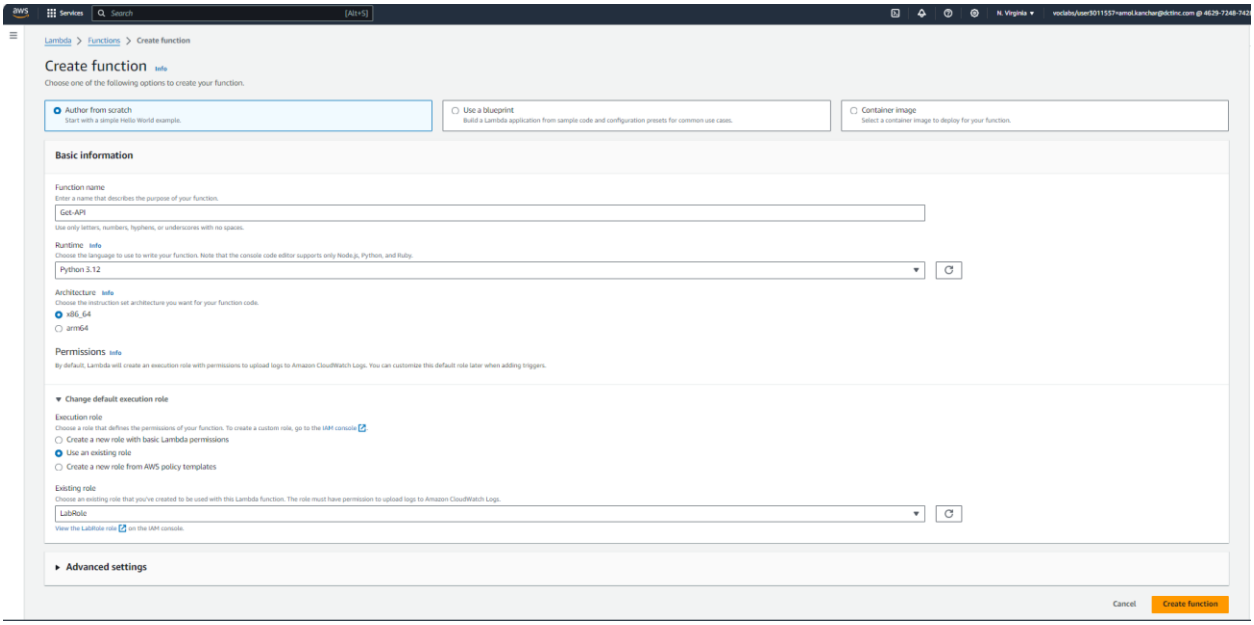
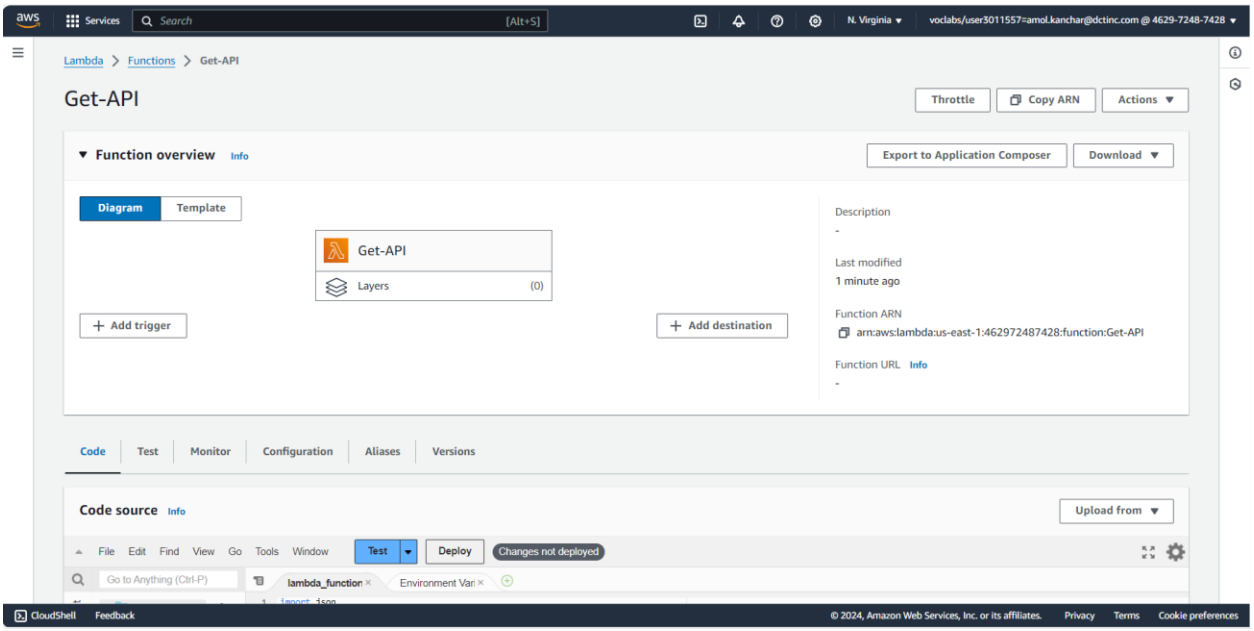
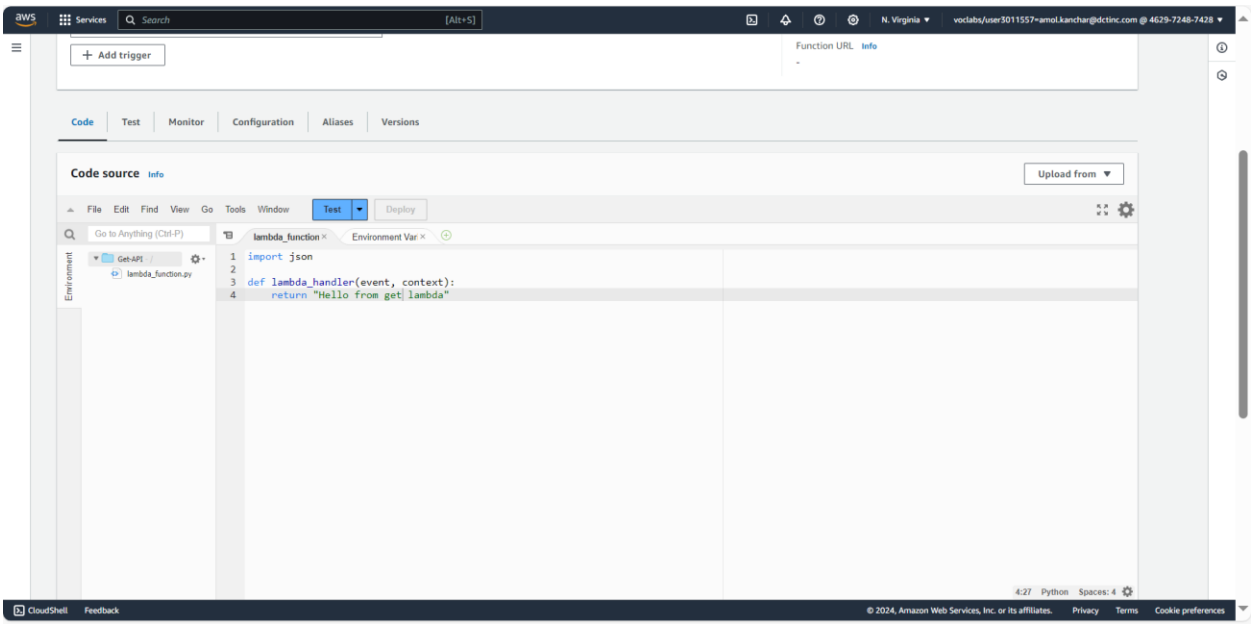
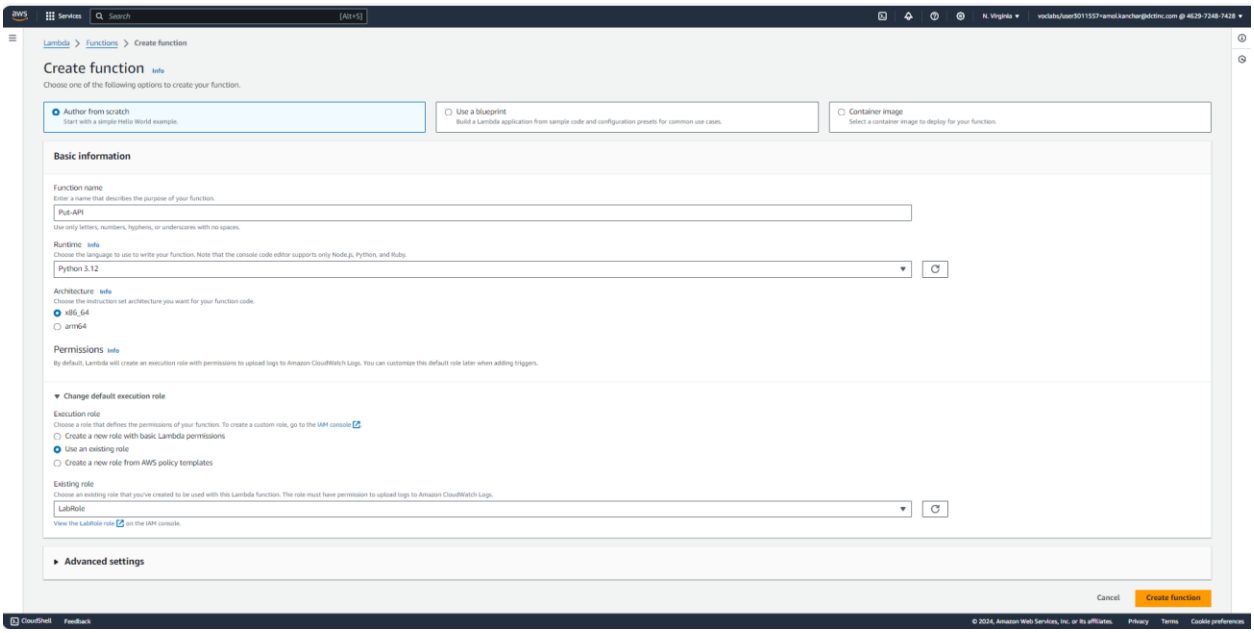
Q2) Serverless API

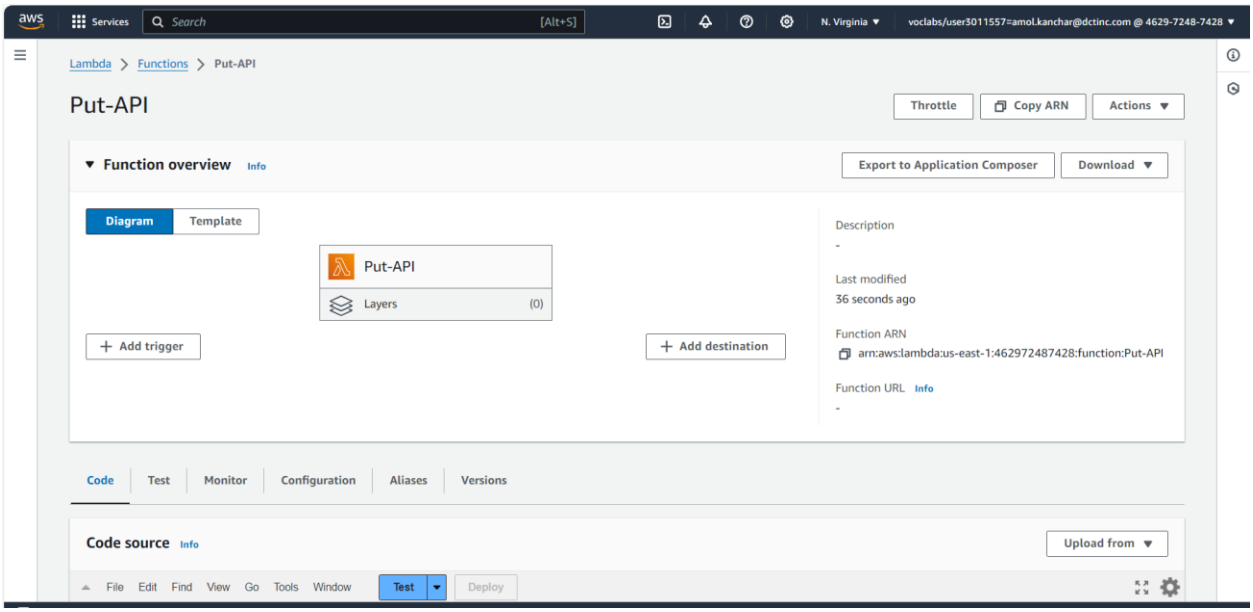
Creating lambda functions get, post, delete, put

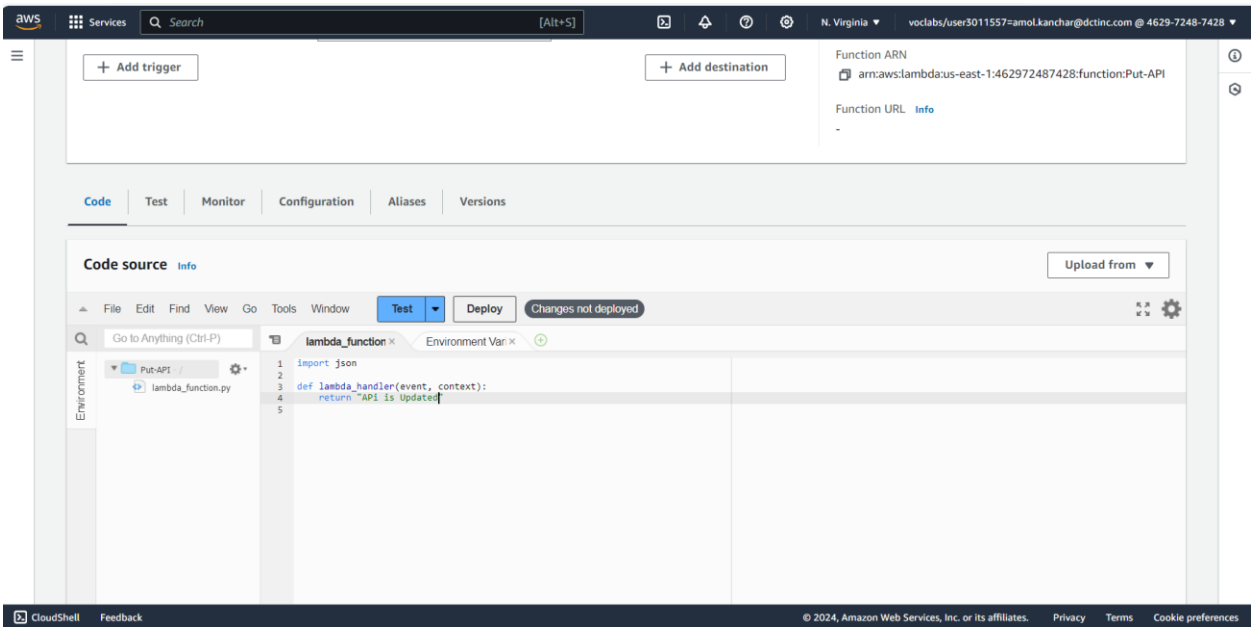


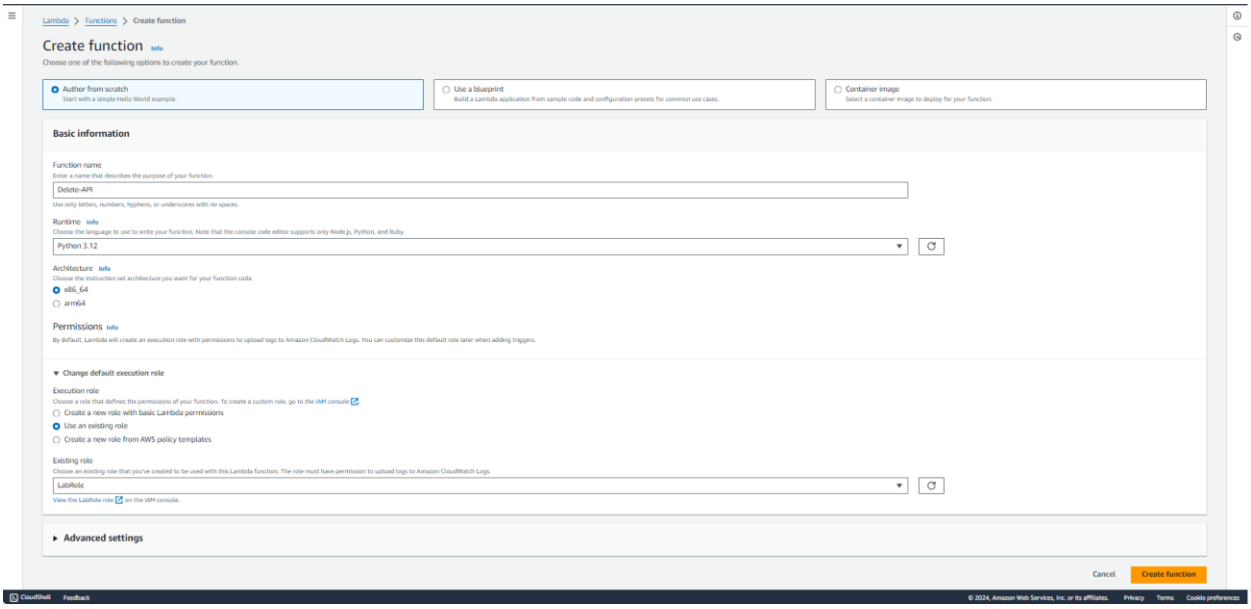


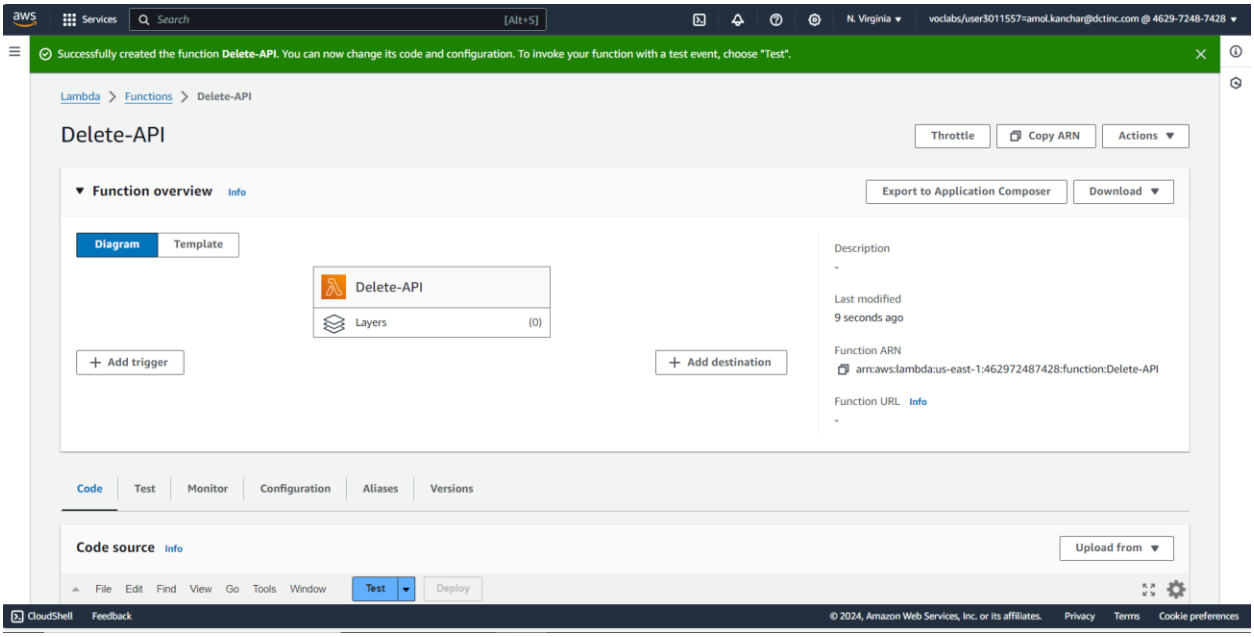

Services
Search
[Alt+S]
N. Virginia
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
Add trigger
Function URL Info
Code
Test
Monitor
Configuration
Aliases
Versions
Code source Info
Upload from
File Edit Find View Go Tools Window
Test
Deploy
Go to Anything (Ctrl-P)
lambda_function
Environment Var
Environment
Get-API
lambda_function.py
import json
def lambda_handler(event, context):
return "Hello from get lambda"
4:27 Python Spaces: 4
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

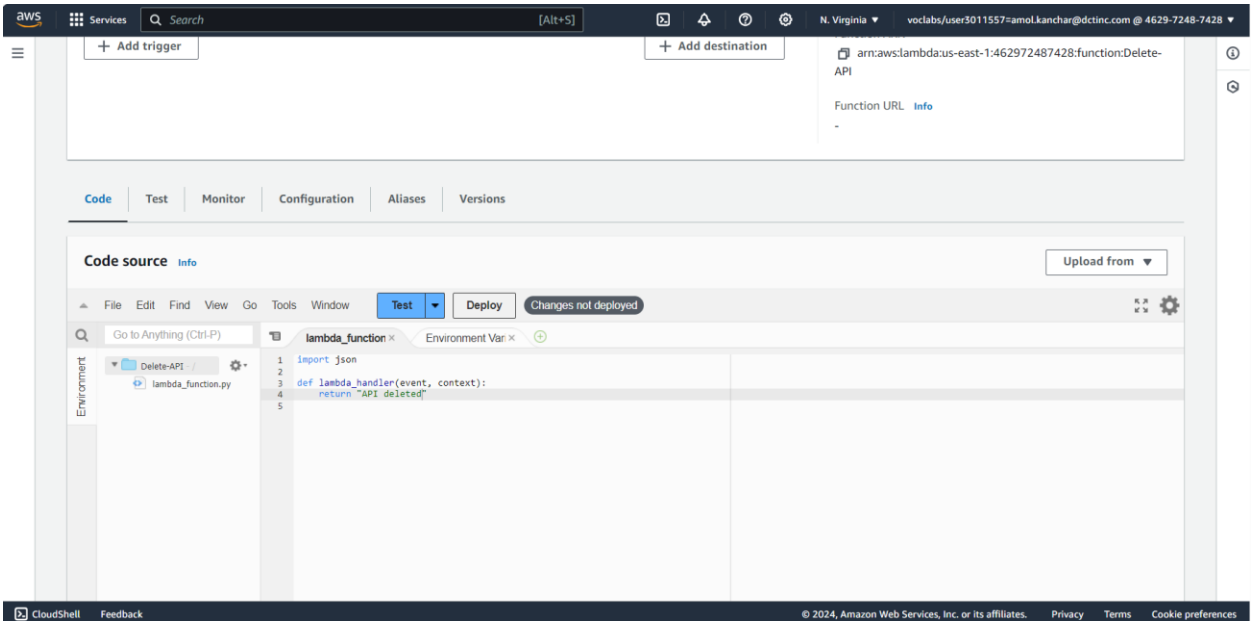

Lambda > Functions > Create function
Create function Info
Choose one of the following options to create your function.
Author from scratch
Start with a simple Hello World example.
Use a blueprint
Build a Lambda application from sample code and configuration presets for common use cases.
Container image
Select a container image to deploy for your function.
Basic information
Function name
Enter a name that describes the purpose of your function.
Put-API
Use only letters, numbers, hyphens, or underscores with no spaces.
Runtime Info
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.
Python 3.12
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.
LabRole
View the LabRole role on the IAM console.
Advanced settings
Cancel
Create function
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

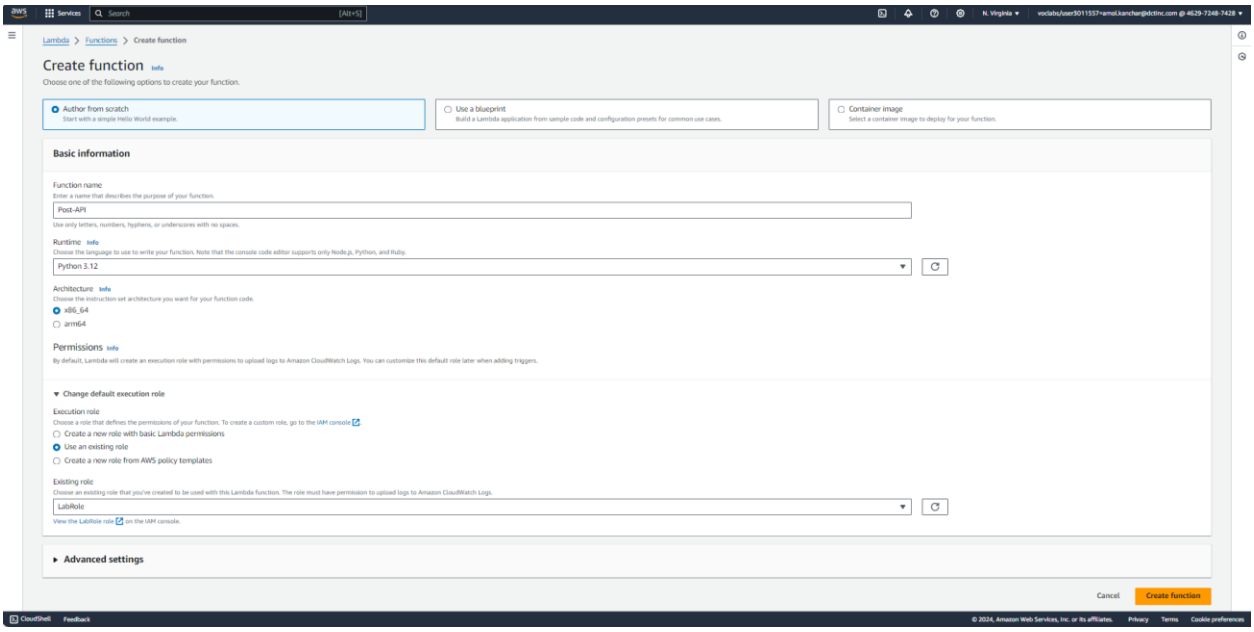

Services
Search
[Alt+S]
N. Virginia
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
Lambda > Functions > Put-API
Put-API
Throttle
Copy ARN
Actions
Function overview Info
Export to Application Composer
Download
Diagram
Template
Put-API
Layers (0)
Add trigger
Add destination
Description
-
Last modified
36 seconds ago
Function ARN
arn:aws:lambda:us-east-1:462972487428:function:Put-API
Function URL Info
-
Code
Test
Monitor
Configuration
Aliases
Versions
Code source Info
Upload from
File Edit Find View Go Tools Window
Test
Deploy

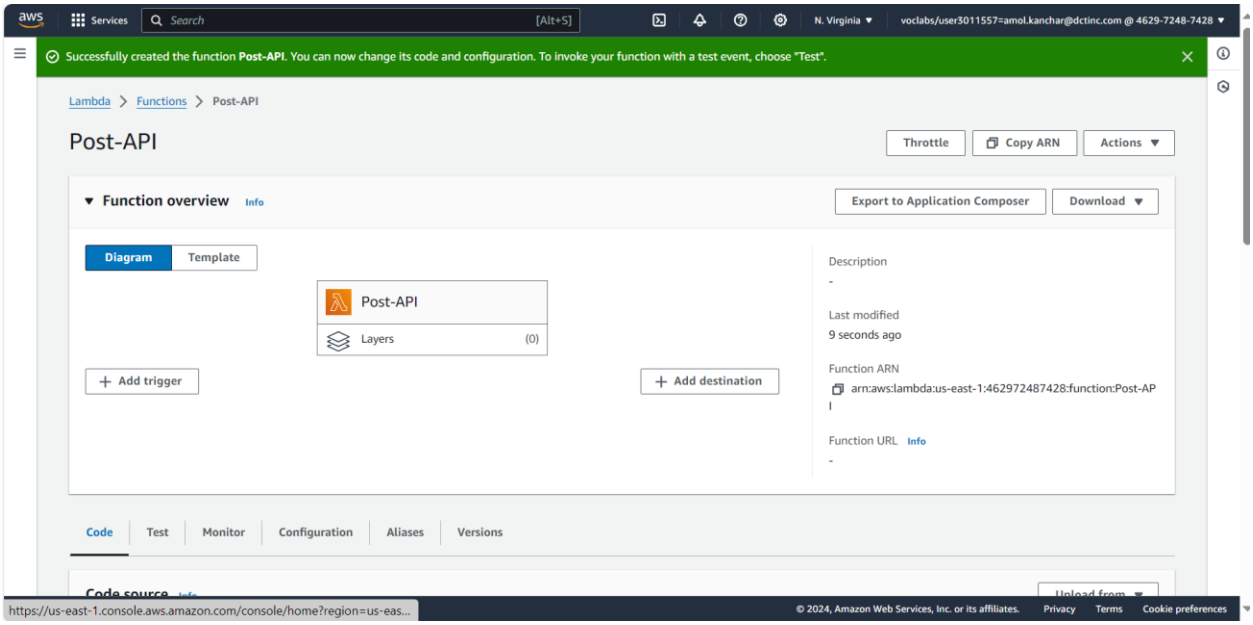

Services
Search
[Alt+S]
N. Virginia
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
Add trigger
Add destination
Function ARN
arn:aws:lambda:us-east-1:462972487428:function:Put-API
Function URL Info
-
Code
Test
Monitor
Configuration
Aliases
Versions
Code source Info
Upload from
File Edit Find View Go Tools Window
Test
Deploy
Changes not deployed
Go to Anything (Ctrl-P)
lambda_function
Environment Var
Environment
Put-API
lambda_function.py
import json
def lambda_handler(event, context):
return "APi is Updated"
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

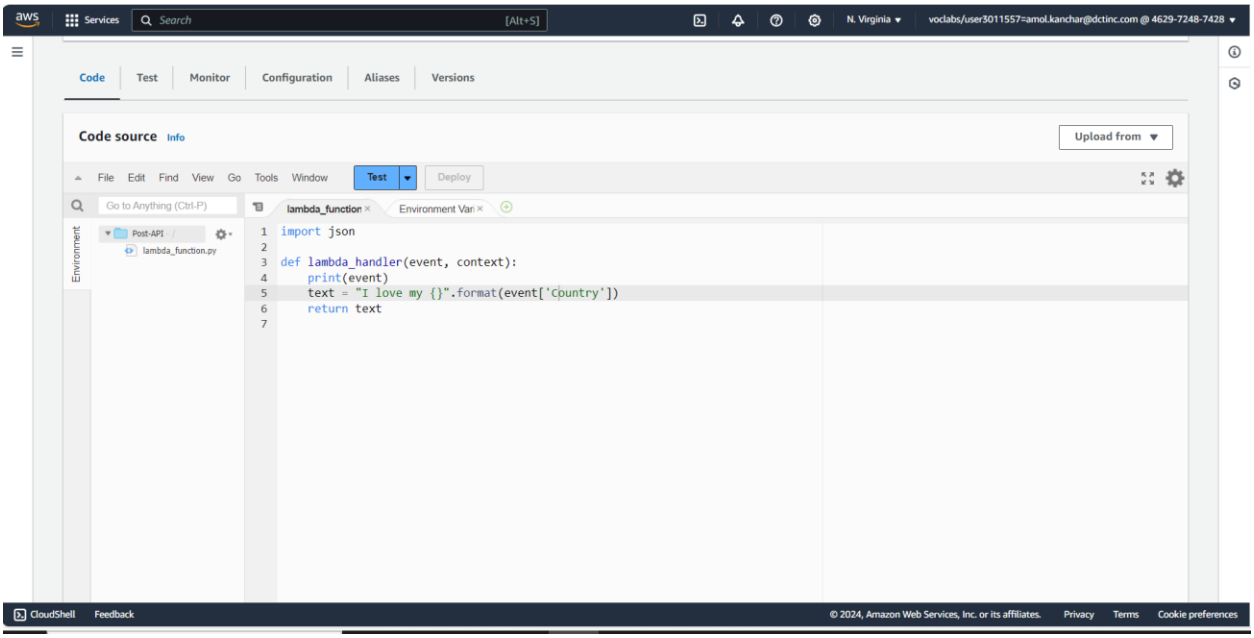

Lambda > Functions > Create function
Create function Info
Choose one of the following options to create your function.
Author from scratch
Start with a simple Hello World example.
Use a blueprint
Build a Lambda application from sample code and configuration presets for common use cases.
Container image
Select a container image to deploy for your function.
Basic information
Function name
Enter a name that describes the purpose of your function.
Delete-API
Use only letters, numbers, hyphens, or underscores with no spaces.
Runtime Info
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.
Python 3.12
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.
LabRole
View the LabRole role on the IAM console.
Advanced settings
Cancel
Create function
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


aws
Services
Search
[Alt+S]
N. Virginia
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
Successfully created the function Delete-API. You can now change its code and configuration. To invoke your function with a test event, choose "Test".
Lambda > Functions > Delete-API
Delete-API
Throttle
Copy ARN
Actions
Function overview Info
Export to Application Composer
Download
Diagram
Template
Delete-API
Layers
(0)
Add trigger
Add destination
Description
-
Last modified
9 seconds ago
Function ARN
arn:aws:lambda:us-east-1:462972487428:function:Delete-API
Function URL Info
-
Code
Test
Monitor
Configuration
Aliases
Versions
Code source Info
Upload from
File
Edit
Find
View
Go
Tools
Window
Test
Deploy
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

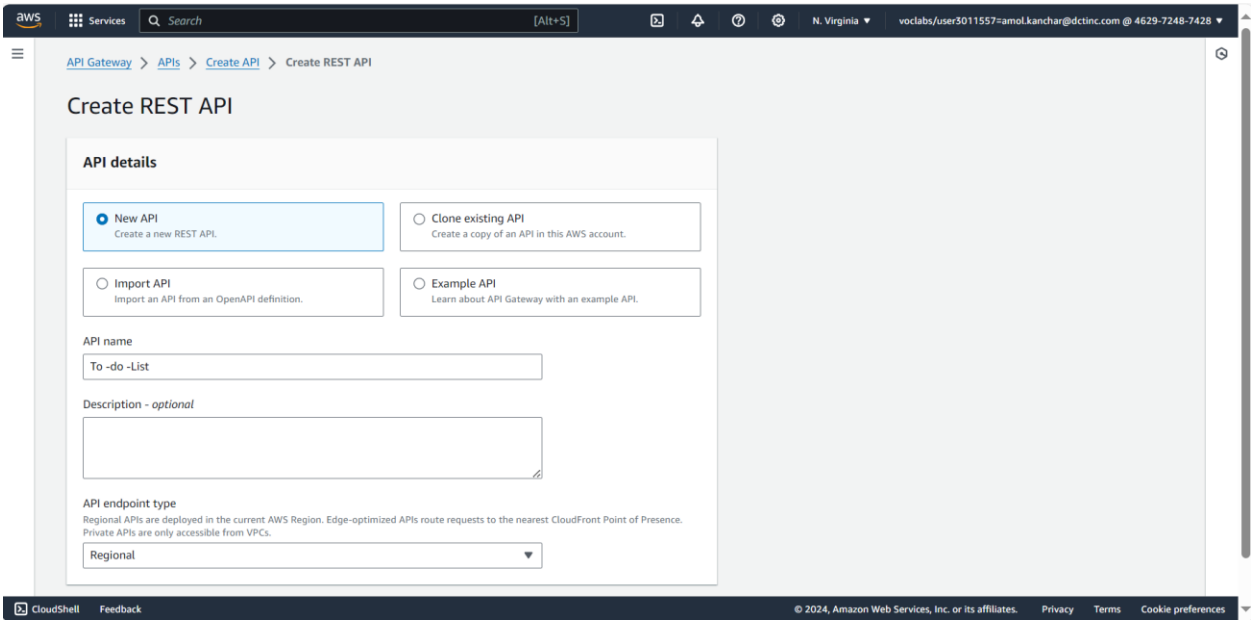

Services
Search
[Alt+S]
N. Virginia
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
Add trigger
Add destination
arn:aws:lambda:us-east-1:462972487428:function:Delete-API
Function URL Info
Code
Test
Monitor
Configuration
Aliases
Versions
Code source Info
Upload from
File Edit Find View Go Tools Window
Test
Deploy
Changes not deployed
Go to Anything (Ctrl-P)
lambda_function
Environment Var
Environment
Delete-API
lambda_function.py
import json
def lambda_handler(event, context):
return "API deleted"
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


Lambda > Functions > Create function
Create function Info
Choose one of the following options to create your function.
Author from scratch
Start with a simple Hello World example.
Use a blueprint
Build a Lambda application from sample code and configuration presets for common use cases.
Container image
Select a container image to deploy for your function.
Basic information
Function name
Enter a name that describes the purpose of your function.
Post-API
Use only letters, numbers, hyphens, or underscores with no spaces.
Runtime Info
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.
Python 3.12
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.
LabRole
View the LabRole role on the IAM console.
Advanced settings
Cancel
Create function
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

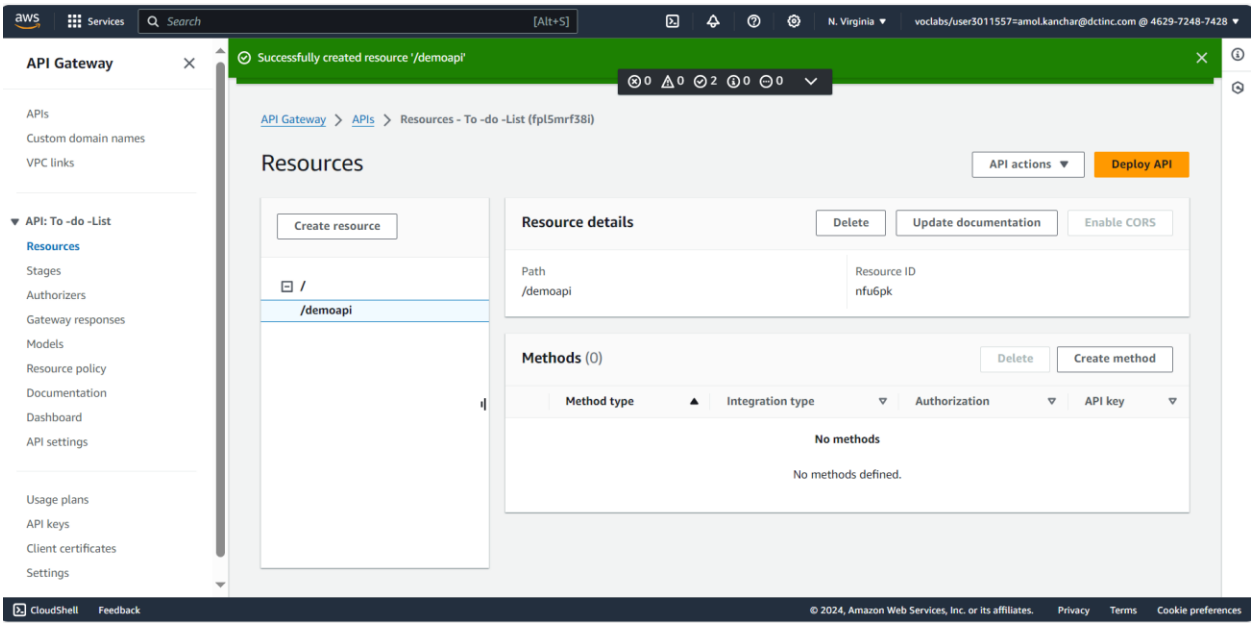

Services
Search
[Alt+S]
N. Virginia
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
Successfully created the function Post-API. You can now change its code and configuration. To invoke your function with a test event, choose "Test".
Lambda > Functions > Post-API
Post-API
Throttle
Copy ARN
Actions
Function overview Info
Export to Application Composer
Download
Diagram
Template
Post-API
Layers (0)
+ Add trigger
+ Add destination
Description
-
Last modified
9 seconds ago
Function ARN
arn:aws:lambda:us-east-1:462972487428:function:Post-API
Function URL Info
-
Code
Test
Monitor
Configuration
Aliases
Versions
https://us-east-1.console.aws.amazon.com/console/home?region=us-eas...
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


Services
Search
[Alt+S]
N. Virginia
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
Code
Test
Monitor
Configuration
Aliases
Versions
Code source Info
Upload from
File
Edit
Find
View
Go
Tools
Window
Test
Deploy
Go to Anything (Ctrl-P)
lambda_function
Environment Var
Post-API
lambda_function.py
Environment
import json
def lambda_handler(event, context):
print(event)
text = "I love my {}".format(event['country'])
return text
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

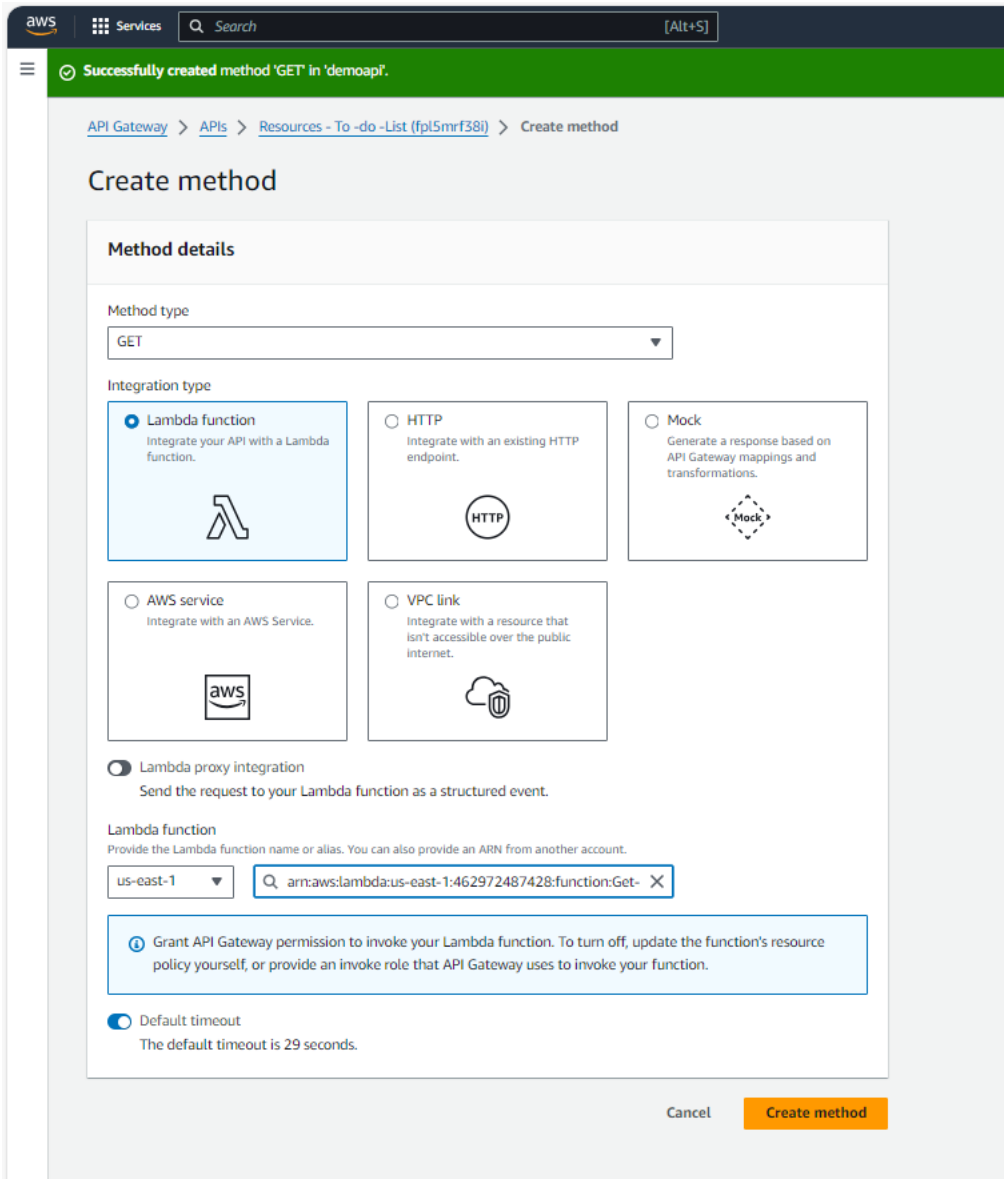
Creating RestAPI



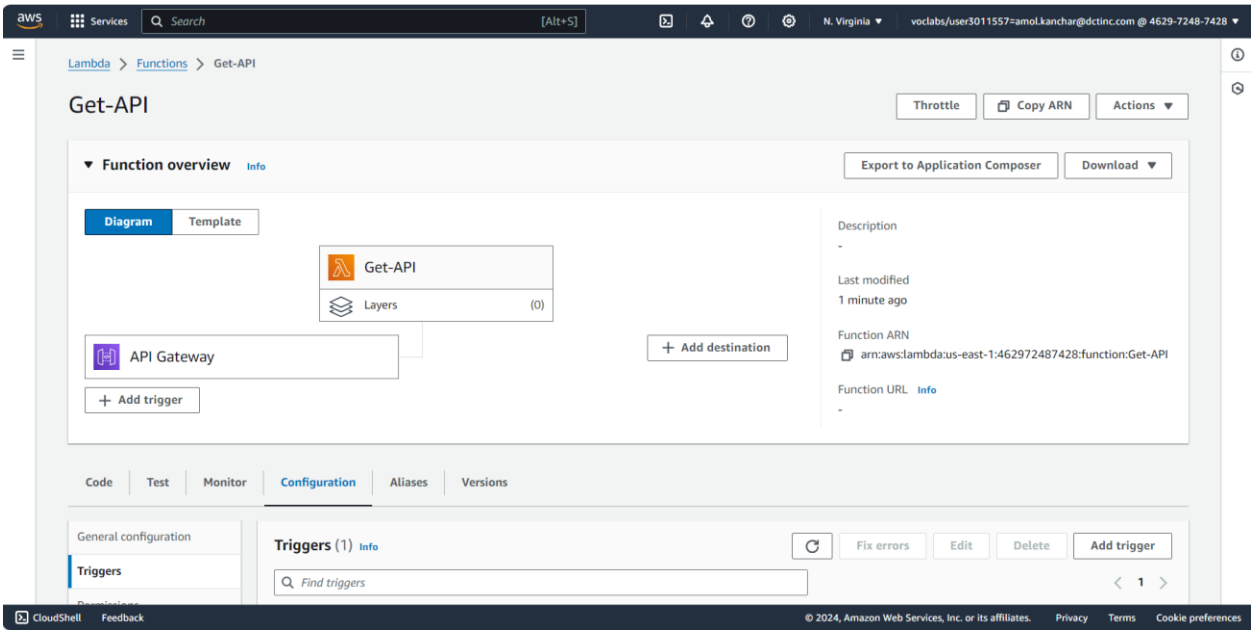
Creating Resource

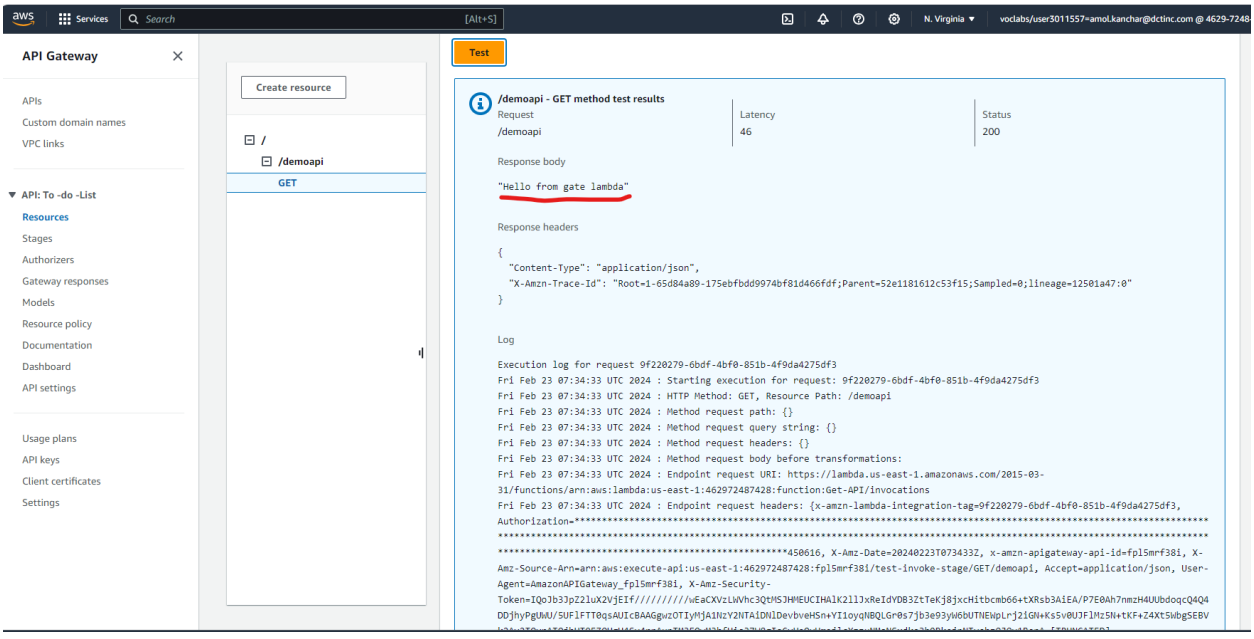


Creating Get Method

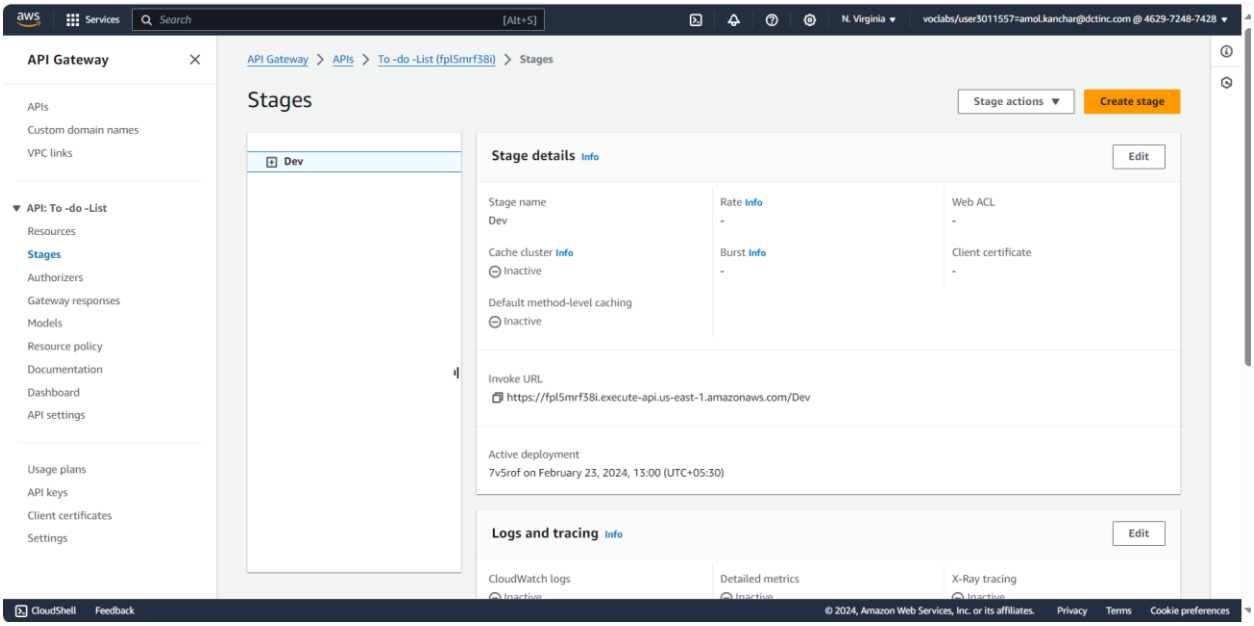


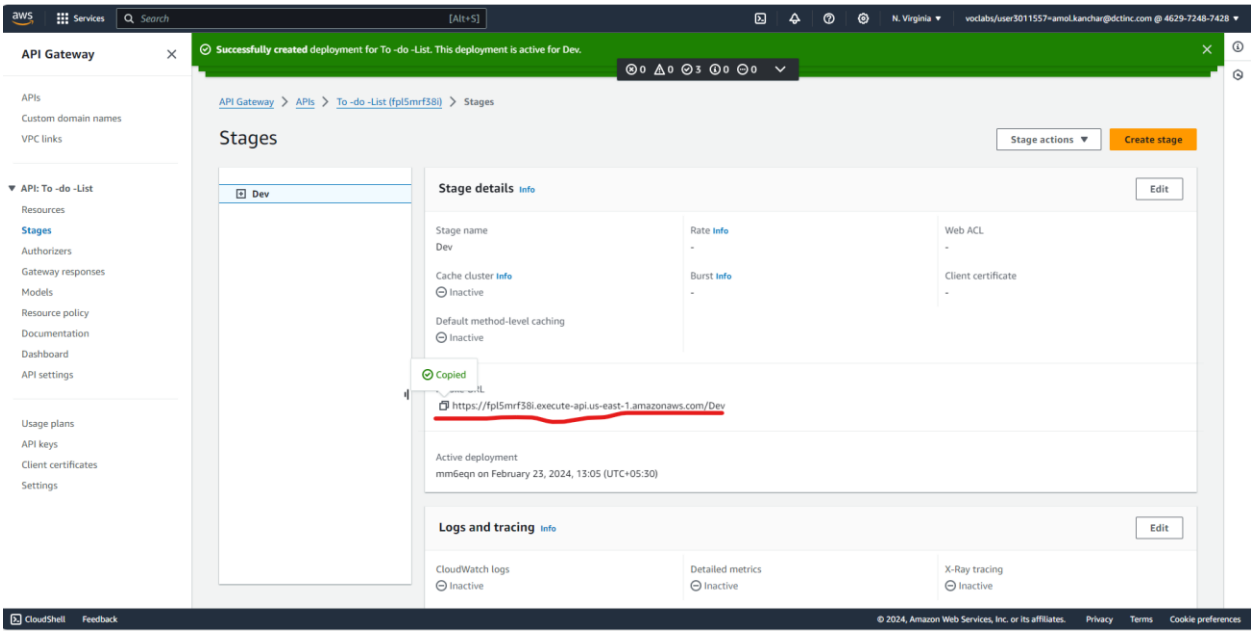
API Gateway add in lambda function after creating method in resource

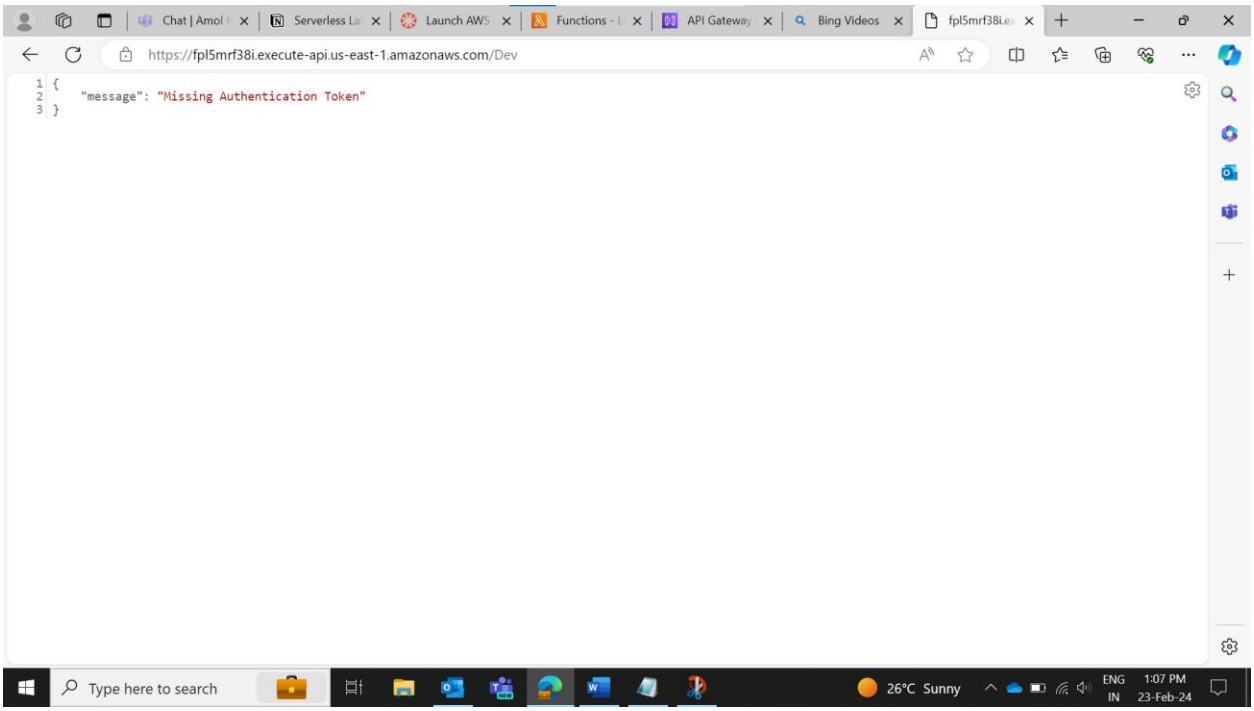




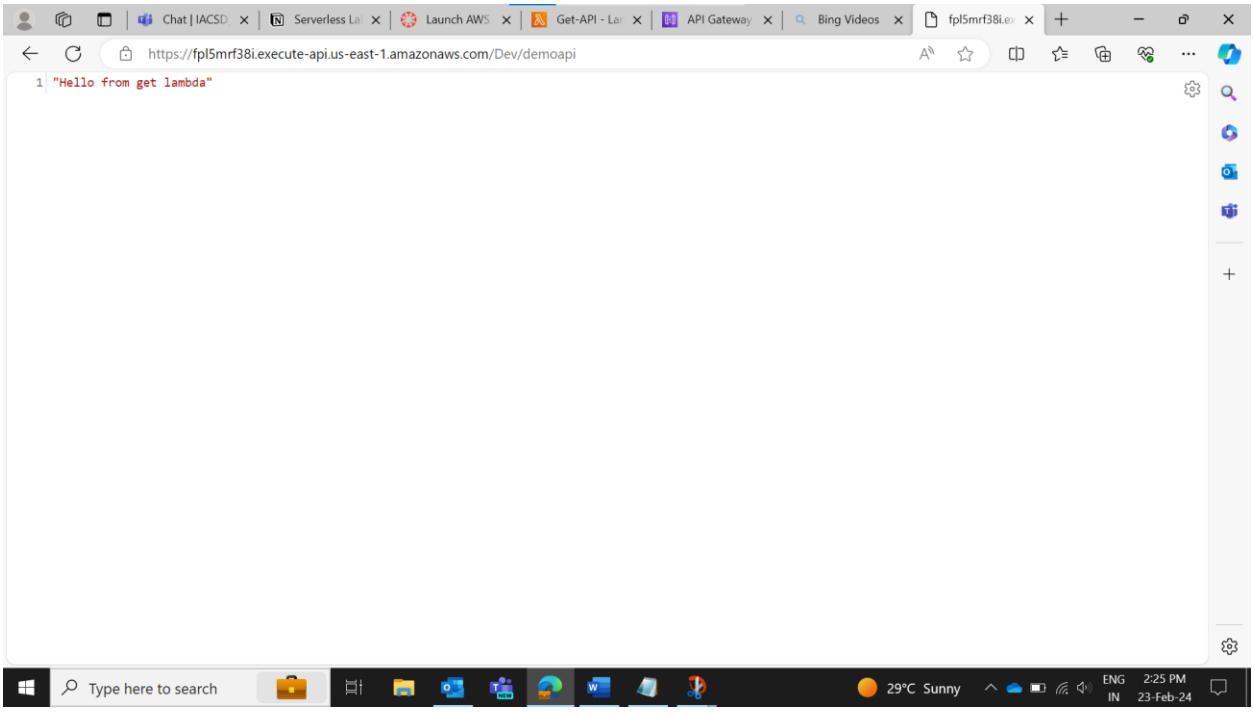
Creating Stage



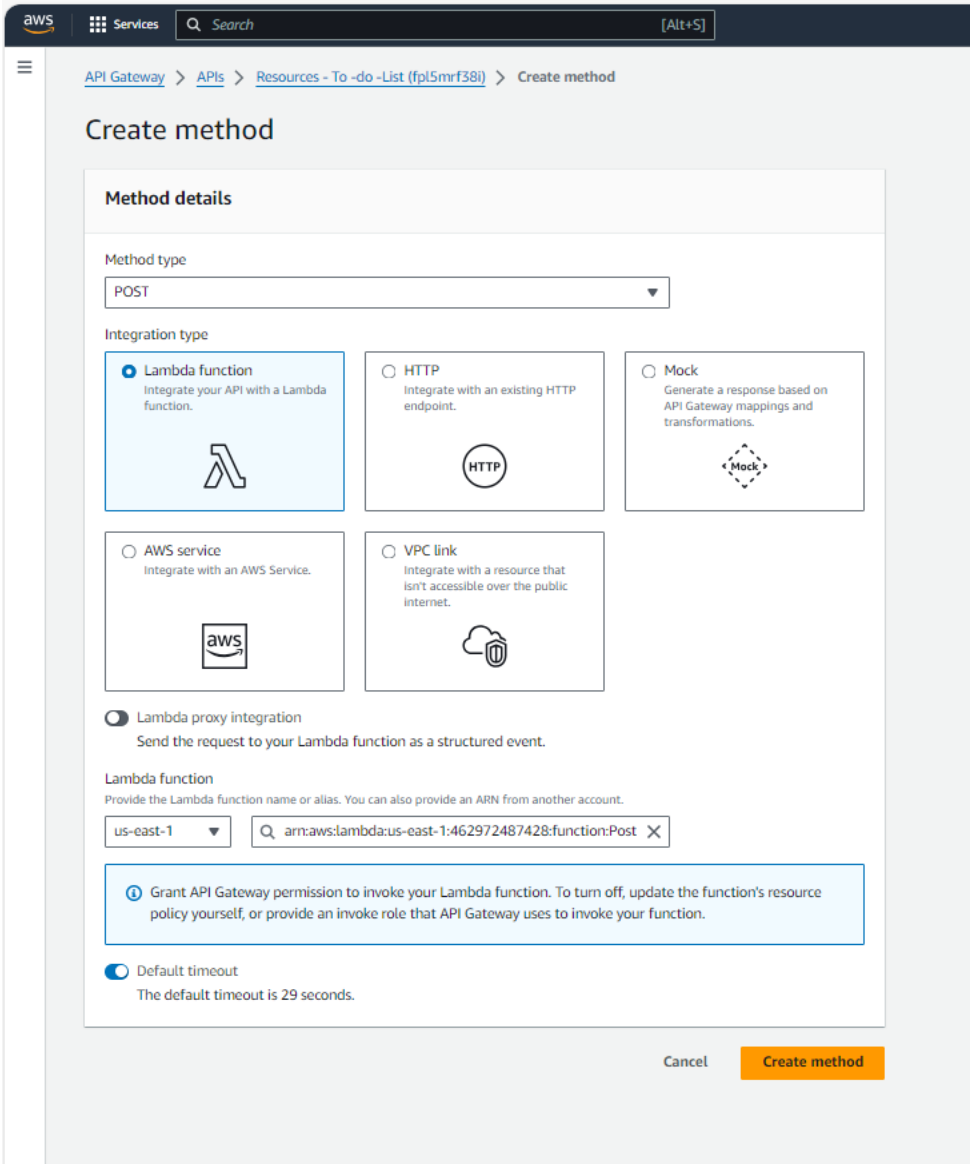


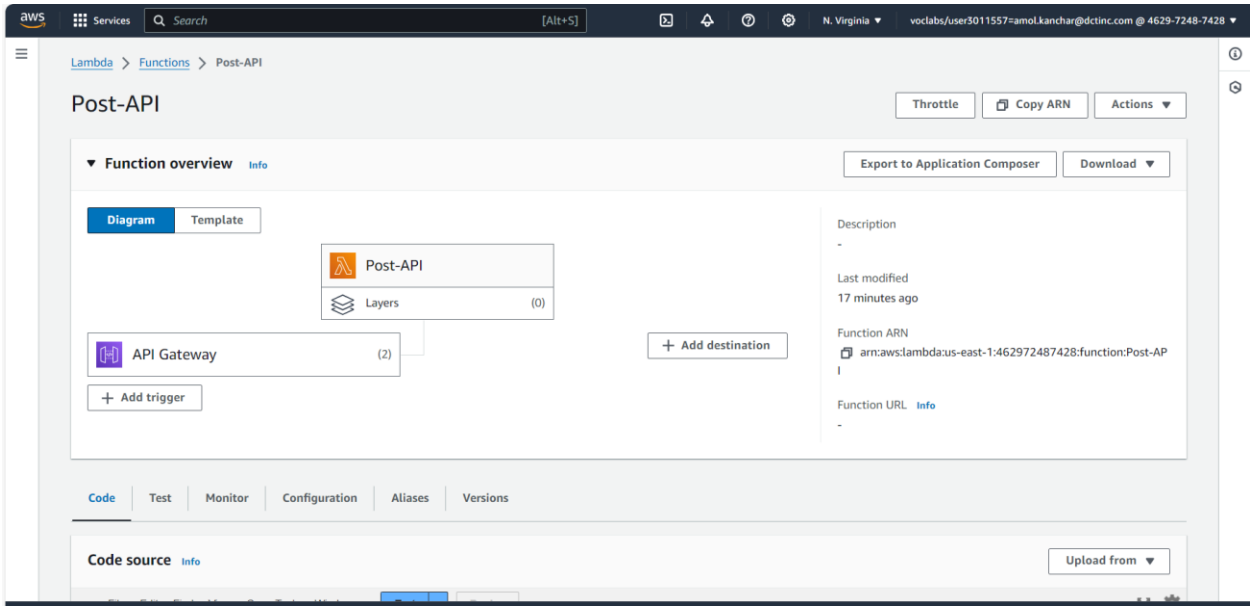


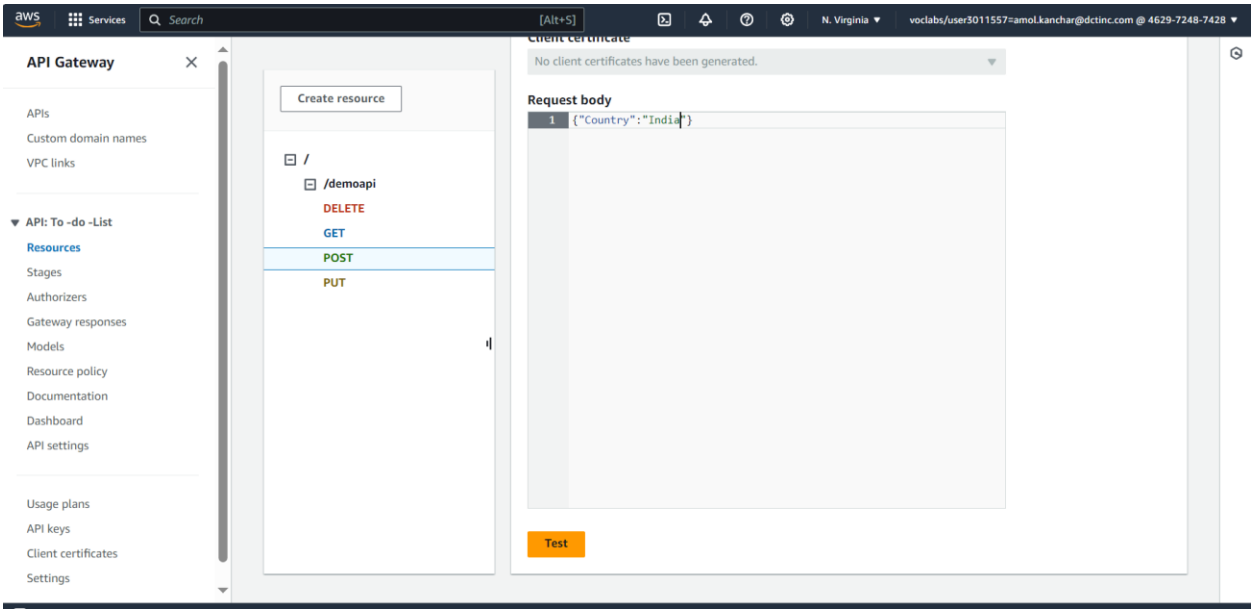
Adding Resource name at last to see output which I have write in lambda function

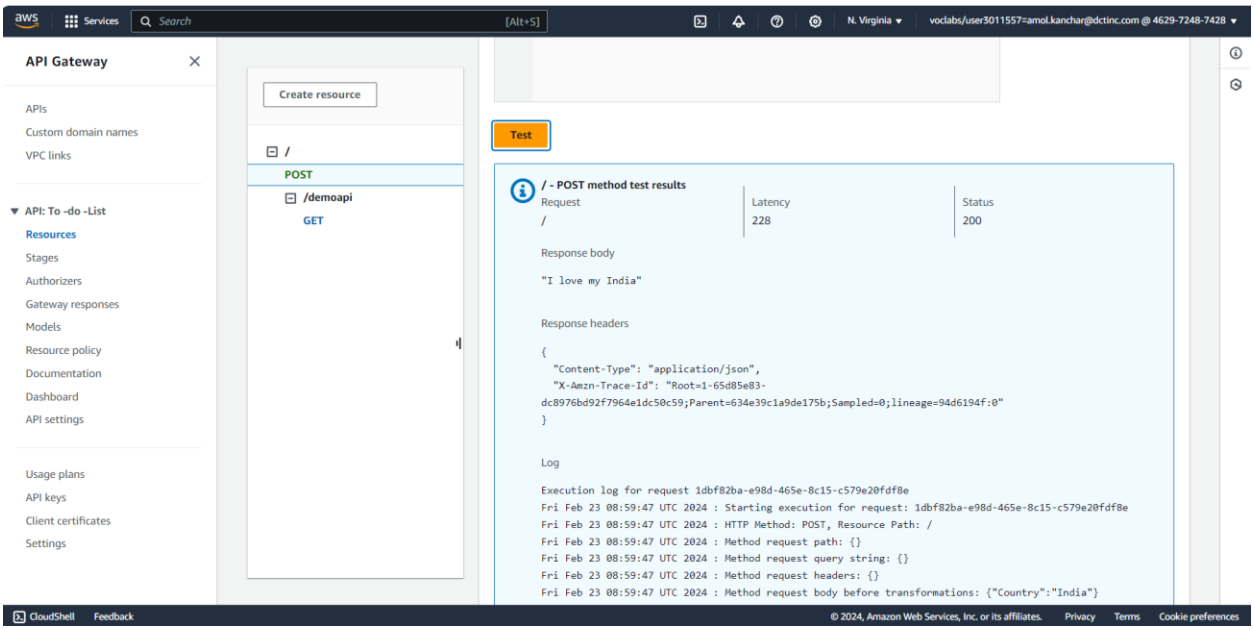


Creating Post Method

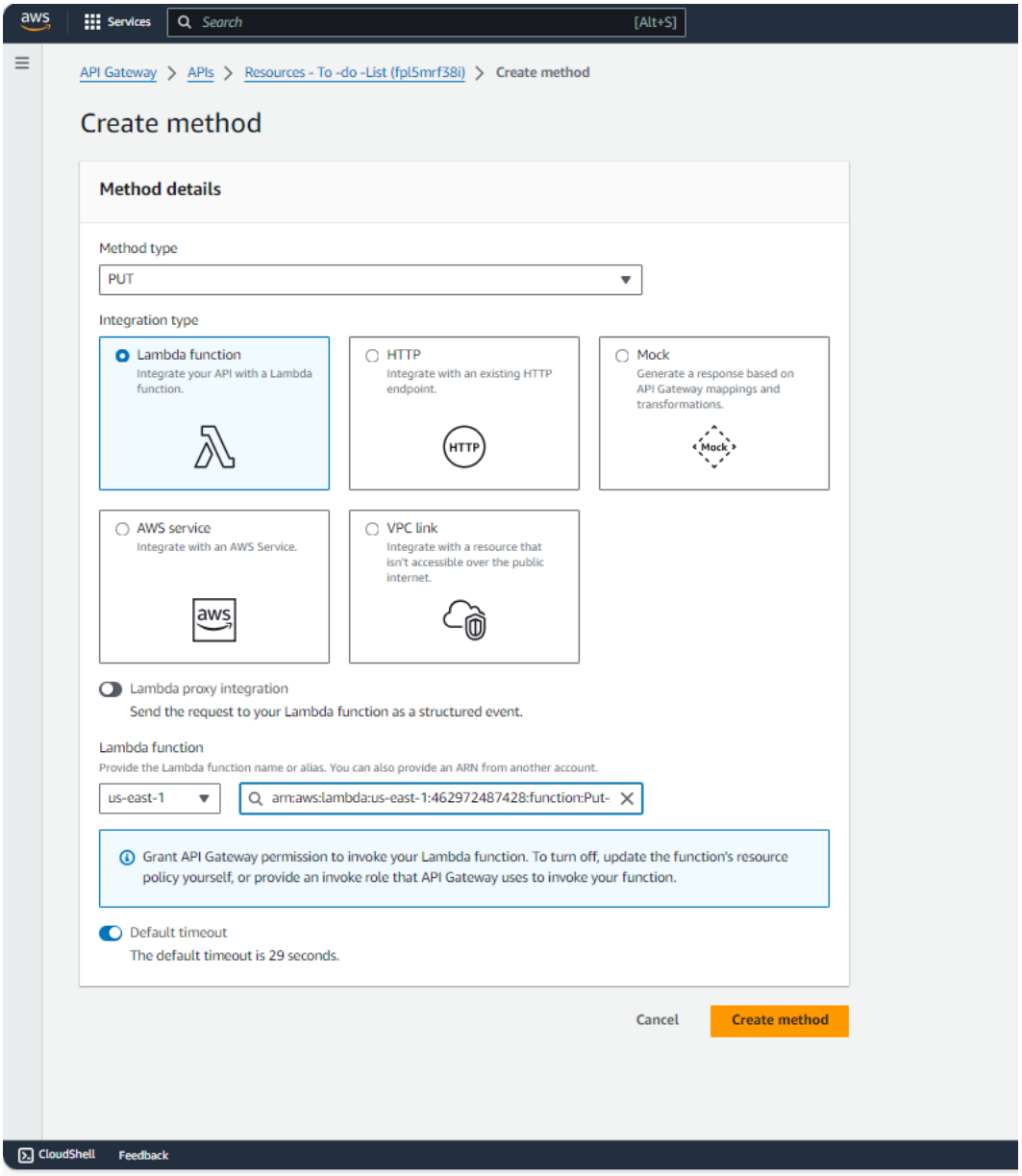


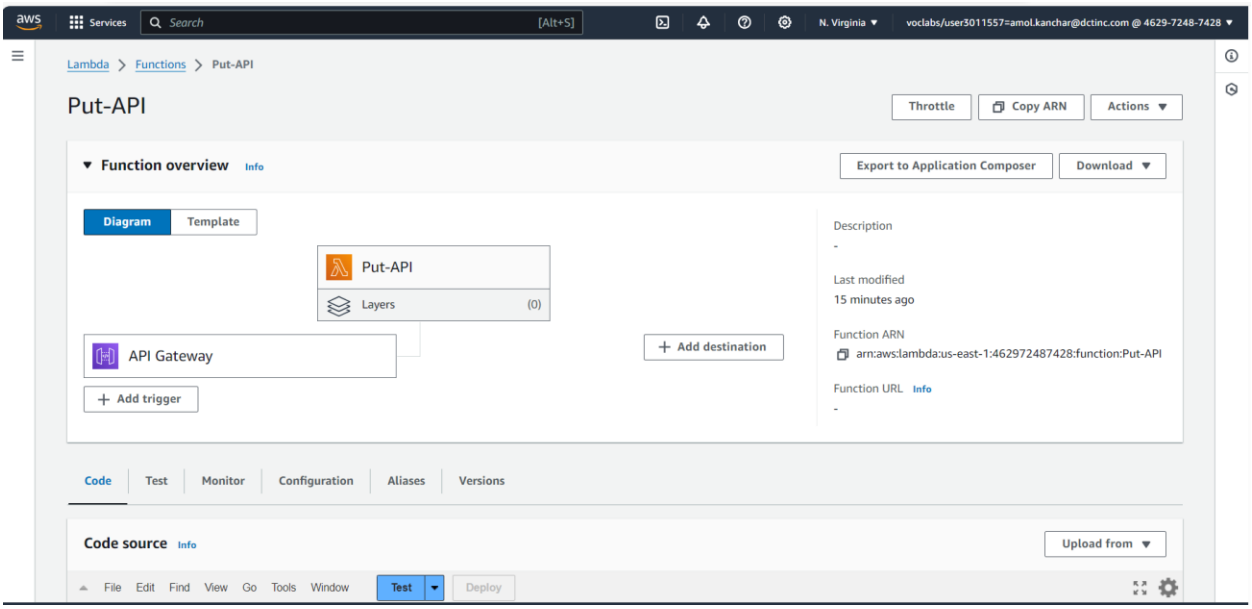

Services
Search
[Alt+S]
N. Virginia
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
Lambda
Functions
Post-API
Post-API
Throttle
Copy ARN
Actions
Function overview
Info
Export to Application Composer
Download
Diagram
Template
Post-API
Layers
(0)
API Gateway
(2)
Add trigger
Add destination
Description
-
Last modified
17 minutes ago
Function ARN
arn:aws:lambda:us-east-1:462972487428:function:Post-API
Function URL
Info
-
Code
Test
Monitor
Configuration
Aliases
Versions
Code source
Info
Upload from

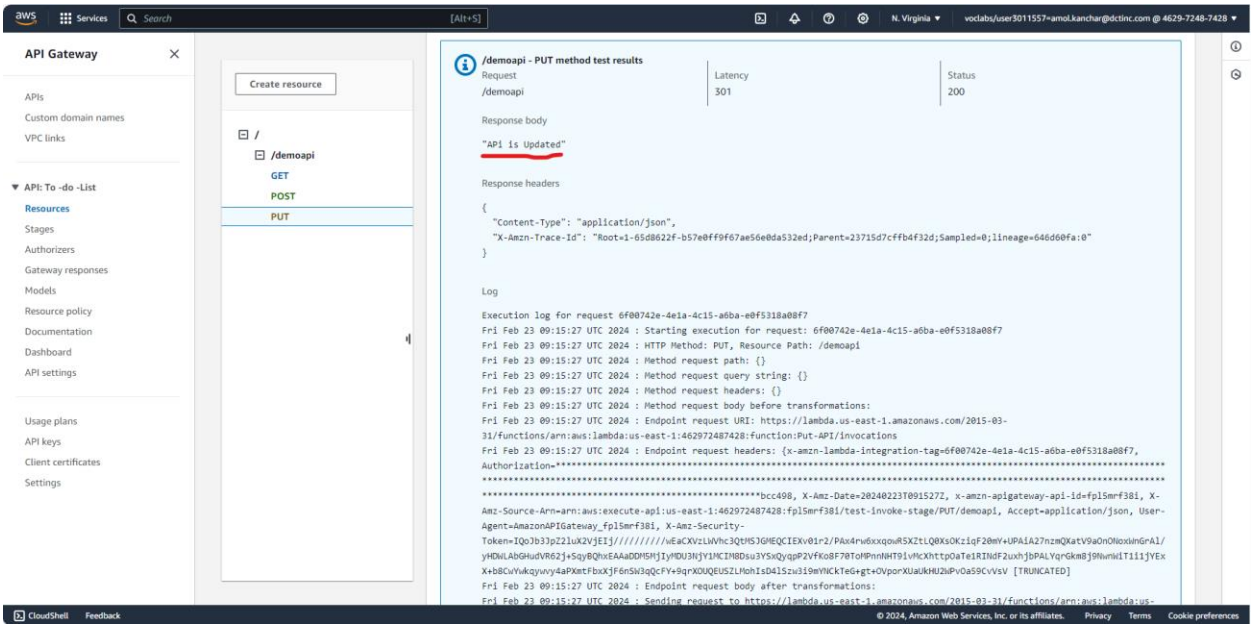

Services
Search
[Alt+S]
N. Virginia
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
API Gateway
APIs
Custom domain names
VPC links
API: To -do -List
Resources
Stages
Authorizers
Gateway responses
Models
Resource policy
Documentation
Dashboard
API settings
Usage plans
API keys
Client certificates
Settings
Create resource
/
/demoapi
DELETE
GET
POST
PUT
No client certificates have been generated.
Request body
1
{"Country":"India"}
Test


aws
Services
Search
[Alt+S]
N. Virginia
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
API Gateway
APIs
Custom domain names
VPC links
API: To -do -List
Resources
Stages
Authorizers
Gateway responses
Models
Resource policy
Documentation
Dashboard
API settings
Usage plans
API keys
Client certificates
Settings
Create resource
/
POST
/demoapi
GET
Test
/ - POST method test results
Request
/
Latency
228
Status
200
Response body
"I love my India"
Response headers
{
"Content-Type": "application/json",
"X-Amzn-Trace-Id": "Root=1-65d85e83-
dc8976bd92f7964e1dc50c59;Parent=634e39c1a9de175b;Sampled=0;lineage=94d6194f:0"
}
Log
Execution log for request 1dbf82ba-e98d-465e-8c15-c579e20fdf8e
Fri Feb 23 08:59:47 UTC 2024 : Starting execution for request: 1dbf82ba-e98d-465e-8c15-c579e20fdf8e
Fri Feb 23 08:59:47 UTC 2024 : HTTP Method: POST, Resource Path: /
Fri Feb 23 08:59:47 UTC 2024 : Method request path: {}
Fri Feb 23 08:59:47 UTC 2024 : Method request query string: {}
Fri Feb 23 08:59:47 UTC 2024 : Method request headers: {}
Fri Feb 23 08:59:47 UTC 2024 : Method request body before transformations: {"Country":"India"}
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

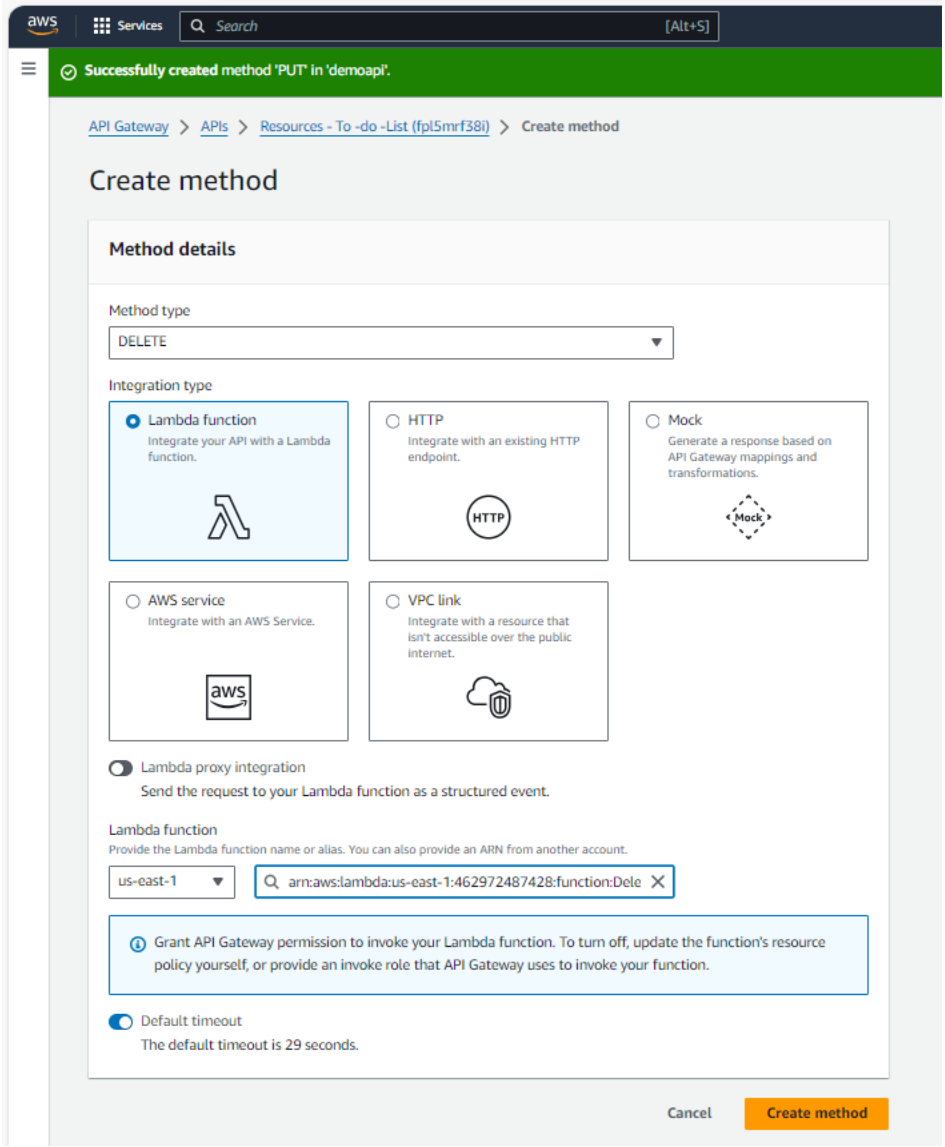
Creating Put Method

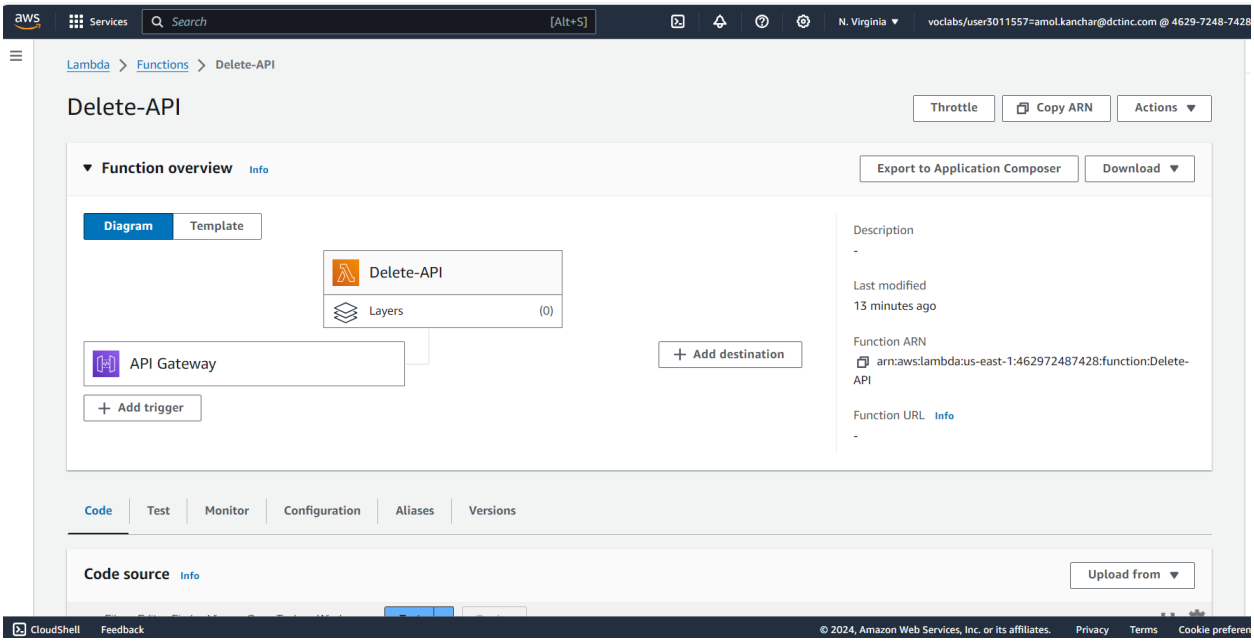


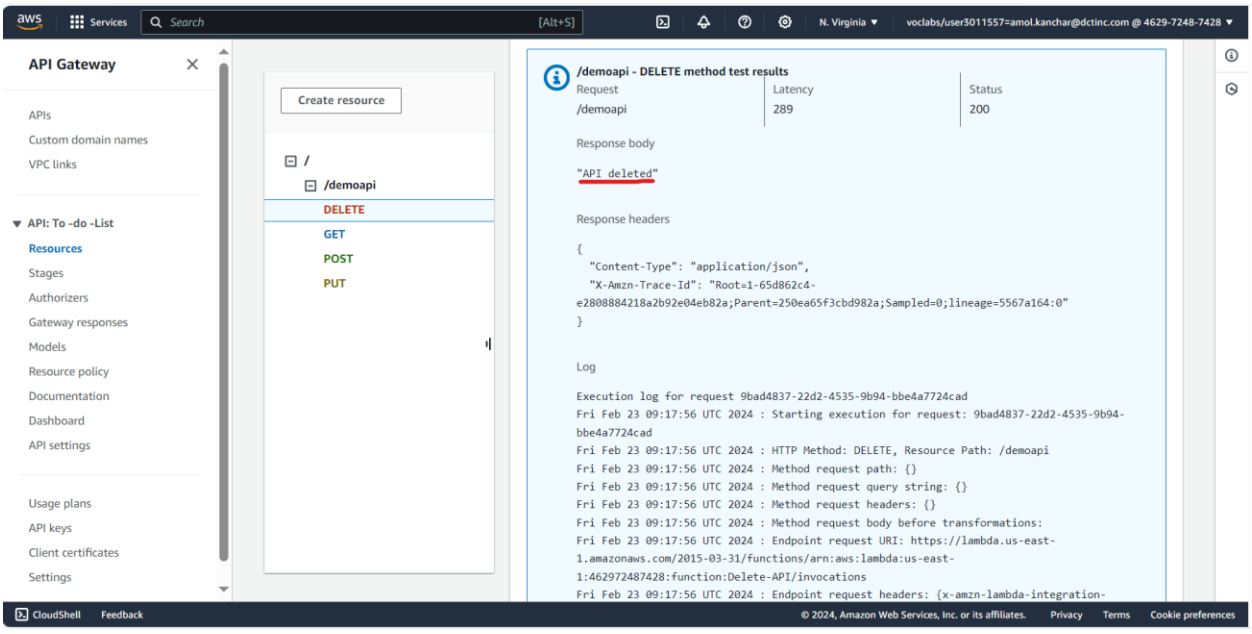

Services
Search
[Alt+S]
N. Virginia
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
Lambda > Functions > Put-API
Put-API
Throttle
Copy ARN
Actions
Function overview Info
Export to Application Composer
Download
Diagram
Template
Put-API
Layers (0)
API Gateway
Add trigger
Add destination
Description
-
Last modified
15 minutes ago
Function ARN
arn:aws:lambda:us-east-1:462972487428:function:Put-API
Function URL Info
-
Code
Test
Monitor
Configuration
Aliases
Versions
Code source Info
Upload from
File Edit Find View Go Tools Window
Test
Deploy


Services
Search
[Alt+S]
N. Virginia
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
API Gateway
APIs
Custom domain names
VPC links
API: To -do -List
Resources
Stages
Authorizers
Gateway responses
Models
Resource policy
Documentation
Dashboard
API settings
Usage plans
API keys
Client certificates
Settings
Create resource
/
/demoapi
GET
POST
PUT
/demoapi - PUT method test results
Request
/demoapi
Latency
301
Status
200
Response body
"API is Updated"
Response headers
{
"Content-Type": "application/json",
"X-Amzn-Trace-Id": "Root=1-65d8622f-b57e0ff9f67ae56e0da532ed;Parent=23715d7cffb4f32d;Sampled=0;lineage=646d60fa:0"
}
Log
Execution log for request 6f00742e-4e1a-4c15-a6ba-e0f5318a08f7
Fri Feb 23 09:15:27 UTC 2024 : Starting execution for request: 6f00742e-4e1a-4c15-a6ba-e0f5318a08f7
Fri Feb 23 09:15:27 UTC 2024 : HTTP Method: PUT, Resource Path: /demoapi
Fri Feb 23 09:15:27 UTC 2024 : Method request path: {}
Fri Feb 23 09:15:27 UTC 2024 : Method request query string: {}
Fri Feb 23 09:15:27 UTC 2024 : Method request headers: {}
Fri Feb 23 09:15:27 UTC 2024 : Method request body before transformations:
Fri Feb 23 09:15:27 UTC 2024 : Endpoint request URI: https://lambda.us-east-1.amazonaws.com/2015-03-31/functions/arn:aws:lambda:us-east-1:462972487428:function:Put-API/invocations
Fri Feb 23 09:15:27 UTC 2024 : Endpoint request headers: {x-amzn-lambda-integration-tag=6f00742e-4e1a-4c15-a6ba-e0f5318a08f7,
Authorization=**********
**********bcc498, X-Amz-Date=20240223T091527Z, x-amzn-apigateway-api-id=fpl5mrf38i, X-Amz-Source-Arn=arn:aws:execute-api:us-east-1:462972487428:fpl5mrf38i/test-invoke-stage/PUT/demoapi, Accept=application/json, User-Agent=AmazonAPIGateway_fpl5mrf38i, X-Amz-Security-Token=IQoJb3JpZ2luX2VjEIj//////////wEaCXVzLWVhc3QtMSJGMEQCIEXv01r2/PAx4rw6xxqowR5XZtLQ0XsOKziqF20mY+UPAiA27nzmQKatV9aOnONoxkWnGrAl/yHDWLAbGHudVR62j+SqyBQhxEAAaDDM5MjIyMDU3NjY1MCIM8Dsu3YSxQyqpP2VfKo8F70ToMPnnNHT9lvMcXhttpOaTe1RINdF2uxhjbPALYqrGkm8j9NwnWiTi1ijYExX+bBCwYwkqyvvy4aPXmtFbxXjF6nSW3qQcFY+9qrXOUQEUSZLHohIsD4lSzw3i9mYNCkTeG+gt+OVporXUaUkHU2WPvOaS9CvVsV [TRUNCATED]
Fri Feb 23 09:15:27 UTC 2024 : Endpoint request body after transformations:
Fri Feb 23 09:15:27 UTC 2024 : Sending request to https://lambda.us-east-1.amazonaws.com/2015-03-31/functions/arn:aws:lambda:us-
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

Creating Delete Method

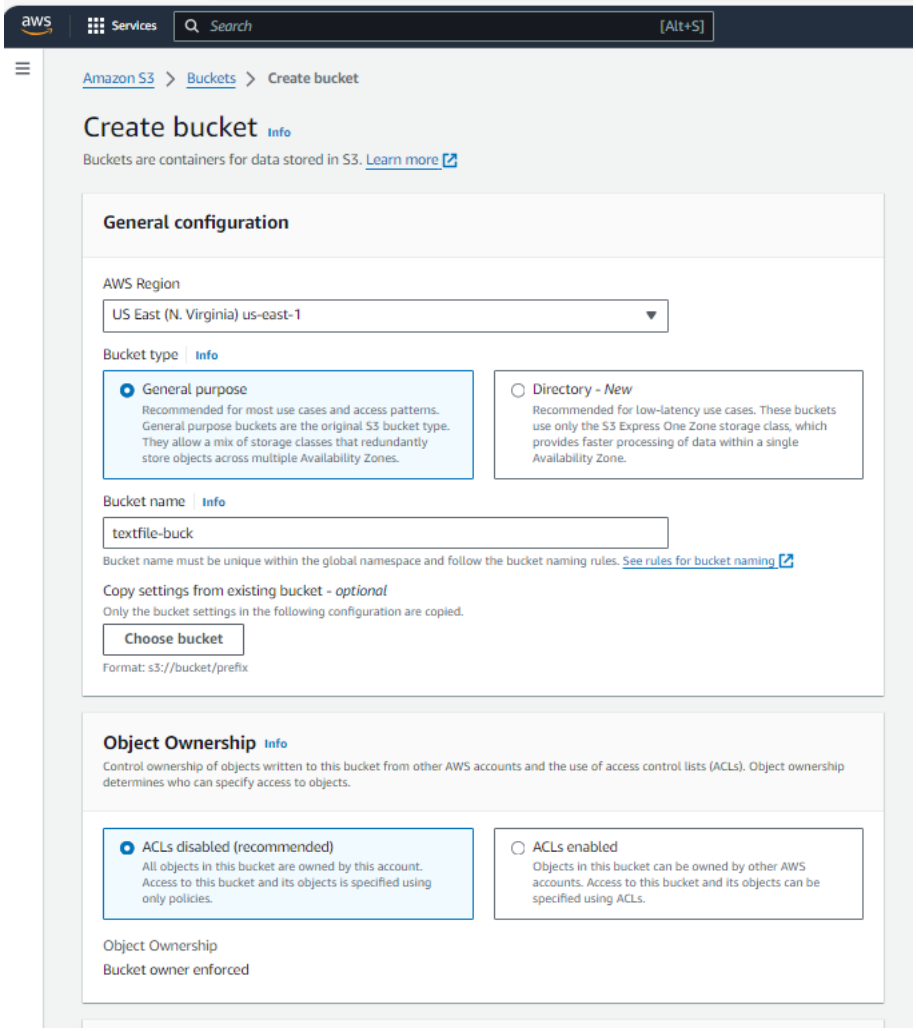


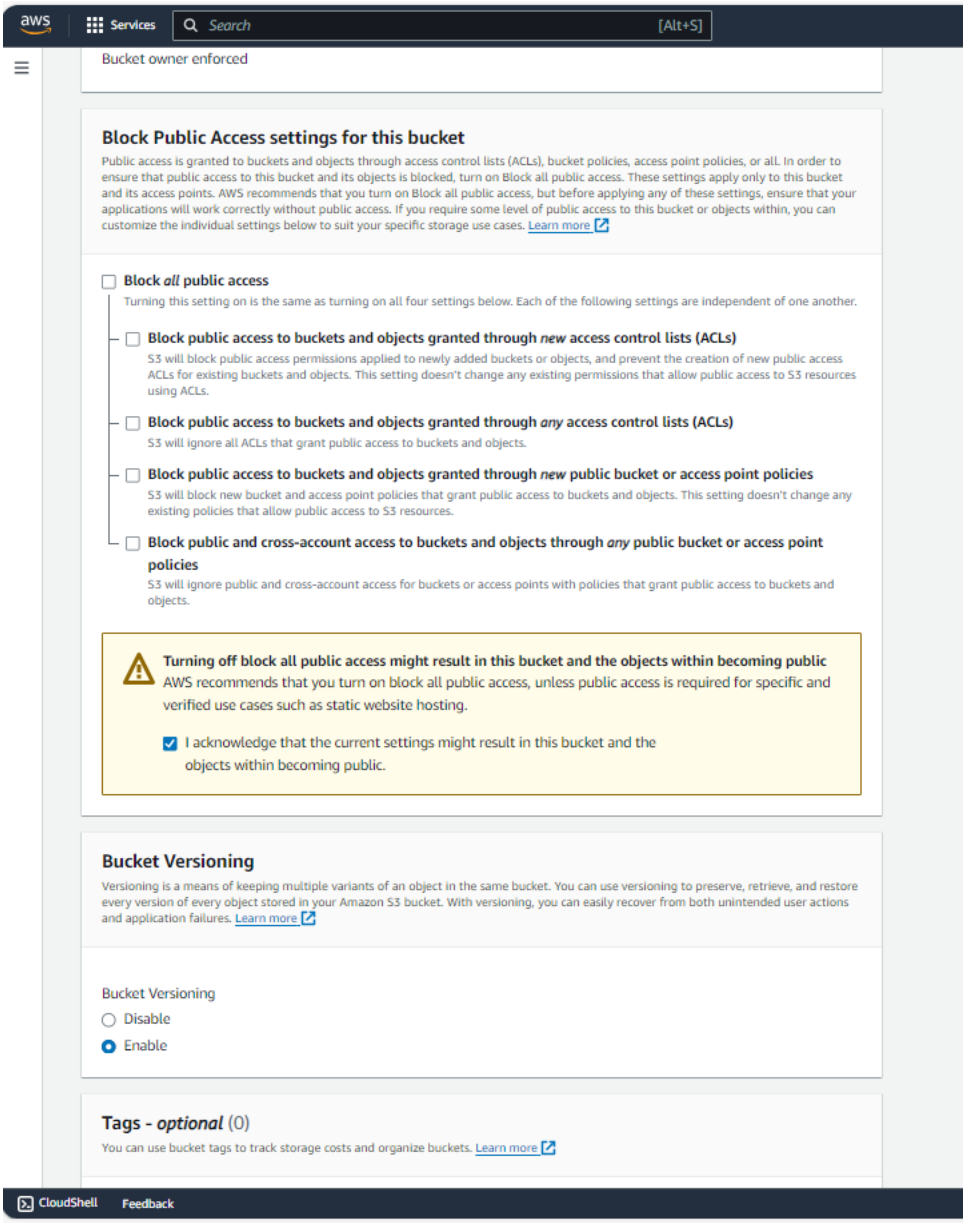

Services
Search
[Alt+S]
N. Virginia
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
Lambda > Functions > Delete-API
Delete-API
Throttle
Copy ARN
Actions
Function overview Info
Export to Application Composer
Download
Diagram
Template
Delete-API
Layers (0)
API Gateway
Add trigger
Add destination
Description
-
Last modified
13 minutes ago
Function ARN
arn:aws:lambda:us-east-1:462972487428:function:Delete-API
Function URL Info
-
Code
Test
Monitor
Configuration
Aliases
Versions
Code source Info
Upload from
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferen

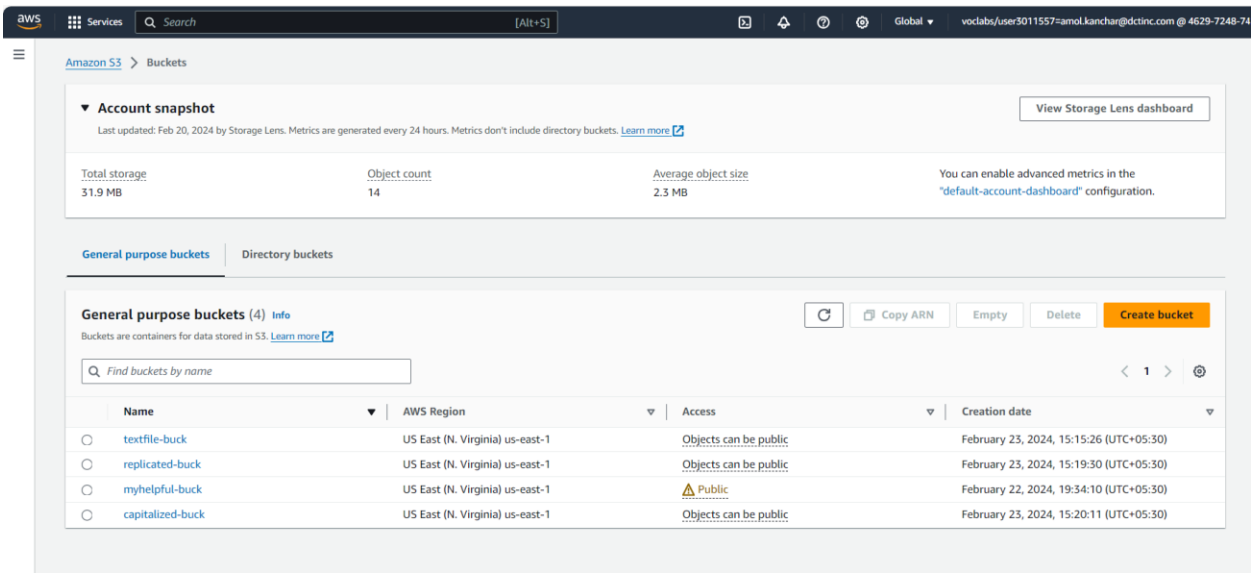

Services
Search
[Alt+S]
N. Virginia
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
API Gateway
APIs
Custom domain names
VPC links
API: To -do -List
Resources
Stages
Authorizers
Gateway responses
Models
Resource policy
Documentation
Dashboard
API settings
Usage plans
API keys
Client certificates
Settings
Create resource
/
/demoapi
DELETE
GET
POST
PUT
/demoapi - DELETE method test results
Request
/demoapi
Latency
289
Status
200
Response body
"API deleted"
Response headers
{
"Content-Type": "application/json",
"X-Amzn-Trace-Id": "Root=1-65d862c4-e2808884218a2b92e04eb82a;Parent=250ea65f3cbd982a;Sampled=0;lineage=5567a164:0"
}
Log
Execution log for request 9bad4837-22d2-4535-9b94-bbe4a7724cad
Fri Feb 23 09:17:56 UTC 2024 : Starting execution for request: 9bad4837-22d2-4535-9b94-bbe4a7724cad
Fri Feb 23 09:17:56 UTC 2024 : HTTP Method: DELETE, Resource Path: /demoapi
Fri Feb 23 09:17:56 UTC 2024 : Method request path: {}
Fri Feb 23 09:17:56 UTC 2024 : Method request query string: {}
Fri Feb 23 09:17:56 UTC 2024 : Method request headers: {}
Fri Feb 23 09:17:56 UTC 2024 : Method request body before transformations:
Fri Feb 23 09:17:56 UTC 2024 : Endpoint request URI: https://lambda.us-east-1.amazonaws.com/2015-03-31/functions/arn:aws:lambda:us-east-1:462972487428:function:Delete-API/invocations
Fri Feb 23 09:17:56 UTC 2024 : Endpoint request headers: {x-amzn-lambda-integration-
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

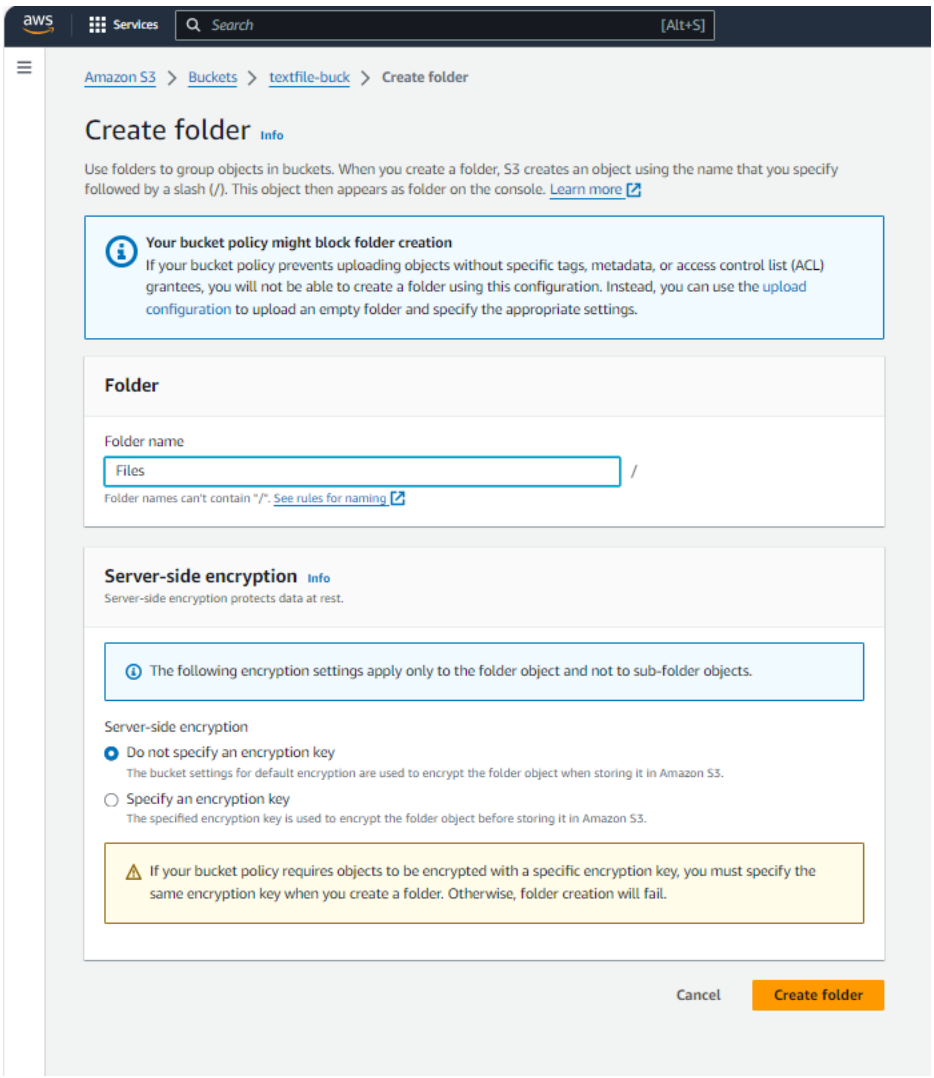
Q3)

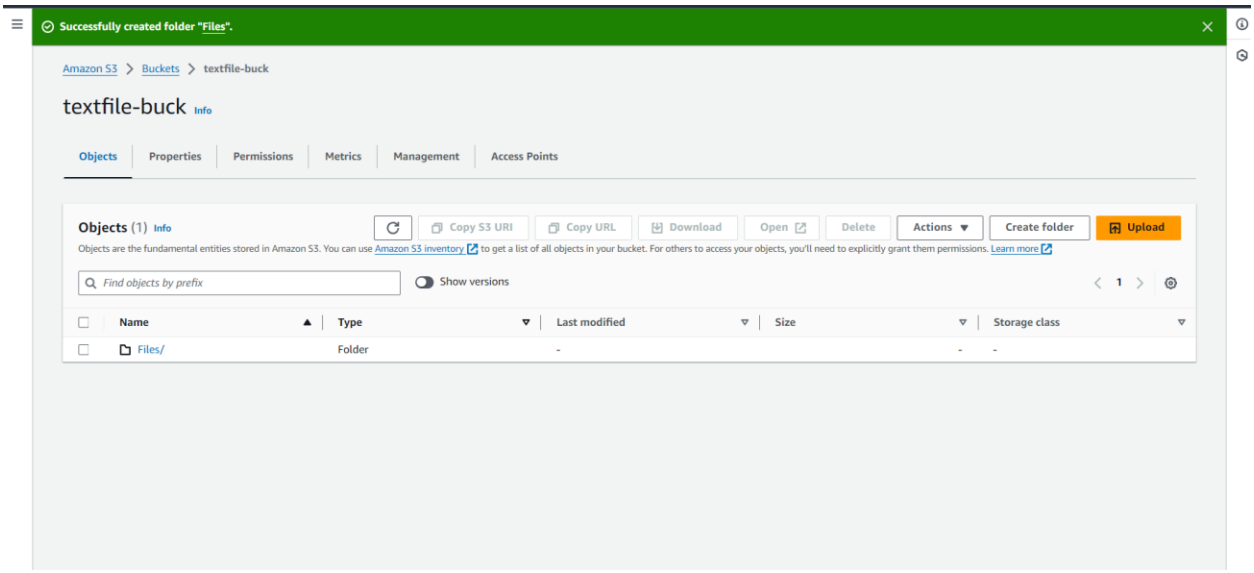
Creating three S3 buckets



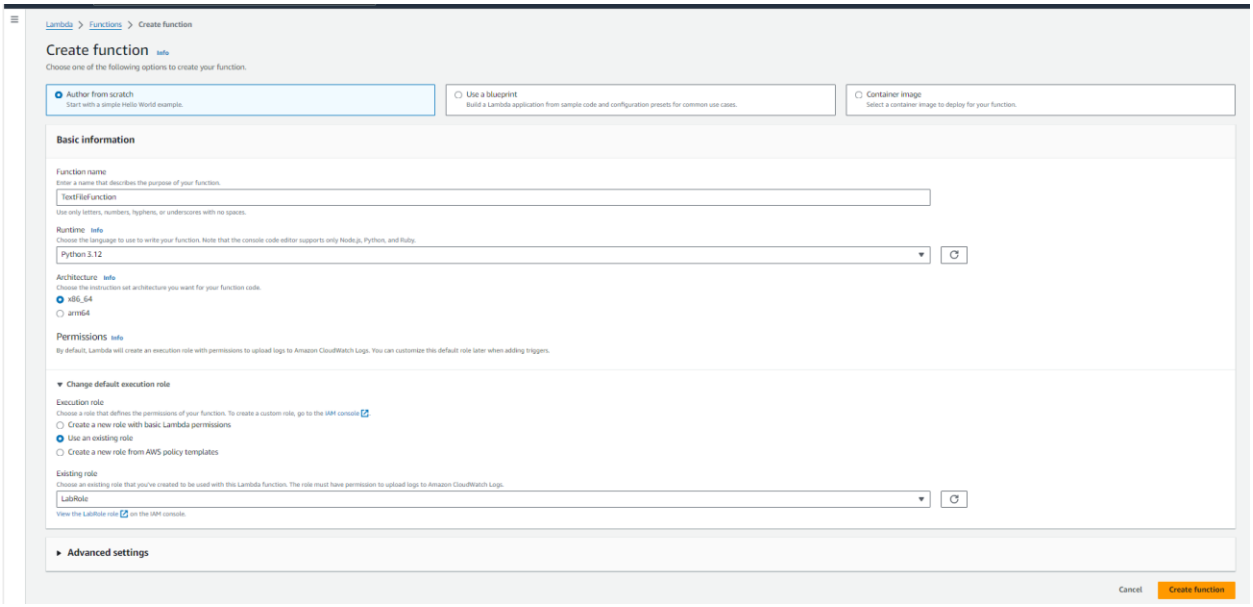

aws
Services
Search
[Alt+S]
Bucket owner enforced
Block Public Access settings for this bucket
Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to this bucket and its objects is blocked, 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 this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases. Learn more
Block all public access
Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.
Block public access to buckets and objects granted through new access control lists (ACLs)
S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.
Block public access to buckets and objects granted through any access control lists (ACLs)
S3 will ignore all ACLs that grant public access to buckets and objects.
Block public access to buckets and objects granted through new public bucket or access point policies
S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.
Block public and cross-account access to buckets and objects through any public bucket or access point policies
S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.
Turning off block all public access might result in this bucket and the objects within becoming public
AWS recommends that you turn on block all public access, unless public access is required for specific and verified use cases such as static website hosting.
I acknowledge that the current settings might result in this bucket and the objects within becoming public.
Bucket Versioning
Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. Learn more
Bucket Versioning
Disable
Enable
Tags - optional (0)
You can use bucket tags to track storage costs and organize buckets. Learn more
CloudShell
Feedback

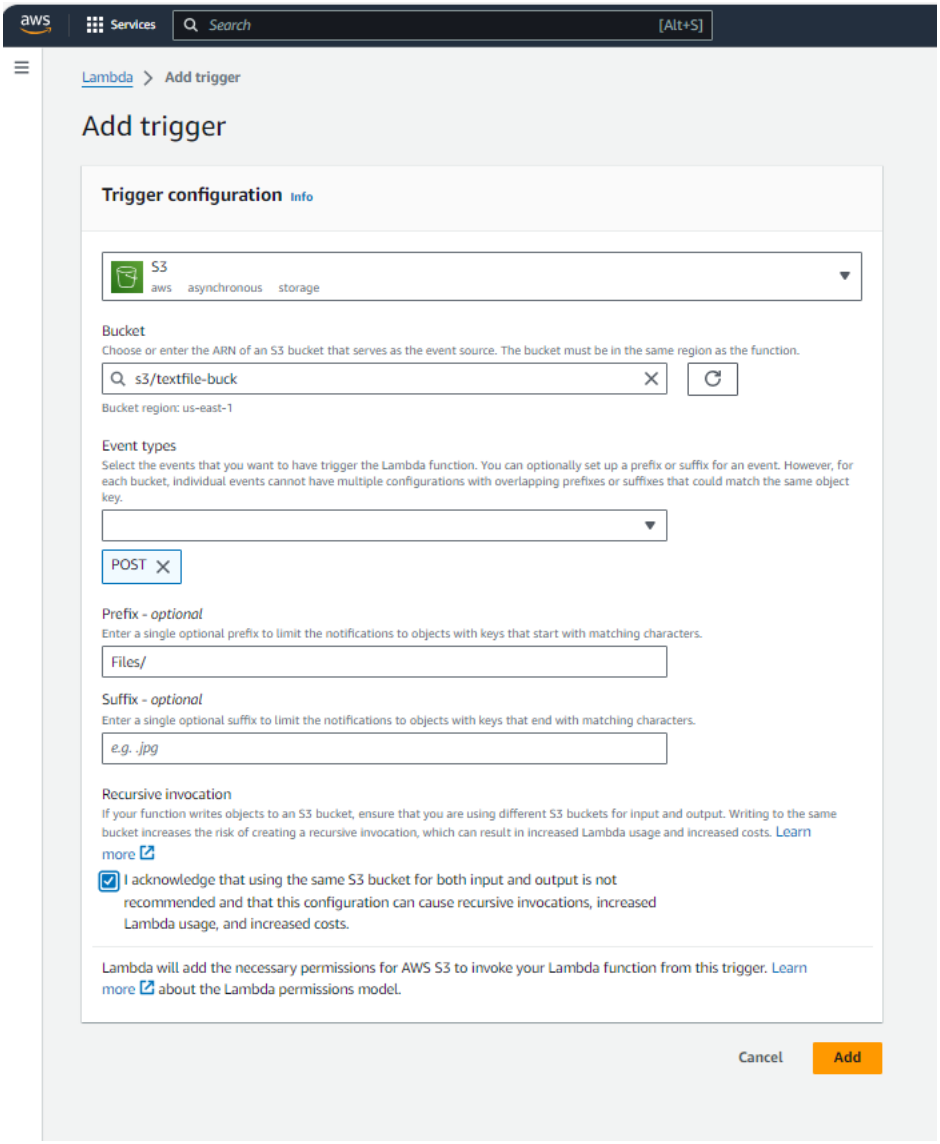

Services
Search
[Alt+S]
Global
Amazon S3 > Buckets
Account snapshot
Last updated: Feb 20, 2024 by Storage Lens. Metrics are generated every 24 hours. Metrics don't include directory buckets. Learn more
View Storage Lens dashboard
Total storage
31.9 MB
Object count
14
Average object size
2.3 MB
You can enable advanced metrics in the "default-account-dashboard" configuration.
General purpose buckets
Directory buckets
General purpose buckets (4) 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
textfile-buck
US East (N. Virginia) us-east-1
Objects can be public
February 23, 2024, 15:15:26 (UTC+05:30)
replicated-buck
US East (N. Virginia) us-east-1
Objects can be public
February 23, 2024, 15:19:30 (UTC+05:30)
myhelpful-buck
US East (N. Virginia) us-east-1
Public
February 22, 2024, 19:34:10 (UTC+05:30)
capitalized-buck
US East (N. Virginia) us-east-1
Objects can be public
February 23, 2024, 15:20:11 (UTC+05:30)


Services
Search
[Alt+S]
Amazon S3 > Buckets > textfile-buck > Create folder
Create folder Info
Use folders to group objects in buckets. When you create a folder, S3 creates an object using the name that you specify followed by a slash (/). This object then appears as folder on the console. Learn more
Your bucket policy might block folder creation
If your bucket policy prevents uploading objects without specific tags, metadata, or access control list (ACL) grantees, you will not be able to create a folder using this configuration. Instead, you can use the upload configuration to upload an empty folder and specify the appropriate settings.
Folder
Folder name
Files
/
Folder names can't contain "/". See rules for naming
Server-side encryption Info
Server-side encryption protects data at rest.
The following encryption settings apply only to the folder object and not to sub-folder objects.
Server-side encryption
Do not specify an encryption key
The bucket settings for default encryption are used to encrypt the folder object when storing it in Amazon S3.
Specify an encryption key
The specified encryption key is used to encrypt the folder object before storing it in Amazon S3.
If your bucket policy requires objects to be encrypted with a specific encryption key, you must specify the same encryption key when you create a folder. Otherwise, folder creation will fail.
Cancel
Create folder

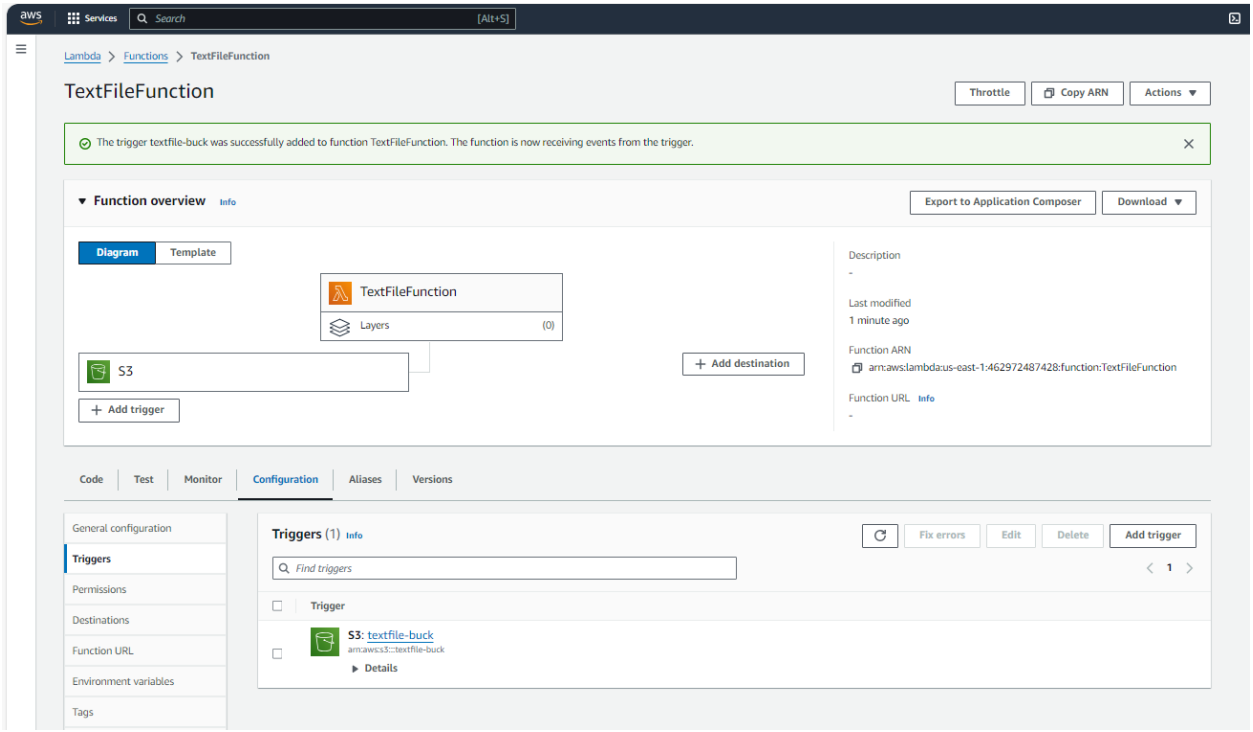


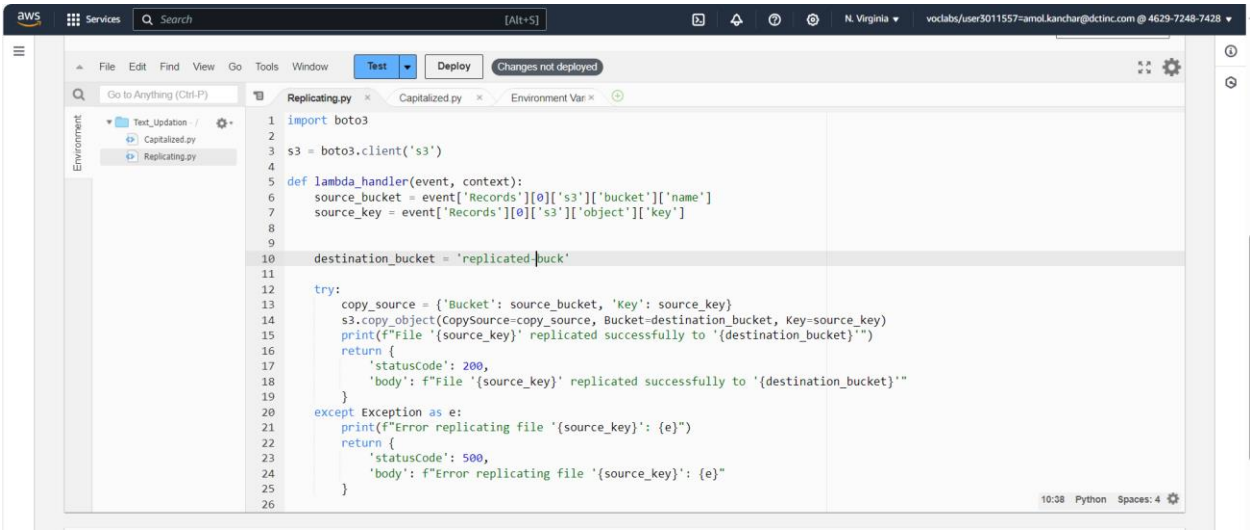
Creating Lambda Function

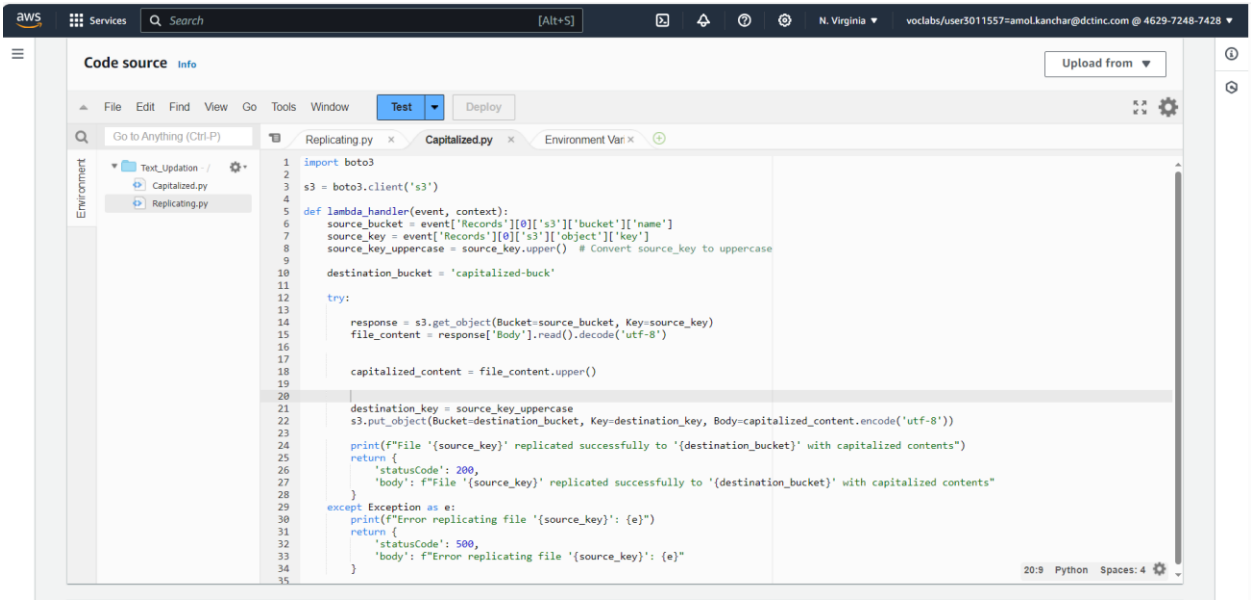


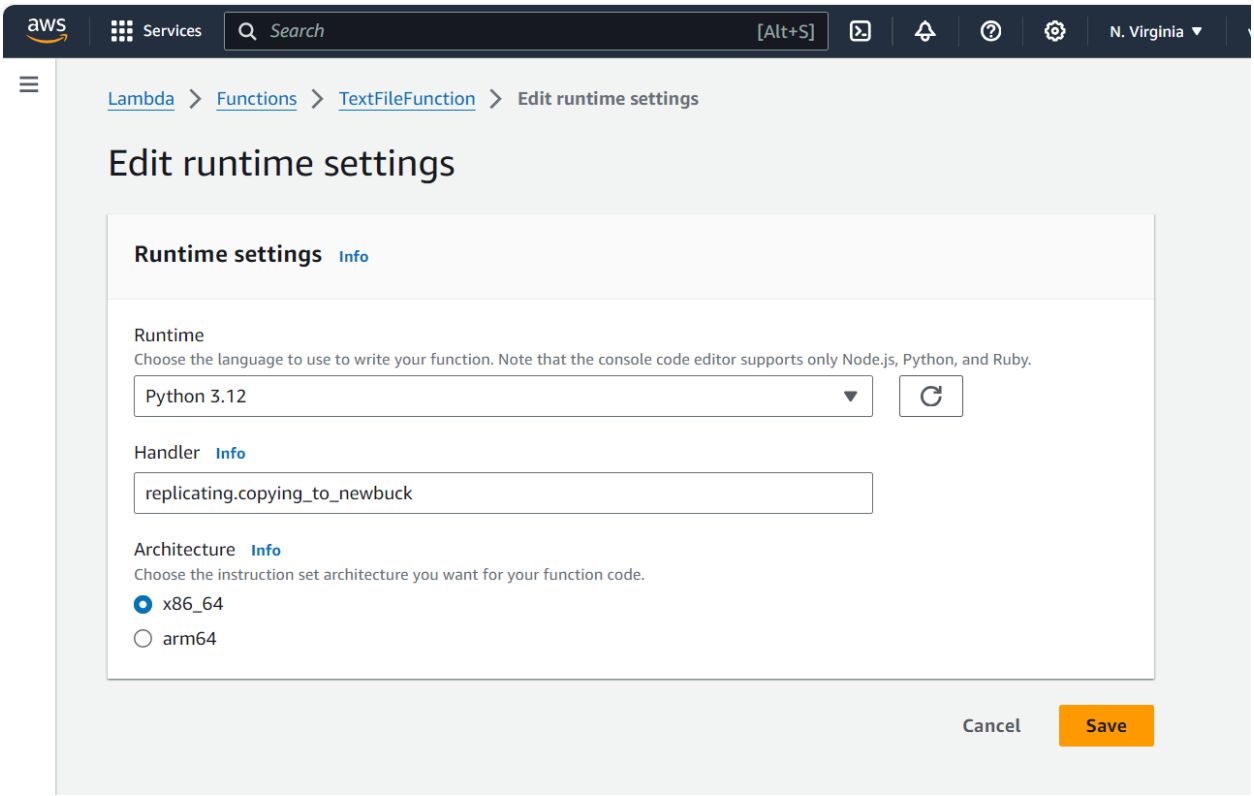

aws
Services
Search
[Alt+S]
Lambda
Add trigger
Add trigger
Trigger configuration
Info
S3
aws asynchronous storage
Bucket
Choose or enter the ARN of an S3 bucket that serves as the event source. The bucket must be in the same region as the function.
s3/textfile-buck
Bucket region: us-east-1
Event types
Select the events that you want to have trigger the Lambda function. You can optionally set up a prefix or suffix for an event. However, for each bucket, individual events cannot have multiple configurations with overlapping prefixes or suffixes that could match the same object key.
POST
Prefix - optional
Enter a single optional prefix to limit the notifications to objects with keys that start with matching characters.
Files/
Suffix - optional
Enter a single optional suffix to limit the notifications to objects with keys that end with matching characters.
e.g. .jpg
Recursive invocation
If your function writes objects to an S3 bucket, ensure that you are using different S3 buckets for input and output. Writing to the same bucket increases the risk of creating a recursive invocation, which can result in increased Lambda usage and increased costs. Learn more
I acknowledge that using the same S3 bucket for both input and output is not recommended and that this configuration can cause recursive invocations, increased Lambda usage, and increased costs.
Lambda will add the necessary permissions for AWS S3 to invoke your Lambda function from this trigger. Learn more about the Lambda permissions model.
Cancel
Add

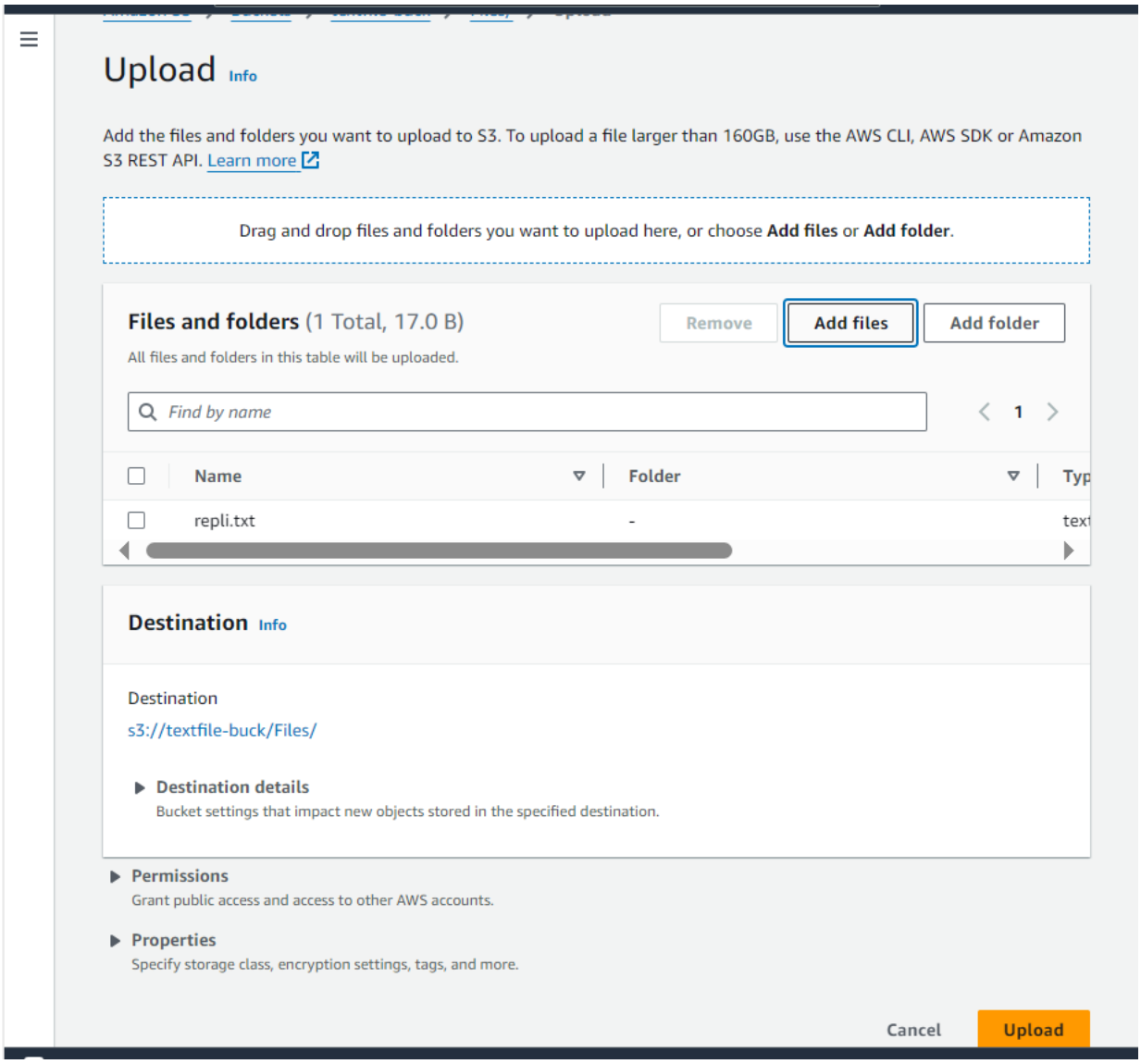
Trigger Added Successfully



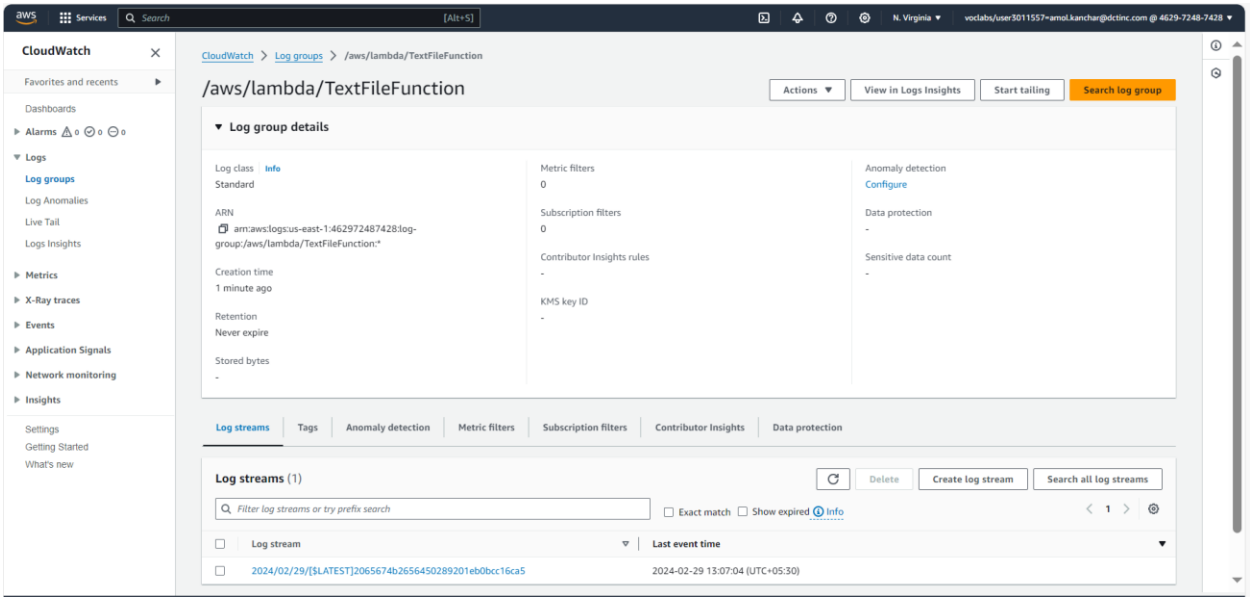


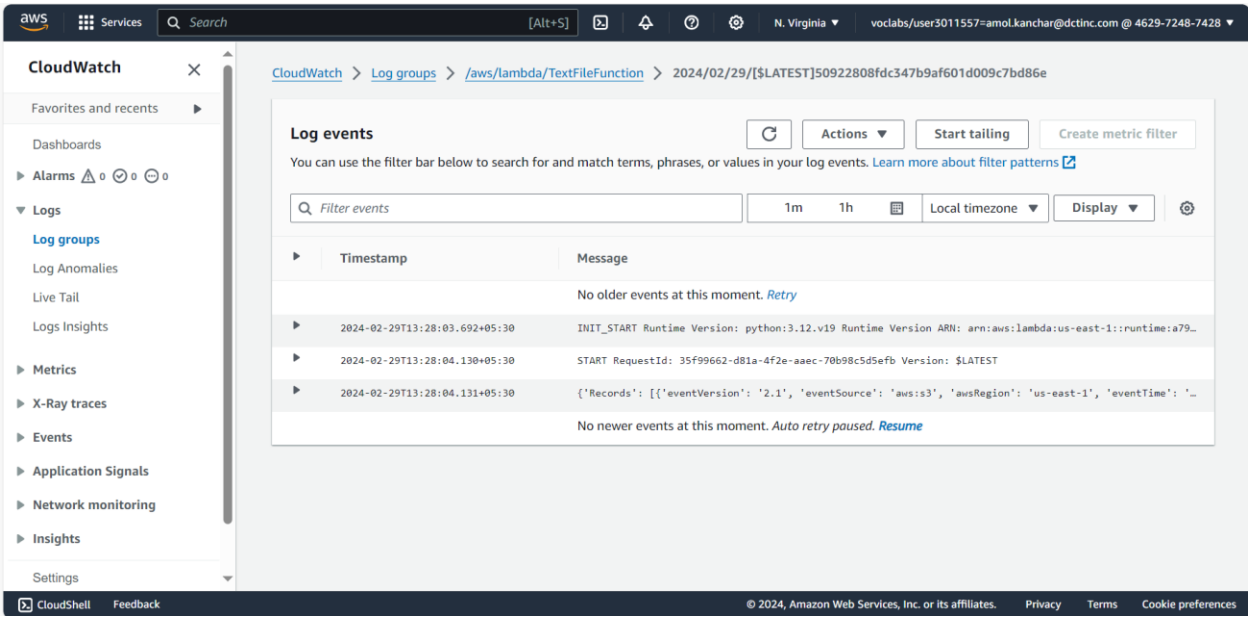

Code source Info
Upload from
File Edit Find View Go Tools Window
Test
Deploy
Replicating.py
Capitalized.py
Environment Var
Text_Updation
Capitalized.py
Replicating.py
import boto3
s3 = boto3.client('s3')
def lambda_handler(event, context):
source_bucket = event['Records'][0]['s3']['bucket']['name']
source_key = event['Records'][0]['s3']['object']['key']
source_key_uppercase = source_key.upper() # Convert source_key to uppercase
destination_bucket = 'capitalized-buck'
try:
response = s3.get_object(Bucket=source_bucket, Key=source_key)
file_content = response['Body'].read().decode('utf-8')
capitalized_content = file_content.upper()
destination_key = source_key_uppercase
s3.put_object(Bucket=destination_bucket, Key=destination_key, Body=capitalized_content.encode('utf-8'))
print(f"File '{source_key}' replicated successfully to '{destination_bucket}' with capitalized contents")
return {
'statusCode': 200,
'body': f"File '{source_key}' replicated successfully to '{destination_bucket}' with capitalized contents"
}
except Exception as e:
print(f"Error replicating file '{source_key}': {e}")
return {
'statusCode': 500,
'body': f"Error replicating file '{source_key}': {e}"
}
20:9 Python Spaces: 4


Lambda > Functions > TextFileFunction > Edit runtime settings
Edit runtime settings
Runtime settings Info
Runtime
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.
Python 3.12
Handler Info
replicating.copying_to_newbuck
Architecture Info
Choose the instruction set architecture you want for your function code.
x86_64
arm64
Cancel
Save

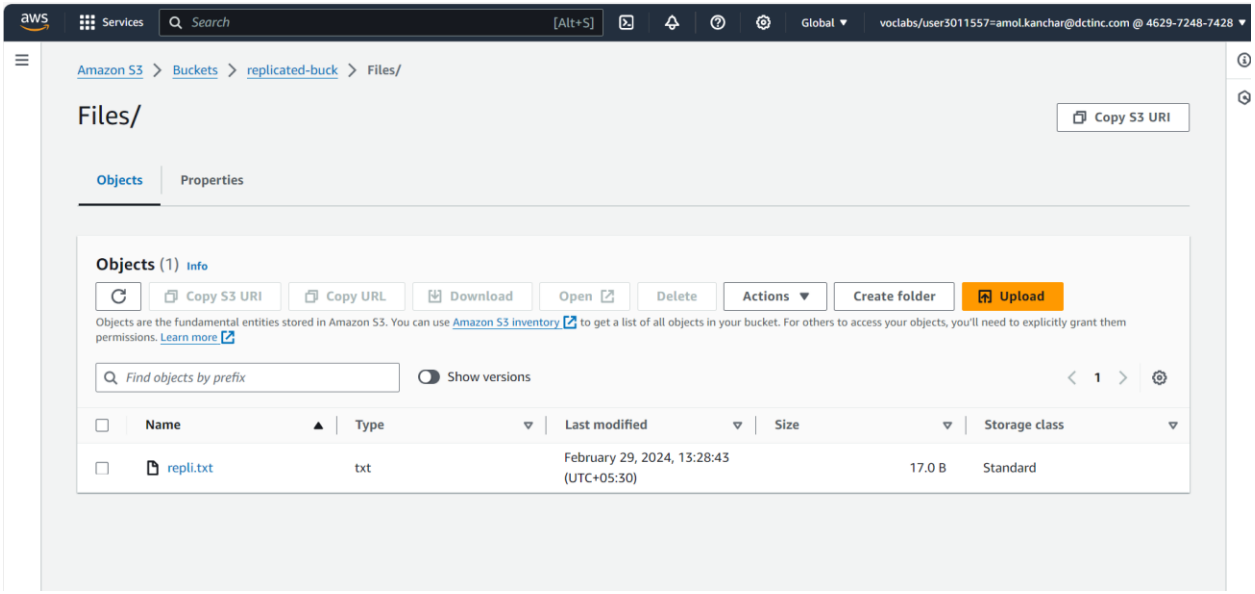

Upload Info
Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. Learn more
Drag and drop files and folders you want to upload here, or choose Add files or Add folder.
Files and folders (1 Total, 17.0 B)
Remove
Add files
Add folder
All files and folders in this table will be uploaded.
Find by name
1
Name
Folder
Typ
repli.txt
-
Destination Info
Destination
s3://textfile-buck/Files/
Destination details
Bucket settings that impact new objects stored in the specified destination.
Permissions
Grant public access and access to other AWS accounts.
Properties
Specify storage class, encryption settings, tags, and more.
Cancel
Upload

CloudWatch logs

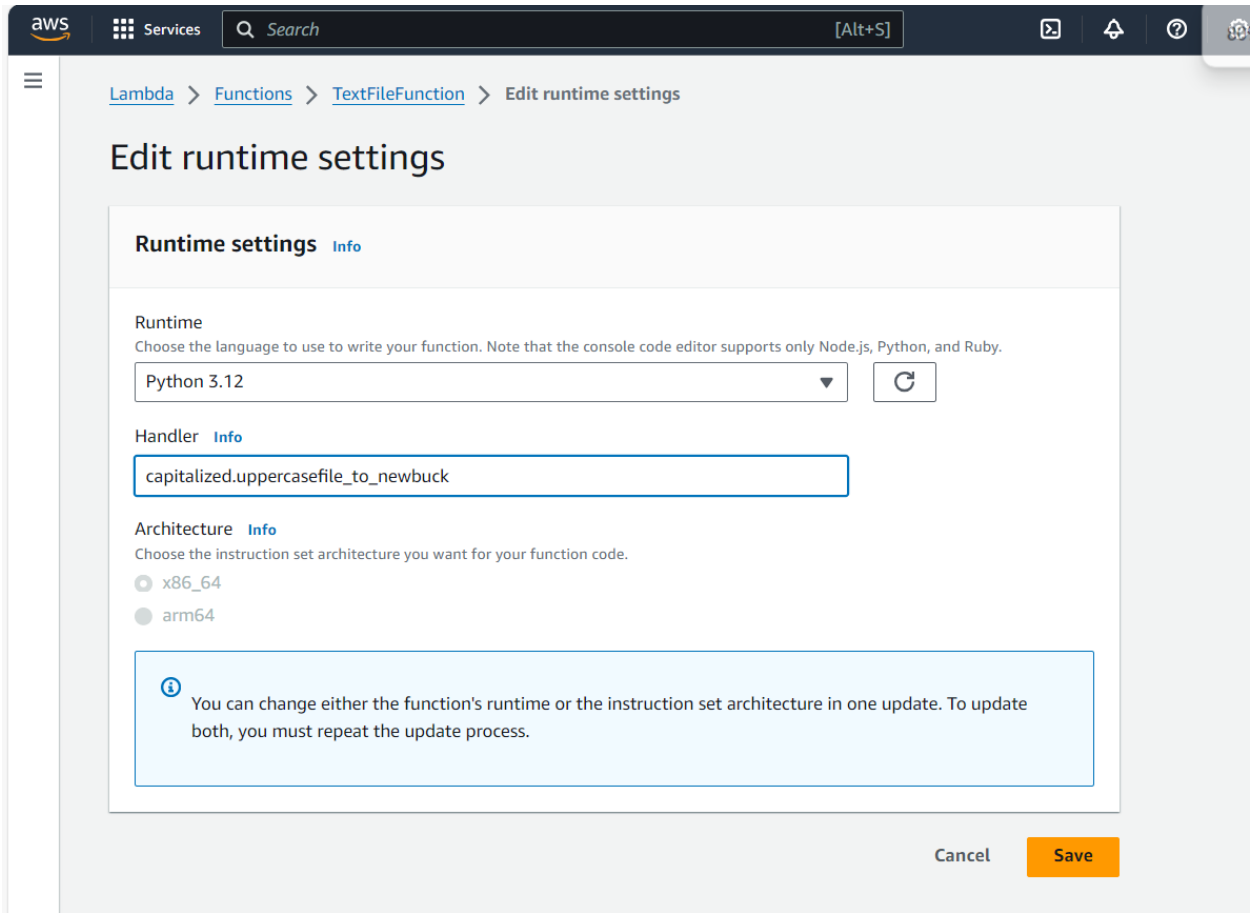




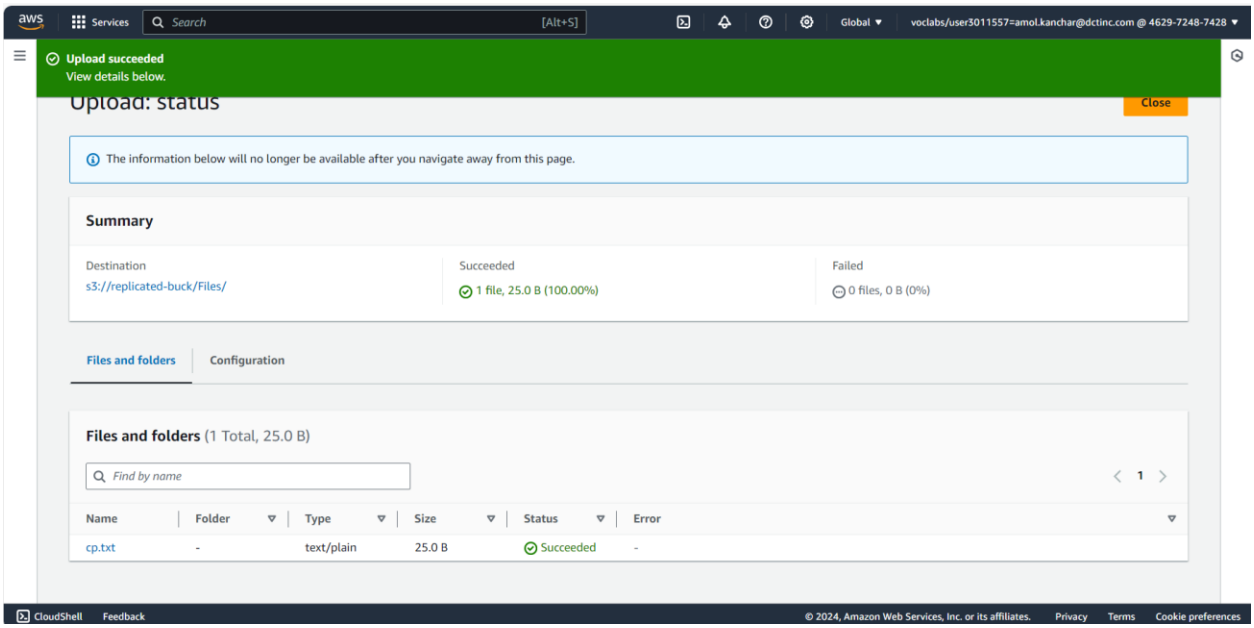
Final Output

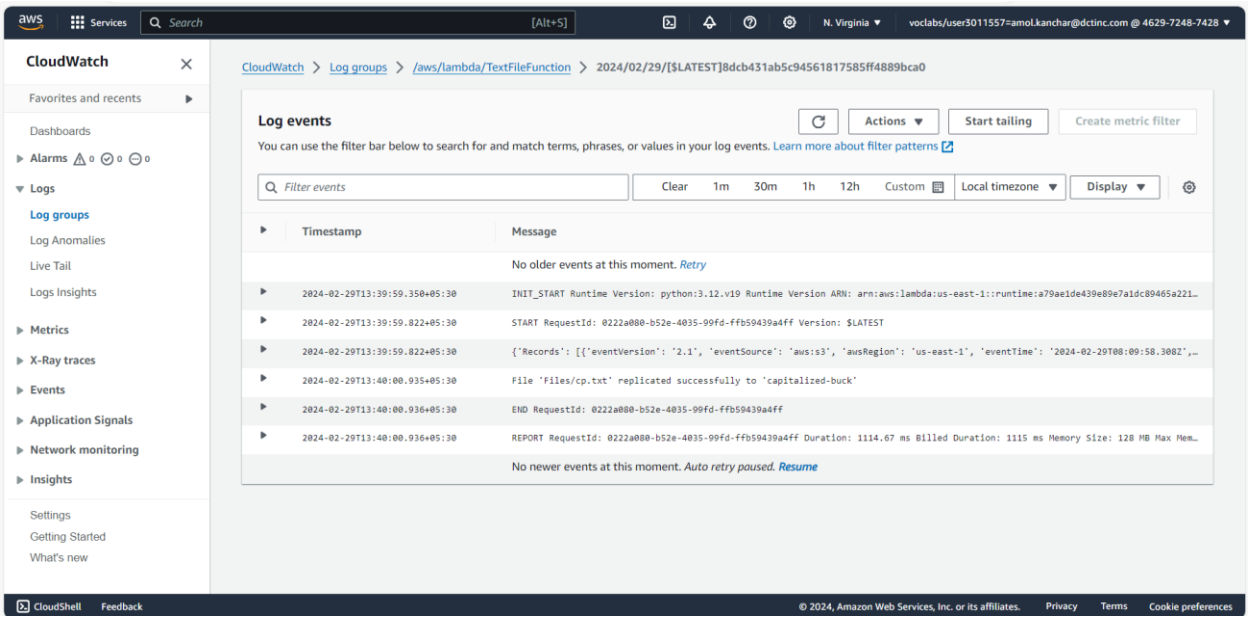


Now editing runtime before triggering :-



Uploading file in s3:-





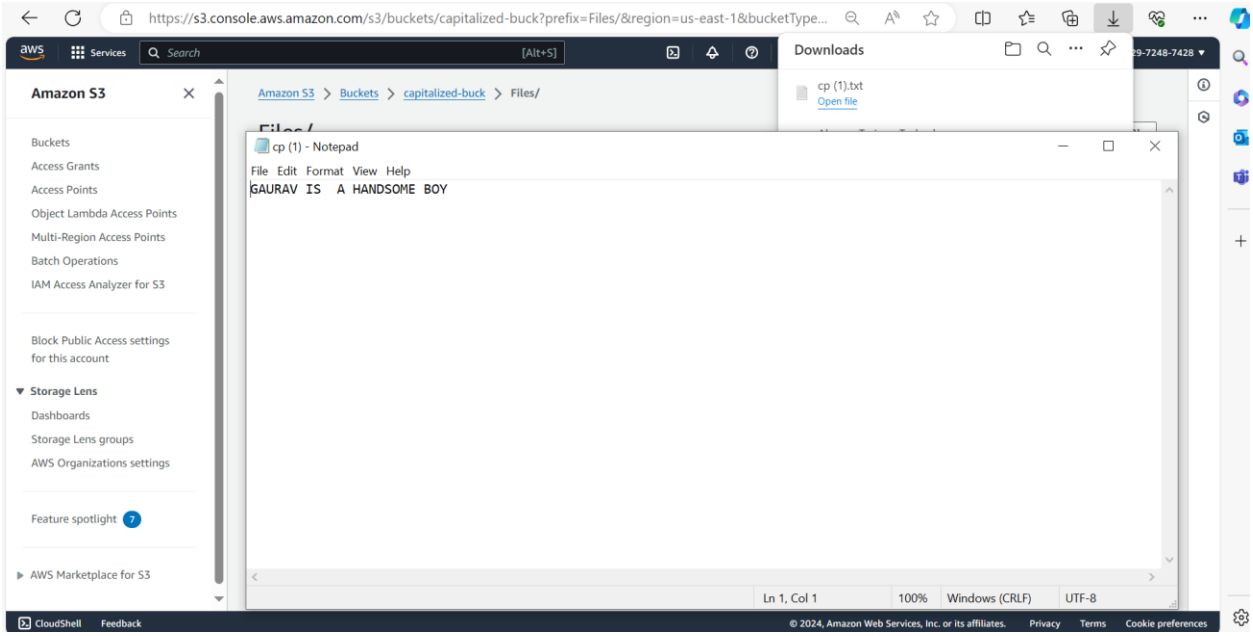
File before:-

cp - Notepad

File Edit Format View Help

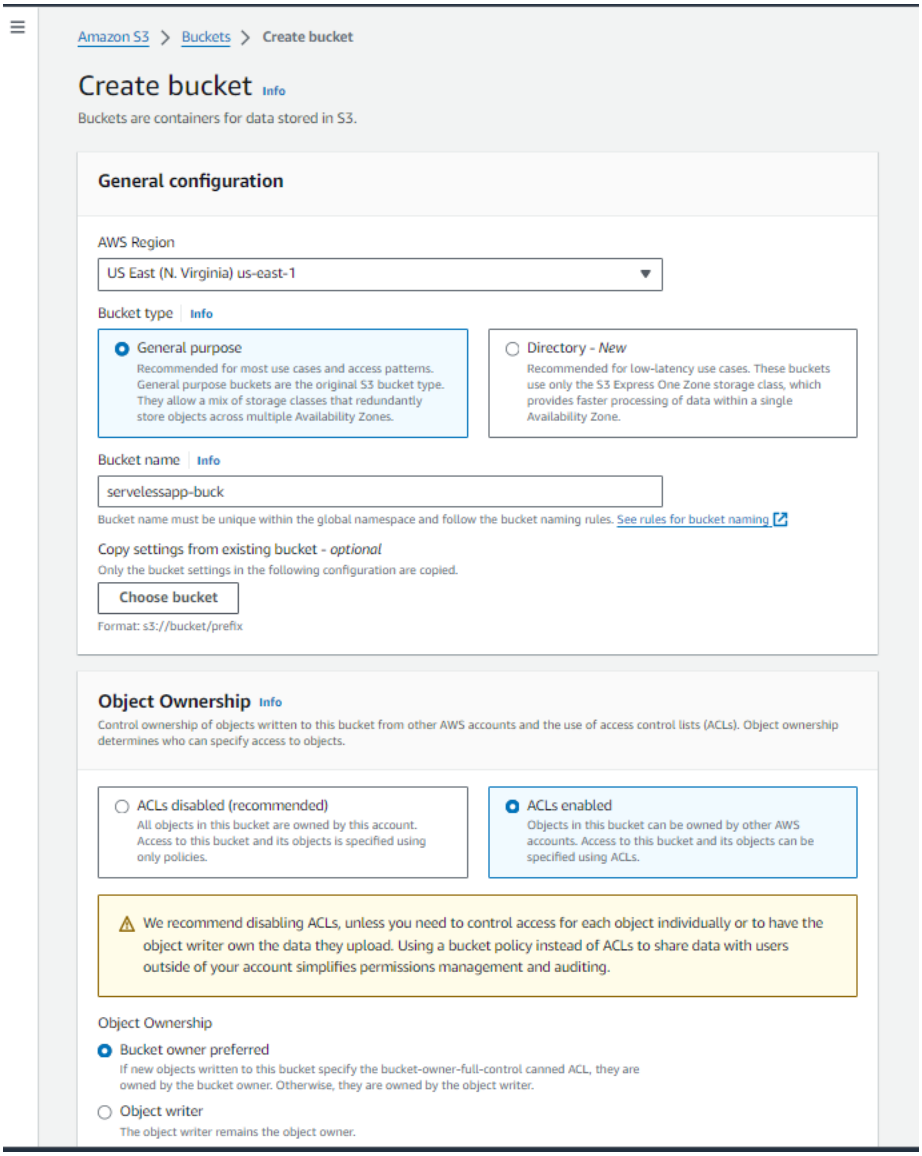
gaurav is a handsome boy

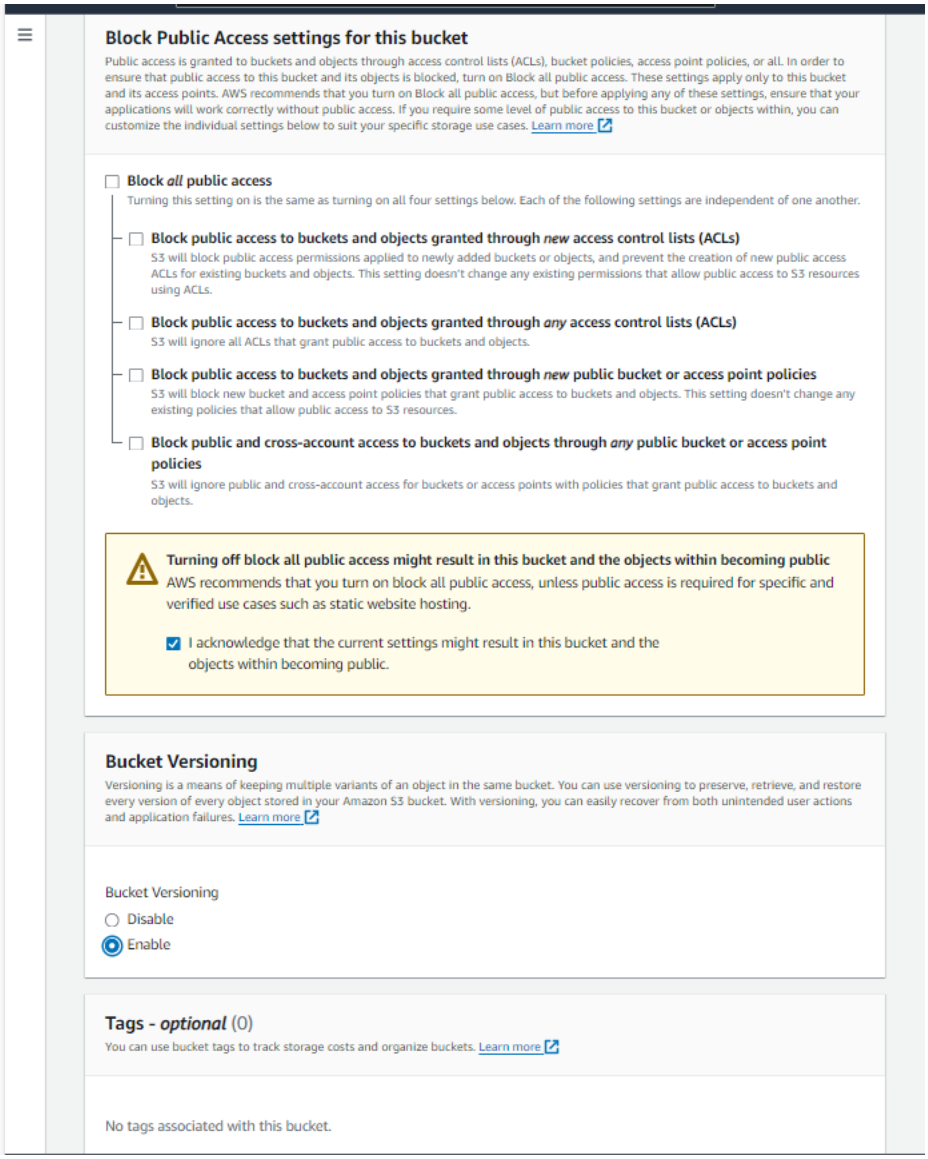
File After:-


https://s3.console.aws.amazon.com/s3/buckets/capitalized-buck?prefix=Files/&region=us-east-1&bucketType...
aws
Services
Search
[Alt+S]
Downloads
cp (1).txt
Open file
Amazon S3
Buckets
Access Grants
Access Points
Object Lambda Access Points
Multi-Region Access Points
Batch Operations
IAM Access Analyzer for S3
Block Public Access settings for this account
Storage Lens
Dashboards
Storage Lens groups
AWS Organizations settings
Feature spotlight
AWS Marketplace for S3
Amazon S3 > Buckets > capitalized-buck > Files/
cp (1) - Notepad
File Edit Format View Help
GAURAV IS A HANDSOME BOY
Ln 1, Col 1
100%
Windows (CRLF)
UTF-8
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

Q1) Building a Serverless Web Application

Creating S3 bucket





Block Public Access settings for this bucket

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 this bucket and its 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 this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases. Learn more

- **Block *all* public access**
  Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.
  - **Block public access to buckets and objects granted through *new* access control lists (ACLs)**
    S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.
  - **Block public access to buckets and objects granted through *any* access control lists (ACLs)**
    S3 will ignore all ACLs that grant public access to buckets and objects.
  - **Block public access to buckets and objects granted through *new* public bucket or access point policies**
    S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.
  - **Block public and cross-account access to buckets and objects through *any* public bucket or access point policies**
    S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

Turning off block all public access might result in this bucket and the objects within becoming public
AWS recommends that you turn on block all public access, unless public access is required for specific and verified use cases such as static website hosting.

I acknowledge that the current settings might result in this bucket and the objects within becoming public.

Bucket Versioning

Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. Learn more

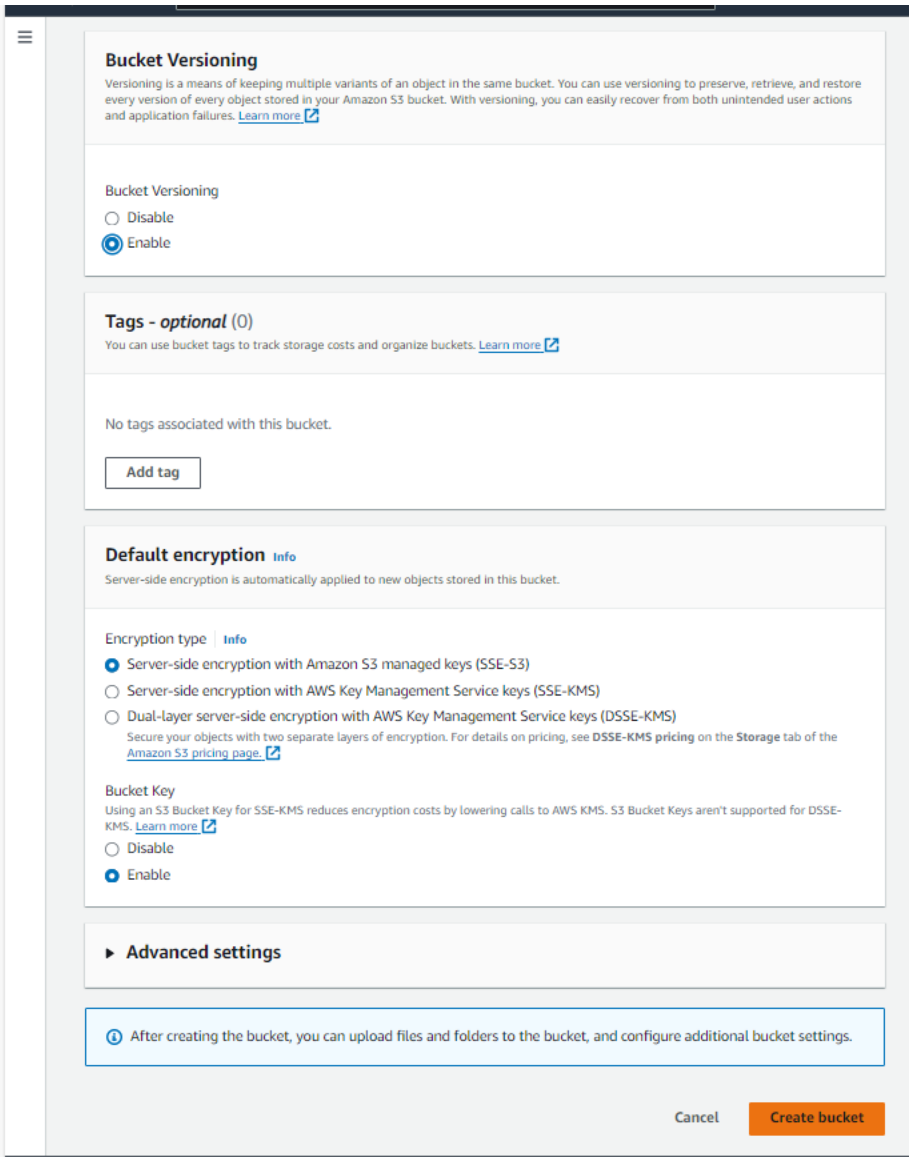
Bucket Versioning

- Disable
- Enable

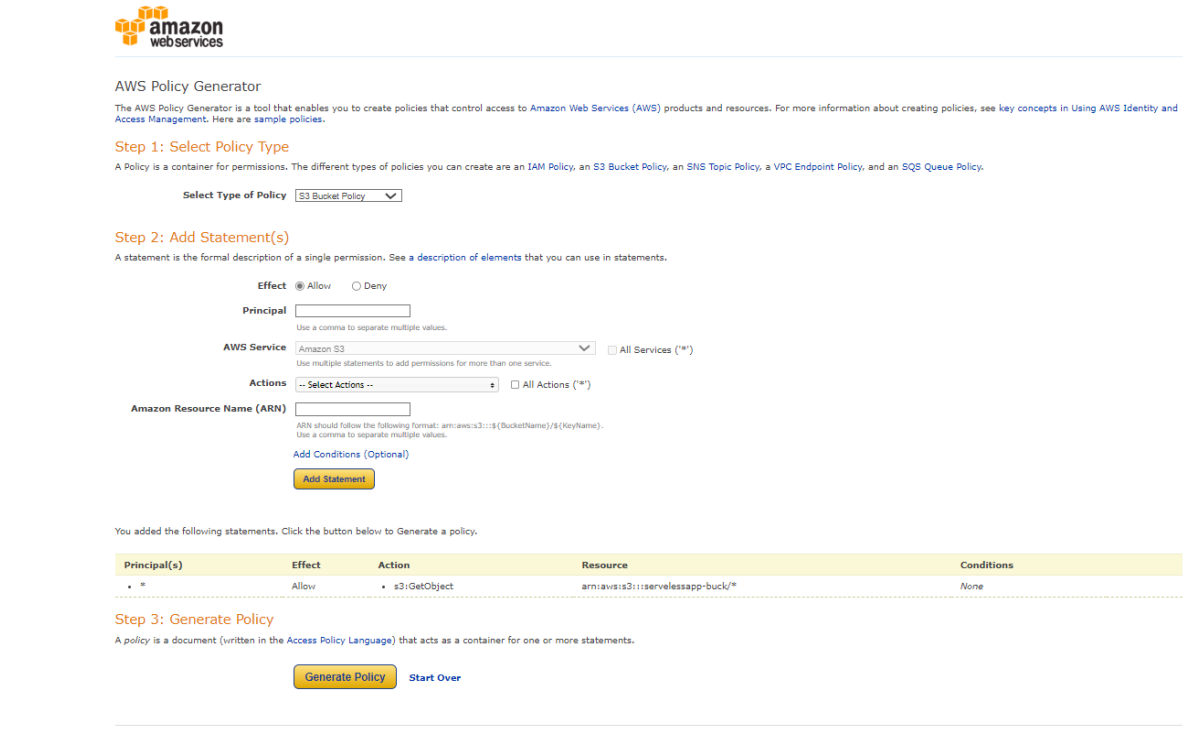
Tags - *optional* (0)

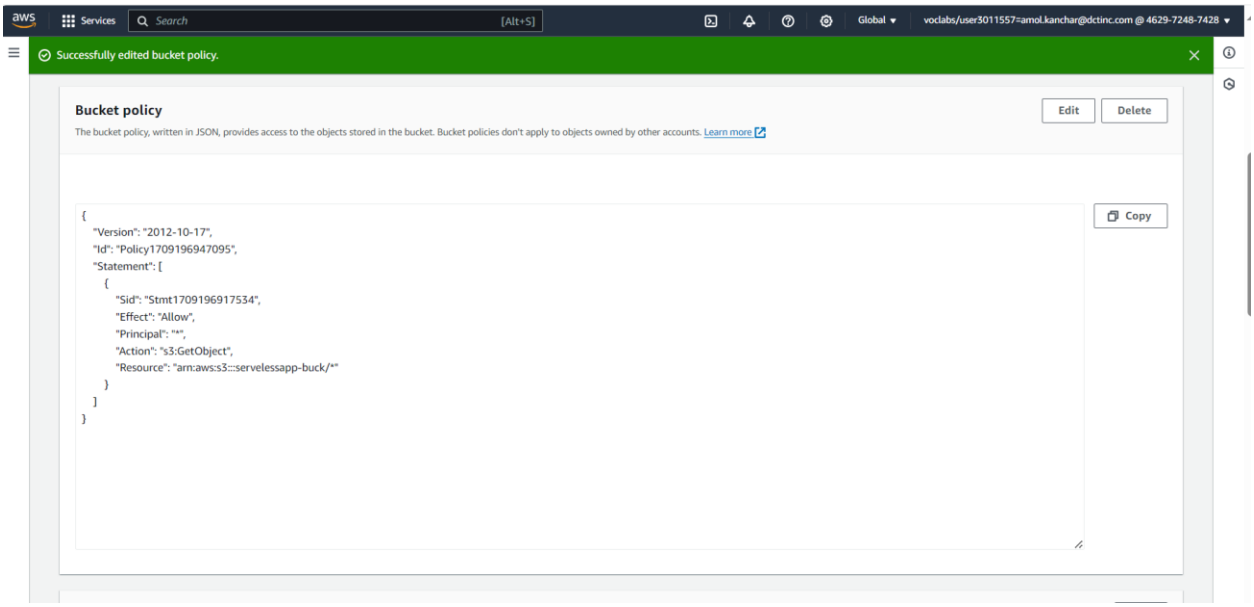
You can use bucket tags to track storage costs and organize buckets. Learn more

No tags associated with this bucket.

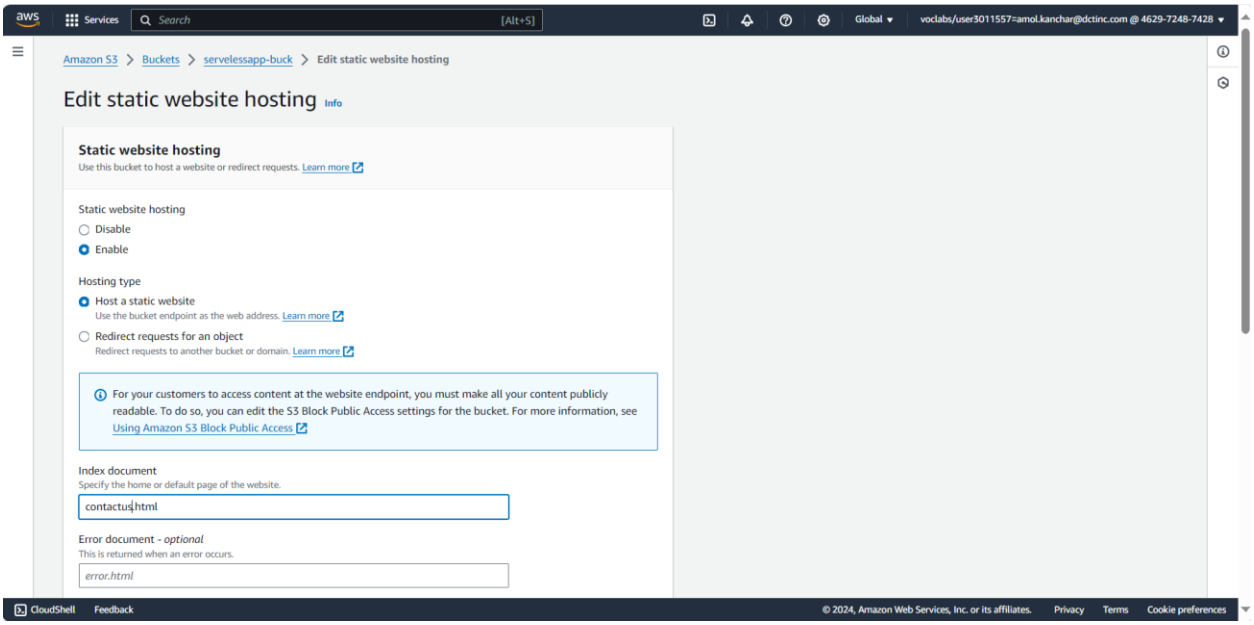

Bucket Versioning
Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. Learn more
Bucket Versioning
Disable
Enable
Tags - optional (0)
You can use bucket tags to track storage costs and organize buckets. Learn more
No tags associated with this bucket.
Add tag
Default encryption Info
Server-side encryption is automatically applied to new objects stored in this bucket.
Encryption type Info
Server-side encryption with Amazon S3 managed keys (SSE-S3)
Server-side encryption with AWS Key Management Service keys (SSE-KMS)
Dual-layer server-side encryption with AWS Key Management Service keys (DSSE-KMS)
Secure your objects with two separate layers of encryption. For details on pricing, see DSSE-KMS pricing on the Storage tab of the Amazon S3 pricing page.
Bucket Key
Using an S3 Bucket Key for SSE-KMS reduces encryption costs by lowering calls to AWS KMS. S3 Bucket Keys aren't supported for DSSE-KMS. Learn more
Disable
Enable
Advanced settings
After creating the bucket, you can upload files and folders to the bucket, and configure additional bucket settings.
Cancel
Create bucket

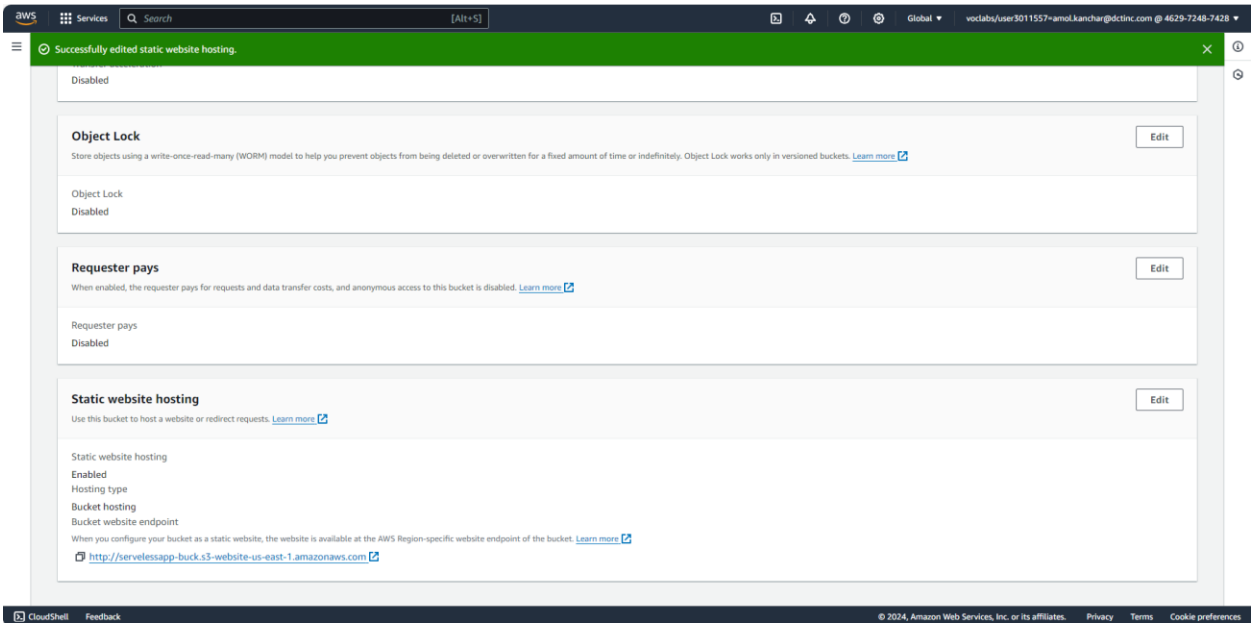
Adding policy get object



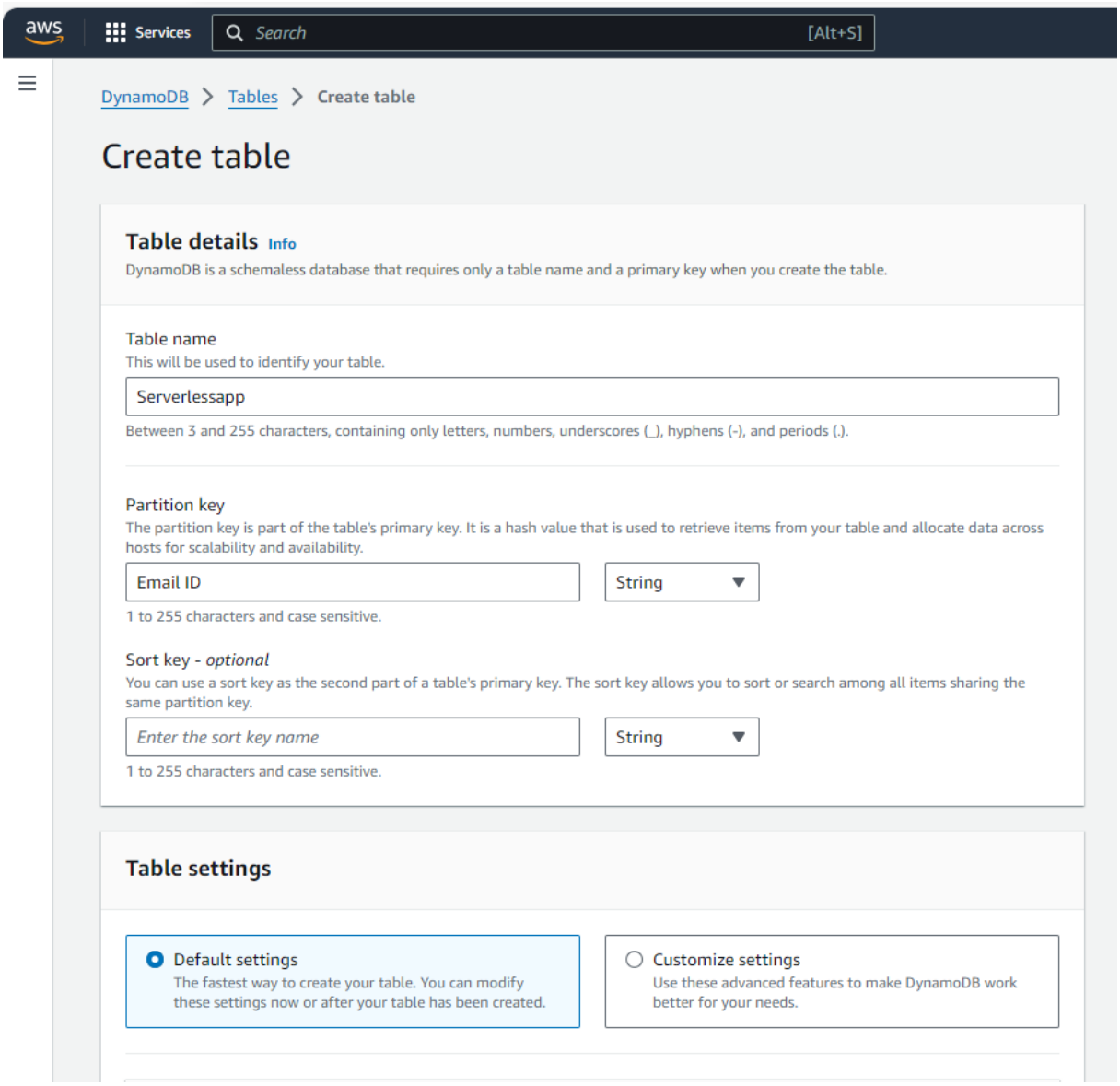


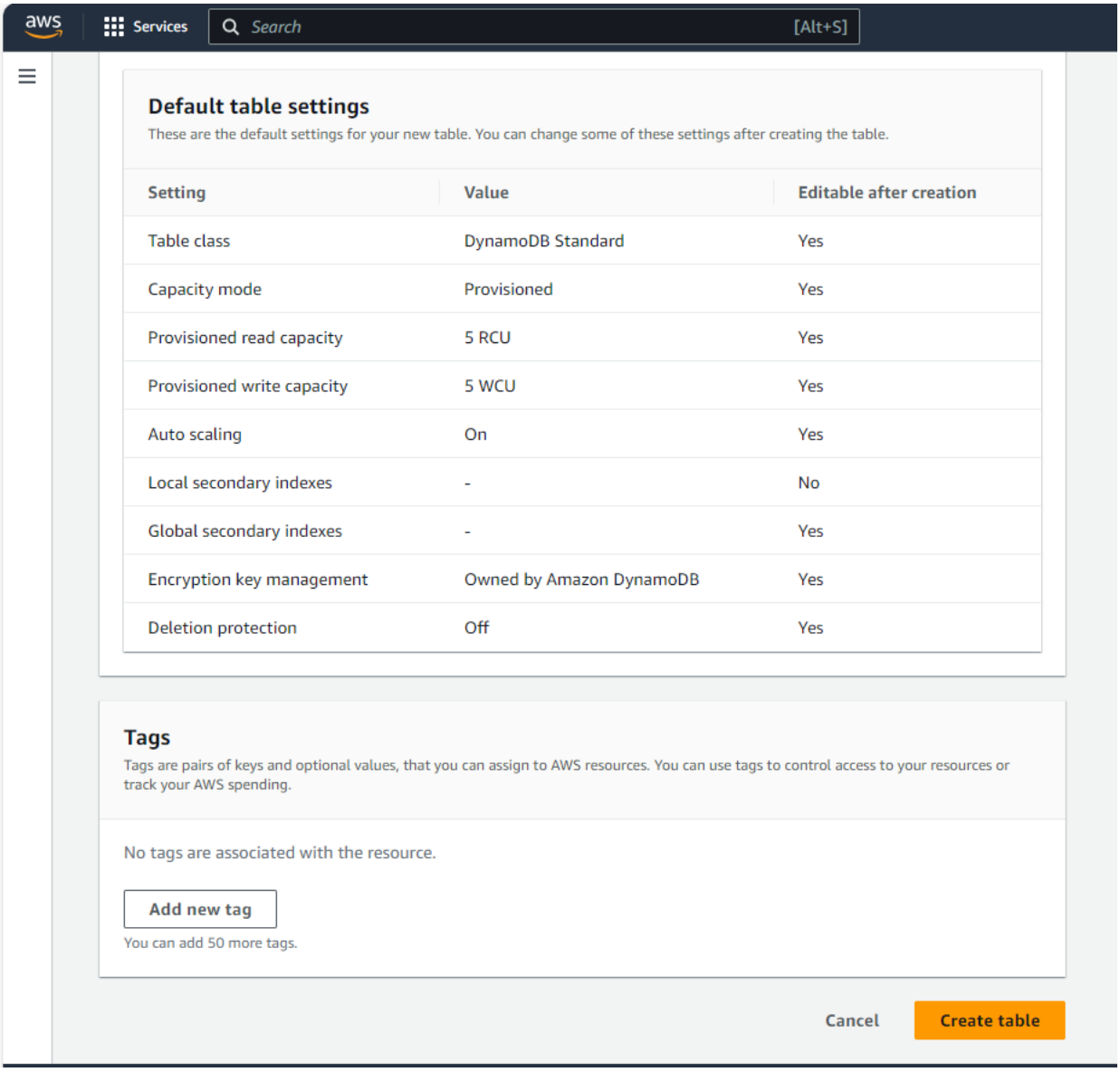
Enabling Static Website hosting

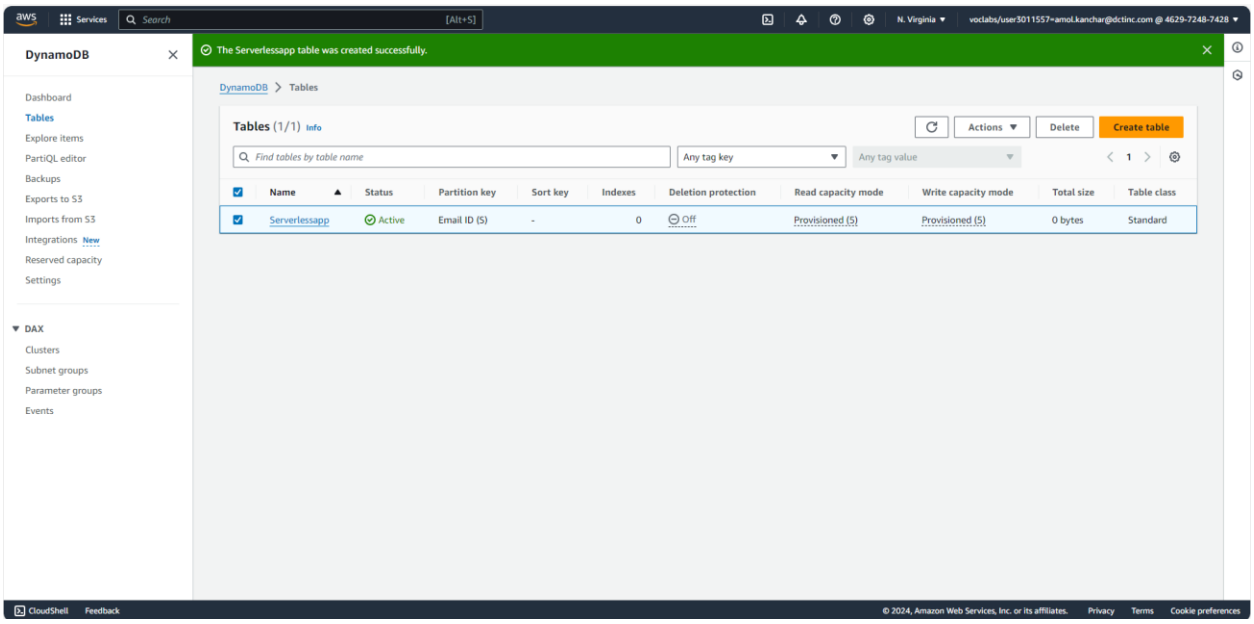




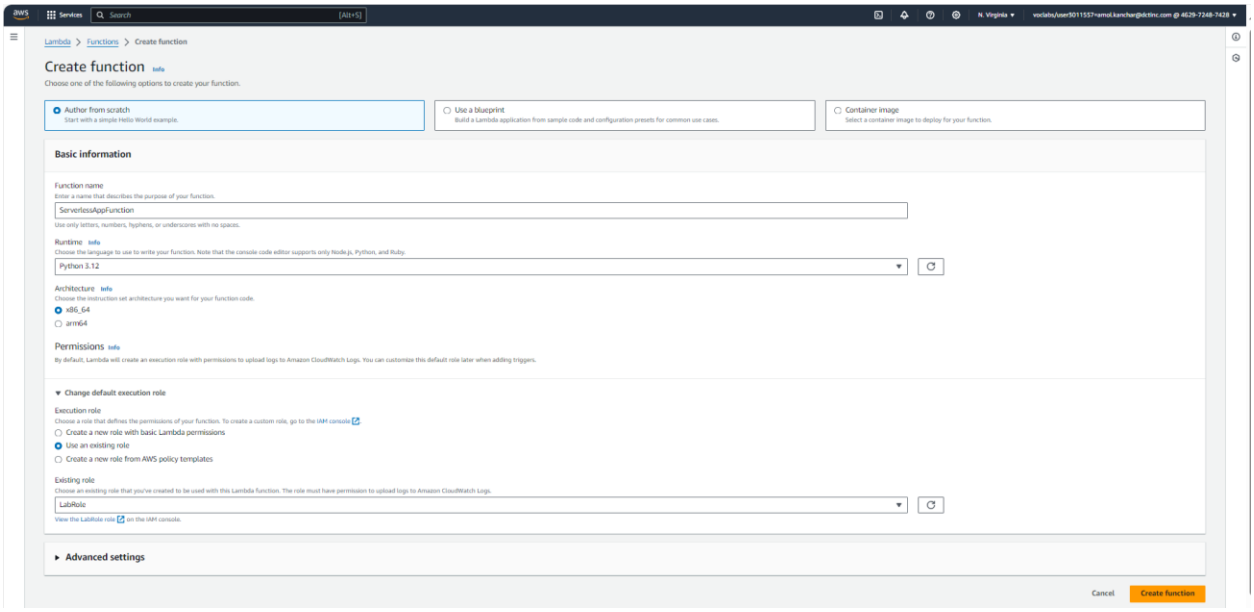
Creating DynamoDB table

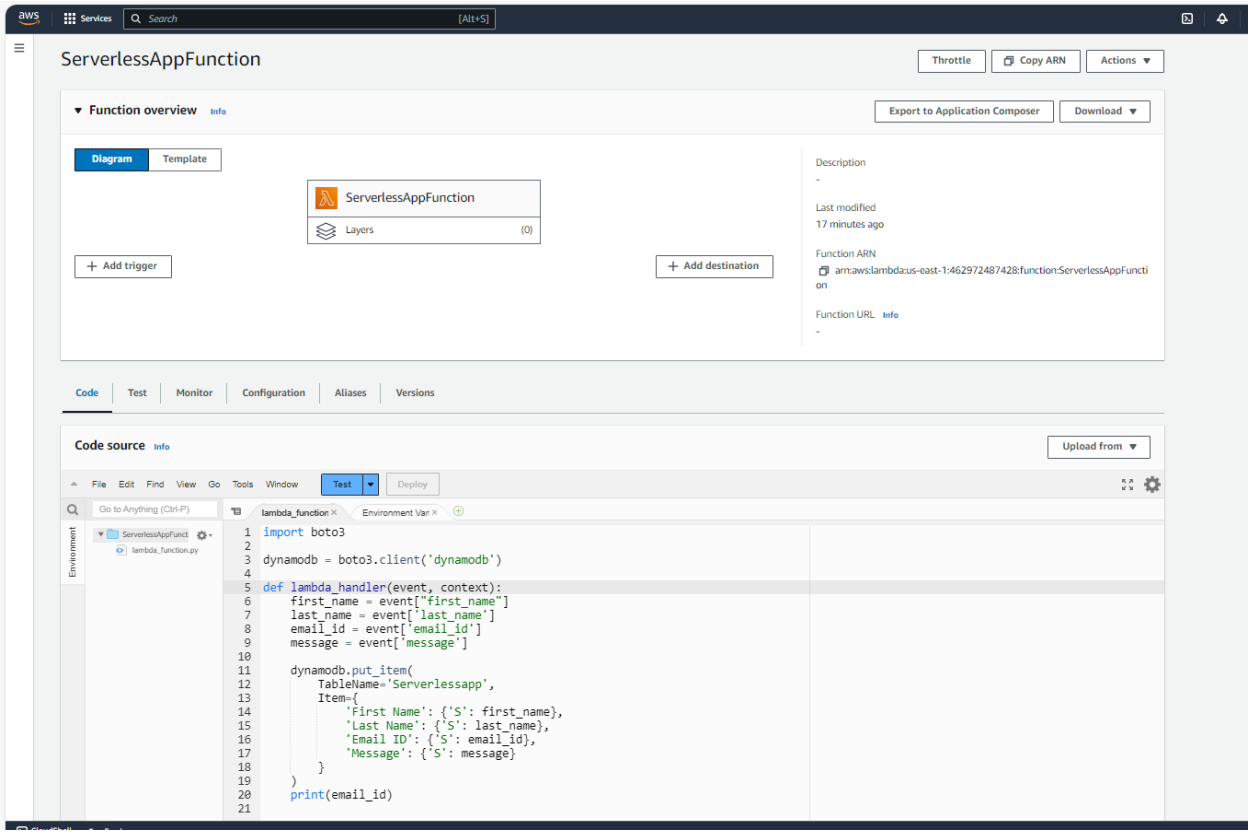



aws
Services
Search
[Alt+S]
Default table settings
These are the default settings for your new table. You can change some of these settings after creating the table.
Setting
Value
Editable after creation
Table class
DynamoDB Standard
Yes
Capacity mode
Provisioned
Yes
Provisioned read capacity
5 RCU
Yes
Provisioned write capacity
5 WCU
Yes
Auto scaling
On
Yes
Local secondary indexes
-
No
Global secondary indexes
-
Yes
Encryption key management
Owned by Amazon DynamoDB
Yes
Deletion protection
Off
Yes
Tags
Tags are pairs of keys and optional values, that you can assign to AWS resources. You can use tags to control access to your resources or track your AWS spending.
No tags are associated with the resource.
Add new tag
You can add 50 more tags.
Cancel
Create table

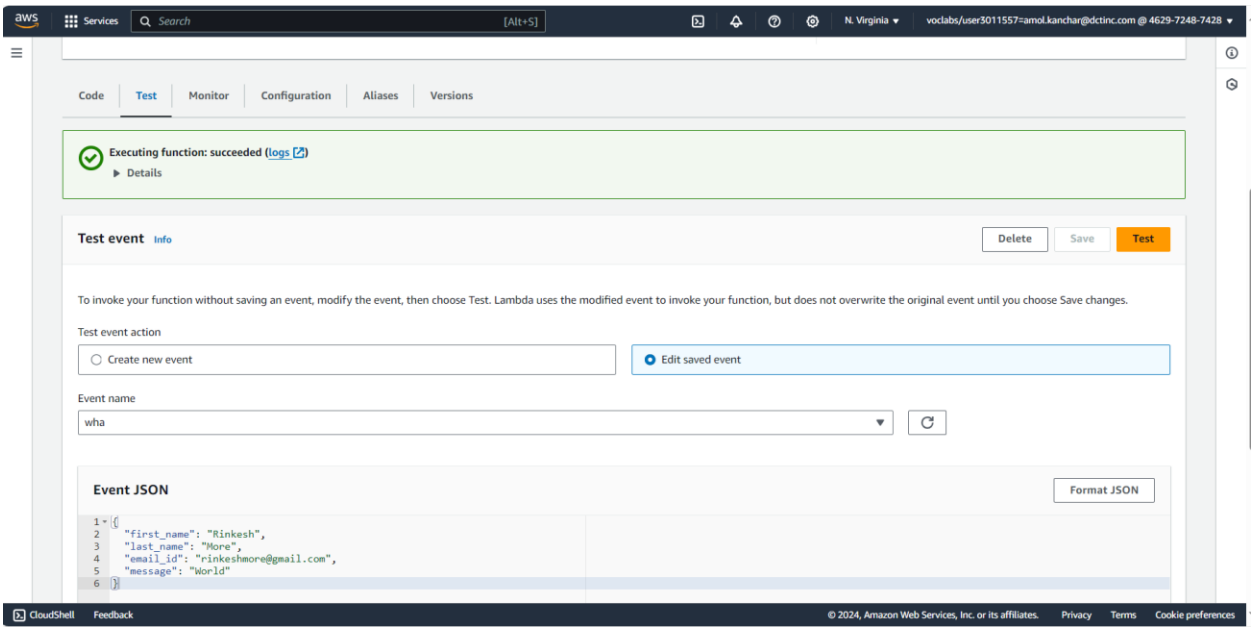


Creating Function

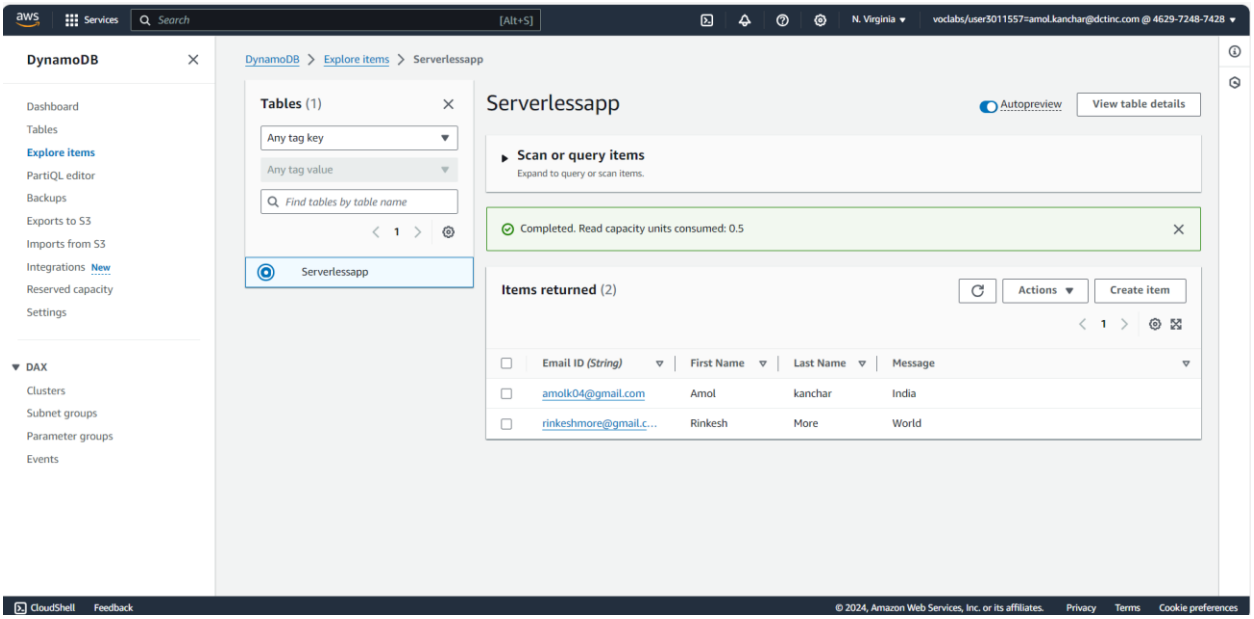




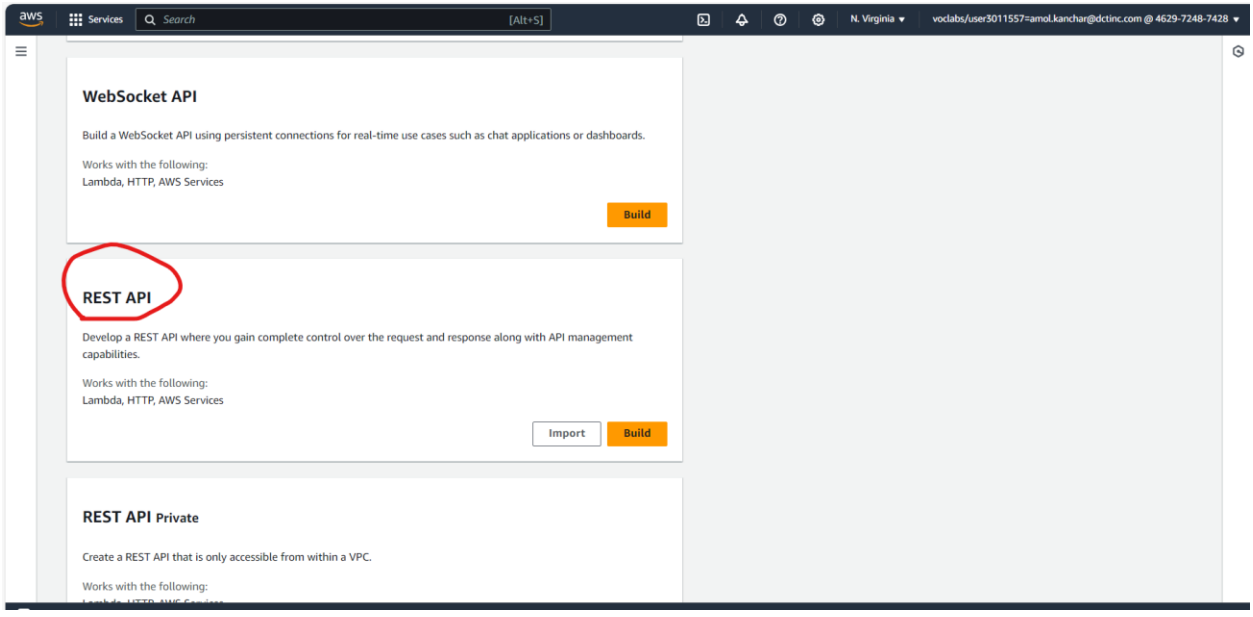
Testing lambda function and it will reflect the values in dynamodb table

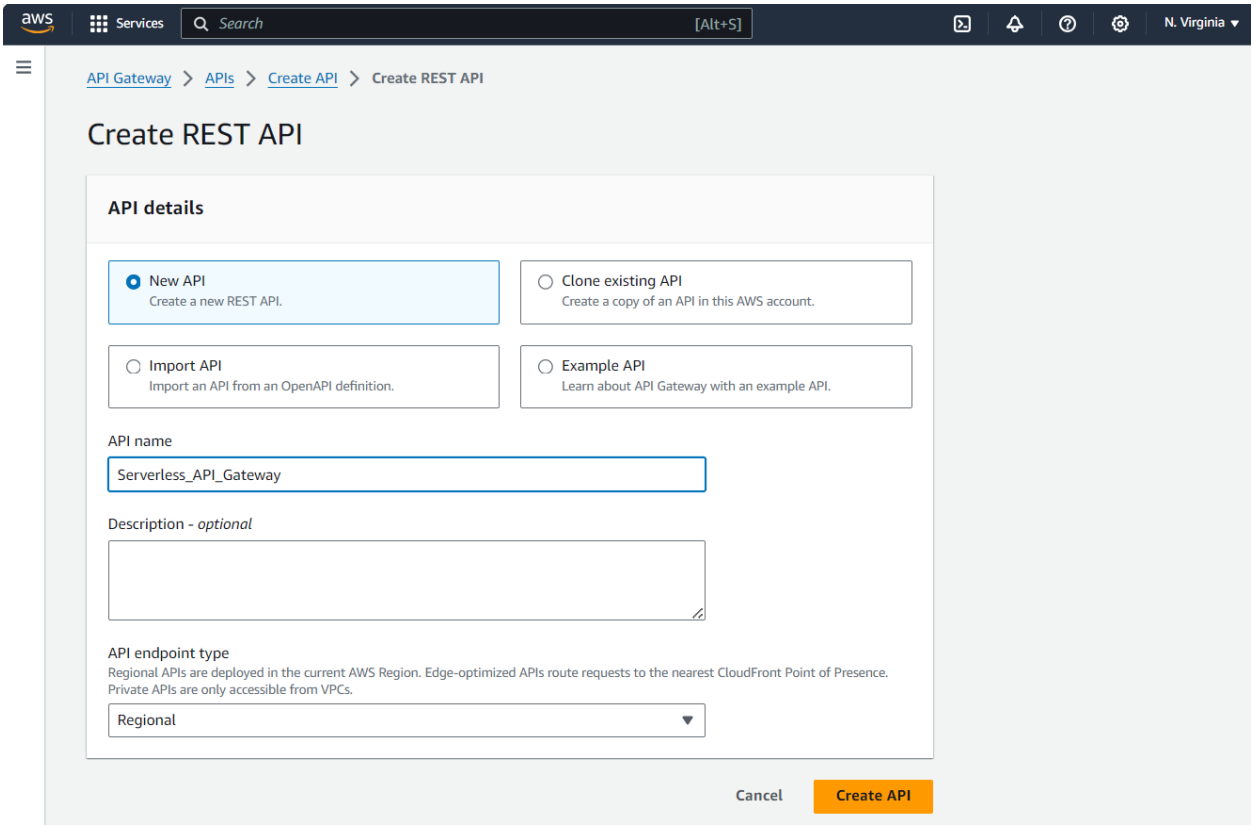


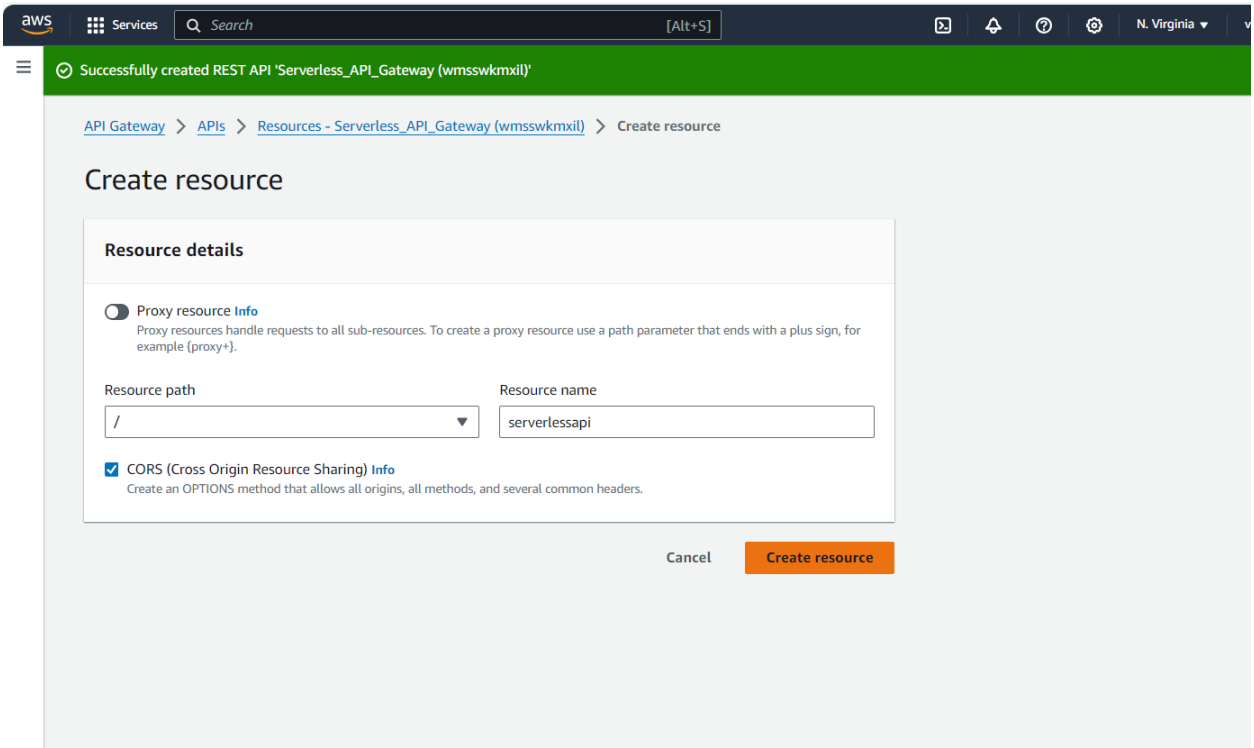
Like this



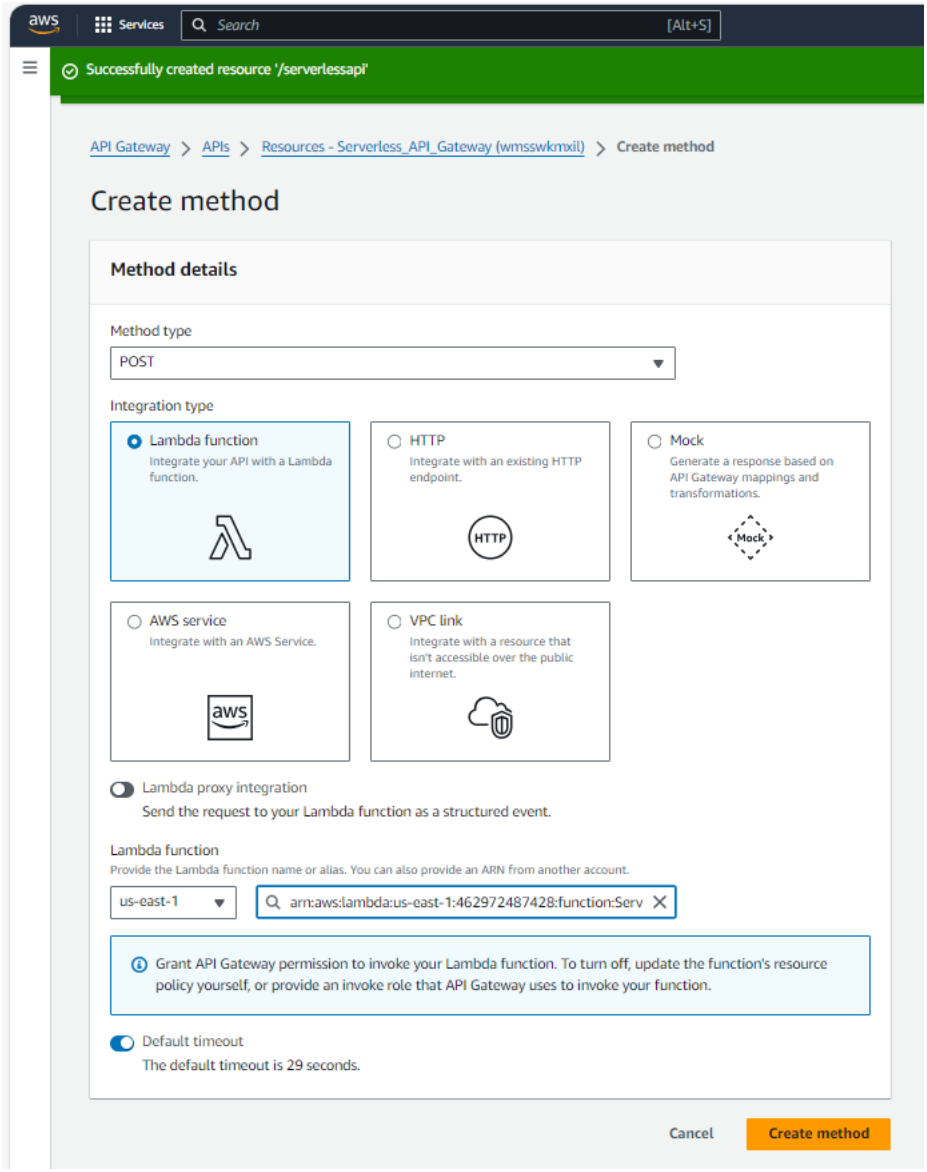
Creating API gateway

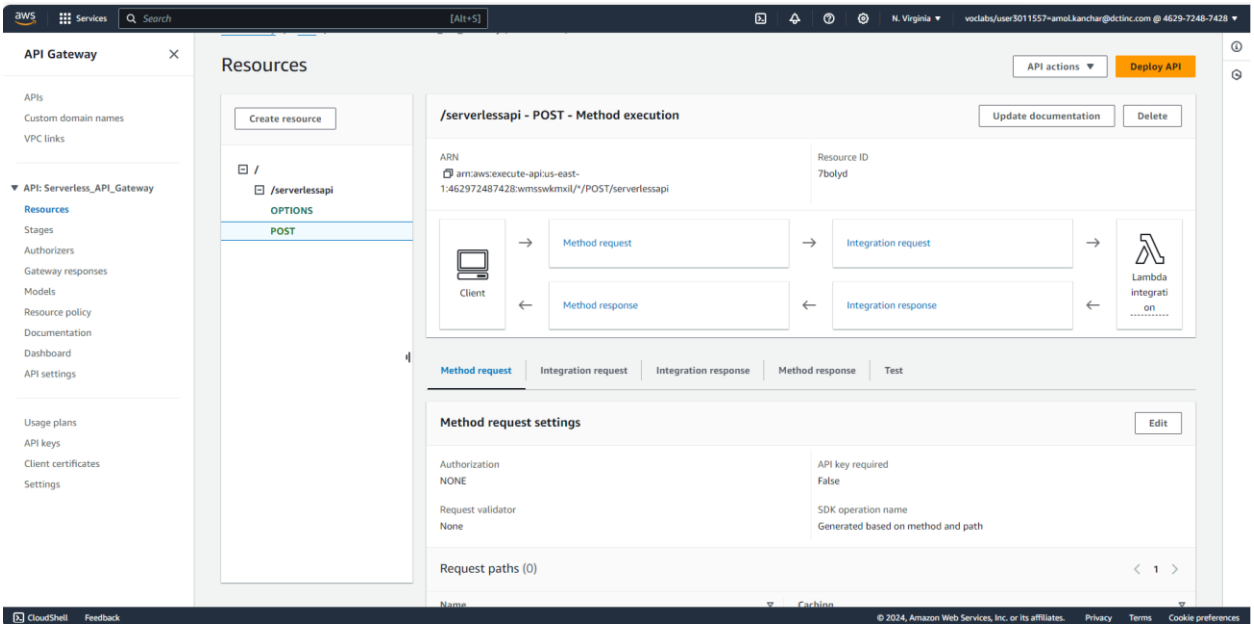



aws
Services
Search
[Alt+S]
N. Virginia
API Gateway > APIs > Create API > Create REST API
Create REST API
API details
New API
Create a new REST API.
Clone existing API
Create a copy of an API in this AWS account.
Import API
Import an API from an OpenAPI definition.
Example API
Learn about API Gateway with an example API.
API name
Serverless_API_Gateway
Description - optional
API endpoint type
Regional APIs are deployed in the current AWS Region. Edge-optimized APIs route requests to the nearest CloudFront Point of Presence. Private APIs are only accessible from VPCs.
Regional
Cancel
Create API

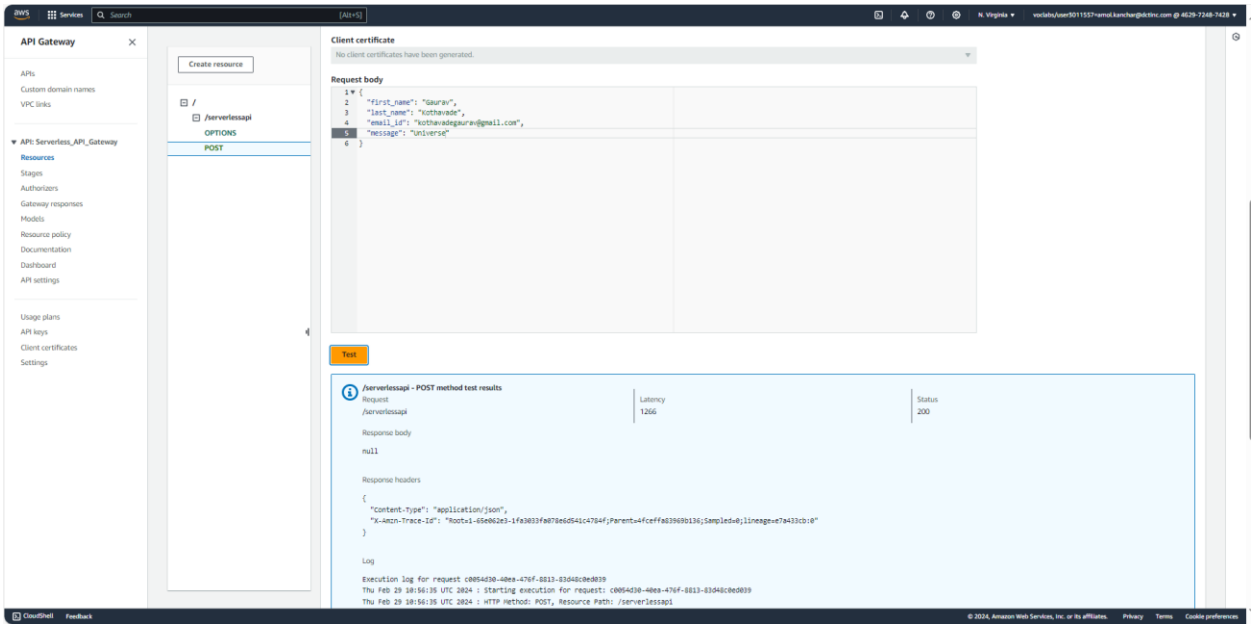

aws
Services
Search
[Alt+S]
N. Virginia
Successfully created REST API 'Serverless_API_Gateway (wmsswkmxil)'
API Gateway > APIs > Resources - Serverless_API_Gateway (wmsswkmxil) > Create resource
Create resource
Resource details
Proxy resource Info
Proxy resources handle requests to all sub-resources. To create a proxy resource use a path parameter that ends with a plus sign, for example {proxy+}.
Resource path
/
Resource name
serverlessapi
CORS (Cross Origin Resource Sharing) Info
Create an OPTIONS method that allows all origins, all methods, and several common headers.
Cancel
Create resource

Creating Post method

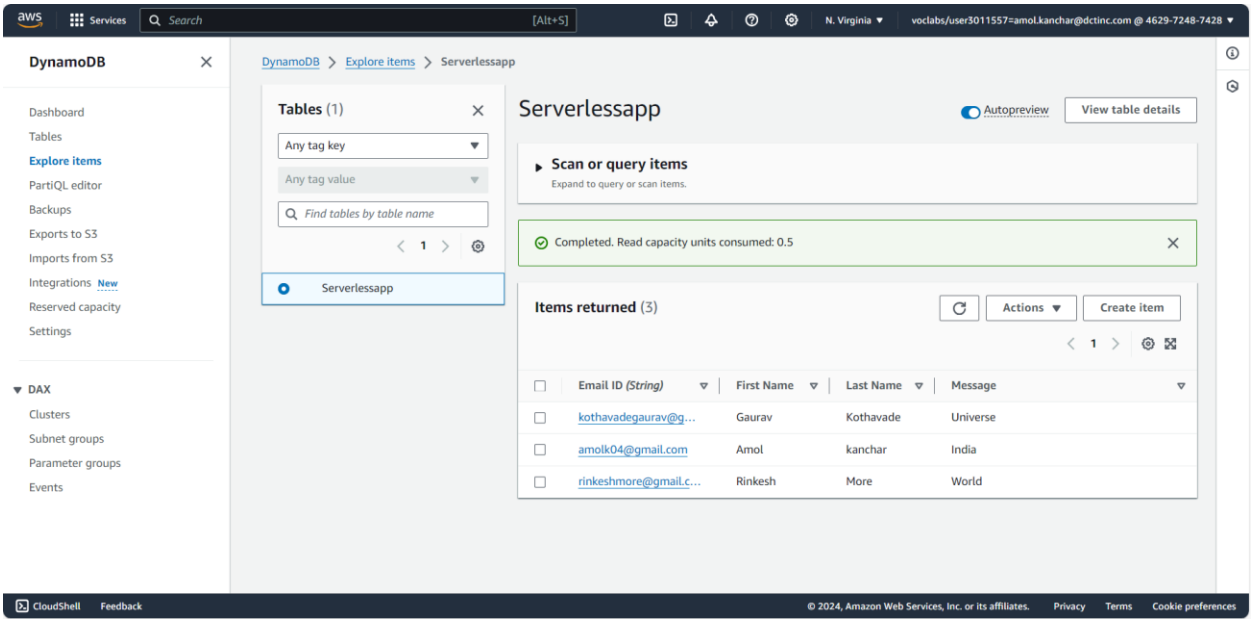


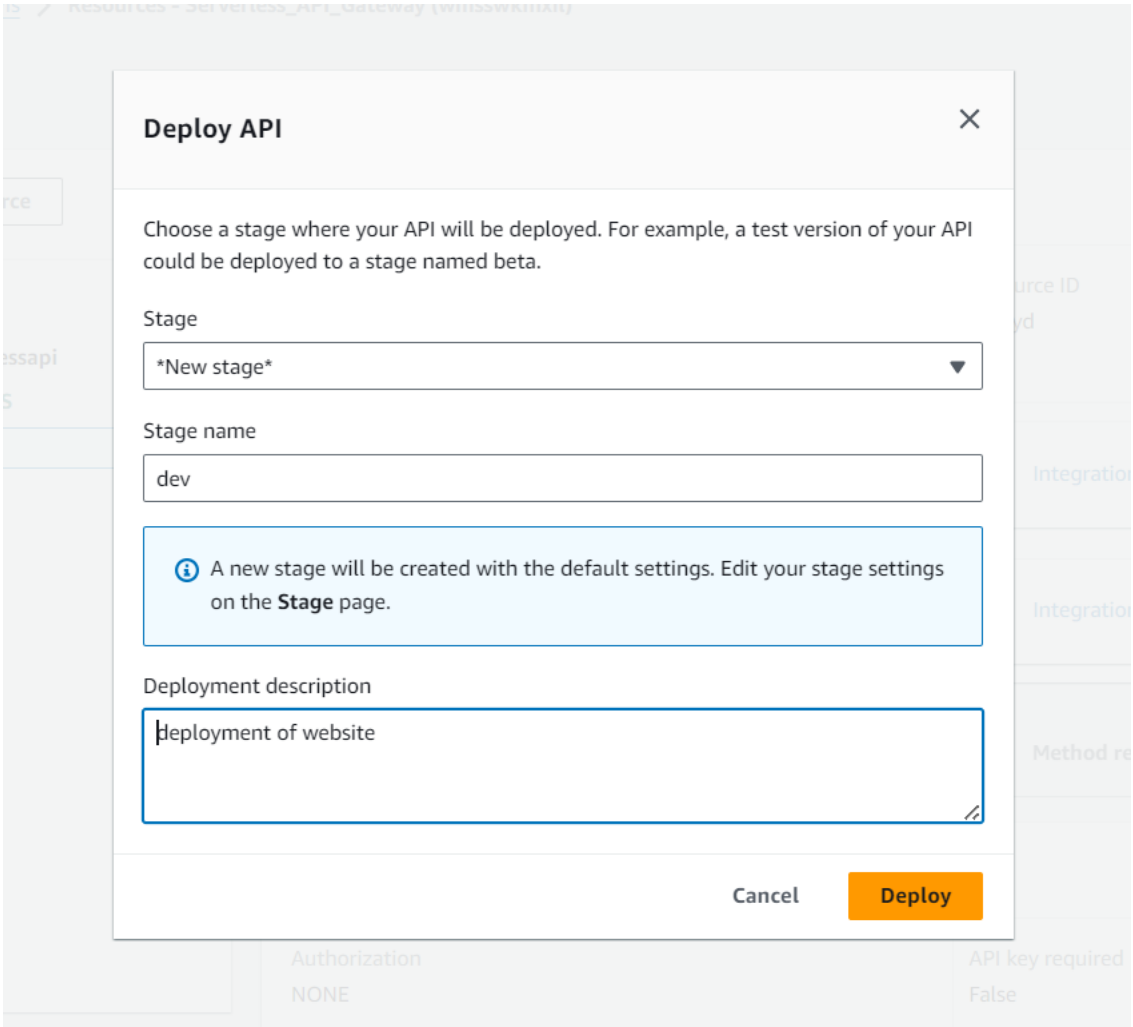


Testing post method

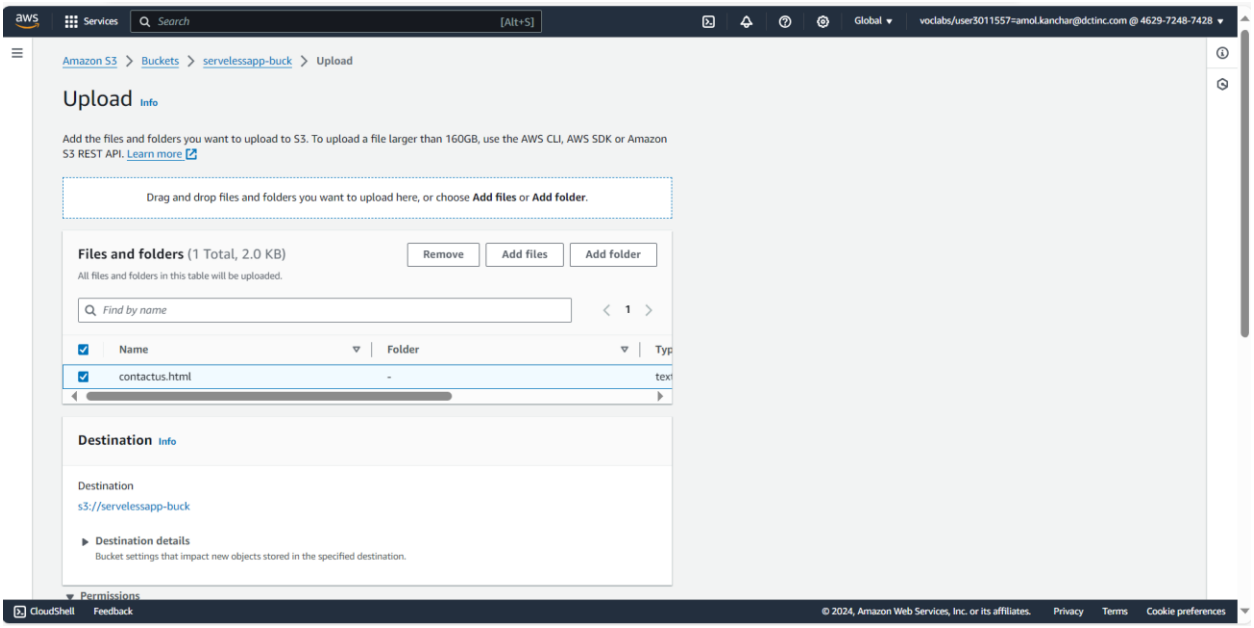


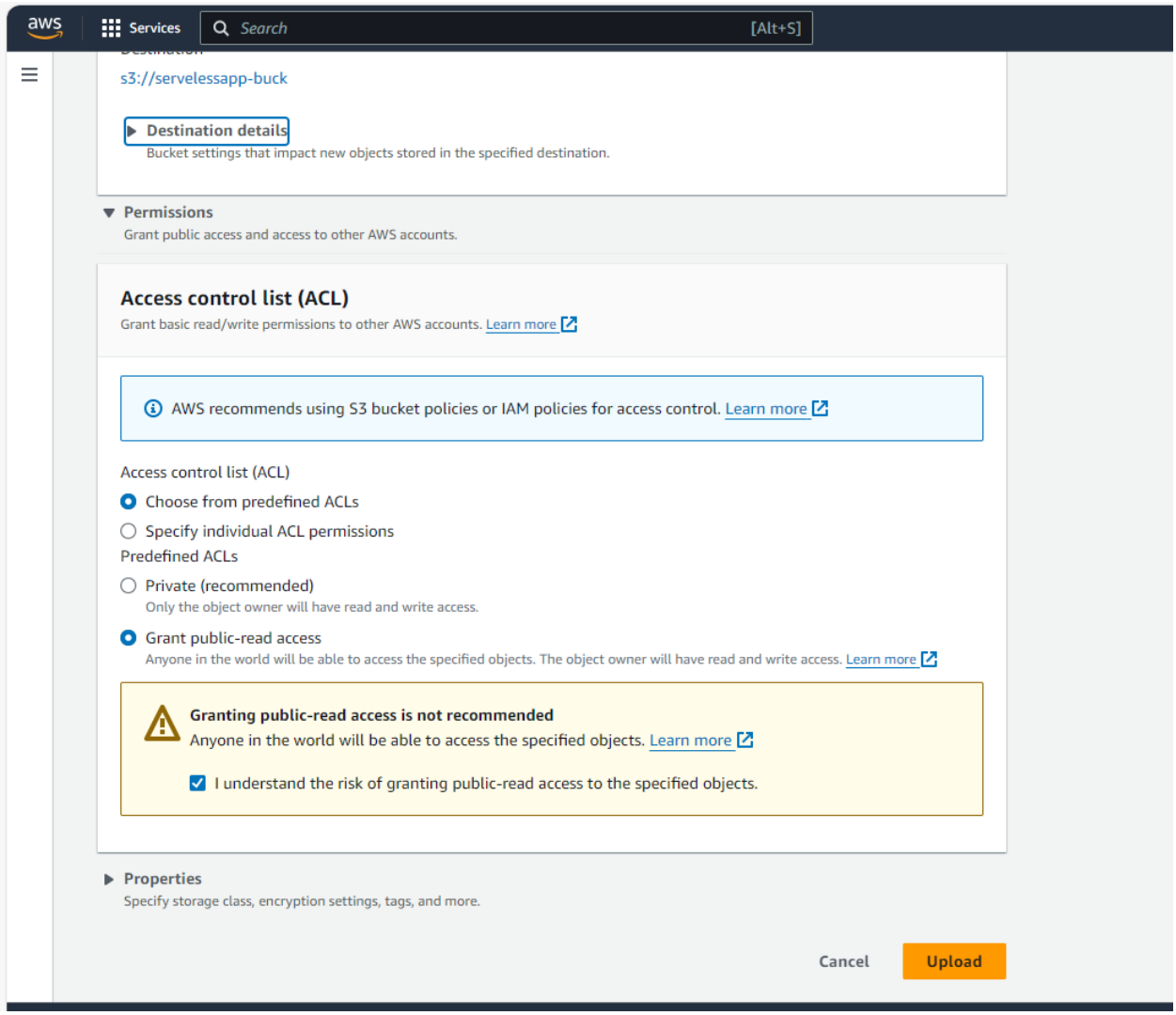
It reflects in the dynamodb table

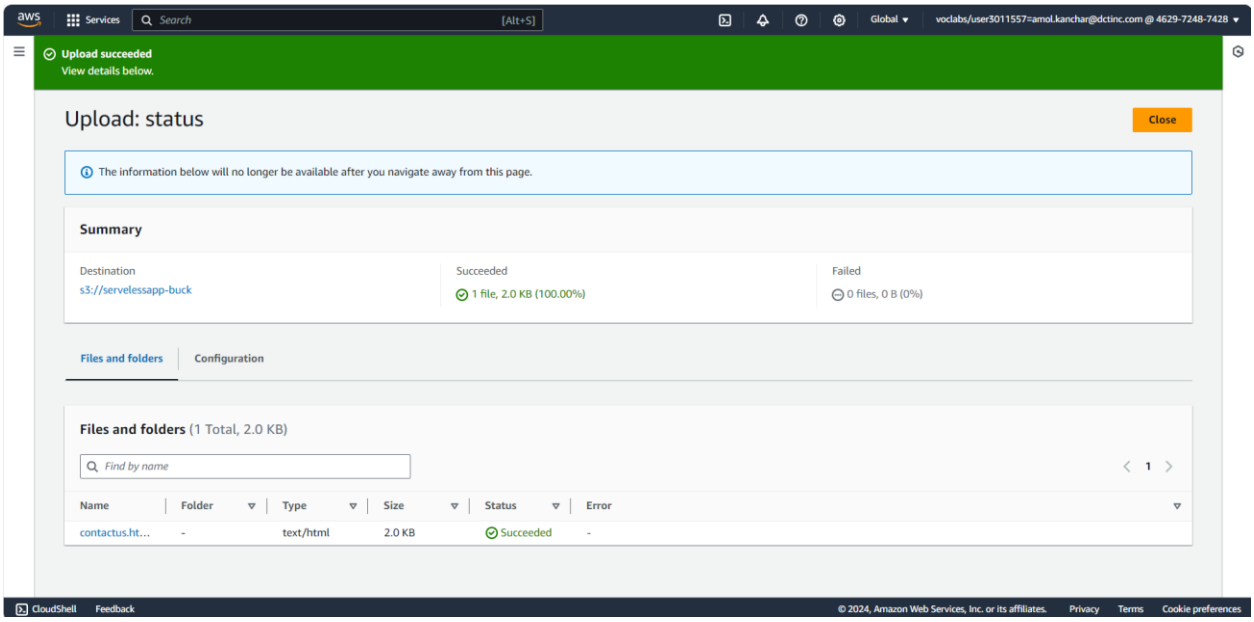



Deploy API
Choose a stage where your API will be deployed. For example, a test version of your API could be deployed to a stage named beta.
Stage
New stage
Stage name
dev
A new stage will be created with the default settings. Edit your stage settings on the Stage page.
Deployment description
deployment of website
Cancel
Deploy

Uploading html file




aws
Services
Search
[Alt+S]
s3://servelessapp-buck
Destination details
Bucket settings that impact new objects stored in the specified destination.
Permissions
Grant public access and access to other AWS accounts.
Access control list (ACL)
Grant basic read/write permissions to other AWS accounts. Learn more
AWS recommends using S3 bucket policies or IAM policies for access control. Learn more
Access control list (ACL)
Choose from predefined ACLs
Specify individual ACL permissions
Predefined ACLs
Private (recommended)
Only the object owner will have read and write access.
Grant public-read access
Anyone in the world will be able to access the specified objects. The object owner will have read and write access. Learn more
Granting public-read access is not recommended
Anyone in the world will be able to access the specified objects. Learn more
I understand the risk of granting public-read access to the specified objects.
Properties
Specify storage class, encryption settings, tags, and more.
Cancel
Upload


aws
Services
Search
[Alt+S]
Global
voclabs/user3011557=amol.kanchar@dctinc.com @ 4629-7248-7428
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://servelessapp-buck
Succeeded
1 file, 2.0 KB (100.00%)
Failed
0 files, 0 B (0%)
Files and folders
Configuration
Files and folders (1 Total, 2.0 KB)
Find by name
1
Name
Folder
Type
Size
Status
Error
contactus.ht...
-
text/html
2.0 KB
Succeeded
-
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences