Assignment 5

Aws Lab work

22BRS1117

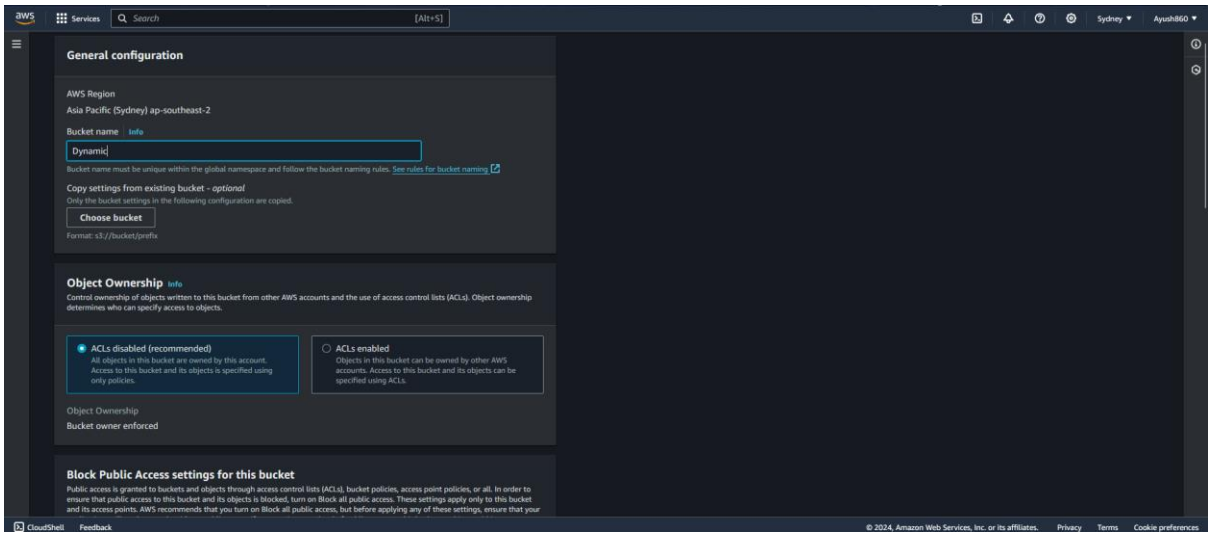
Ayush Raj

Instructions

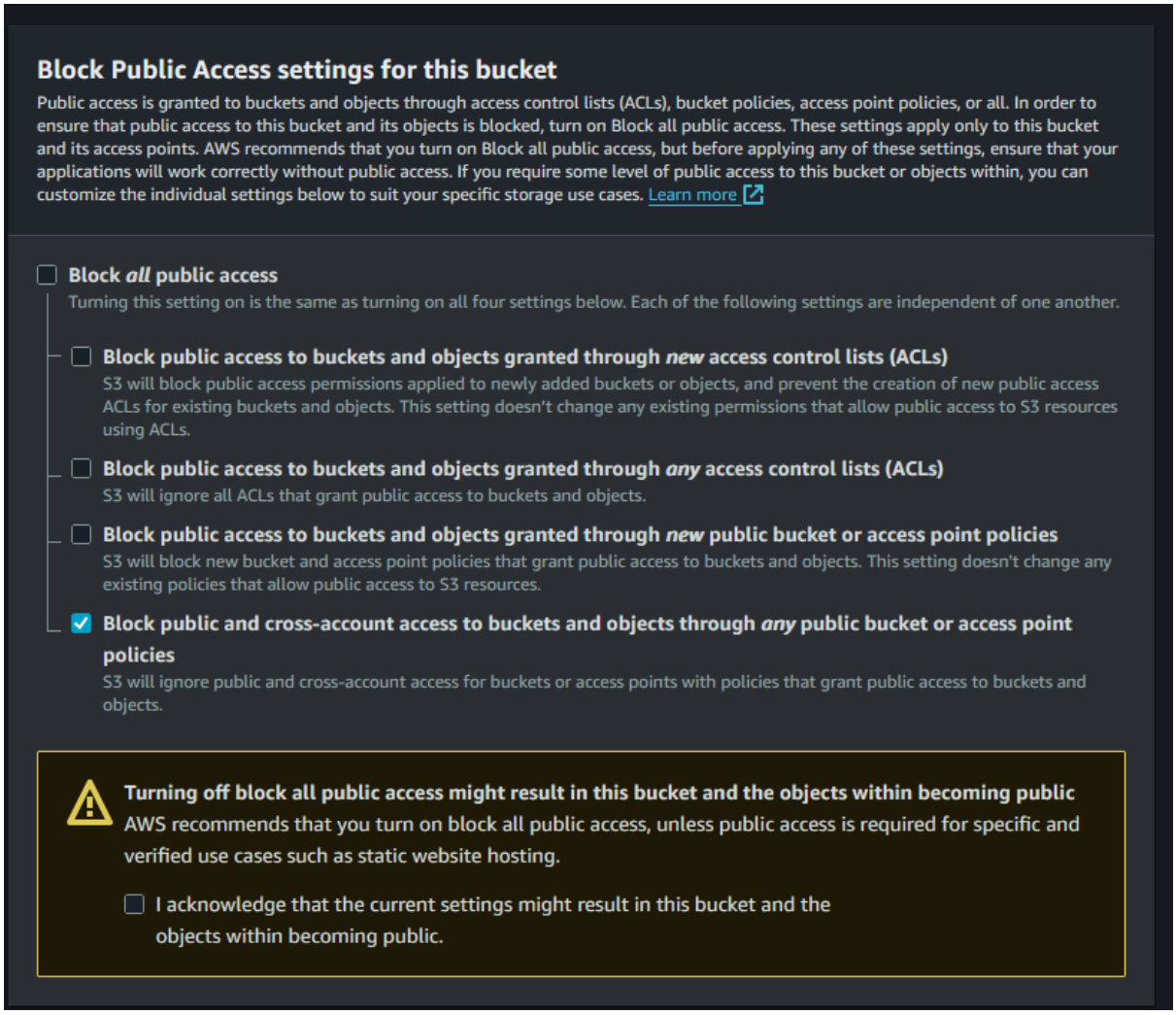
Create a Dynamic website and deploy it in AWS Lambda

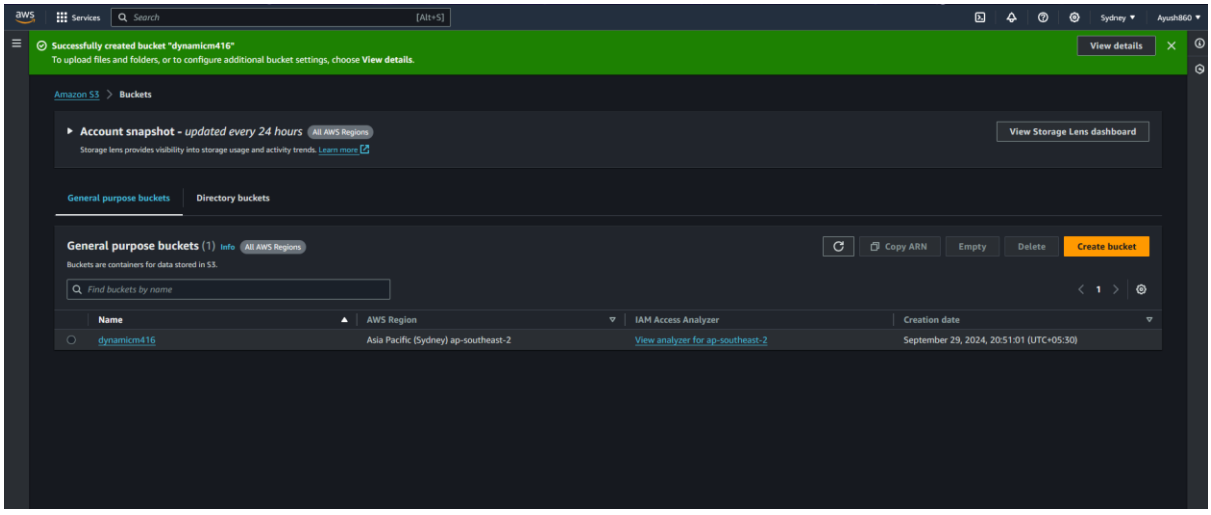
Follow the same standards and naming conventions while uploading

1. Creating an s3 bucket



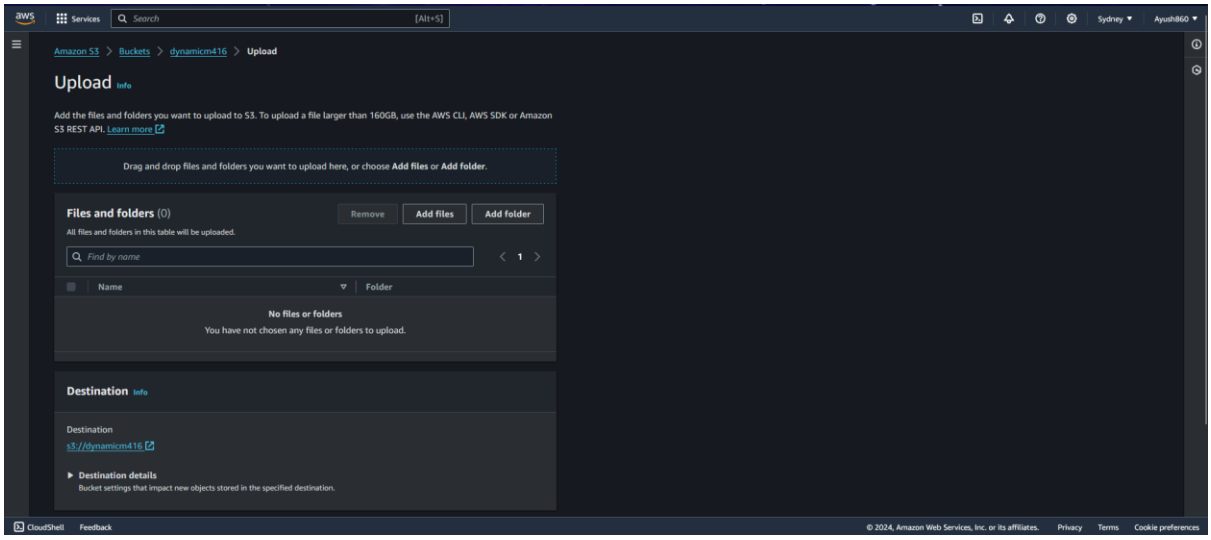
2. Give cross account access

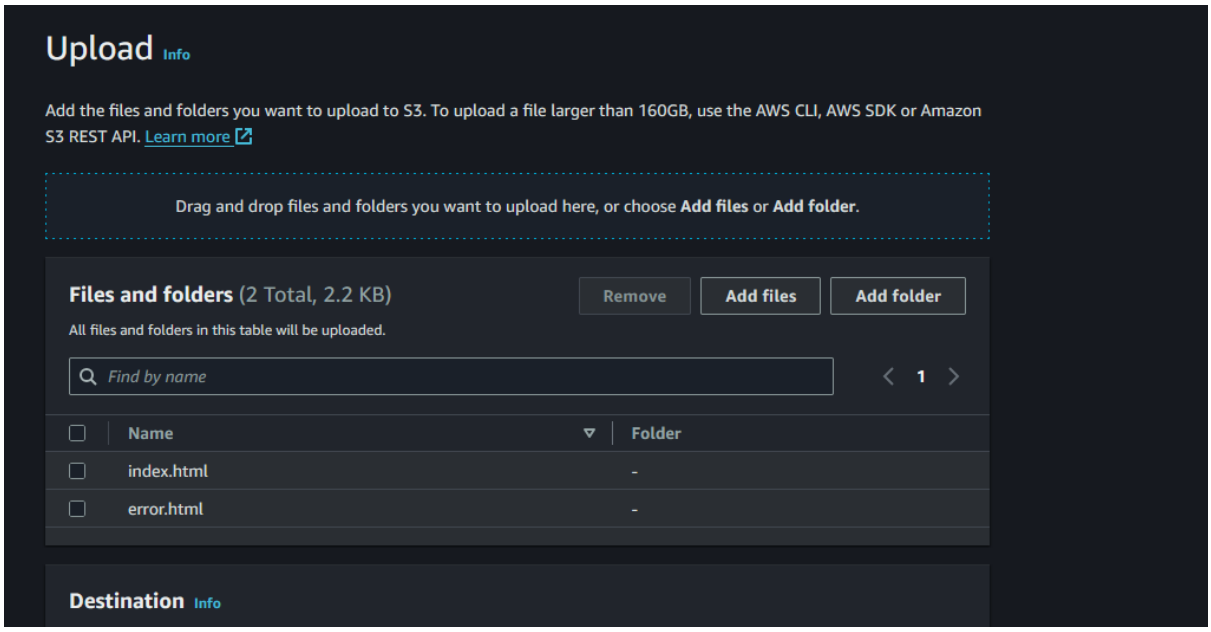




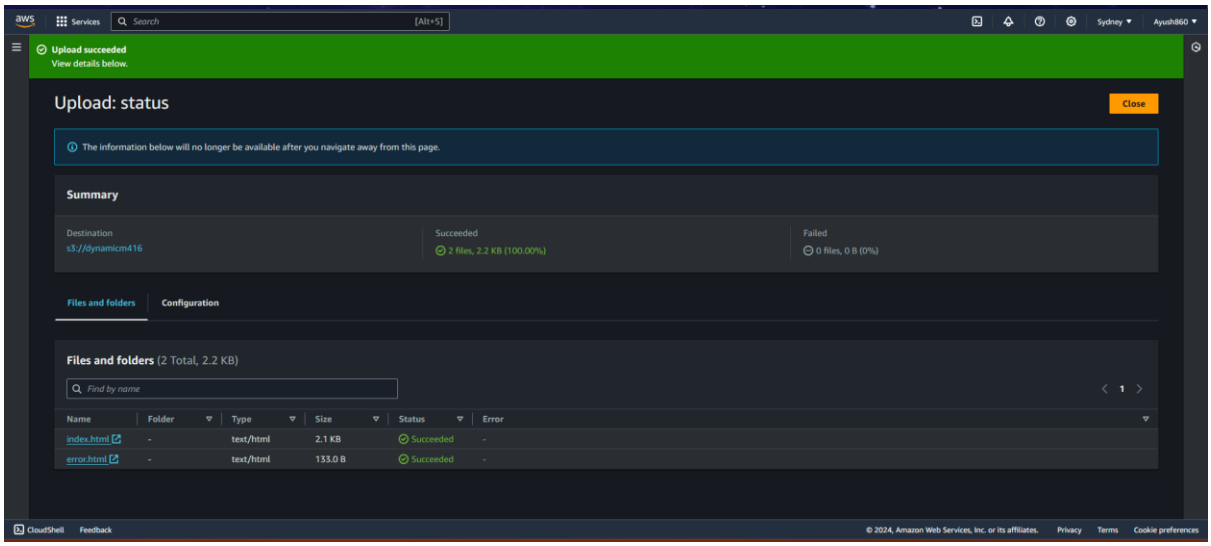
3. Click on the bucket , next step is to uplod the files 2 files index.html and error.html has already been created

Click on upload and upload the files from the local desktop

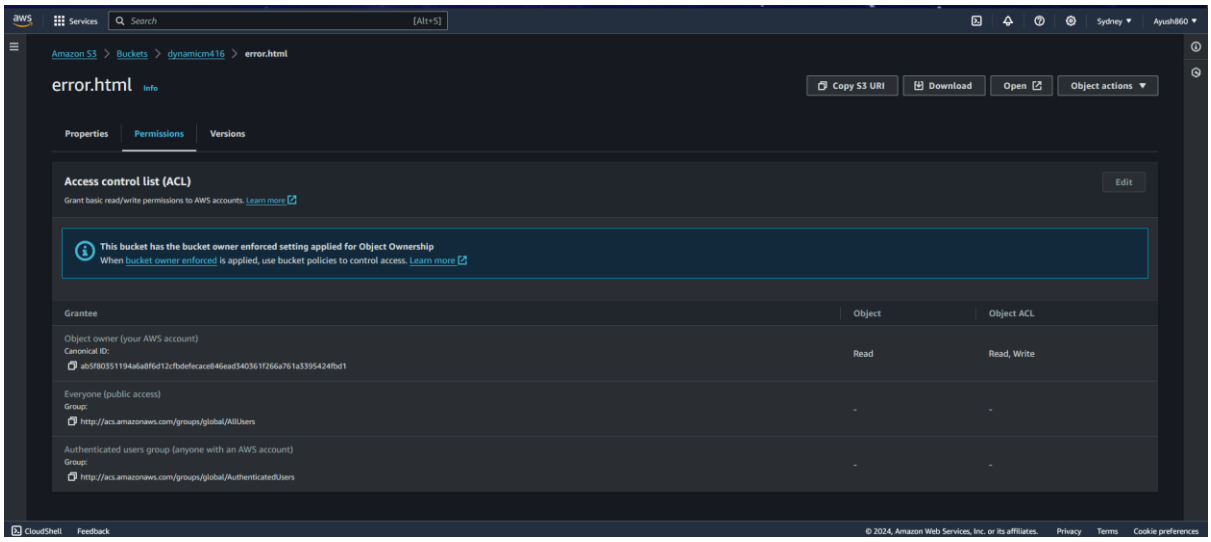




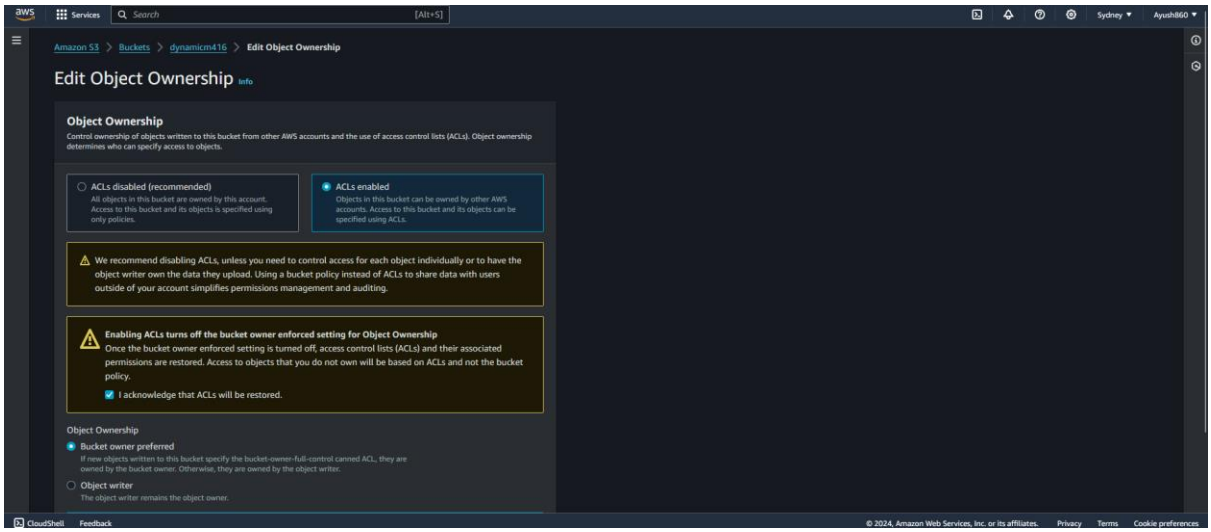
We can see upload is successful

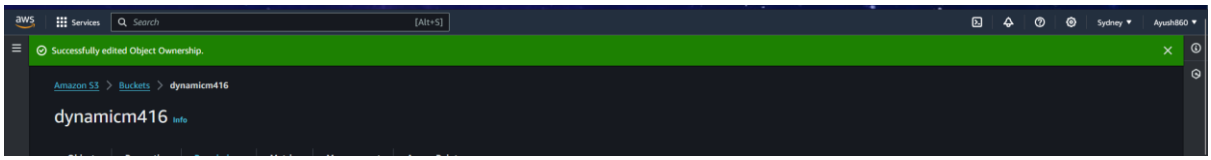


4. Now we have to make it public for that first we need to make object ownership and acl permissions to enabled



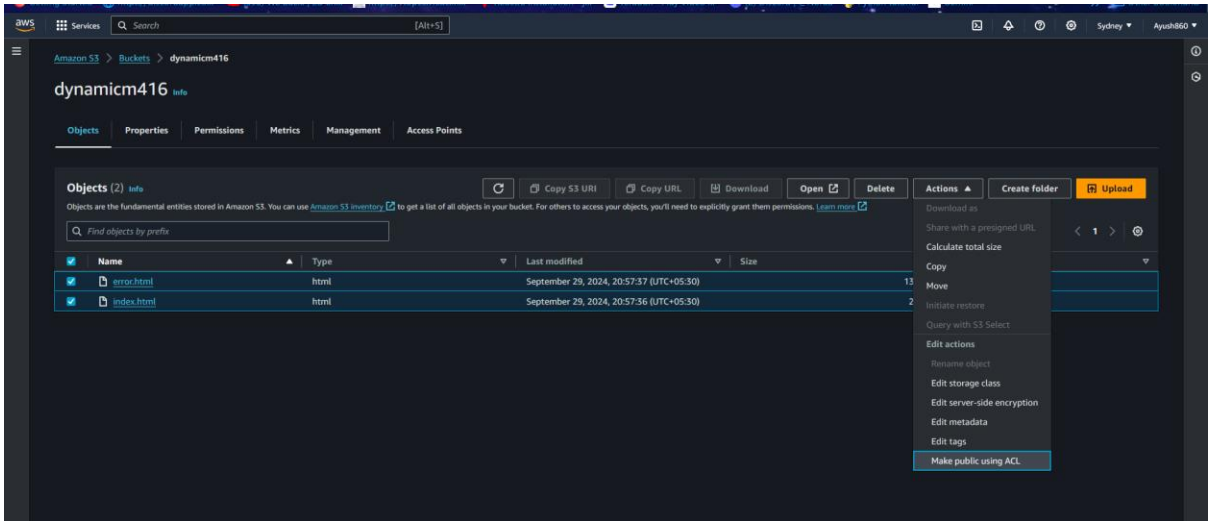
Do these settings and save changes





Similarly do this for the other object as well

5. Now click on make public using acl

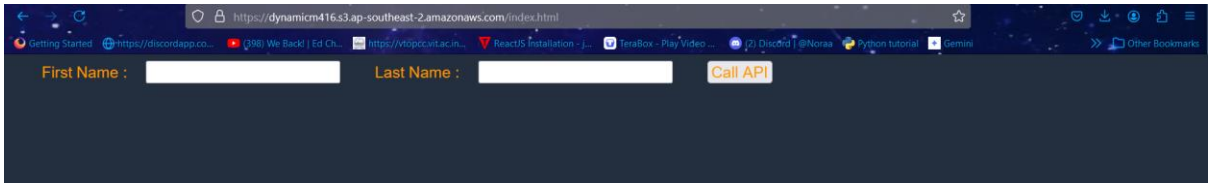

Services
Search
[Alt+S]
Sydney
Ayush860
Amazon S3 > Buckets > dynamicm416
dynamicm416 Info
Objects
Properties
Permissions
Metrics
Management
Access Points
Objects (2) Info
Copy S3 URI
Copy URL
Download
Open
Delete
Actions
Create folder
Upload
Objects are the fundamental entities stored in Amazon S3. 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
Name
Type
Last modified
Size
error.html
html
September 29, 2024, 20:57:37 (UTC+05:30)
index.html
html
September 29, 2024, 20:57:36 (UTC+05:30)
Download as
Share with a presigned URL
Calculate total size
Copy
Move
Initiate restore
Query with S3 Select
Edit actions
Rename object
Edit storage class
Edit server-side encryption
Edit metadata
Edit tags
Make public using ACL

6. We can see the object urls

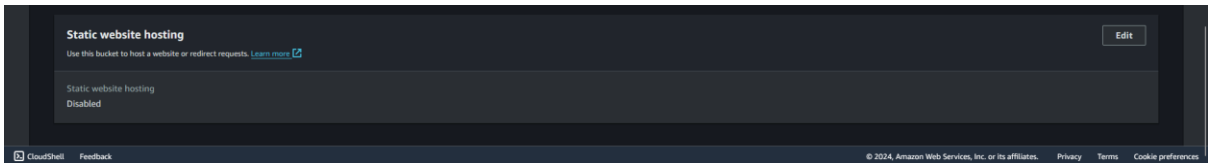
https://dynamicm416.s3.ap-southeast-2.amazonaws.com/error.html

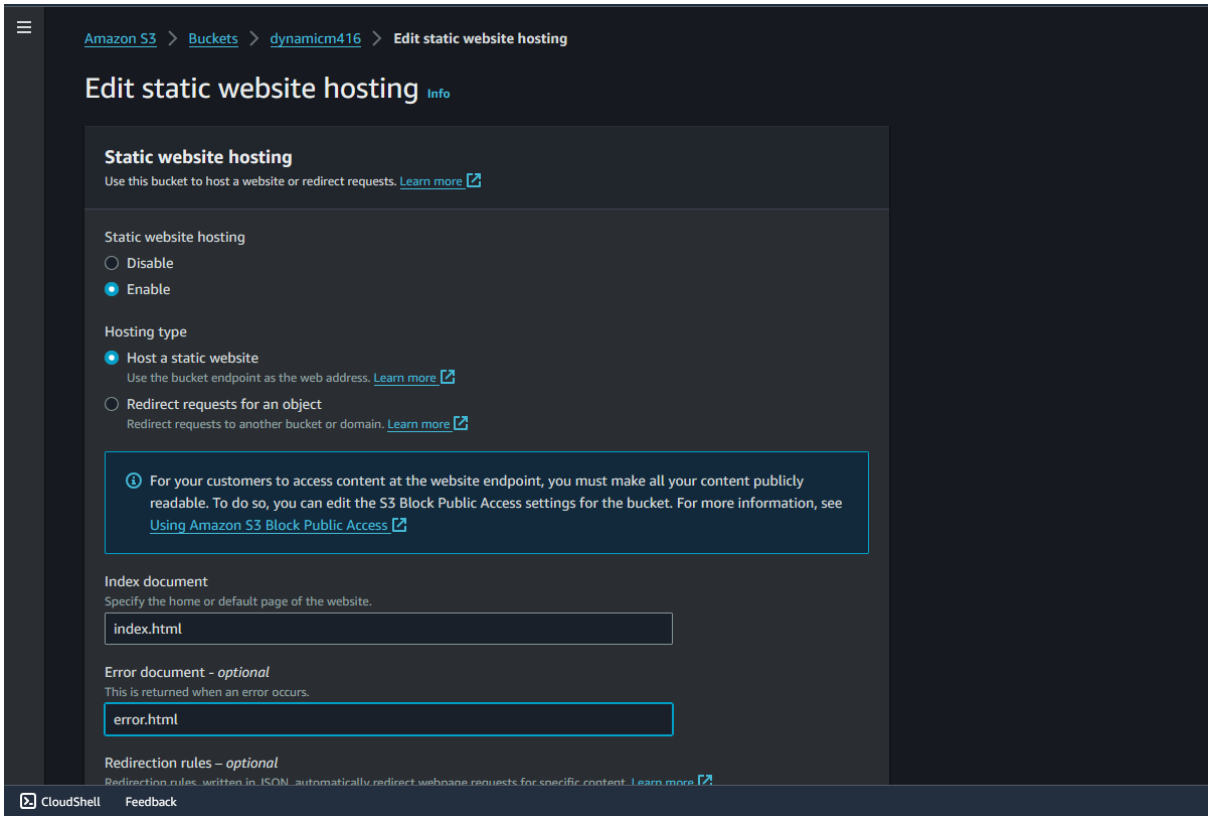
Error Page

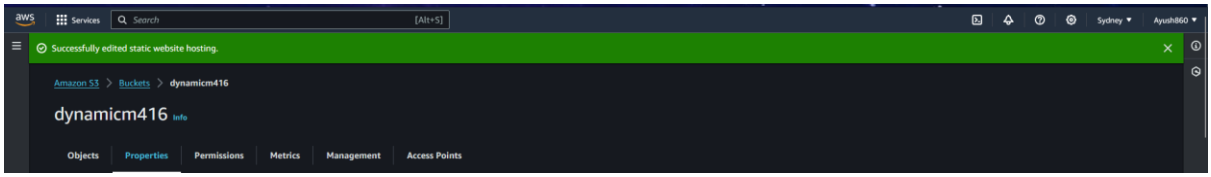
https://dynamicm416.s3.ap-southeast-2.amazonaws.com/index.html



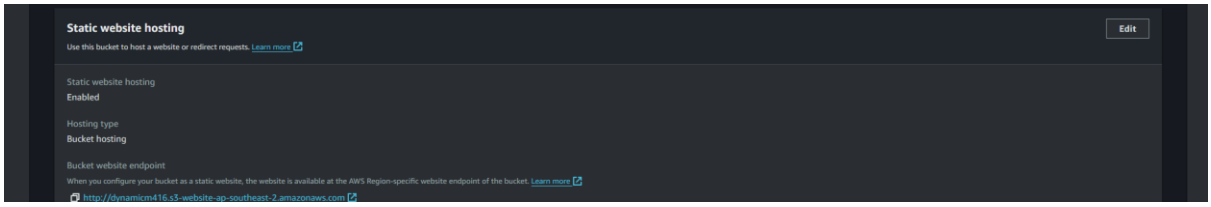
7. After this now do static website hosting





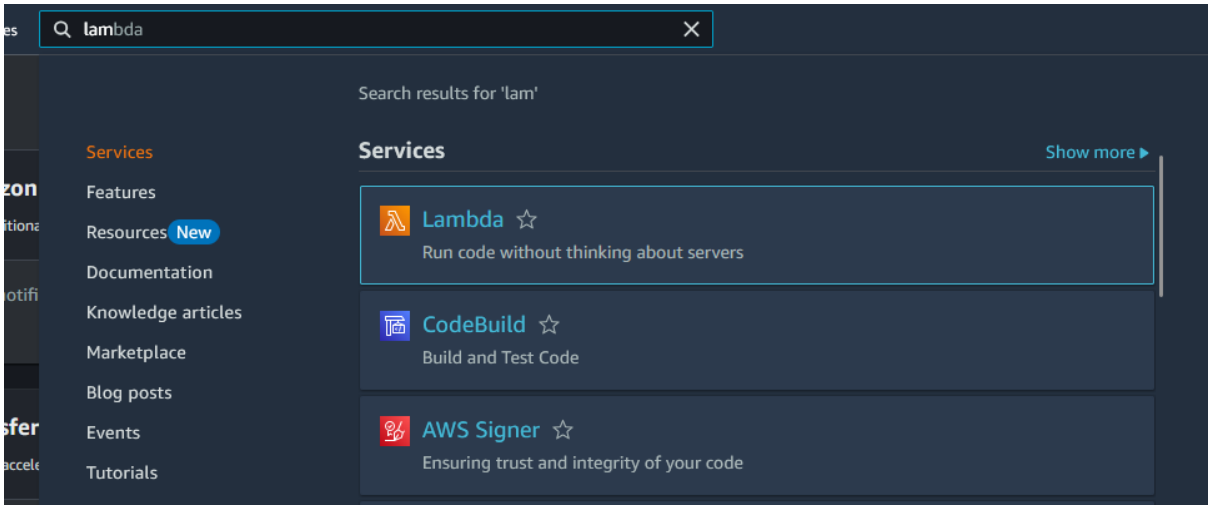


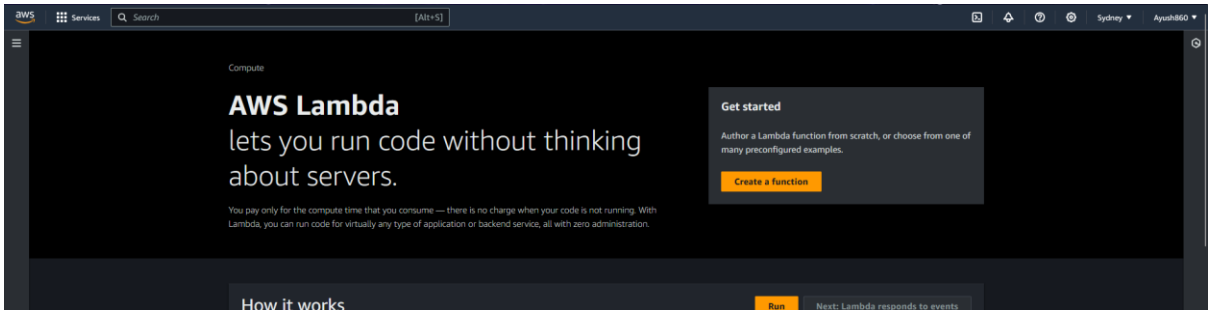
8. We got the website link



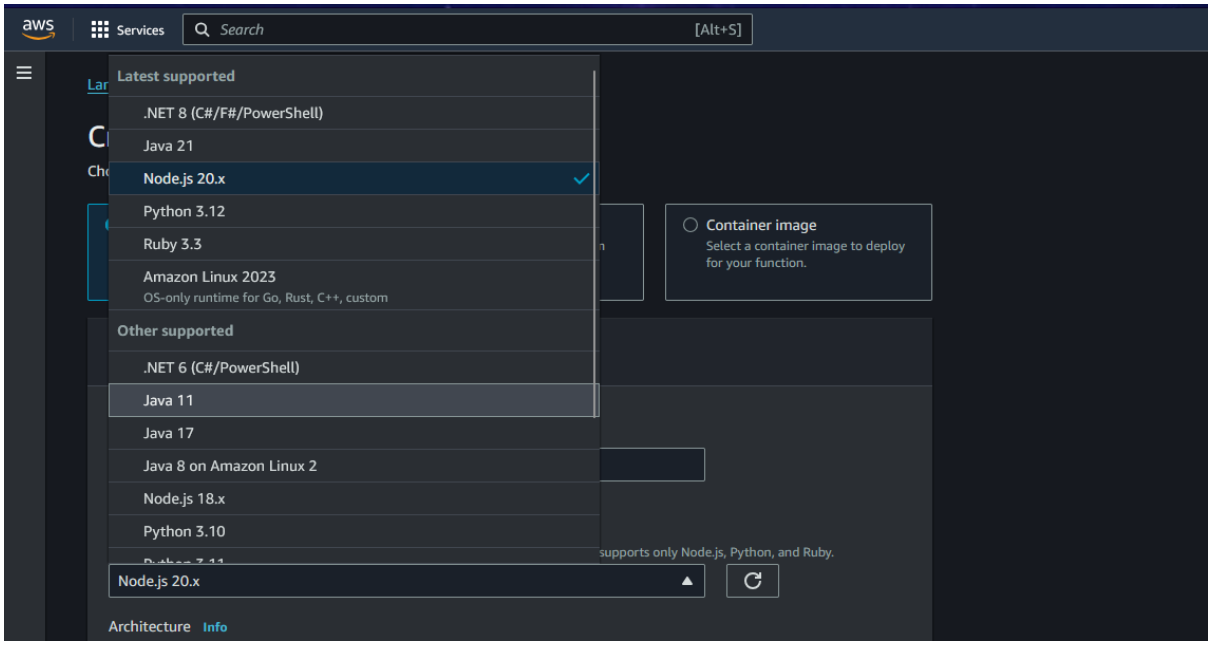
http://dynamicm416.s3-website-ap-southeast-2.amazonaws.com

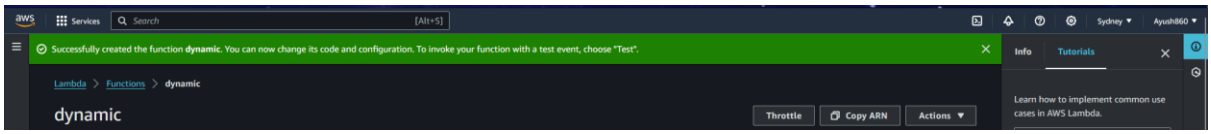
9. Now search for lambda and create function





10. Keep settings default only thing is change from node js to python latest version





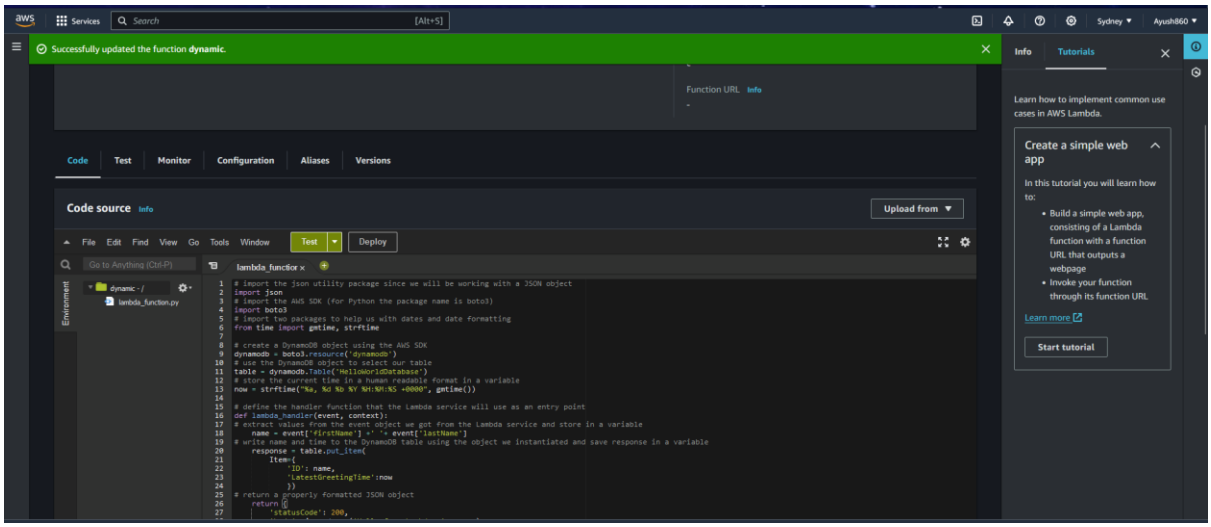
11. Create lambda function handler

Code for the lambda handler

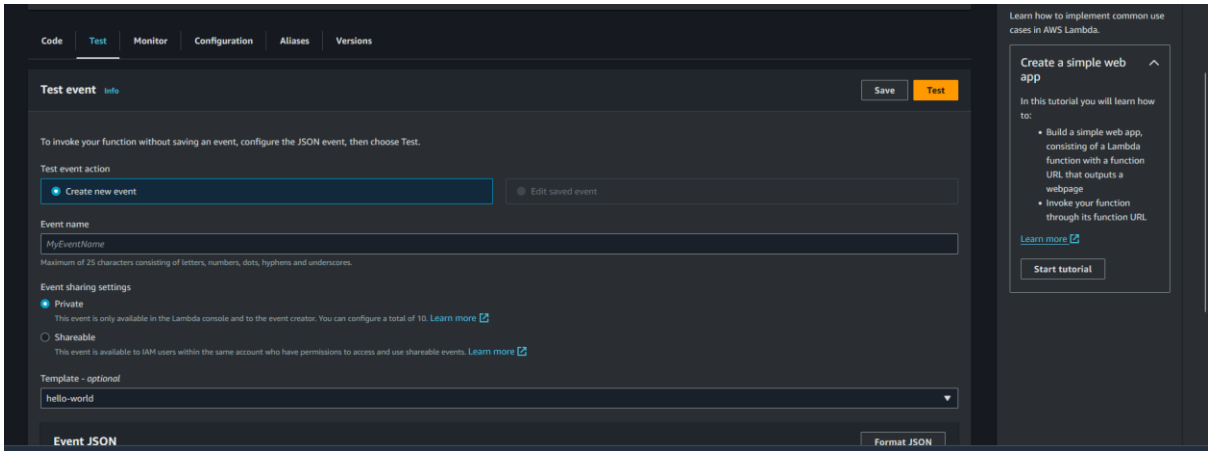
```
# import the json utility package since we will be working with a JSON object
import json
# import the AWS SDK (for Python the package name is boto3)
import boto3
# import two packages to help us with dates and date formatting
from time import gmtime, strftime

# create a DynamoDB object using the AWS SDK
dynamodb = boto3.resource('dynamodb')
# use the DynamoDB object to select our table
table = dynamodb.Table('HelloWorldDatabase')
# store the current time in a human readable format in a variable
now = strftime("%a, %d %b %Y %H:%M:%S +0000", gmtime())

# define the handler function that the Lambda service will use as an entry point
```

```
def lambda_handler(event, context):
# extract values from the event object we got from the Lambda service and store in a variable
    name = event['firstName'] +' '+ event['lastName']
# write name and time to the DynamoDB table using the object we instantiated and save response in a variable
    response = table.put_item(
        Item={
            'ID': name,
            'LatestGreetingTime':now
            })
# return a properly formatted JSON object
    return {
        'statusCode': 200,
        'body': json.dumps('Hello from Lambda, ' + name)
    }
```

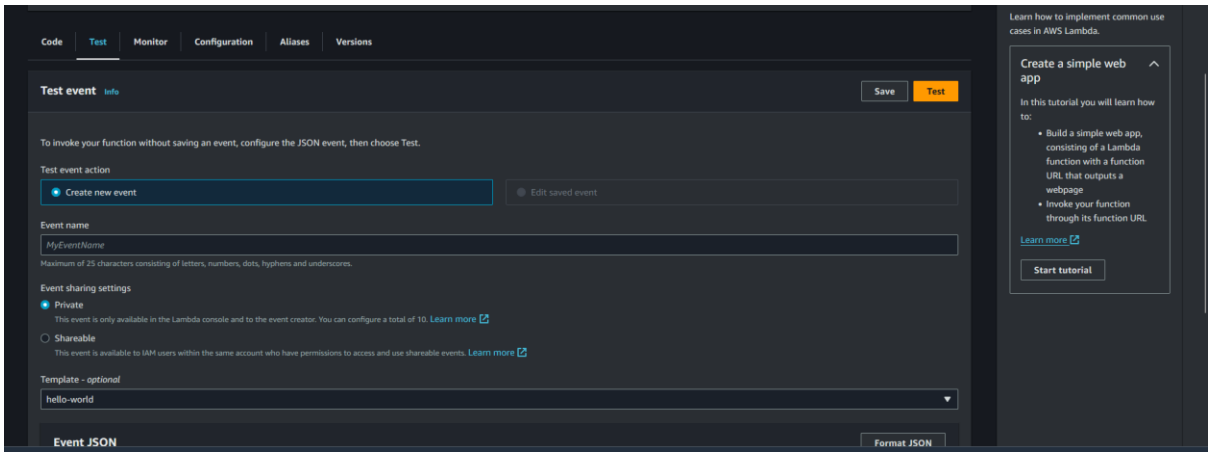
Deploy the changes

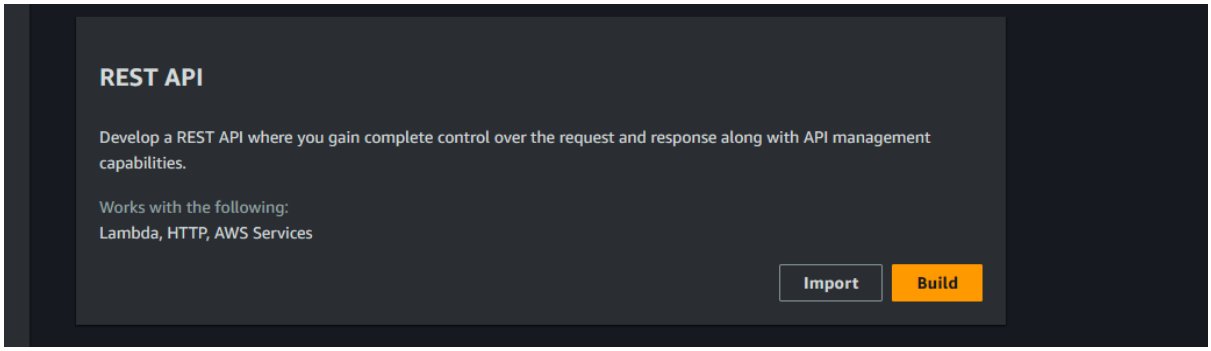


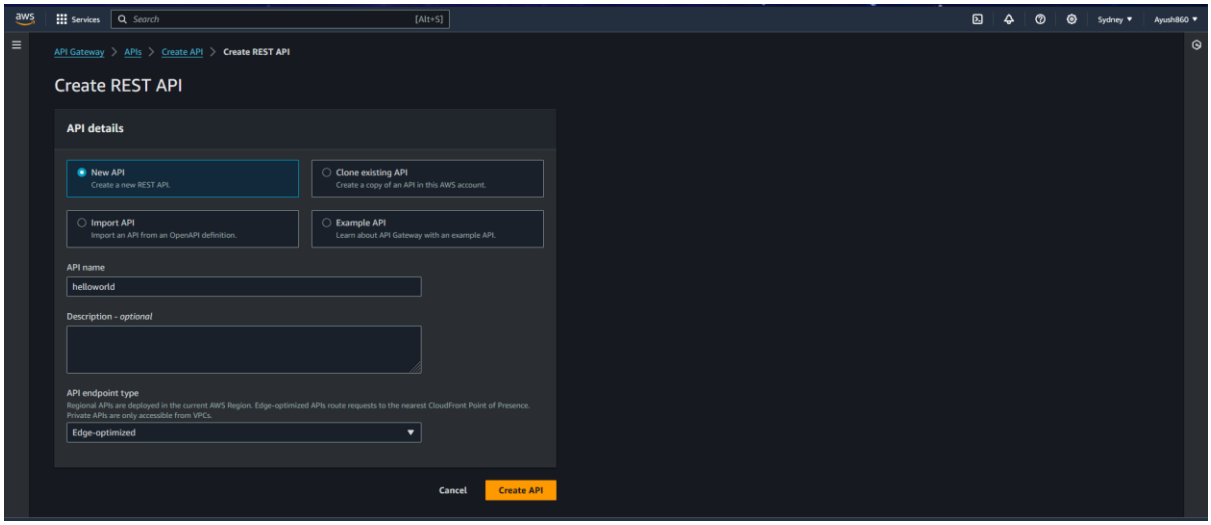
12. Create a test event



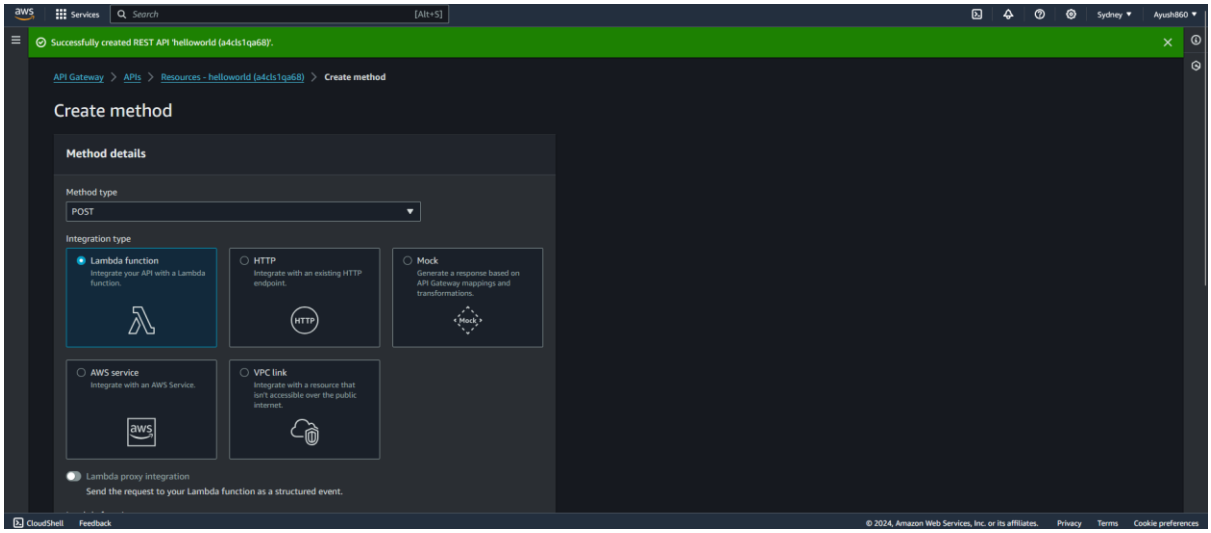
13. Now next we will look for api gateways

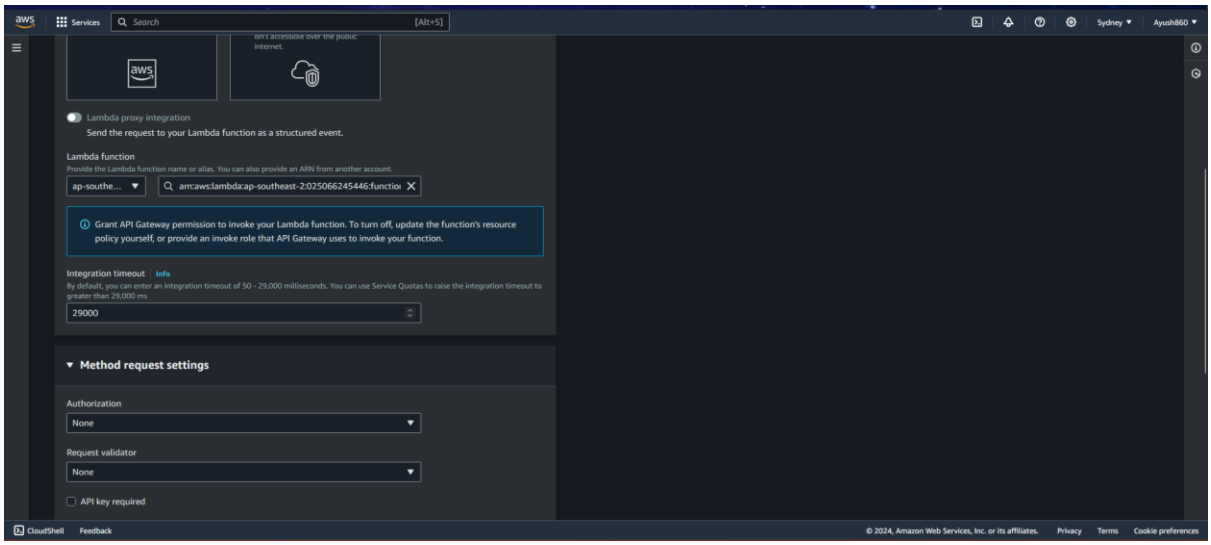




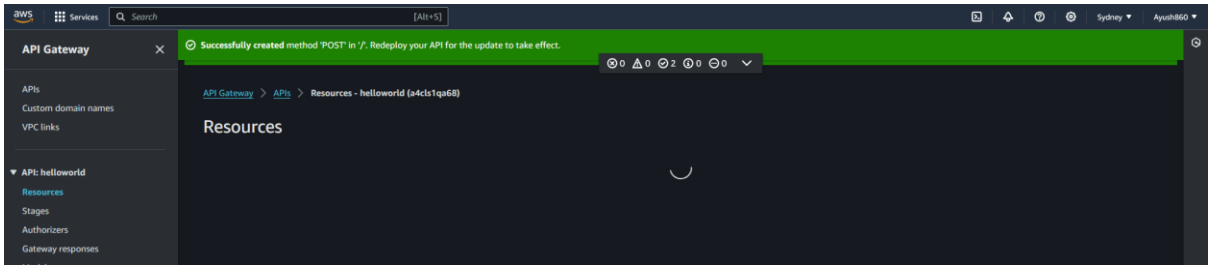


Now create a methods in rest api



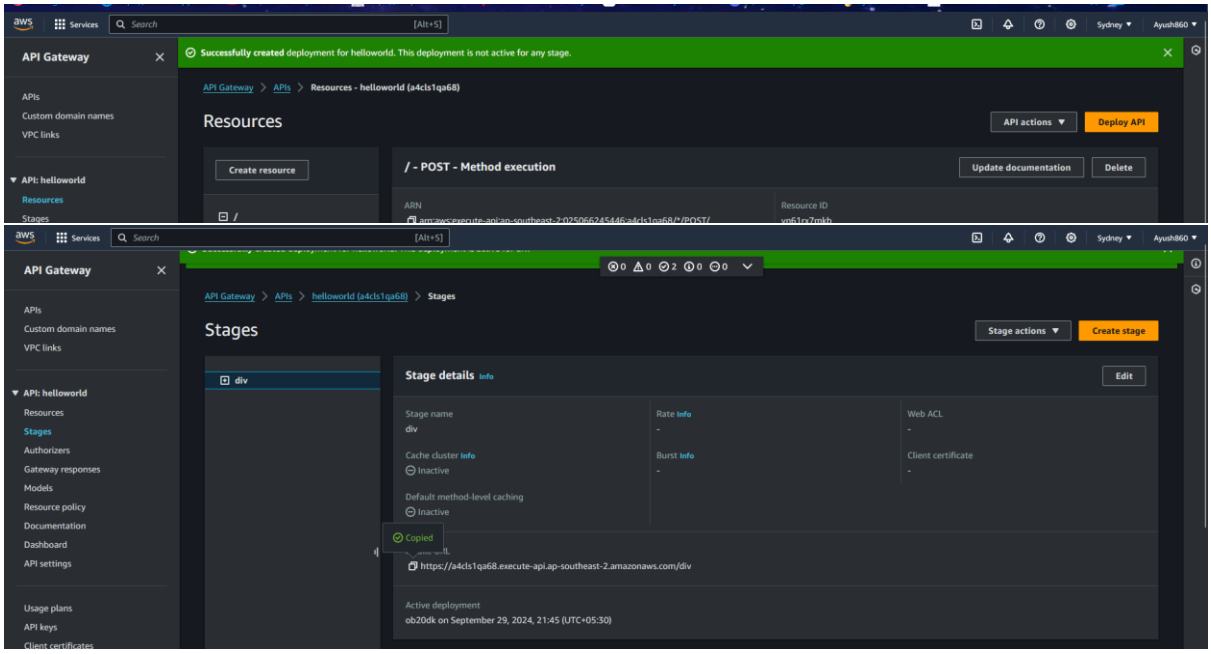


Select the lambda function that we created

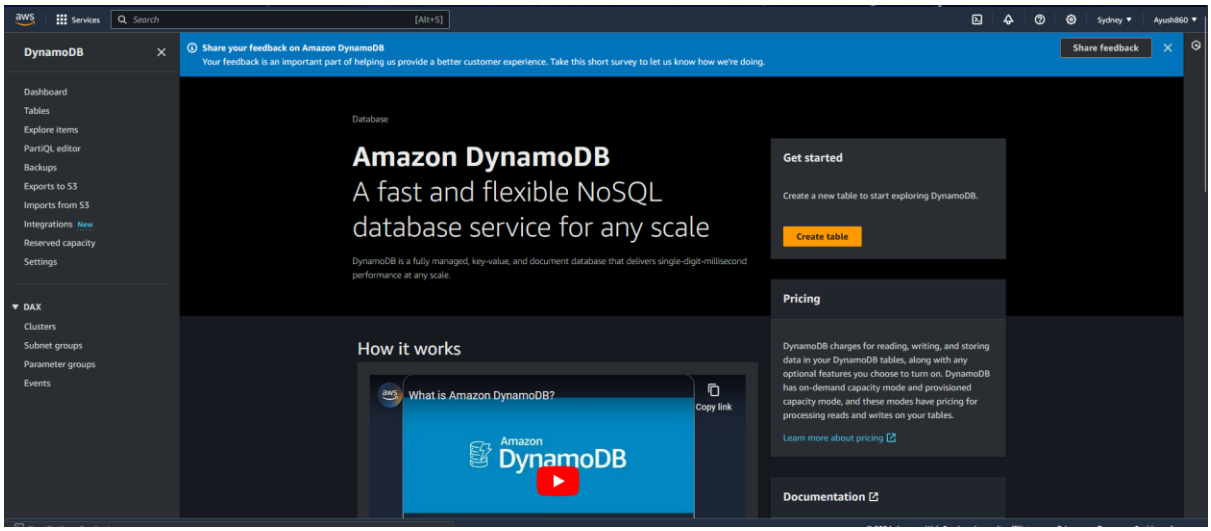


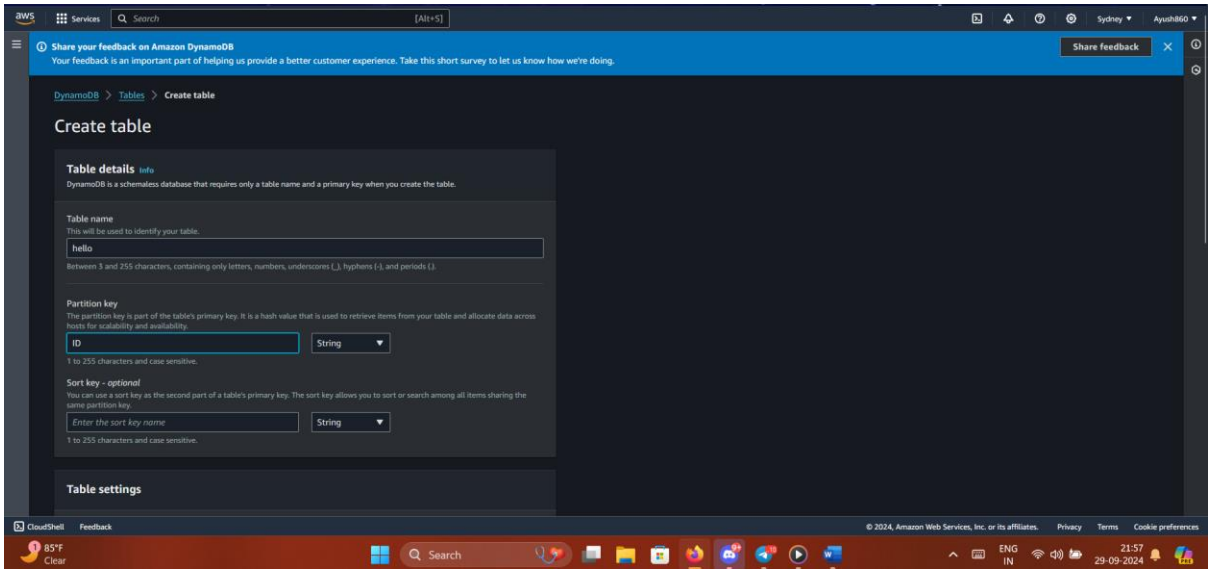
As we can see the method was successfully created

14.

15. 

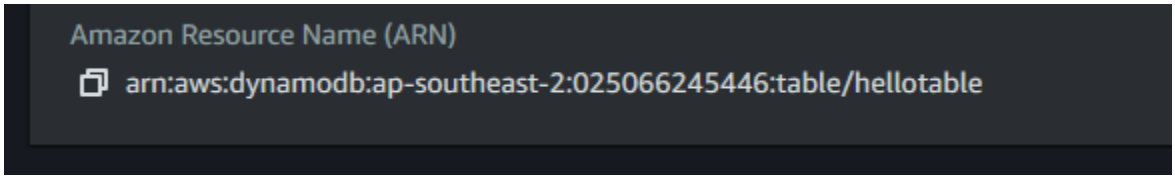
16. We need to create a dynamo db





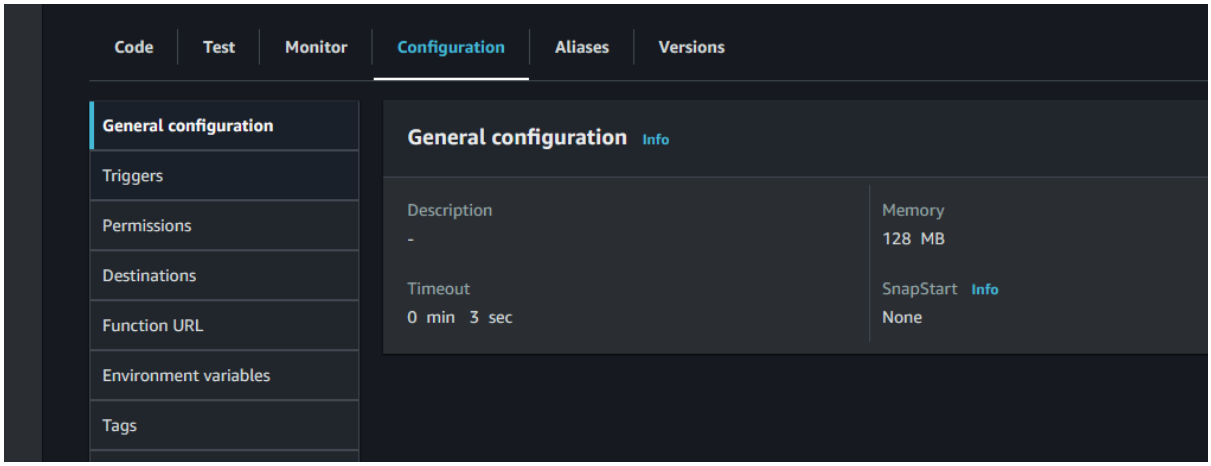
17. Create the db and copy the arn address

arn:aws:dynamodb:ap-southeast-2:025066245446:table/hellotable

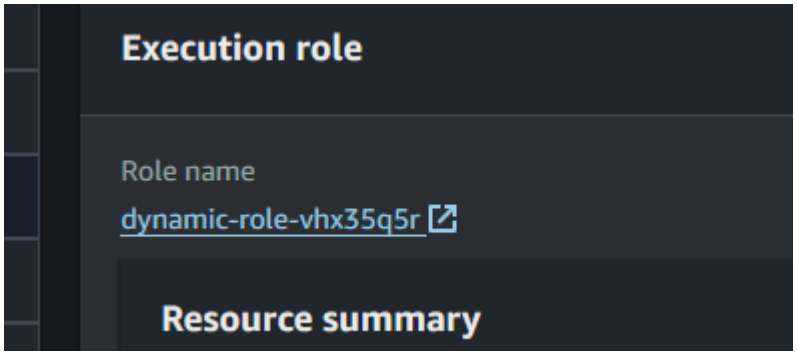


18. Now go back to lamda function

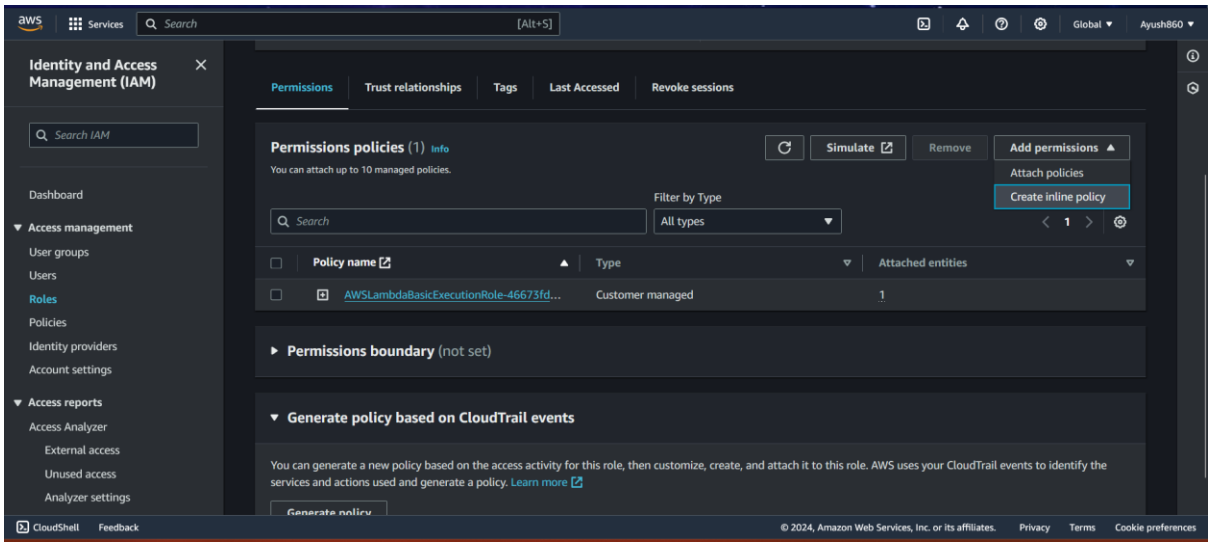
19. Click on configuration > permissions



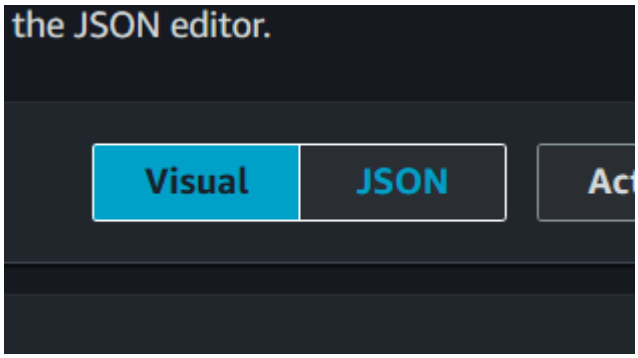
After permissions



Select the role >create inline policy



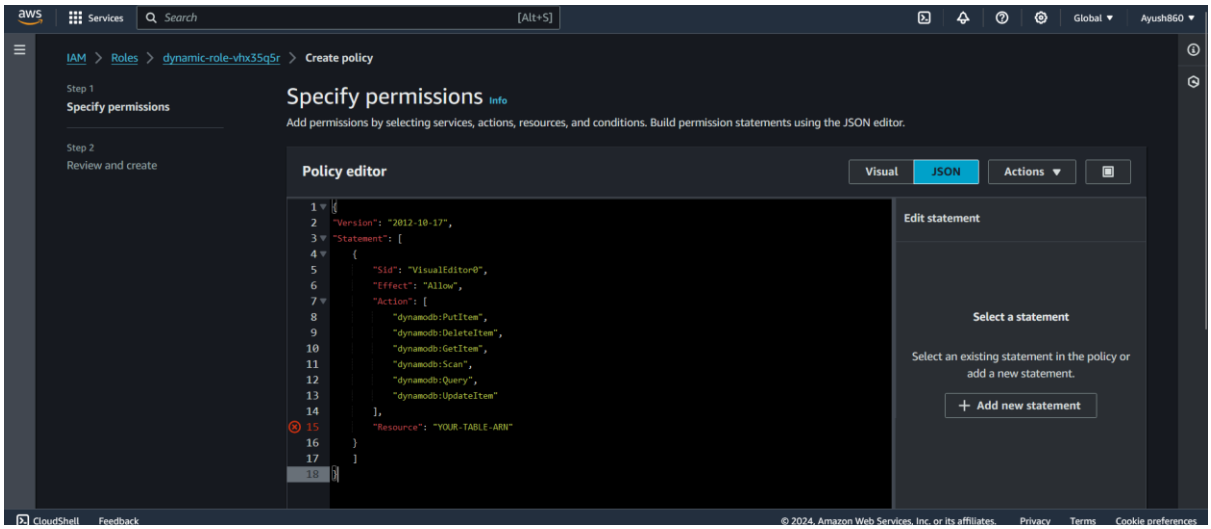
Choose Json



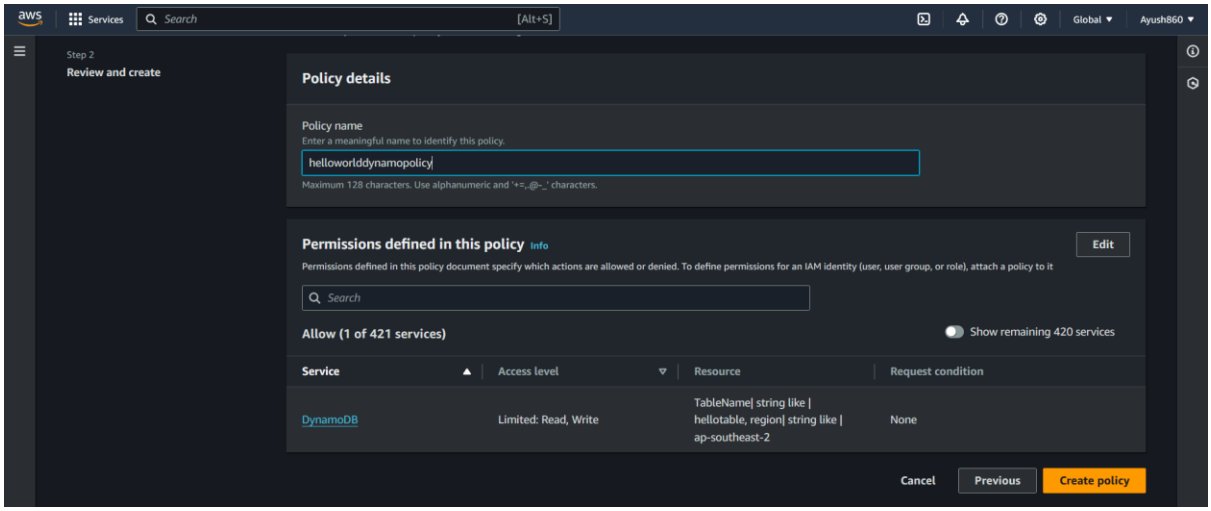
Write this code

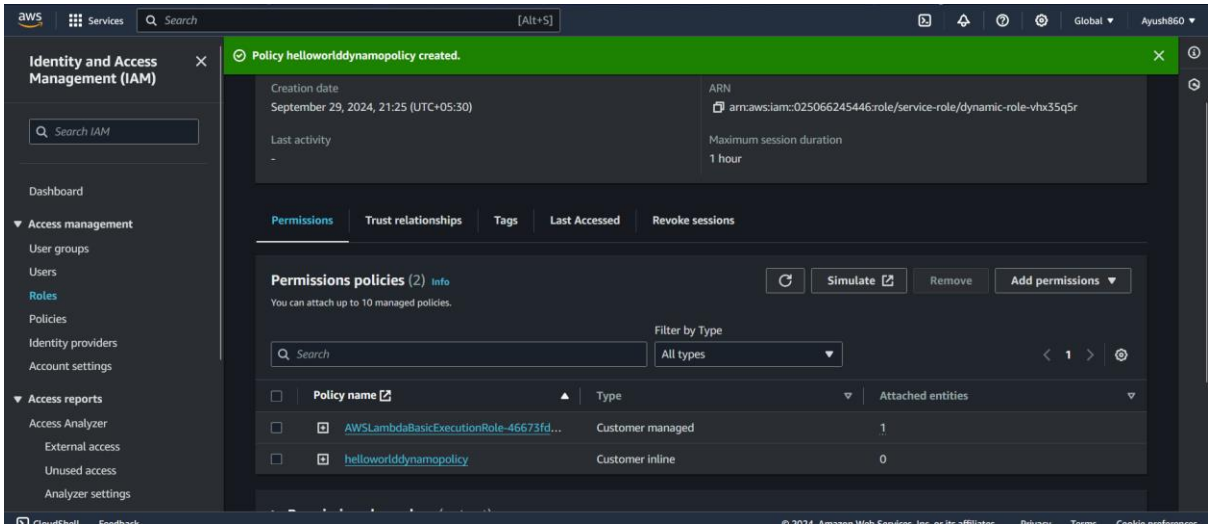
```
{
"Version": "2012-10-17",
"Statement": [
    {
        "Sid": "VisualEditor0",
        "Effect": "Allow",
```

```
        "Action": [
            "dynamodb:PutItem",
            "dynamodb:DeleteItem",
            "dynamodb:GetItem",
            "dynamodb:Scan",
            "dynamodb:Query",
            "dynamodb:UpdateItem"
        ],
        "Resource": "YOUR-TABLE-ARN"
    }
    ]
}
```

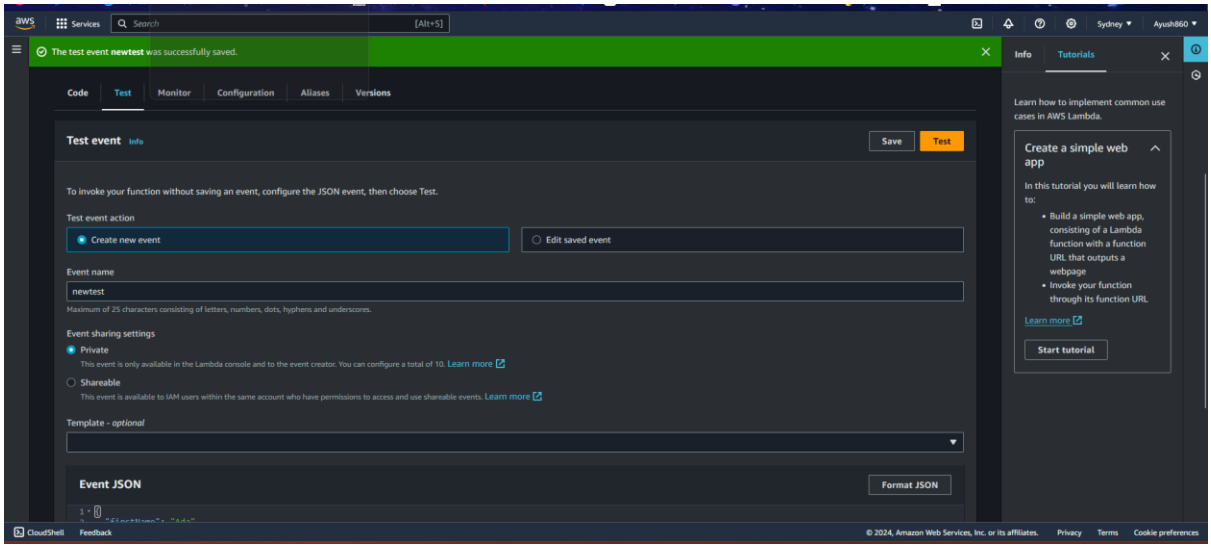


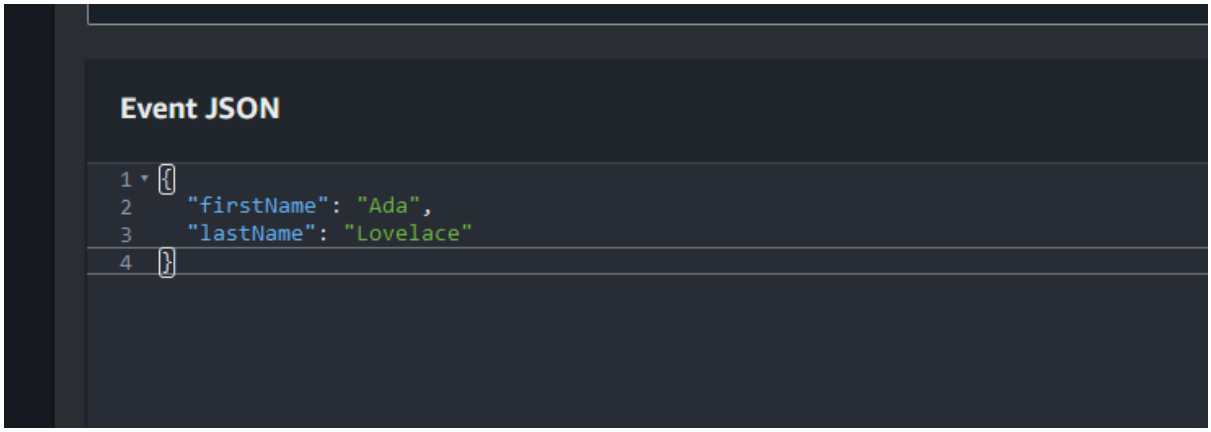
20. Click next > Now name the policy



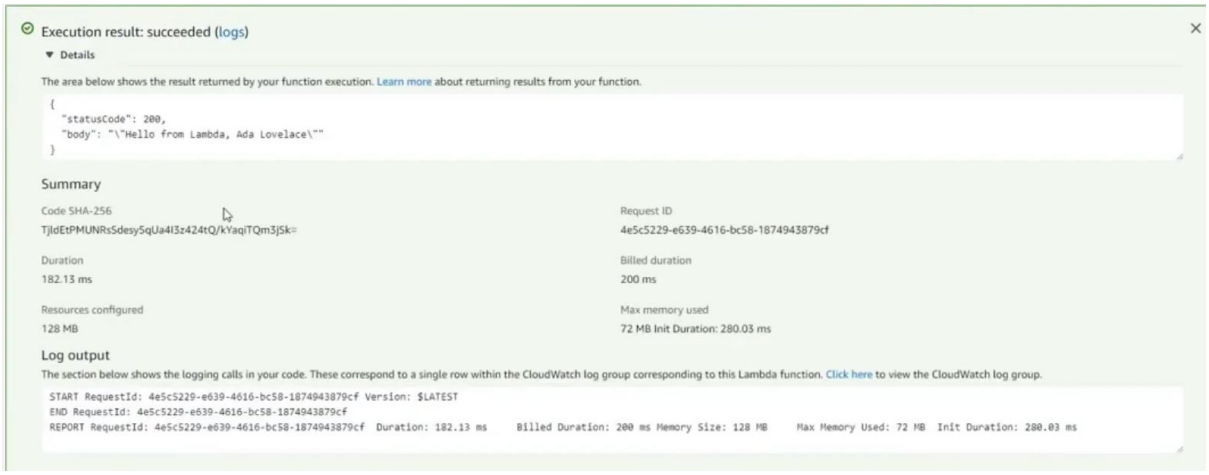


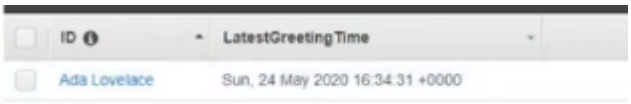
21. Create a test event





Test results



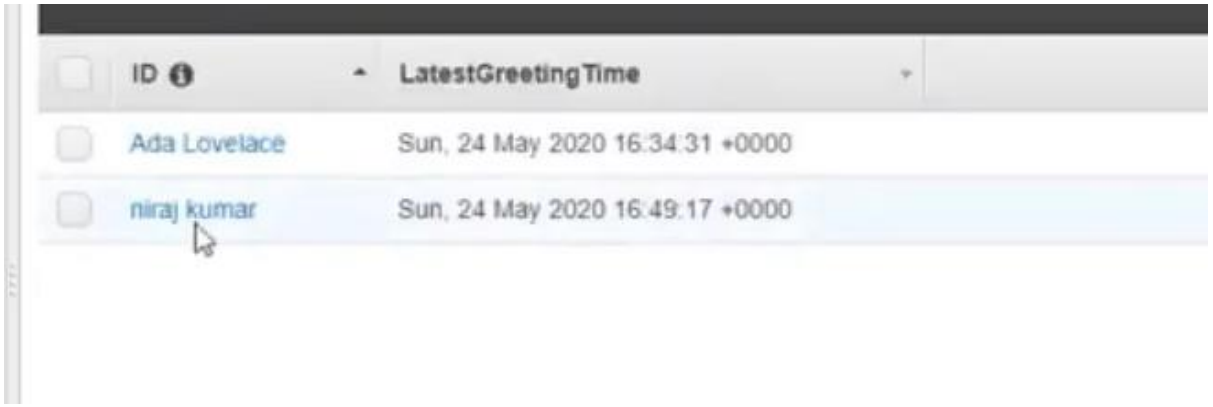


We can see the results the dynamo db is adding these items

Now we can run our website

We added this

And we can see the item is getting added to our dynamo db table



ID	LatestGreetingTime
Ada Lovelace	Sun, 24 May 2020 16:34:31 +0000
niraj kumar	Sun, 24 May 2020 16:49:17 +0000