INTEGRATION OF CT22 PROJECTOR LAMBDA FUNCTION

October 26 2024

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Overview

Projector uses a Lambda function for the connectivity between AWS DynamoDB logs and ElasticSearch.

The Lambda function is provided as a .zip file.

For the connectivity between AWS Dynamo logs and ElasticSearch, the Lambda function uses 2 AWS services it has to interface with : S3 and IAM

S3 provides the Bucket the Lambda function will pick up the logs from.

IAM, to properly set-up permissions

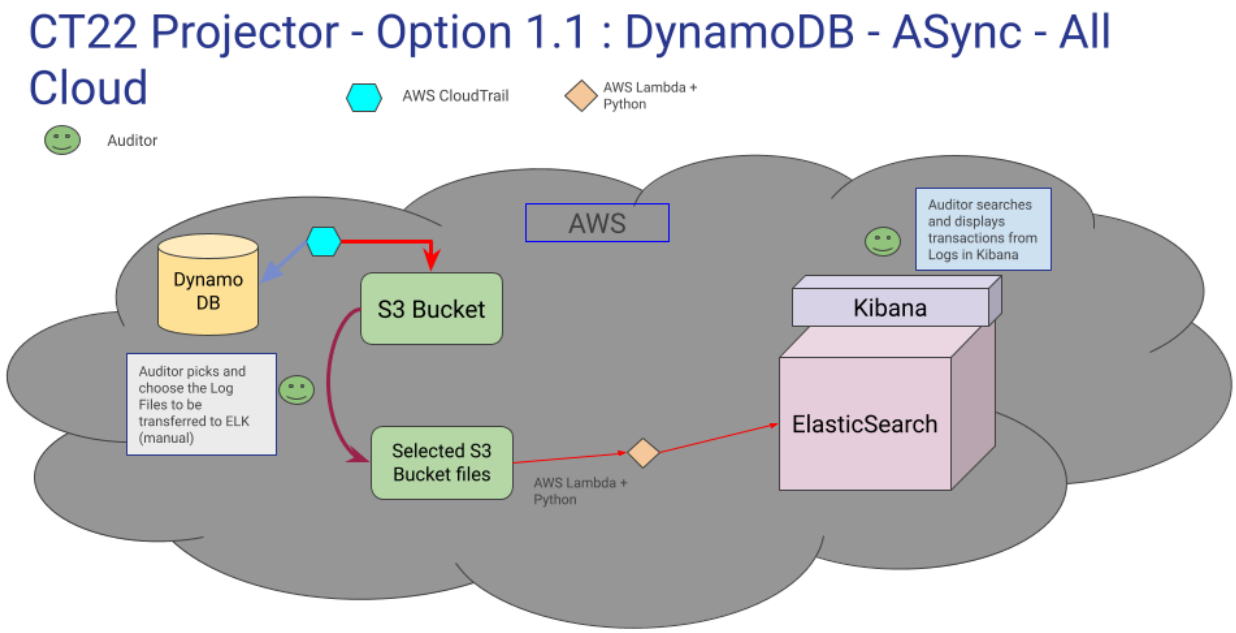
Lambda itself which must be triggered by the AWS log file put in the S3 bucket.

The procedure is therefore :

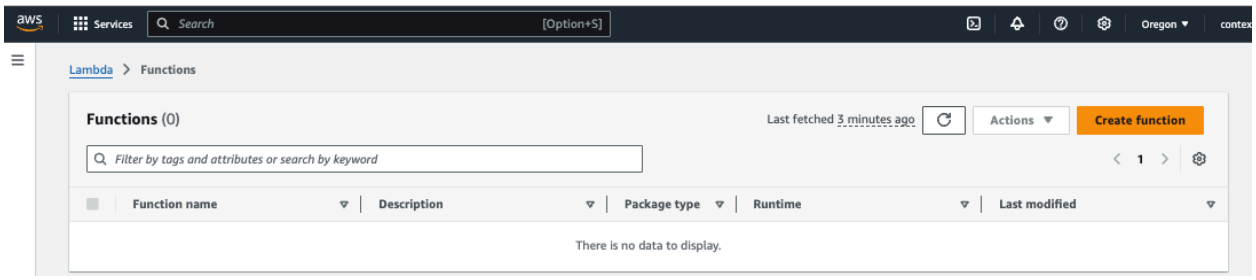
- Creation of the Lambda function
- Upload of the CT22 .zip file with Projector code
- Creation of the S3 bucket dedicated to CT22 Projector
- Setting of Lambda permissions
- Setting of S3 Trigger on Lambda

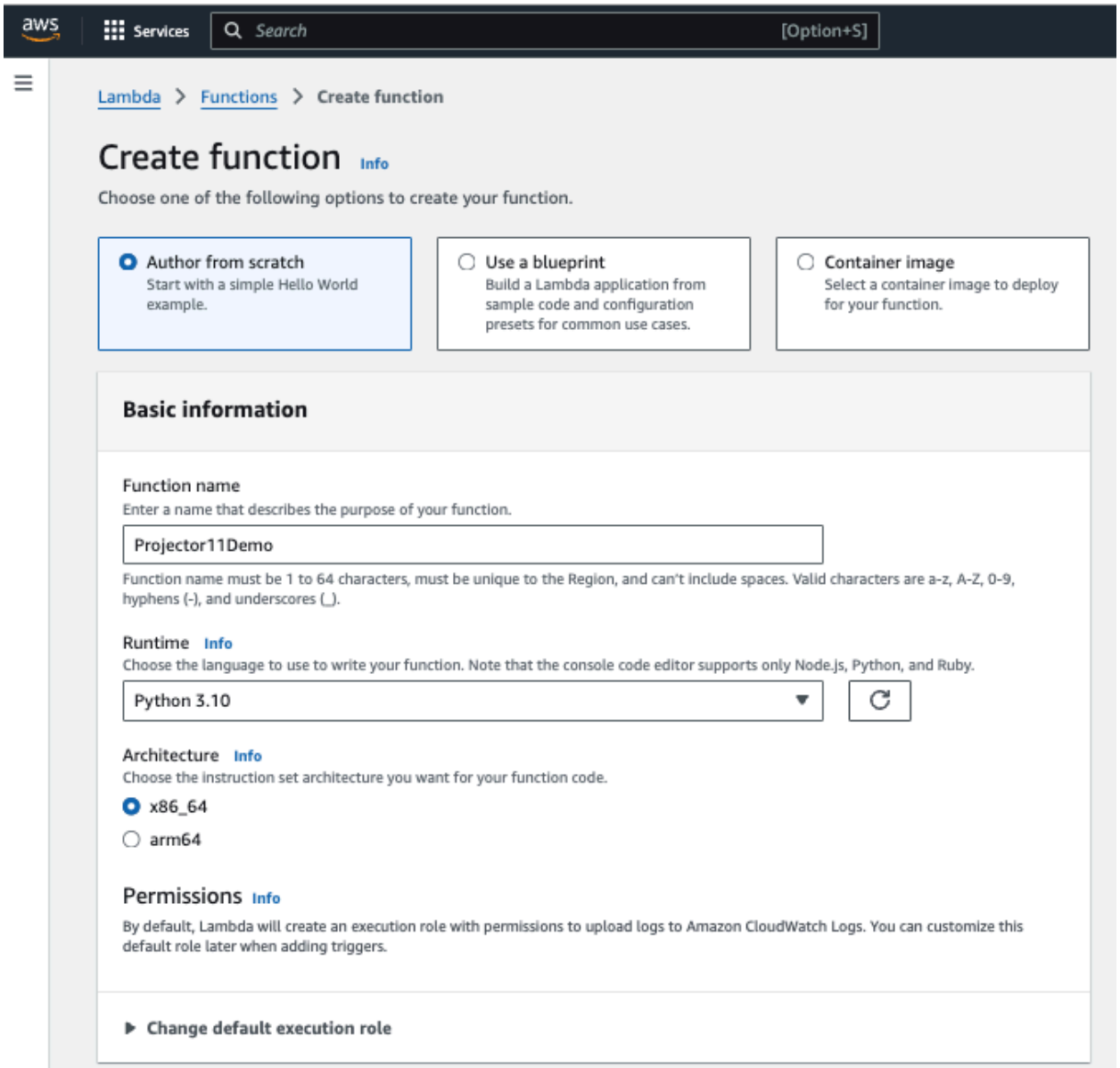
Is not covered here the configuration of the ElasticSearch credentials into Lambda. It will be covered once the ES instance for GainWell will be set up.

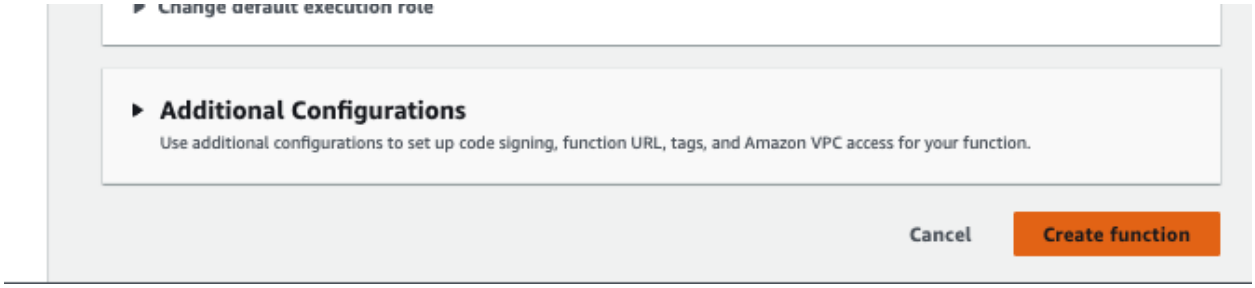
Architecture Overview



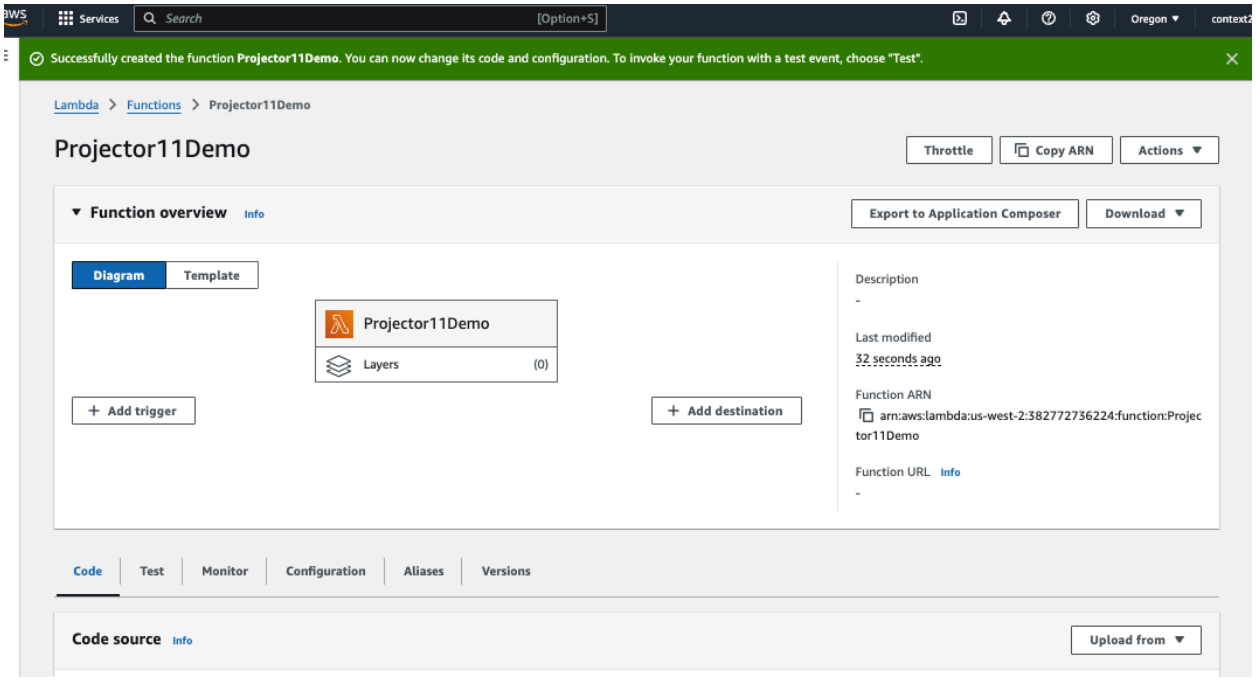
Creation of the Lambda Function

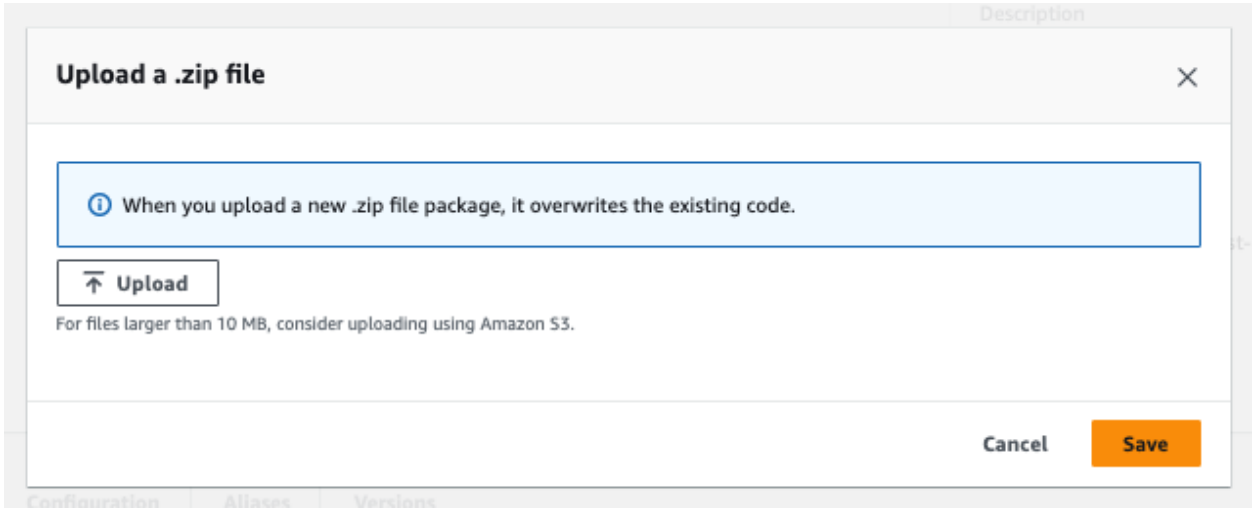




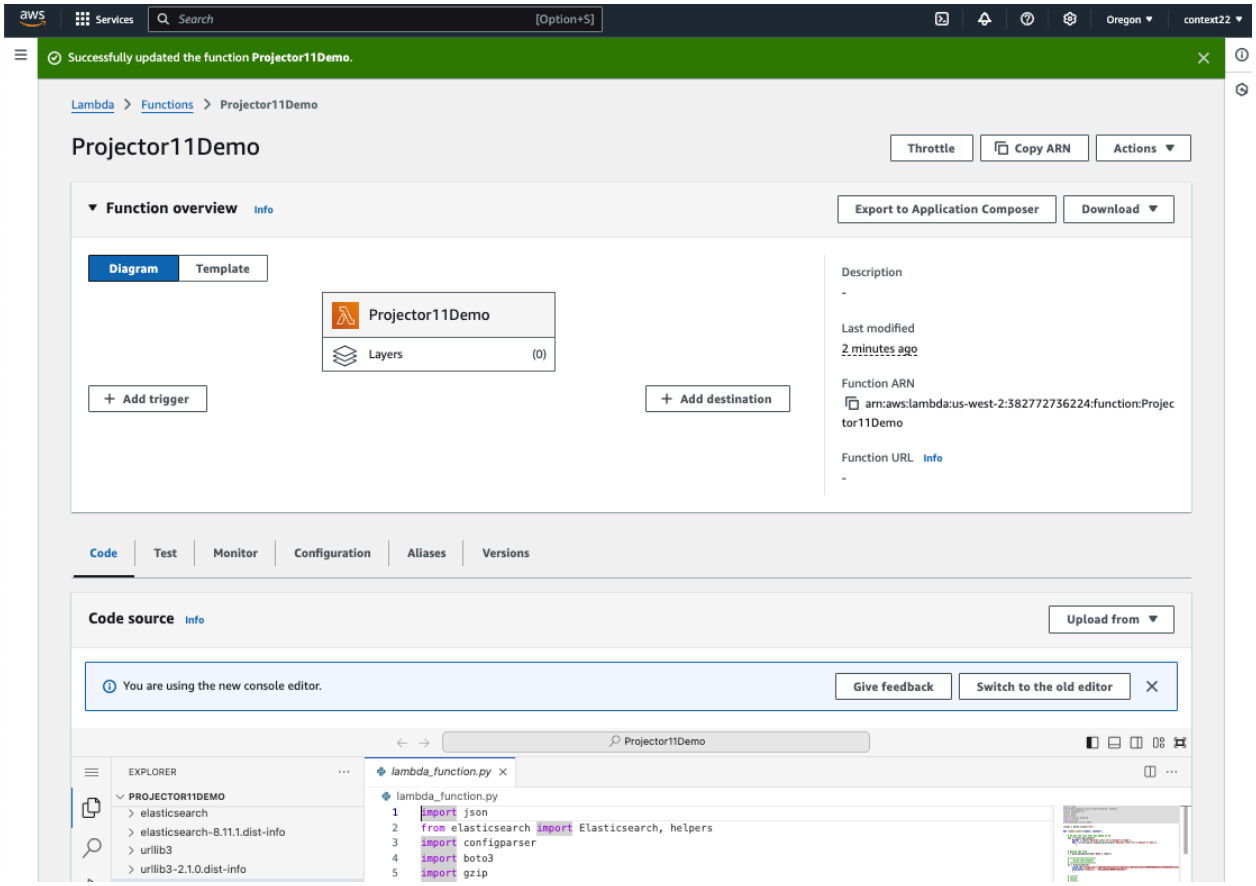

Change default execution role
Additional Configurations
Use additional configurations to set up code signing, function URL, tags, and Amazon VPC access for your function.
Cancel
Create function

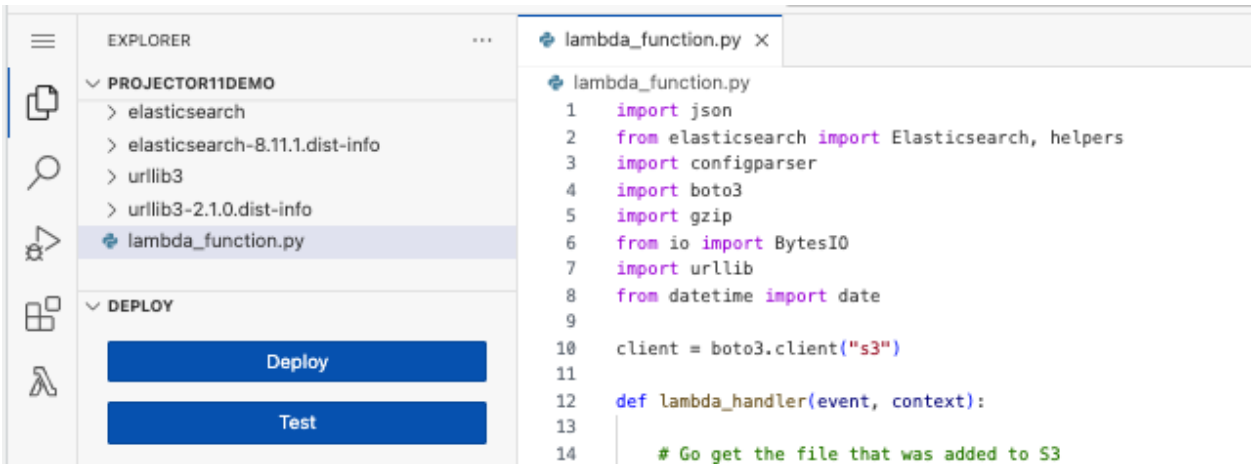
Upload of the Lambda .zip file





Result :

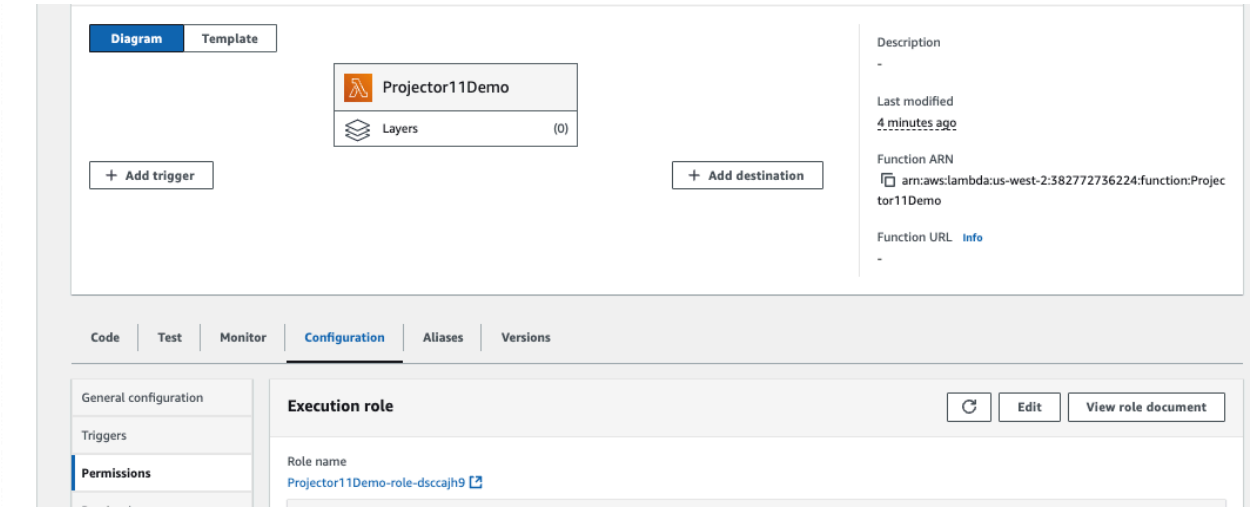

Successfully updated the function Projector11Demo.
Lambda > Functions > Projector11Demo
Projector11Demo
Throttle
Copy ARN
Actions
Function overview
Export to Application Composer
Download
Diagram
Template
Projector11Demo
Layers
(0)
Add trigger
Add destination
Description
Last modified
2 minutes ago
Function ARN
arn:aws:lambda:us-west-2:382772736224:function:Projector11Demo
Function URL
Code
Test
Monitor
Configuration
Aliases
Versions
Code source
Upload from
You are using the new console editor.
Give feedback
Switch to the old editor
EXPLORER
PROJECTOR11DEMO
elasticsearch
elasticsearch-8.11.1.dist-info
urllib3
urllib3-2.1.0.dist-info
lambda_function.py
import json
from elasticsearch import Elasticsearch, helpers
import configparser
import boto3
import gzip


EXPLORER
PROJECTOR11DEMO
elasticsearch
elasticsearch-8.11.1.dist-info
urllib3
urllib3-2.1.0.dist-info
lambda_function.py
DEPLOY
Deploy
Test
lambda_function.py
import json
from elasticsearch import Elasticsearch, helpers
import configparser
import boto3
import gzip
from io import BytesIO
import urllib
from datetime import date
client = boto3.client("s3")
def lambda_handler(event, context):
# Go get the file that was added to S3

Hit “Deploy”

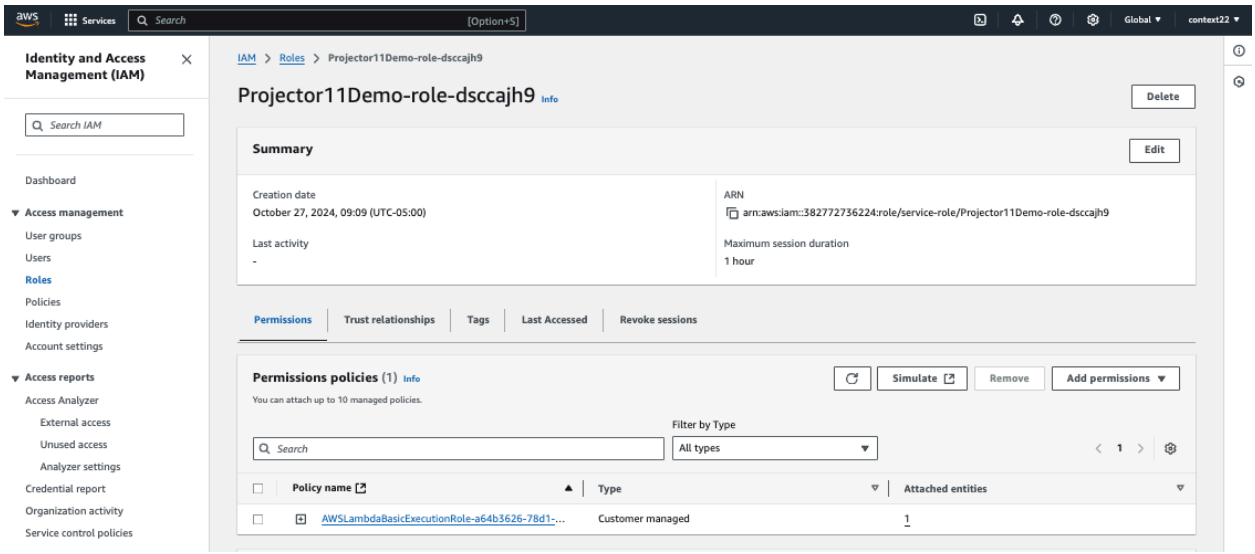
Lambda Function Permissions configuration

1 - Create the Function. Choose Projector11



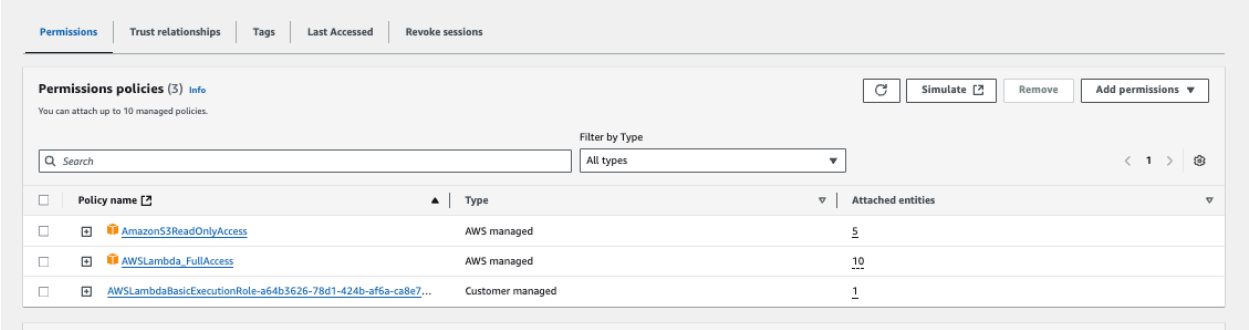
Select “Role Name”

2 - Configuring the role for the Lambda function

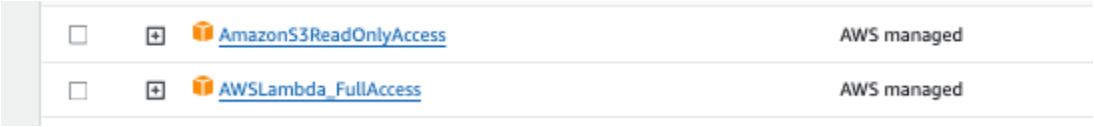


Select “Add Permissions”

3 - Adding 2 Permissions Policies

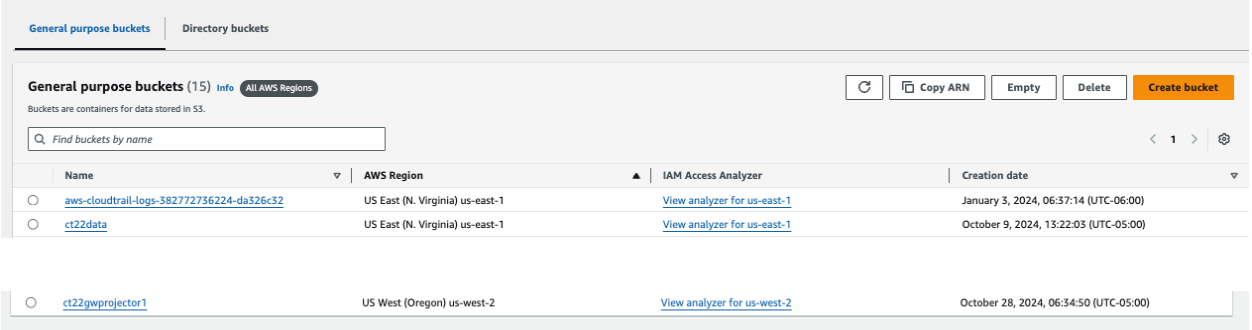


Add the 2 Permissions Policies

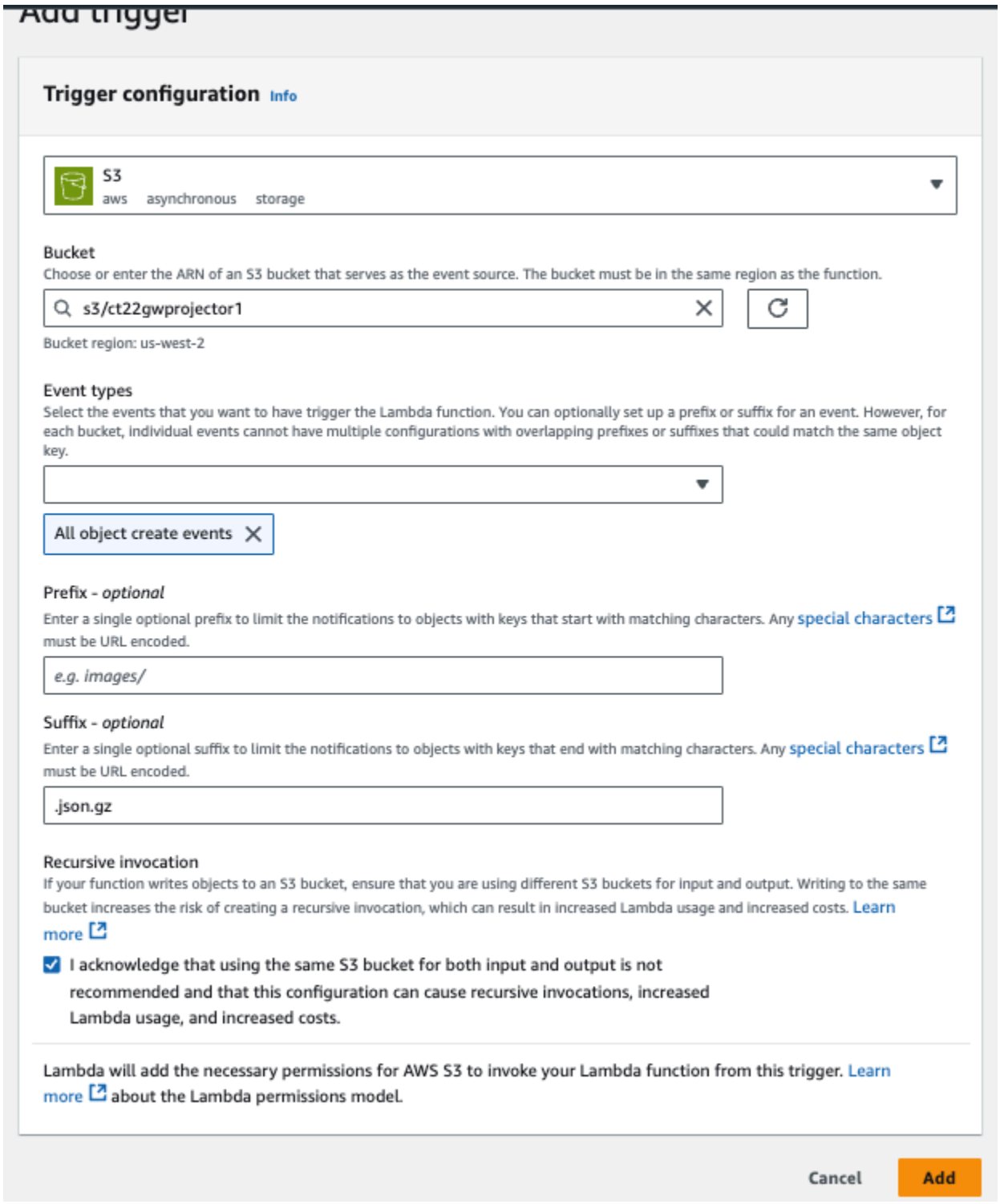


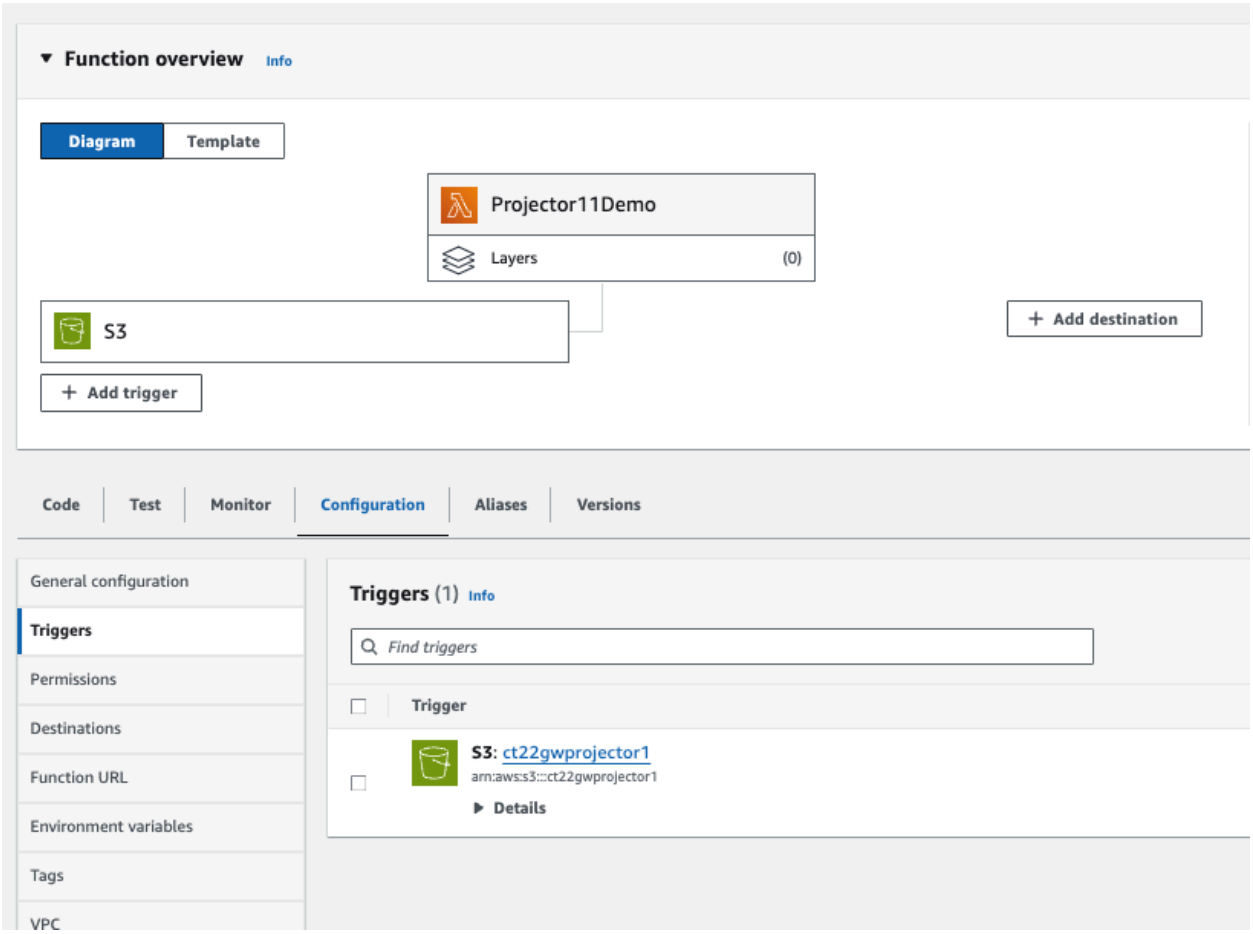
S3 Configuration

Creation of S3 Bucket



Lambda Trigger Configuration




Function overview
Info
Diagram
Template
Projector11Demo
Layers
(0)
S3
Add destination
Add trigger
Code
Test
Monitor
Configuration
Aliases
Versions
General configuration
Triggers
Permissions
Destinations
Function URL
Environment variables
Tags
VPC
Triggers (1)
Info
Find triggers
Trigger
S3: ct22gwprojector1
arn:aws:s3:::ct22gwprojector1
Details

ES Credentials Set-Up

This part will be completed once the ElasticSearch instance for GainWell will be done.

End of Document