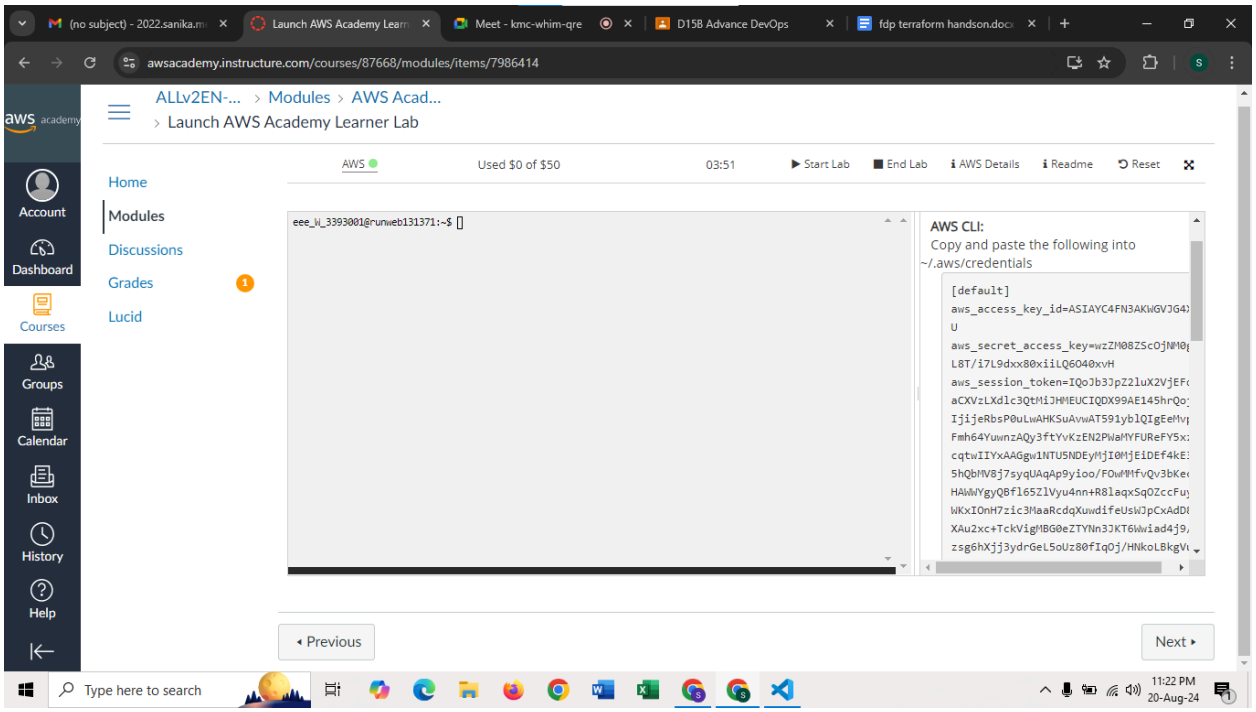
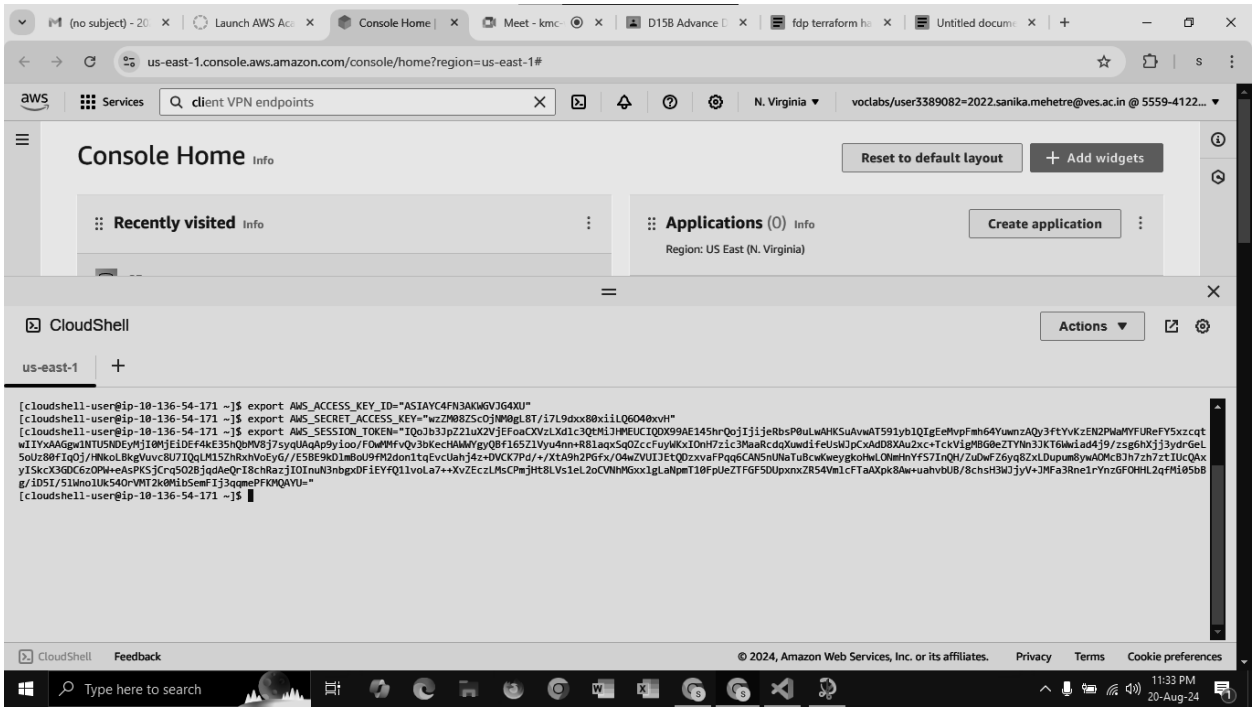
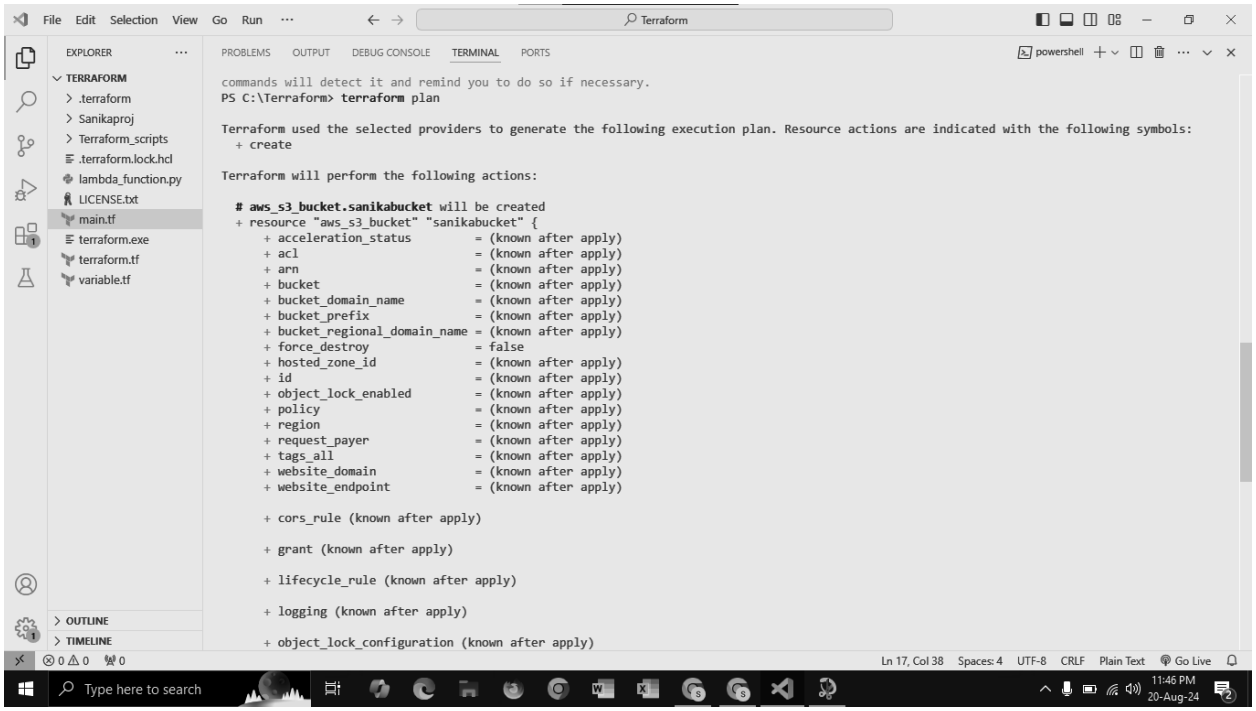
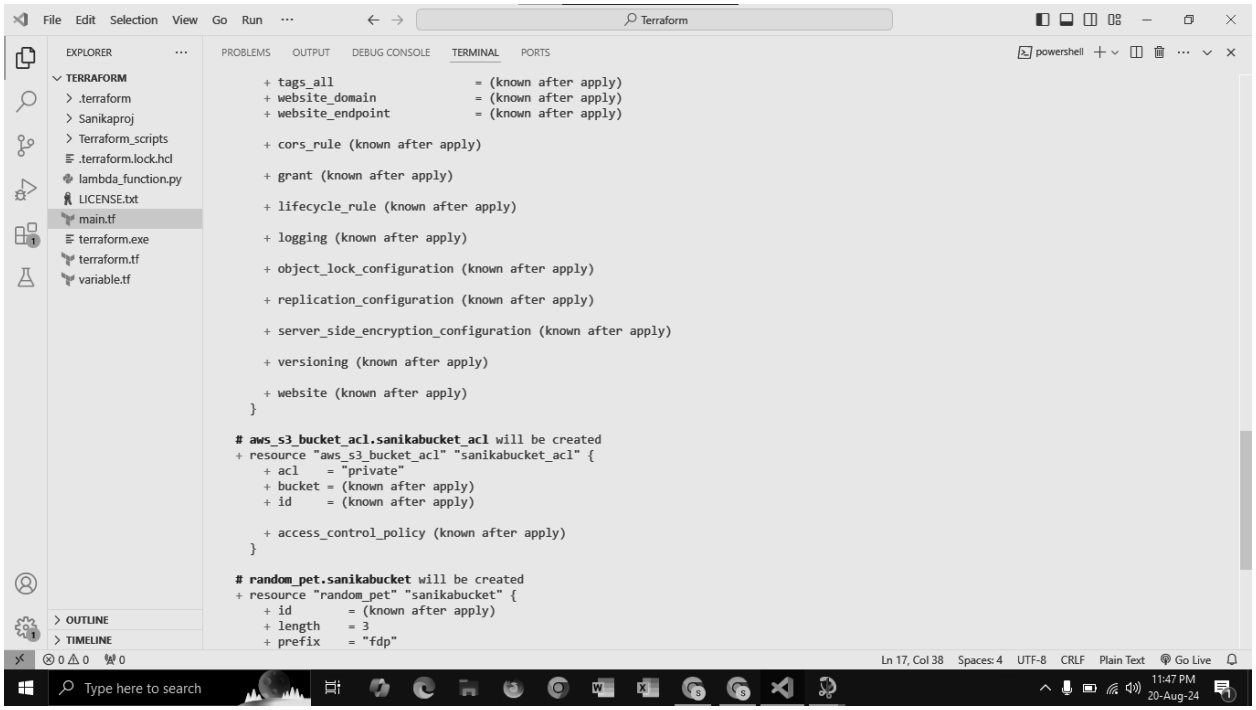

awsacademy.instructure.com/courses/87668/modules/items/7986414
ALLv2EN-... › Modules › AWS Acad...
Launch AWS Academy Learner Lab
Used $0 of $50
03:51
Start Lab
End Lab
AWS Details
Readme
Reset
Home
Modules
Discussions
Grades
Lucid
Account
Dashboard
Courses
Groups
Calendar
Inbox
History
Help
eee_W_3393001@runweb131371:~$
AWS CLI:
Copy and paste the following into ~/.aws/credentials
[default]
aws_access_key_id=ASIAYC4FN3AKWGVJG4
aws_secret_access_key=wzZM08ZScOjNM0
aws_session_token=IQoJb3JpZ2luX2VjEF
Previous
Next
Type here to search
11:22 PM
20-Aug-24


us-east-1.console.aws.amazon.com/console/home?region=us-east-1#
Services
client VPN endpoints
N. Virginia
voclabs/user3389082=2022.sanika.mehetre@ves.ac.in @ 5559-4122...
Console Home Info
Reset to default layout
Add widgets
Recently visited Info
Applications (0) Info
Region: US East (N. Virginia)
Create application
CloudShell
Actions
us-east-1
[cloudshell-user@ip-10-136-54-171 ~]$ export AWS_ACCESS_KEY_ID="ASIAYC4FN3AKWGVJG4XU"
[cloudshell-user@ip-10-136-54-171 ~]$ export AWS_SECRET_ACCESS_KEY="wzZM08ZScOjNM0gL8T/i7L9dxx80xiiLQ6O40xvH"
[cloudshell-user@ip-10-136-54-171 ~]$ export AWS_SESSION_TOKEN="IQoJb3JpZ2luX2VjEFoaCXVzLXd1c3QtMiJHMEUCIQDX99AE145hrQojIjijeRbsP0uLwAHKSuAvwAT591yblQIgEeMvpFmh64YuwnzAQy3ftYvKzEN2PWaMYFUReFY5xzcqt
Type here to search
11:33 PM
20-Aug-24

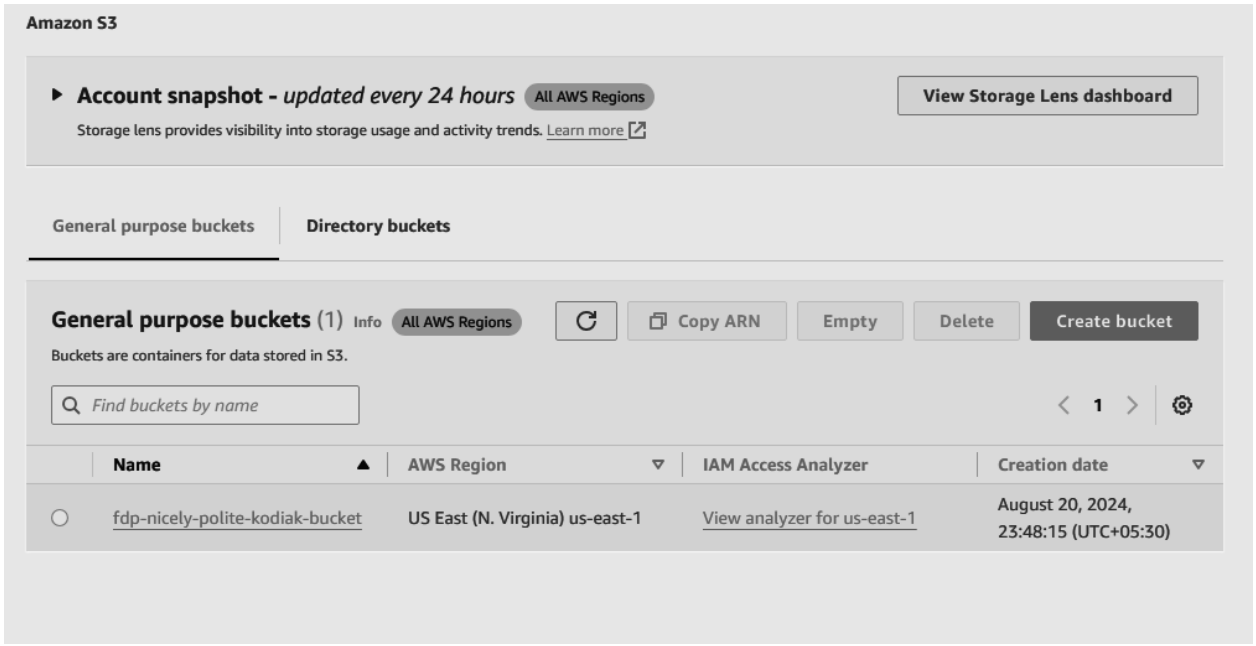
```
Initializing provider plugins...
- Finding latest version of hashicorp/aws...
- Finding latest version of hashicorp/random...
- Finding latest version of hashicorp/archive...
- Installing hashicorp/aws v5.63.1...
- Installed hashicorp/aws v5.63.1 (signed by HashiCorp)
- Installing hashicorp/random v3.6.2...
- Installed hashicorp/random v3.6.2 (signed by HashiCorp)
- Installing hashicorp/archive v2.5.0...
- Installed hashicorp/archive v2.5.0 (signed by HashiCorp)
Terraform has created a lock file .terraform.lock.hcl to record the provider
selections it made above. Include this file in your version control repository
so that Terraform can guarantee to make the same selections by default when
you run "terraform init" in the future.

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
PS C:\Terraform>
```






```
# aws_s3_bucket_acl.sanikabucket_acl will be created
+ resource "aws_s3_bucket_acl" "sanikabucket_acl" {
    + acl    = "private"
    + bucket = (known after apply)
    + id     = (known after apply)

    + access_control_policy (known after apply)
  }

# random_pet.sanikabucket will be created
+ resource "random_pet" "sanikabucket" {
    + id        = (known after apply)
    + length    = 3
    + prefix    = "fdp"
    + separator = "-"
  }

Plan: 3 to add, 0 to change, 0 to destroy.
```

```
terraform apply
random_pet.sanikabucket: Refreshing state... [id=fdp-nicely-polite-kodiak]
aws_s3_bucket.sanikabucket: Refreshing state... [id=fdp-nicely-polite-kodiak-bucket]

No changes. Your infrastructure matches the configuration.

Terraform has compared your real infrastructure against your configuration and found no differences, so no changes are needed.

Apply complete! Resources: 0 added, 0 changed, 0 destroyed.
```




```
#Output the ARN of the S3 bucket
output "s3_arn" {
  value = aws_s3_bucket.sanikabucket.arn
}
```

```
  Enter a value: yes


Apply complete! Resources: 0 added, 0 changed, 0 destroyed.

Outputs:

s3_arn = "arn:aws:s3:::fdp-nicely-polite-kodiak-bucket"
PS C:\Terraform>
```

```
# Output the region of the S3 bucket
output "s3_region" {
  value = var.myregion
}
```

```
  Enter a value: yes


Apply complete! Resources: 0 added, 0 changed, 0 destroyed.

Outputs:

s3_arn = "arn:aws:s3:::fdp-nicely-polite-kodiak-bucket"
s3_region = "us-east-1"
PS C:\Terraform>
```

```
resource "aws_sqs_queue" "myqueue" {
  name = "mySQSqueue"
}
```

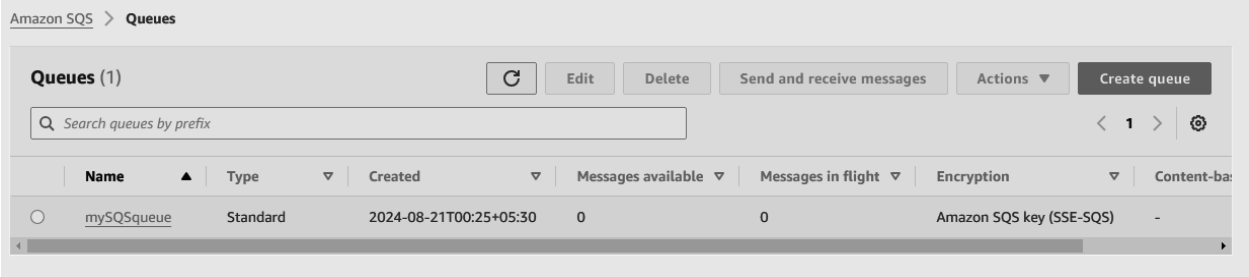
```
PS C:\Terraform> terraform plan
random_pet.sanikabucket: Refreshing state... [id=fdp-nicely-polite-kodiak]
aws_s3_bucket.sanikabucket: Refreshing state... [id=fdp-nicely-polite-kodiak-bucket]
aws_s3_bucket.sanikabucket: Refreshing state... [id=fdp-nicely-polite-kodiak-bucket]

No changes. Your infrastructure matches the configuration.

Terraform has compared your real infrastructure against your configuration and found no differences, so no changes are needed.
PS C:\Terraform>
```

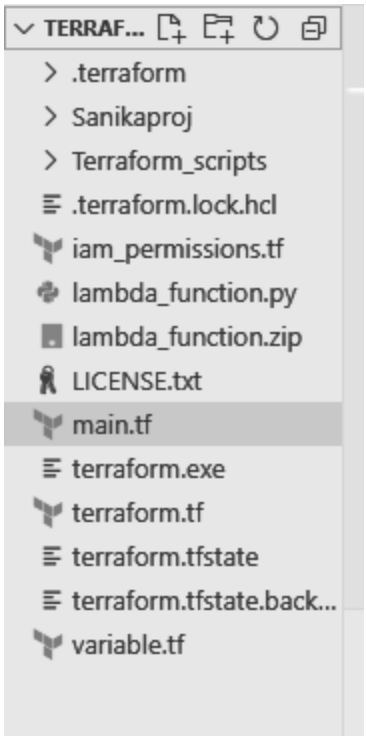
```
PS C:\Terraform> terraform apply
random_pet.sanikabucket: Refreshing state... [id=fdp-nicely-polite-kodiak]
aws_s3_bucket.sanikabucket: Refreshing state... [id=fdp-nicely-polite-kodiak-bucket]

No changes. Your infrastructure matches the configuration.

Terraform has compared your real infrastructure against your configuration and found no differences, so no changes are needed.

Apply complete! Resources: 0 added, 0 changed, 0 destroyed.

Outputs:

s3_arn = "arn:aws:s3:::fdp-nicely-polite-kodiak-bucket"
s3_region = "us-east-1"
PS C:\Terraform>
```

```
PS C:\Terraform> terraform plan
random_pet.sanikabucket: Refreshing state... [id=fdp-nicely-polite-kodiak]
aws_s3_bucket.sanikabucket: Refreshing state... [id=fdp-nicely-polite-kodiak-bucket]

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
  + create

Terraform will perform the following actions:

  # aws_sqs_queue.myqueue will be created
  + resource "aws_sqs_queue" "myqueue" {
      + arn                               = (known after apply)
      + content_based_deduplication       = false
      + deduplication_scope               = (known after apply)
      + delay_seconds                     = 0
      + fifo_queue                        = false
      + fifo_throughput_limit             = (known after apply)
      + id                                = (known after apply)
      + kms_data_key_reuse_period_seconds = (known after apply)
      + max_message_size                  = 262144
      + message_retention_seconds         = 345600
      + name                              = "mySQSqueue"
      + name_prefix                       = (known after apply)
      + policy                            = (known after apply)
      + receive_wait_time_seconds         = 0
      + redrive_allow_policy              = (known after apply)
      + redrive_policy                    = (known after apply)
      + sqs_managed_sse_enabled           = (known after apply)
      + tags_all                          = (known after apply)
      + url                               = (known after apply)
      + visibility_timeout_seconds        = 30
    }
```

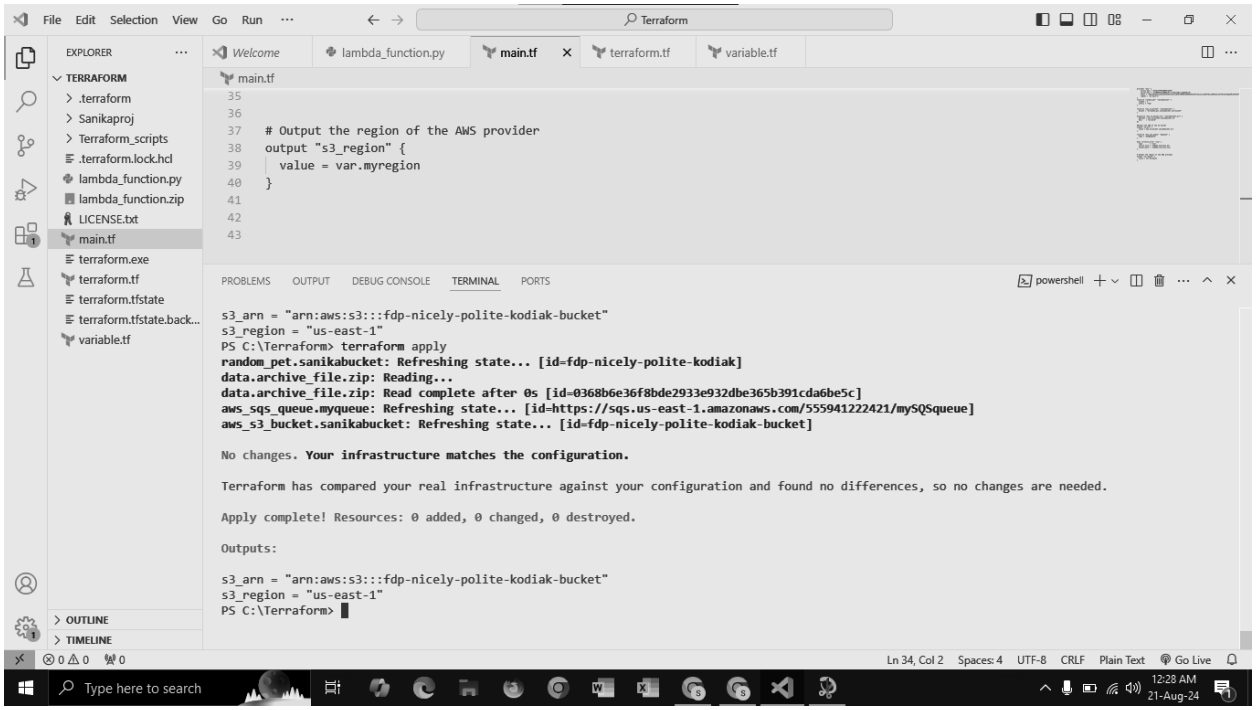
```
Plan: 1 to add, 0 to change, 0 to destroy.

─────────────────────────────────────────────────────────────────────────────────────────────────────────────────────────────────────

Note: You didn't use the -out option to save this plan, so Terraform can't guarantee to take exactly these actions if you run "terraform apply"
now.
PS C:\Terraform> terraform apply
random_pet.sanikabucket: Refreshing state... [id=fdp-nicely-polite-kodiak]
aws_s3_bucket.sanikabucket: Refreshing state... [id=fdp-nicely-polite-kodiak-bucket]

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
  + create

Terraform will perform the following actions:

  # aws_sqs_queue.myqueue will be created
  + resource "aws_sqs_queue" "myqueue" {
      + arn                               = (known after apply)
      + content_based_deduplication       = false
      + deduplication_scope               = (known after apply)
      + delay_seconds                     = 0
      + fifo_queue                        = false
      + fifo_throughput_limit             = (known after apply)
      + id                                = (known after apply)
      + kms_data_key_reuse_period_seconds = (known after apply)
      + max_message_size                  = 262144
```

```
      + name                              = "mySQSqueue"
      + name_prefix                       = (known after apply)
      + policy                            = (known after apply)
      + receive_wait_time_seconds         = 0
      + redrive_allow_policy              = (known after apply)
      + redrive_policy                    = (known after apply)
      + sqs_managed_sse_enabled           = (known after apply)
      + tags_all                          = (known after apply)
      + url                               = (known after apply)
      + visibility_timeout_seconds        = 30
    }

Plan: 1 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?
  Terraform will perform the actions described above.
  Only 'yes' will be accepted to approve.

  Enter a value: yes

aws_sqs_queue.myqueue: Creating...
aws_sqs_queue.myqueue: Still creating... [10s elapsed]
aws_sqs_queue.myqueue: Still creating... [20s elapsed]
aws_sqs_queue.myqueue: Creation complete after 28s [id=https://sqs.us-east-1.amazonaws.com/555941222421/mySQSqueue]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.

Outputs:

s3_arn = "arn:aws:s3:::fdp-nicely-polite-kodiak-bucket"
s3_region = "us-east-1"
PS C:\Terraform>
```





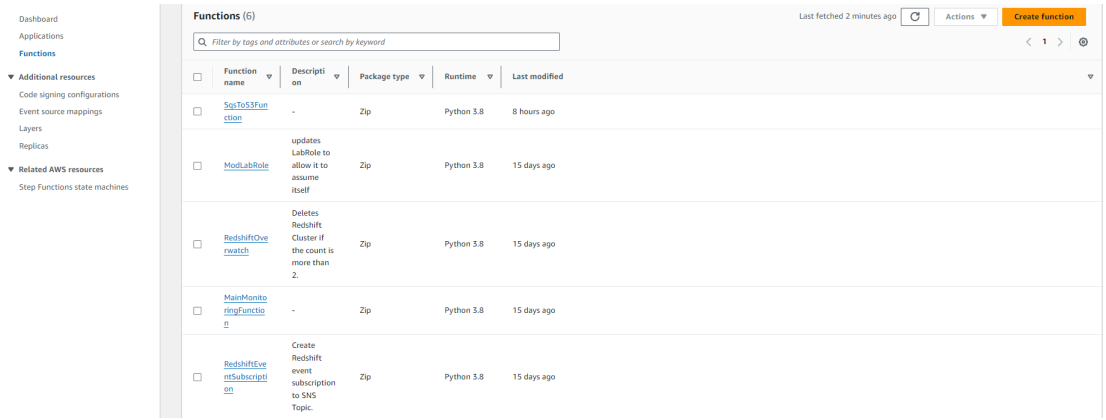

```
data "archive_file" "zip" {
  type        = "zip"
  source_file = "lambda_function.py"
  output_path = "lambda_function.zip"
}
```

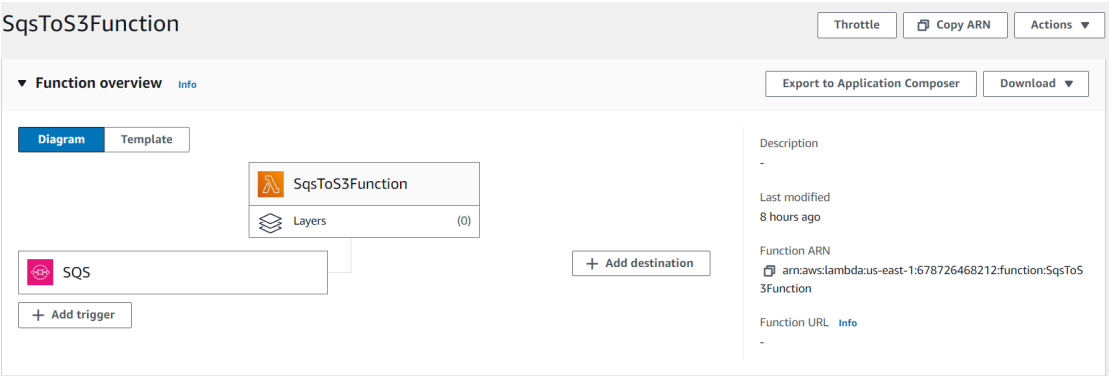


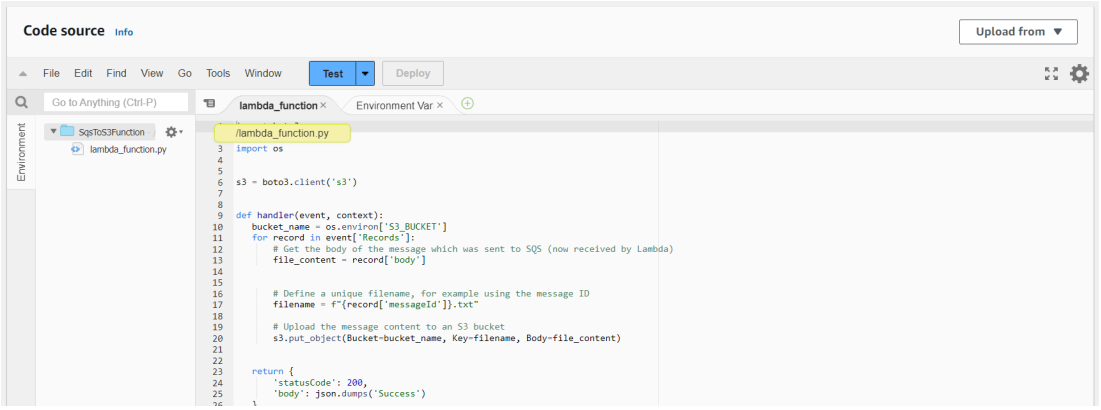

```
PS C:\Terraform> terraform plan
random_pet.sanikabucket: Refreshing state... [id=fdp-nicely-polite-kodiak]
data.archive_file.zip: Reading...
data.archive_file.zip: Read complete after 0s [id=0368b6e36f8bde2933e932dbe365b391cda6be5c]
aws_sqs_queue.myqueue: Refreshing state... [id=https://sqs.us-east-1.amazonaws.com/555941222421/mySQSqueue]
aws_s3_bucket.sanikabucket: Refreshing state... [id=fdp-nicely-polite-kodiak-bucket]

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
  + create

Terraform will perform the following actions:

  # aws_iam_role.lambda_role will be created
  + resource "aws_iam_role" "lambda_role" {
      + arn                   = (known after apply)
      + assume_role_policy    = jsonencode(
            {
              + Statement = [
                  + {
                      + Action    = "sts:AssumeRole"
                      + Effect    = "Allow"
                      + Principal = {
                          + Service = "lambda.amazonaws.com"
                        }
                    },
                ]
              + Version   = "2012-10-17"
            }
        )
      + create_date           = (known after apply)
      + force_detach_policies = false
      + id                    = (known after apply)
```

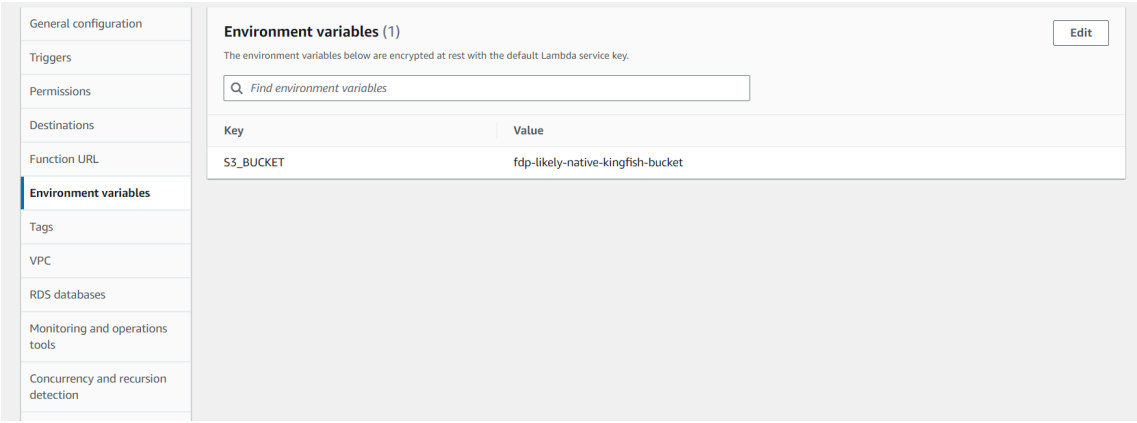
```
    + id         = (known after apply)
    + policy_arn = "arn:aws:iam::aws:policy/service-role/AWSLambdaBasicExecutionRole"
    + role       = "lambda_execution_role"
  }

# aws_lambda_function.mylambda will be created
+ resource "aws_lambda_function" "mylambda" {
    + architectures                  = (known after apply)
    + arn                            = (known after apply)
    + code_sha256                    = (known after apply)
    + filename                       = "lambda_function.zip"
    + function_name                  = "SqsToS3Function"
    + handler                        = "lambda_function.handler"
    + id                             = (known after apply)
    + invoke_arn                     = (known after apply)
    + last_modified                  = (known after apply)
    + memory_size                    = 128
    + package_type                   = "Zip"
    + publish                        = false
    + qualified_arn                  = (known after apply)
    + qualified_invoke_arn           = (known after apply)
    + reserved_concurrent_executions = -1
    + role                           = (known after apply)
    + runtime                        = "python3.8"
    + signing_job_arn                = (known after apply)
    + signing_profile_version_arn    = (known after apply)
    + skip_destroy                   = false
    + source_code_hash               = "/zLwYuHPhNLIxpkG4806r778LNljm1OM3jnGQq33Aag="
    + source_code_size               = (known after apply)
    + tags_all                       = (known after apply)
    + timeout                        = 3
    + version                        = (known after apply)
    + ephemeral_storage (known after apply)
```

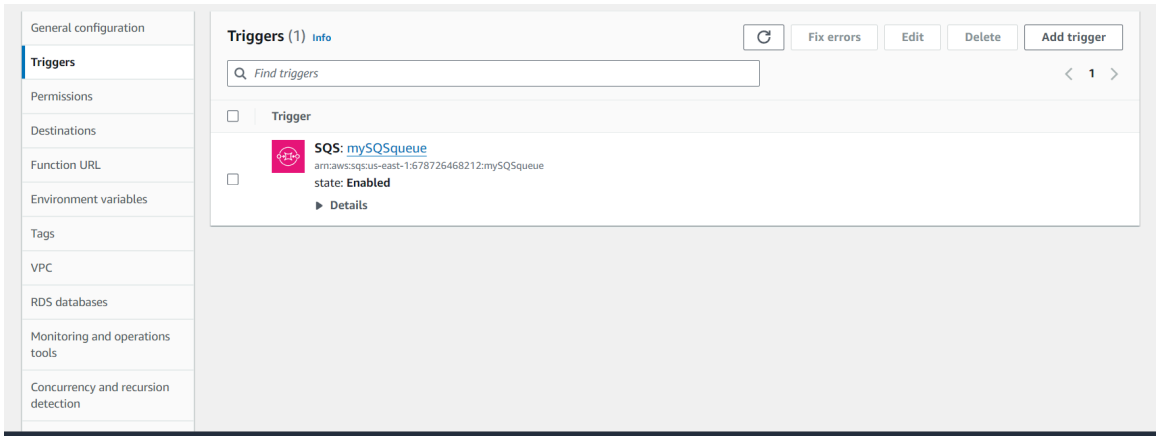
```
      + skip_destroy                   = false
      + source_code_hash               = "/zLwYuHPhNLIxpkG4806r778LNljm1OM3jnGQq33Aag="
      + source_code_size               = (known after apply)
      + tags_all                       = (known after apply)
      + timeout                        = 3
      + version                        = (known after apply)
      + ephemeral_storage (known after apply)

      + logging_config (known after apply)

      + tracing_config (known after apply)
    }

Plan: 3 to add, 0 to change, 0 to destroy.
```

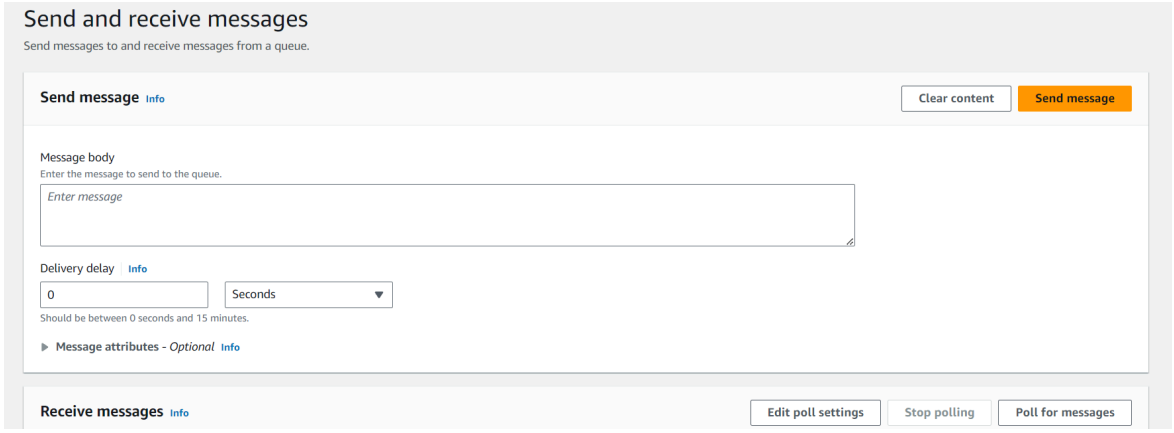

Dashboard
Applications
Functions
Additional resources
Code signing configurations
Event source mappings
Layers
Replicas
Related AWS resources
Step Functions state machines
Functions (6)
Last fetched 2 minutes ago
Actions
Create function
Filter by tags and attributes or search by keyword
Function name
Description
Package type
Runtime
Last modified
SqsToS3Function
-
Zip
Python 3.8
8 hours ago
ModLabRole
updates LabRole to allow it to assume itself
Zip
Python 3.8
15 days ago
RedshiftOverwatch
Deletes Redshift Cluster if the count is more than 2.
Zip
Python 3.8
15 days ago
MainMonitoringFunction
-
Zip
Python 3.8
15 days ago
RedshiftEventSubscription
Create Redshift event subscription to SNS Topic.
Zip
Python 3.8
15 days ago

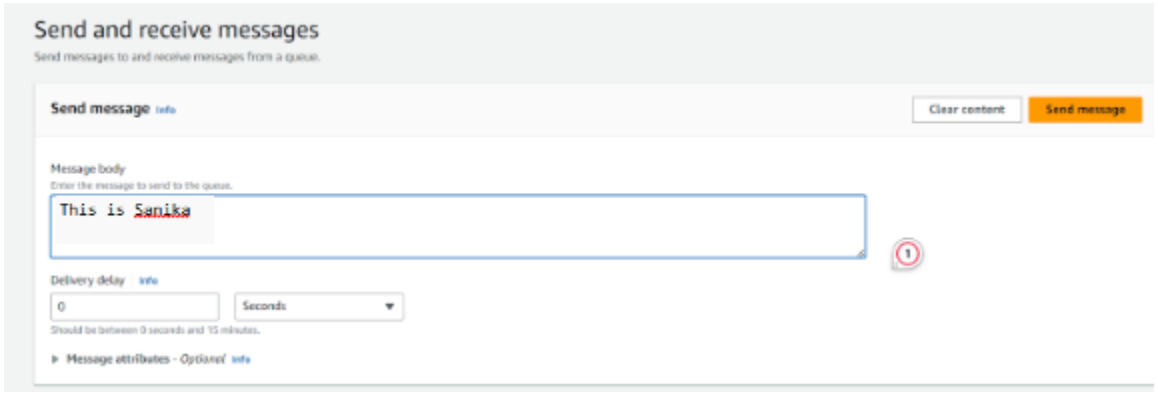

SqsToS3Function
Throttle
Copy ARN
Actions
Function overview
Info
Export to Application Composer
Download
Diagram
Template
SqsToS3Function
Layers
(0)
SQS
Add destination
Add trigger
Description
-
Last modified
8 hours ago
Function ARN
arn:aws:lambda:us-east-1:678726468212:function:SqsToS3Function
Function URL
Info
-

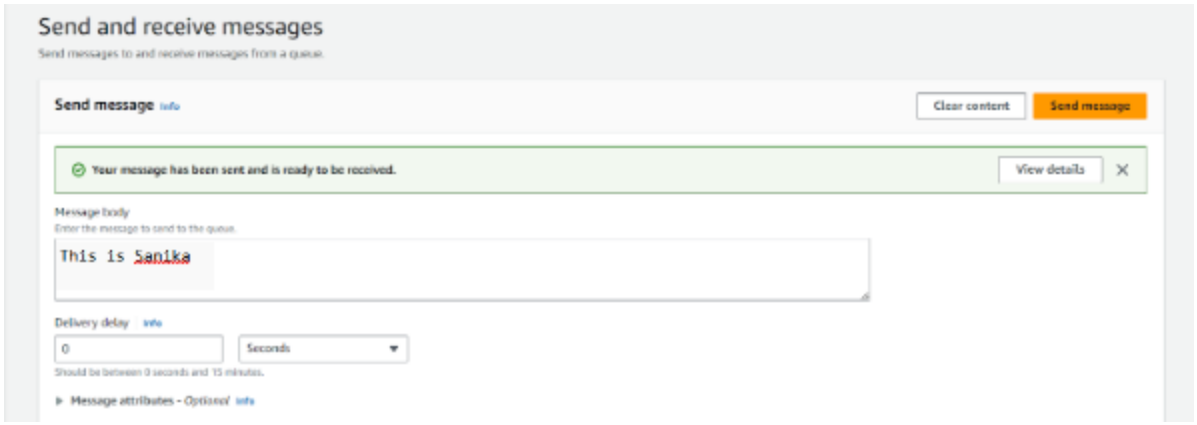

Code source
Info
Upload from
File
Edit
Find
View
Go
Tools
Window
Test
Deploy
Go to Anything (Ctrl-P)
lambda_function
Environment Var
Environment
SqsToS3Function
lambda_function.py
/lambda_function.py
import os
s3 = boto3.client('s3')
def handler(event, context):
bucket_name = os.environ['S3_BUCKET']
for record in event['Records']:
# Get the body of the message which was sent to SQS (now received by Lambda)
file_content = record['body']
# Define a unique filename, for example using the message ID
filename = f"{record['messageId']}.txt"
# Upload the message content to an S3 bucket
s3.put_object(Bucket=bucket_name, Key=filename, Body=file_content)
return {
'statusCode': 200,
'body': json.dumps('Success')

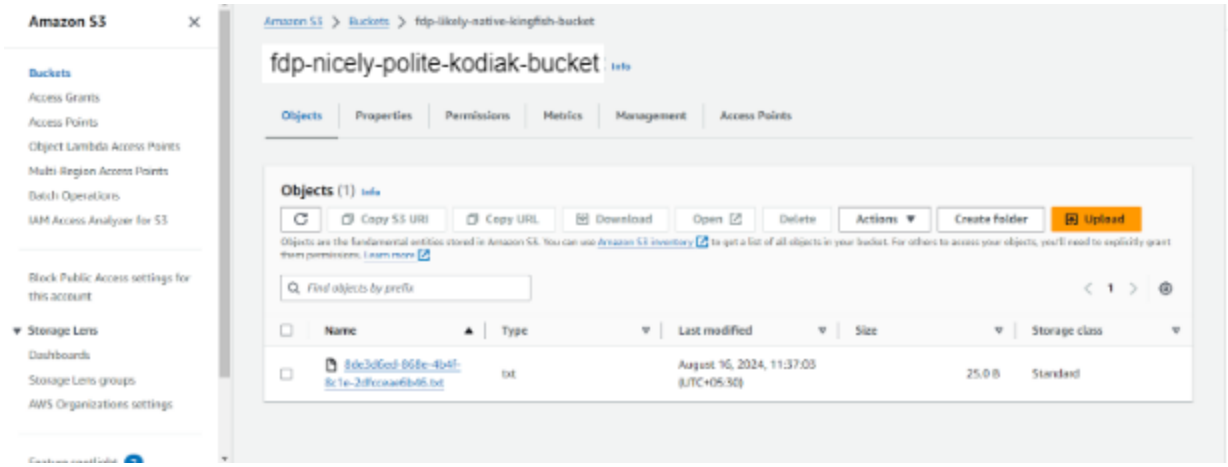

General configuration
Triggers
Permissions
Destinations
Function URL
Environment variables
Tags
VPC
RDS databases
Monitoring and operations tools
Concurrency and recursion detection
Environment variables (1)
Edit
The environment variables below are encrypted at rest with the default Lambda service key.
Find environment variables
Key
Value
S3_BUCKET
fdp-likely-native-kingfish-bucket

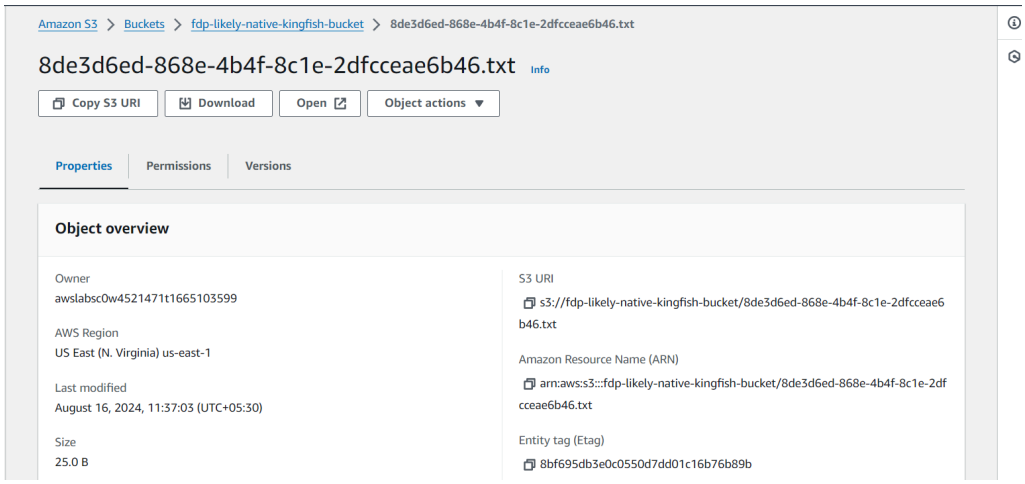

General configuration
Triggers
Permissions
Destinations
Function URL
Environment variables
Tags
VPC
RDS databases
Monitoring and operations tools
Concurrency and recursion detection
Triggers (1) Info
Fix errors
Edit
Delete
Add trigger
Find triggers
1
Trigger
SQS: mySQSqueue
arn:aws:sqs:us-east-1:678726468212:mySQSqueue
state: Enabled
Details


Send and receive messages
Send messages to and receive messages from a queue.
Send message Info
Clear content
Send message
Message body
Enter the message to send to the queue.
Enter message
Delivery delay Info
0
Seconds
Should be between 0 seconds and 15 minutes.
Message attributes - Optional Info
Receive messages Info
Edit poll settings
Stop polling
Poll for messages


Send and receive messages
Send messages to and receive messages from a queue.
Send message Info
Clear content
Send message
Message body
Enter the message to send to the queue.
This is Sanika
1
Delivery delay Info
0
Seconds
Should be between 0 seconds and 15 minutes.
Message attributes - Optional Info


Send and receive messages
Send messages to and receive messages from a queue.
Send message Info
Clear content
Send message
Your message has been sent and is ready to be received.
View details
Message body
Enter the message to send to the queue.
This is Sanika
Delivery delay Info
0
Seconds
Should be between 0 seconds and 15 minutes.
Message attributes - Optional Info


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
Amazon S3 > Buckets > fdp-likely-native-kingfish-bucket
fdp-nicely-polite-kodiak-bucket Info
Objects
Properties
Permissions
Metrics
Management
Access Points
Objects (1) Info
Copy S3 URI
Copy URL
Download
Open
Delete
Actions
Create folder
Upload
Find objects by prefix
Name
Type
Last modified
Size
Storage class
txt
August 16, 2024, 11:37:03 (UTC+05:30)
25.0 B
Standard


Amazon S3 > Buckets > fdp-likely-native-kingfish-bucket > 8de3d6ed-868e-4b4f-8c1e-2dfcceae6b46.txt
8de3d6ed-868e-4b4f-8c1e-2dfcceae6b46.txt Info
Copy S3 URI
Download
Open
Object actions
Properties
Permissions
Versions
Object overview
Owner
awslabsc0w4521471t1665103599
AWS Region
US East (N. Virginia) us-east-1
Last modified
August 16, 2024, 11:37:03 (UTC+05:30)
Size
25.0 B
S3 URI
s3://fdp-likely-native-kingfish-bucket/8de3d6ed-868e-4b4f-8c1e-2dfcceae6b46.txt
Amazon Resource Name (ARN)
arn:aws:s3:::fdp-likely-native-kingfish-bucket/8de3d6ed-868e-4b4f-8c1e-2dfcceae6b46.txt
Entity tag (Etag)
8bf695db3e0c0550d7dd01c16b76b89b


Amazon S3 > Buckets > fdp-likely-native-kingfish-bucket > 8de3d6ed-868e-4b4f-8c1e-2dfcceae6b46.txt
8de3d6ed-868e-4b4f-8c1e-2dfcceae6b46.txt Info
Copy S3 URI
Download
Open
Object actions
Properties
Permissions
Versions
Object overview
Owner
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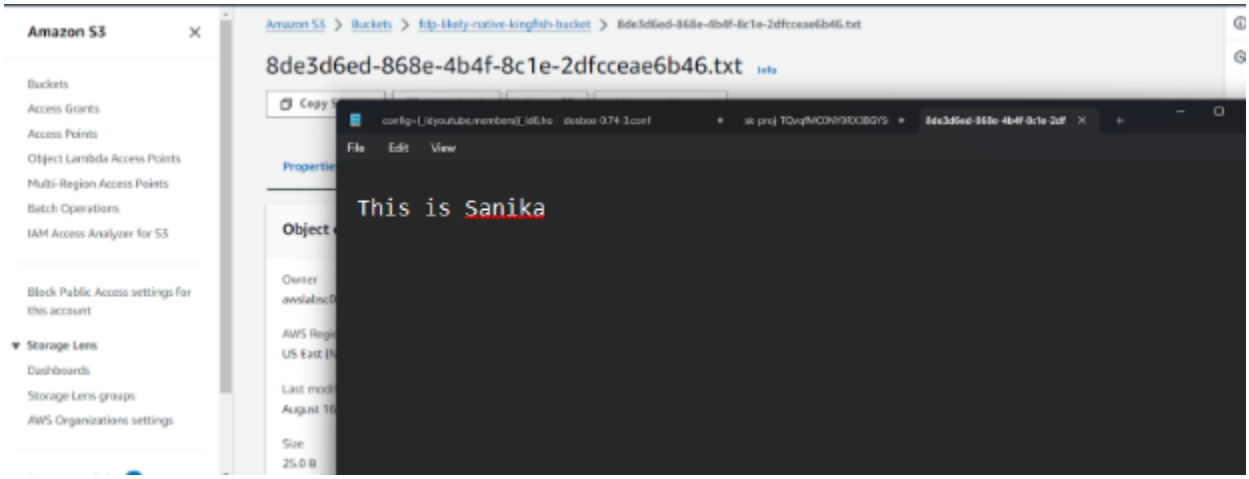
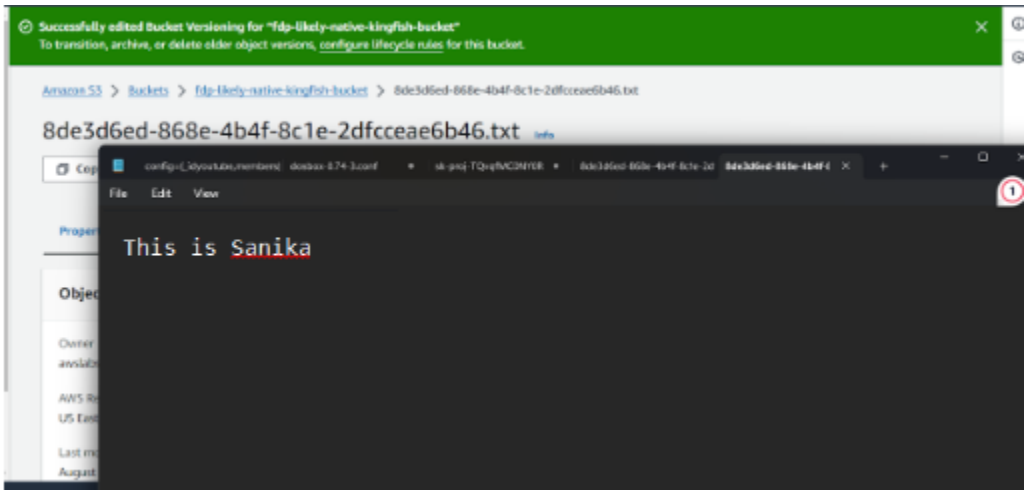
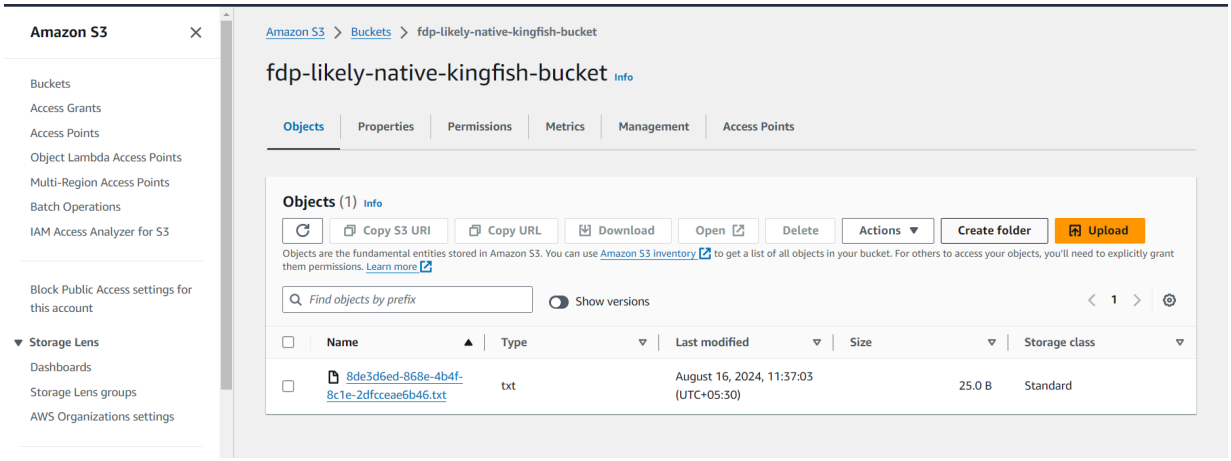

Amazon S3
Buckets
Access Grants
Access Points
Object Lambda Access Points
Multi-Region Access Points
Batch Operations
IAM Access Analyzer for S3
Block Public Access settings for this account
Storage Lens
Dashboards
Storage Lens groups
AWS Organizations settings
8de3d6ed-868e-4b4f-8c1e-2dfcceae6b46.txt
File
Edit
View
This is Sanika


Successfully edited Bucket Versioning for "fdp-likely-native-kingfish-bucket"
To transition, archive, or delete older object versions, configure lifecycle rules for this bucket.
Amazon S3 > Buckets > fdp-likely-native-kingfish-bucket > 8de3d6ed-868e-4b4f-8c1e-2dfcceae6b46.txt
8de3d6ed-868e-4b4f-8c1e-2dfcceae6b46.txt
File
Edit
View
This is Sanika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Amazon S3 > Buckets > fdp-likely-native-kingfish-bucket
fdp-likely-native-kingfish-bucket Info
Objects
Properties
Permissions
Metrics
Management
Access Points
Objects (1) Info
Copy S3 URI
Copy URL
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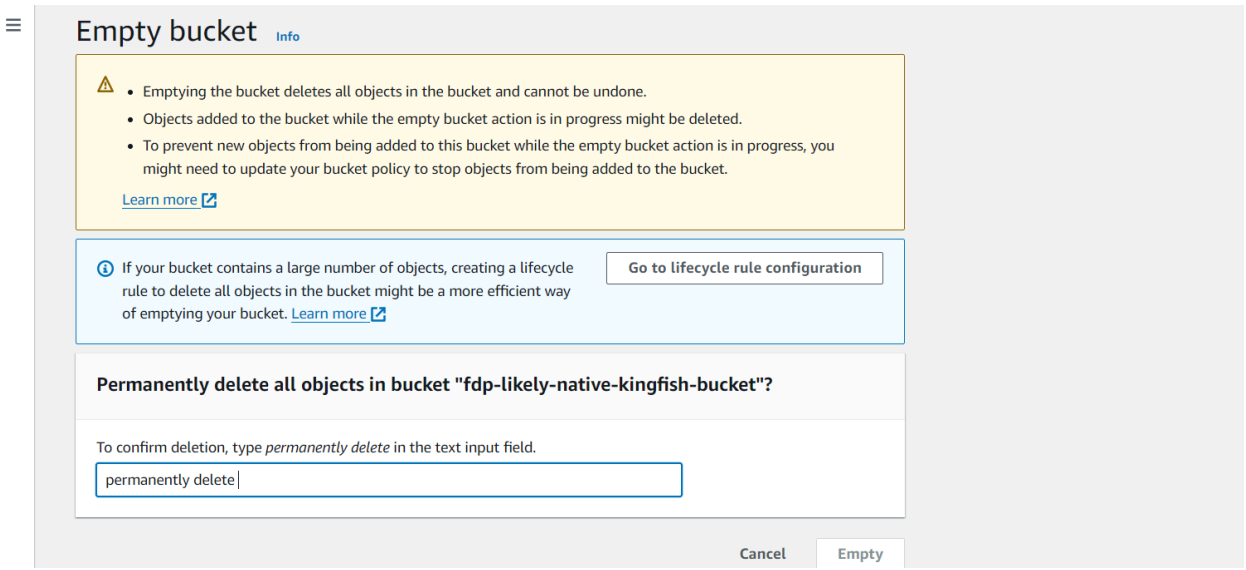
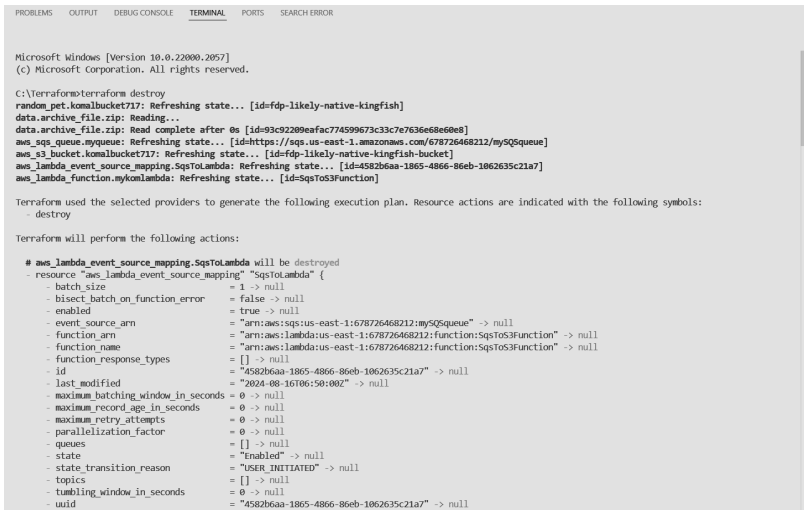
Delete
Actions
Create folder
Upload
Objects are the fundamental entities stored in Amazon S3. You can use Amazon S3 inventory to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. Learn more
Find objects by prefix
Show versions
Name
Type
Last modified
Size
Storage class
8de3d6ed-868e-4b4f-8c1e-2dfcceae6b46.txt
txt
August 16, 2024, 11:37:03 (UTC+05:30)
25.0 B
Standard


Empty bucket Info
Emptying the bucket deletes all objects in the bucket and cannot be undone.
Objects added to the bucket while the empty bucket action is in progress might be deleted.
To prevent new objects from being added to this bucket while the empty bucket action is in progress, you might need to update your bucket policy to stop objects from being added to the bucket.
Learn more
If your bucket contains a large number of objects, creating a lifecycle rule to delete all objects in the bucket might be a more efficient way of emptying your bucket. Learn more
Go to lifecycle rule configuration
Permanently delete all objects in bucket "fdp-likely-native-kingfish-bucket"?
To confirm deletion, type permanently delete in the text input field.
permanently delete
Cancel
Empty


PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS SEARCH ERROR
Microsoft Windows [Version 10.0.22000.2057]
(c) Microsoft Corporation. All rights reserved.
C:\Terraform>terraform destroy
random_pet.komalbucket717: Refreshing state... [id=fdp-likely-native-kingfish]
data.archive_file.zip: Reading...
data.archive_file.zip: Read complete after 0s [id=93c92209eafac774599673c33c7e7636e68e60e8]
aws_sqs_queue.myqueue: Refreshing state... [id=https://sqs.us-east-1.amazonaws.com/678726468212/mySQSqueue]
aws_s3_bucket.komalbucket717: Refreshing state... [id=fdp-likely-native-kingfish-bucket]
aws_lambda_event_source_mapping.SqsToLambda: Refreshing state... [id=4582b6aa-1865-4866-86eb-1062635c21a7]
aws_lambda_function.mykomlambda: Refreshing state... [id=SqsToS3Function]
Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
- destroy
Terraform will perform the following actions:
# aws_lambda_event_source_mapping.SqsToLambda will be destroyed
- resource "aws_lambda_event_source_mapping" "SqsToLambda" {
- batch_size = 1 -> null
- bisect_batch_on_function_error = false -> null
- enabled = true -> null
- event_source_arn = "arn:aws:sqs:us-east-1:678726468212:mySQSqueue" -> null
- function_arn = "arn:aws:lambda:us-east-1:678726468212:function:SqsToS3Function" -> null
- function_name = "arn:aws:lambda:us-east-1:678726468212:function:SqsToS3Function" -> null
- function_response_types = [] -> null
- id = "4582b6aa-1865-4866-86eb-1062635c21a7" -> null
- last_modified = "2024-08-16T06:50:00Z" -> null
- maximum_batching_window_in_seconds = 0 -> null
- maximum_record_age_in_seconds = 0 -> null
- maximum_retry_attempts = 0 -> null
- parallelization_factor = 0 -> null
- queues = [] -> null
- state = "Enabled" -> null
- state_transition_reason = "USER_INITIATED" -> null
- topics = [] -> null
- tumbling_window_in_seconds = 0 -> null
- uuid = "4582b6aa-1865-4866-86eb-1062635c21a7" -> null