)
Events (13)
Marketplace (687)
Services
See all 7 results
S3
Scalable Storage in the Cloud
Top features
Buckets
Access points
Batch Operations
S3 Glacier
Archive Storage in the Cloud
Athena
Query Data in S3 using SQL
AWS Snow Family
Large Scale Data Transport
Features
See all 10 results
Amazon S3 File Gateway
Storage Gateway feature
Datasets
IoT Analytics feature
Feedback
English (US)
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
Type here to search
11:54 AM
04-Dec-21

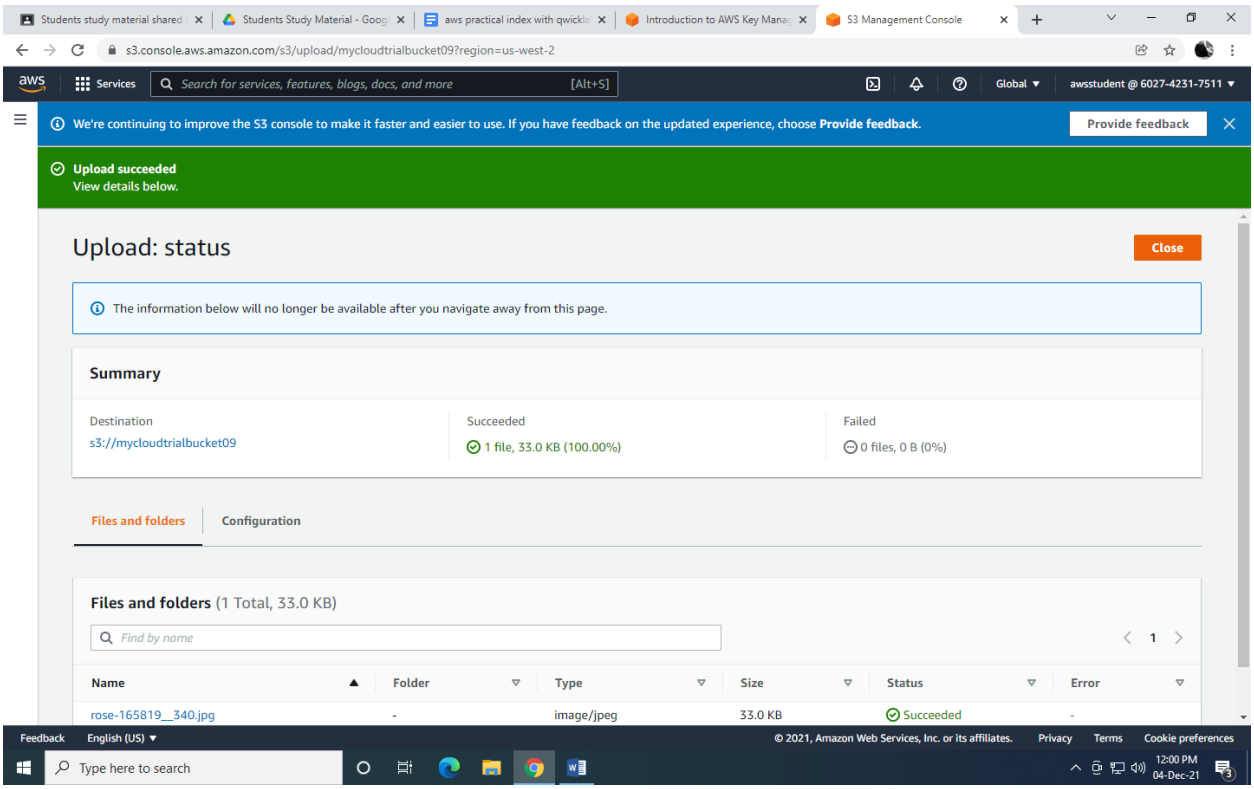

Amazon S3
Buckets
Access Points
Object Lambda Access Points
Multi-Region Access Points
Batch Operations
Access analyzer for S3
Block Public Access settings for this account
Storage Lens
Dashboards
AWS Organizations settings
Feature spotlight
AWS Marketplace for S3
We're continuing to improve the S3 console to make it faster and easier to use. If you have feedback on the updated experience, choose Provide feedback.
Provide feedback
Easily move terabytes of data into S3 with AWS DataSync - an online data migration service.
Learn More
Account snapshot
Last updated: Nov 26, 2021 by Storage Lens. Metrics are generated every 24 hours. Learn more
View Storage Lens dashboard
Total storage
6.2 KB
Object count
1
Avg. object size
6.2 KB
You can enable advanced metrics in the "default-account-dashboard" configuration.
Buckets (3) Info
Buckets are containers for data stored in S3. Learn more
Copy ARN
Empty
Delete
Create bucket
Find buckets by name
Name
AWS Region
Access
Creation date
mycloudtrialbucket09
US West (Oregon) us-west-2
Bucket and objects not public
December 4, 2021, 11:51:38 (UTC+05:30)
ql-cf-templates-1638597441-20bc1c7cdf10726e-us-west-2
US West (Oregon) us-west-2
Objects can be public
December 4, 2021, 11:27:23 (UTC+05:30)
qltrail-lab-2481-1638597443
US East (N. Virginia) us-east-1
Objects can be public
December 4, 2021, 11:27:25 (UTC+05:30)
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
Type here to search
11:55 AM
04-Dec-21
Amazon S3 > mycloudtrialbucket09
mycloudtrialbucket09 Info
Objects
Properties
Permissions
Metrics
Management
Access Points
Objects (1)
Objects are the fundamental entities stored in Amazon S3. You can use Amazon S3 inventory to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. Learn more
Copy S3 URI
Copy URL
Download
Open
Delete
Actions
Create folder
Upload
Find objects by prefix
Name
Type
Last modified
Size
Storage class
AWSLogs/
Folder
Feedback
English (US)
11:56 AM
04-Dec-21

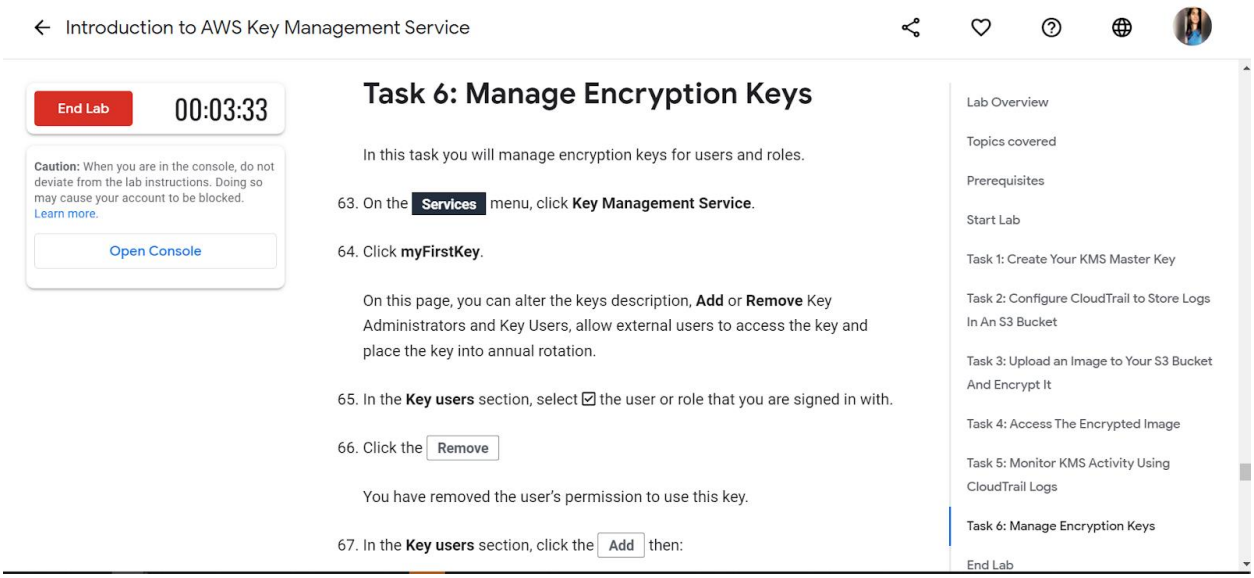

Students study material shared
Students Study Material - Goog
aws practical index with qwickl
Introduction to AWS Key Manag
S3 Management Console
s3.console.aws.amazon.com/s3/upload/mycloudtrialbucket09?region=us-west-2
aws
Services
Search for services, features, blogs, docs, and more
[Alt+S]
Global
awsstudent @ 6027-4231-7511
We're continuing to improve the S3 console to make it faster and easier to use. If you have feedback on the updated experience, choose Provide feedback.
Provide feedback
Amazon S3
mycloudtrialbucket09
Upload
Upload Info
Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. Learn more
Drag and drop files and folders you want to upload here, or choose Add files, or Add folders.
Files and folders (0)
All files and folders in this table will be uploaded.
Remove
Add files
Add folder
Find by name
1
Name
Folder
Type
Size
No files or folders
You have not chosen any files or folders to upload.
Destination
Feedback
English (US)
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
Type here to search
11:56 AM
04-Dec-21

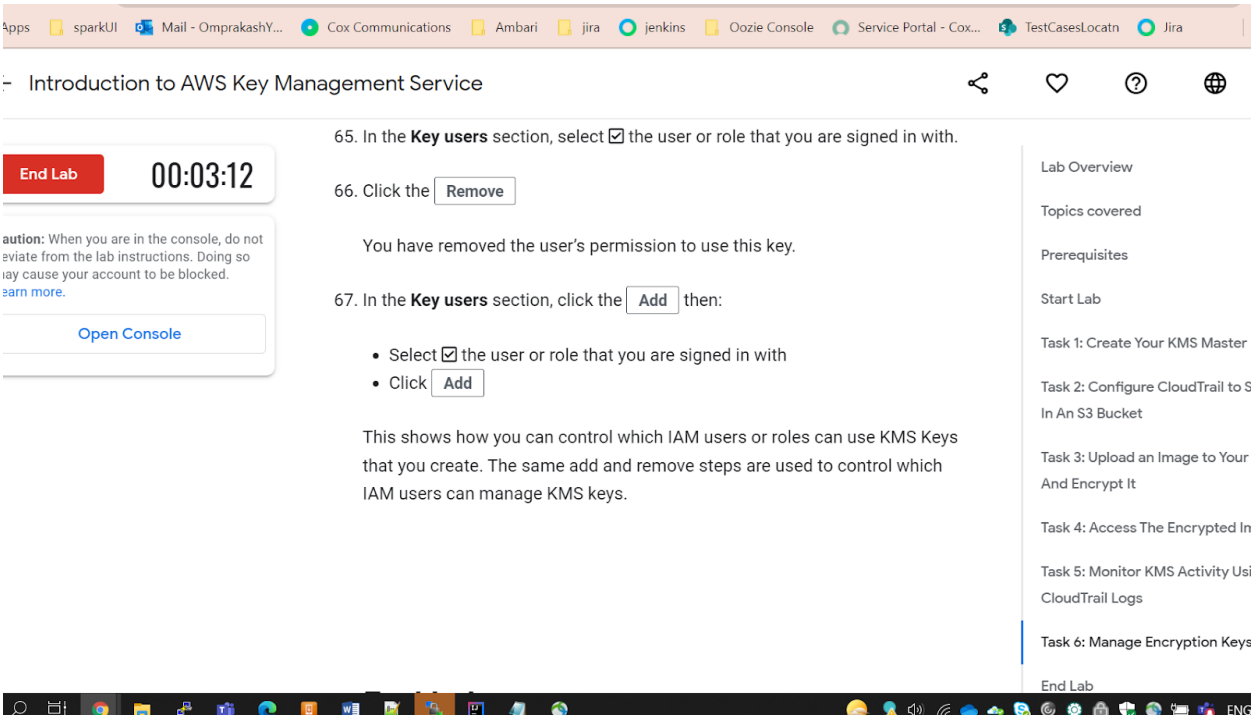

Open
This PC
Desktop
Search Desktop
Organize
New folder
Desktop
Downloads
Documents
Pictures
Chat
CHFI
RMI
Windows 7 CF
OneDrive
This PC
Network
Name
Date modified
Type
DS
06-Mar-21 11:23 AM
File folder
Windows 7 CF
03-Dec-21 12:56 PM
File folder
Eclipse IDE for Enterprise Java Developers...
21-Jan-21 3:49 PM
Shortcut
rose-165819__340
04-Dec-21 11:57 AM
JPG File
File name:
rose-165819__340
All Files
Open
Cancel
Add folder
Find by name
1
Name
Folder
Type
Size
rose-165819__340.jpg
-
image/jpeg
33.0 KB
Destination
Destination
s3://mycloudtrialbucket09
Feedback
English (US)
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
rose-165819__340.jpg
Show all
Type here to search
11:57 AM
04-Dec-21


s3.console.aws.amazon.com/s3/upload/mycloudtrialbucket09?region=us-west-2
We're continuing to improve the S3 console to make it faster and easier to use. If you have feedback on the updated experience, choose Provide feedback.
Provide feedback
Server-side encryption settings
Server-side encryption protects data at rest. Learn more
Server-side encryption
Do not specify an encryption key
Specify an encryption key
Encryption key type
To upload an object with a customer-provided encryption key (SSE-C), use the AWS CLI, AWS SDK, or Amazon S3 REST API.
Amazon S3 key (SSE-S3)
An encryption key that Amazon S3 creates, manages, and uses for you. Learn more
AWS Key Management Service key (SSE-KMS)
An encryption key protected by AWS Key Management Service (AWS KMS). Learn more
AWS KMS key
AWS managed key (aws/s3)
arn:aws:kms:us-west-2:602742317511:alias/aws/s3
Choose from your AWS KMS keys
Enter AWS KMS key ARN
AWS KMS key
arn:aws:kms:us-west-2:602742317511:key/93945...
Create key
Bucket Key is disabled for objects uploaded, modified, or copied in this bucket
Uploaded, modified, or copied objects inherit their Bucket Key settings from the bucket default encryption configuration unless they already have Bucket Key configured. Learn more
Feedback
English (US)
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
Type here to search
11:59 AM
04-Dec-21


amazon.qwiklabs.com/focuses/24184?catalog_rank=%7B"rank"%3A1%2C"num_filters"%3A0%2C"has_search"%3Atrue%7D&parent=catalog&search_id=14745550
Introduction to AWS Key Management Service
End Lab
00:19:03
Caution: When you are in the console, do not deviate from the lab instructions. Doing so may cause your account to be blocked. Learn more.
Open Console
24. From the Objects tab, click Upload
25. Click Add files
26. Browse to and select an image file on your computer
27. At the bottom of the screen, expand ▸ Properties.
28. In the Server-side encryption settings section, select ⦿ Specify an encryption key
29. For Encryption key type, select ⦿ AWS Key Management Service key (SSE-KMS)
30. For AWS KMS key Select ⦿ Choose from your AWS KMS keys
31. From the drop down of the KMS master key, select myFirstKey
32. Scroll to the bottom of the screen, then click Upload
33. Click Close from the right corner of the Upload: status page.
34. Return to the bucket details by clicking the bucket name (as seen on the upper left)
35. Record the Last modified time to your text editor.
36. Return to the bucket details by clicking the bucket name (as seen on the upper left)
Lab Overview
Topics covered
Prerequisites
Start Lab
Task 1: Create Your KMS Master Key
Task 2: Configure CloudTrail to Store Logs In An S3 Bucket
Task 3: Upload an Image to Your S3 Bucket And Encrypt It
Task 4: Access The Encrypted Image
Task 5: Monitor KMS Activity Using CloudTrail Logs
Task 6: Manage Encryption Keys
End Lab
Conclusion
Additional Resources
Type here to search
11:59 AM
04-Dec-21


s3.console.aws.amazon.com/s3/upload/mycloudtrialbucket09?region=us-west-2
We're continuing to improve the S3 console to make it faster and easier to use. If you have feedback on the updated experience, choose Provide feedback.
Provide feedback
Upload succeeded
View details below.
Upload: status
Close
The information below will no longer be available after you navigate away from this page.
Summary
Destination
s3://mycloudtrialbucket09
Succeeded
1 file, 33.0 KB (100.00%)
Failed
0 files, 0 B (0%)
Files and folders
Configuration
Files and folders (1 Total, 33.0 KB)
Find by name
Name
Folder
Type
Size
Status
Error
rose-165819__340.jpg
-
image/jpeg
33.0 KB
Succeeded
-
Feedback
English (US)
© 2021, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
Type here to search
12:00 PM
04-Dec-21


Introduction to AWS Key Management Service
End Lab
00:03:33
Caution: When you are in the console, do not deviate from the lab instructions. Doing so may cause your account to be blocked. Learn more.
Open Console
Task 6: Manage Encryption Keys
In this task you will manage encryption keys for users and roles.
63. On the Services menu, click Key Management Service.
64. Click myFirstKey.
On this page, you can alter the keys description, Add or Remove Key Administrators and Key Users, allow external users to access the key and place the key into annual rotation.
65. In the Key users section, select ☑ the user or role that you are signed in with.
66. Click the Remove
You have removed the user's permission to use this key.
67. In the Key users section, click the Add then:
Lab Overview
Topics covered
Prerequisites
Start Lab
Task 1: Create Your KMS Master Key
Task 2: Configure CloudTrail to Store Logs In An S3 Bucket
Task 3: Upload an Image to Your S3 Bucket And Encrypt It
Task 4: Access The Encrypted Image
Task 5: Monitor KMS Activity Using CloudTrail Logs
Task 6: Manage Encryption Keys
End Lab


Apps
sparkUI
Mail - OmprakashY...
Cox Communications
Ambari
jira
jenkins
Oozie Console
Service Portal - Cox...
TestCasesLocatn
Jira
Introduction to AWS Key Management Service
End Lab
00:03:12
aution: When you are in the console, do not eviate from the lab instructions. Doing so ay cause your account to be blocked. earn more.
Open Console
65. In the Key users section, select ☑ the user or role that you are signed in with.
66. Click the Remove
You have removed the user's permission to use this key.
67. In the Key users section, click the Add then:
Select ☑ the user or role that you are signed in with
Click Add
This shows how you can control which IAM users or roles can use KMS Keys that you create. The same add and remove steps are used to control which IAM users can manage KMS keys.
Lab Overview
Topics covered
Prerequisites
Start Lab
Task 1: Create Your KMS Master
Task 2: Configure CloudTrail to S
In An S3 Bucket
Task 3: Upload an Image to Your
And Encrypt It
Task 4: Access The Encrypted In
Task 5: Monitor KMS Activity Usi
CloudTrail Logs
Task 6: Manage Encryption Keys
End Lab

Practical No. 8

Case Study : Amazon Architecture

Aim: A) ABP News

B) Buzzdial

C) Classle

1. ABP News Case Study

ABP News is an Indian Hindi news channel owned by ABP Group. It is a free to air TV channel founded in 1998. It was formerly known as STAR News before being acquired by ABP Group.

ABP News Network (ANN)—one of the largest TV networks in India—operates five news channels in Indian languages such as Hindi, Marathi, Bengali, Punjabi, and Gujarati, and reaches out to more than 150 million TV audiences per week.

Challenges Faced by ABP.

News in India can occur in a more dynamic, volatile, and unpredictable way compared to other international markets. This means spikes in traffic to digital and mobile news services can occur at any time of the day with minimal warning. A major breaking news story can increase traffic by three times, rising to six times for elections that may occur as often as once a year.

It was therefore extremely important for ANN to scale the technology infrastructure quickly to support these traffic spikes.

In 2013, ANN predicted extending its digital presence from a single website to a range of services could increase its page views from 150 million to over 500 million. The business had to sustain this growth cost-effectively while delivering the responsiveness and reliability that digital consumers demanded. “Considering all the factors in play, we wanted a robust, cost-optimized infrastructure that was reliable and highly scalable.

1. **Unfortunately, ANN’ existing managed service provider technology infrastructure could not meet these challenges.**
2. **ANN could not gain the visibility to control and optimize its use of infrastructure resources.**
3. **ANN risked not being able to deliver news quickly to meet viewer demands for immediacy and secure a strong position in the competitive digital news market in India.**

Why Amazon Web Services

ANN brought its web infrastructure back into an on-premises data center as an intermediate step toward moving to a public cloud. To prepare for that move, the company started conducting due diligence on leading public cloud services with Amazon Web Services (AWS).

In 2014, the company decided to migrate its infrastructure, applications, and services to AWS.

"We selected AWS because of the flexibility to align our infrastructure costs and consumption with demand, and the ease and simplicity with which we could move to the AWS Cloud," says Gondal. "AWS also specializes in infrastructure services that enable businesses like ours to distribute video content and mobile applications to users' smartphones, tablets, and personal computers."

ANN completed its initial migration to AWS in only four months and has continued to expand the services running in the public cloud architecture to include additional websites, mobile applications, and a video content management system.

ANN uses Amazon Simple Storage Service(Amazon S3) to store video files and Amazon Elastic Compute Cloud (Amazon EC2) to run the system used to manage the video content. Amazon Elastic Transcoder converts ANN' video files from source to different formats for viewing on a range of devices.

ANN elected to use AWS Lambda to deliver an architecture that seamlessly updates content feeds served from Amazon S3 to mobile users without requiring the management and maintenance of a single server.

Key to ANN' success is its choice of AWS services to run its mobile applications.

Benefits.

- Using AWS has enabled ANN to support its increase in page views from 150 million to 500 million and accommodate sharp spikes in traffic with high performance when significant news events, including elections, occur.
- ANN has also successfully extended its portfolio of products and services from a single website to several websites, video content and a mobile application, since migrating to the AWS Cloud.
- Furthermore, through competitive pricing offered by AWS, including regular reductions and being able to pay only for the infrastructure resources used, ANN has been able to control costs and budget effectively.
- Using AWS has given ANN the confidence to evaluate using advanced tools such as machine learning and artificial intelligence to deliver on a range of new products.

2. Buzzdial Case Study

Founded in 2013, Buzzdial builds technologies that enable publishers and broadcasters, as well as brands, to supplement television shows with a cross-screen digital experience that can be accessed on viewers' computers, tablets and mobile phones, and integrated with the broadcast.

The Challenge

Buzzdial needed to launch onto an infrastructure that could keep costs low during the business's establishment stage, and increase expenditure as more clients started using the service. The organization also wanted to pay for infrastructure on demand rather than invest in servers, storage, and networking resources that would remain underutilized except during traffic peaks for an hour or two during high-profile broadcast events. The infrastructure had to be highly available and scalable to support traffic during these events. In addition, the infrastructure also had to support Buzzdial's plans to operate in several markets, and locate its services in data centers close to prospective clients and viewers to minimize latency that could disrupt the viewers' second screen experience during television programs.

Why Amazon Web Services

Buzzdial selected Amazon Web Services (AWS) as a cloud service provider that could meet its needs. The business worked closely with AWS solution architects in New Zealand to determine the best architecture for its service. To boost Buzzdial's confidence, AWS shared stories about successful AWS customers, provided access to businesses that were undertaking similar projects, and demonstrated deep technical knowledge.

Buzzdial then developed the first stage of its service and created the supporting AWS architecture in four weeks. Initially the business created a monolithic web application that was not optimized for continuous development. As Buzzdial learned more about how AWS performed, its engineers opted to break the application up into a series of smaller, interoperating pieces. This process has enabled Buzzdial to pursue an agile software development process over the last 18 months, involving regular releases and continuous development.

Buzzdial's application now runs in Amazon Elastic Compute Cloud (Amazon EC2) instances residing behind Elastic Load Balancing to distribute incoming traffic in such a way as to maximize fault tolerance and minimize latency. The application is distributed across discrete application programming interface, web delivery, caching, and database layers. Amazon Route 53 provides domain name services (DNS) that connect viewers with the required resources in AWS, while Amazon Relational Database Service (Amazon RDS) for MySQL provides a relational database engine to support the service.

Other services used include Amazon Simple Storage Service (Amazon S3) and Amazon CloudFront which provide a content delivery network for all static web resources including images, scripts, and style sheets. This significantly decreases load on the Amazon EC2 instances.

The Benefits

- Buzzdial is now delivering a service that meets the demanding requirements of prominent broadcasters, brands, and rights-holders such as the Seven, Ten, and SBS television networks in Australia, ITV in Britain, the New Zealand Herald newspaper, and the All Blacks rugby union team.

- The caliber of clients and importance of its second-screen service to their businesses requires Buzzdial to undertake detailed monitoring and quality assurance processes.

- Buzzdial can provision resources to support hundreds of thousands of concurrent users coming onboard in a 10-minute period, and scale further if needed. If a customer conducts a broadcast event but fails to notify Buzzdial, the service provider can still scale in 10 to 15 minutes to support 10s of thousands of concurrent users.

- Buzzdial calculates that its capital and operating costs for infrastructure are 96 percent lower over two to three years than they would be with a physical infrastructure in a collocated data center.

- Buzzdial plans to add new AWS services in future as business grows.

3. Classle Case Study

Classle is a cloud-based social learning platform that allows students to connect with other students as well as experts and professionals from academic, research institutes and industry. The goal of the company's platform is to assist students pursuing higher education learn and develop skills in a manner unencumbered by socio-economic, location and resource barriers. Classle, a social enterprise, is currently focusing on rural regions of India where students struggle with resource limitations.

Why Amazon Web Services

Amazon Web Services (AWS) has been the foundation of Classle's infrastructure since the company's inception. Vaidya Nathan, Founder and CEO-Classle, explains that AWS allowed the company to begin operations six months ahead of schedule and more economically than had been anticipated. Classle is also impressed with the growing list of additional services offered by AWS, which the company has embraced to help further its own expansion.

Over the past two years, other services coming from AWS like Amazon Relational Database Service (Amazon RDS), Amazon CloudFront, Amazon CloudWatch, Elastic Load Balancing, and Amazon Route 53 confirm that the decision was the right one. As a startup, we have to worry about balancing scalability with cash preservation, and we get the best of both worlds with AWS. We see AWS as a strategic fit for our long-term business strategy."

Classle uses Amazon Elastic Compute Cloud (Amazon EC2), with the Amazon Elastic Load Balancing (Amazon ELB), Auto Scaling, and Amazon Elastic Block Storage (Amazon EBS) features, to handle its application and analytics server needs. Amazon RDS acts as Classle's data warehouse and transactional database.

Amazon Simple Storage Service (Amazon S3), with the Reduced Redundancy Storage (RRS) feature, serves the dual function of providing Classle's content downloads and acting as an origin server for Amazon CloudFront. The company has established Amazon's content delivery service Amazon CloudFront as an edge server for streaming files and delivering the learning platform's most requested video downloads

The company monitors its AWS infrastructure with Amazon CloudWatch and uses Amazon Simple Notification Service (Amazon SNS) to delivery system load alerts to its developers. Additionally, Classle routes its users to its websites with Amazon's Domain Name System (DNS) service, Amazon Route 53.

The Benefits

- Able to expand social learning platform globally
- Reduced webpage load times by 180 per cent
- Reduced time-to-market to just two days