**Lambda Function in AWS**

AWS Lambda is a serverless compute service from [Amazon Web Services (AWS)](https://aws.amazon.com/lambda/features/) that allows you to run code without provisioning or managing servers. It enables you to execute code in response to events, automatically manages the underlying compute resources, and scales up or down based on demand.

**STEP 1: Sign in to AWS Management Console**

1. Click on the **Open Console** button, and you will get redirected to AWS Console in a new browser tab.  
2. On the AWS sign-in page,  
Leave the Account ID as default. Never edit/remove the 12 digit Account ID present in the AWS Console. Otherwise, you cannot proceed with the lab.  
3. Now copy your **Username** and **Password** in the Lab Console to the **IAM Username and Password** in AWS Console and click on the **Sign in** button.  
4. Once Signed in to the AWS Management Console, Make the default AWS Region as **US East (N. Virginia) us-east-1.**

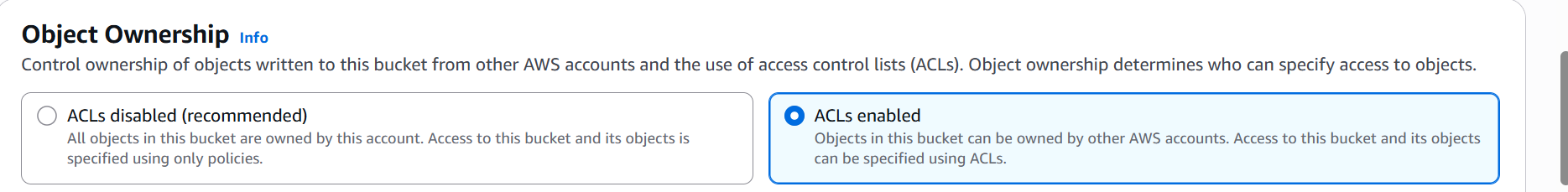
**STEP 2: Create an S3 Bucket**

1. In this task, we are going to create an S3 bucket by providing the required configurations such as name, region, and ACLs.  
2. Navigate to the **Services** menu at the top. Click on **S3** in the **Storage** section.  
3. On the S3 dashboard, click on **Create bucket**button.  
4. Bucket name: Enter ***any name***  
 Note: S3 bucket names are globally unique, choose a name that is available.

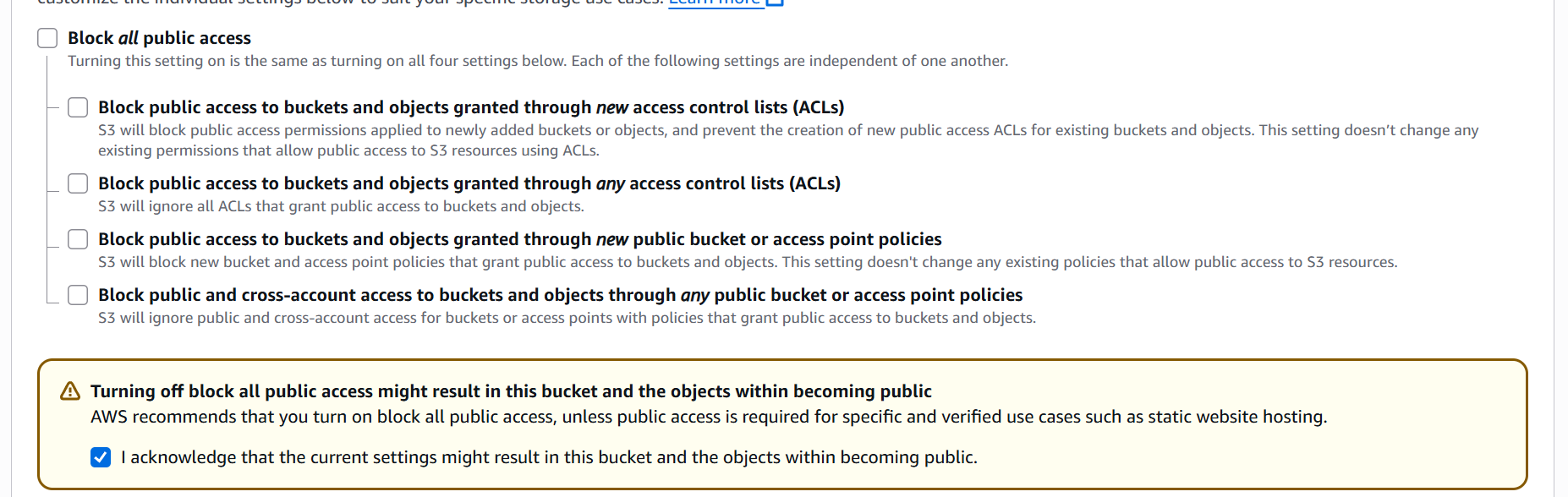
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5. Region: Select **US East (N. Virginia) us-east-1**  
6. Object ownership: Select **ACLs disabled (recommended)** option



7. Uncheck block all public access box and check the acknowledge box



8. Click on the **Create bucket** button

**STEP 3: Create a Lambda Function**

1. Go to the AWS Lambda console.   
2. Click "**Create function**".   
3. Choose "**Author from scratch**".  
4. Enter a function name (e.g., demofunction).  
  
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5. Select a **runtime** (e.g., Python 3.x or Node.js).

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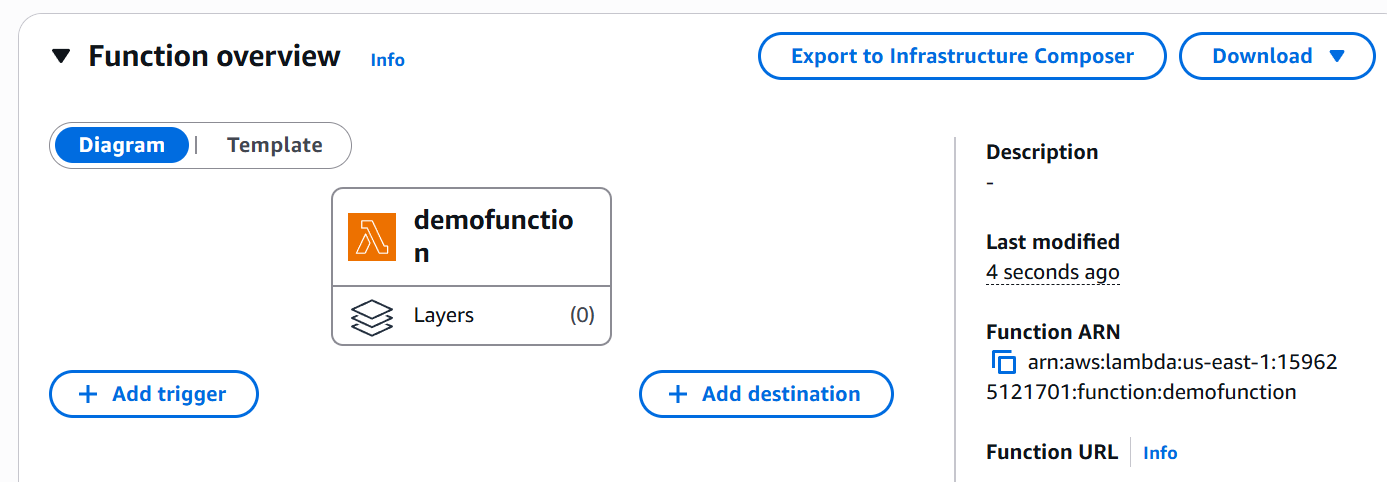
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6. For permissions, choose "Create a new role with basic Lambda permissions".  
7. Click "Create function".

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**STEP 4: Add S3 Trigger**

1. In the **Function overview** section, click "**Add trigger**".



1. Select "S3" as the trigger source.

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1. Choose the **previously created S3 bucket**.

4. Set the event type to “All object create event”.

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1. Click "Add".

**STEP 5: Add Code to Lambda Function**

Example (Python):

import json

def lambda\_handler(event, context):

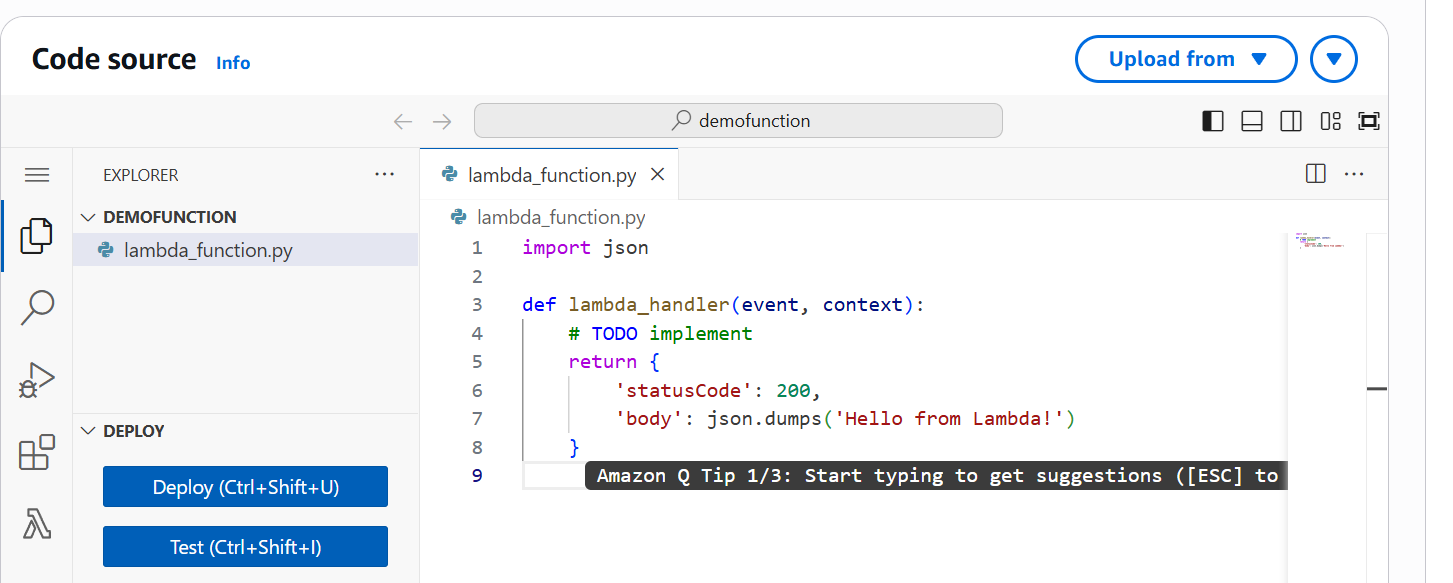
    # TODO implement

    return {

        'statusCode': 200,

        'body': json.dumps('Hello from Lambda!')

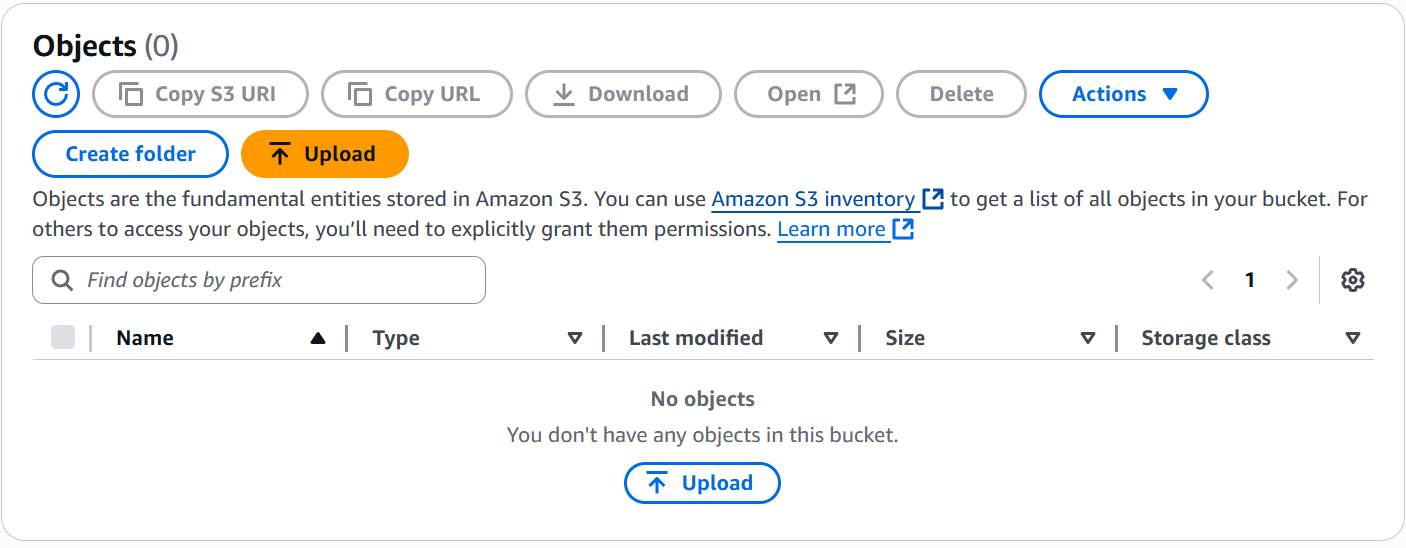
    }



**Click "Deploy"** after updating the function code

**STEP 6: Test the Setup**

Upload a file to the S3 bucket.

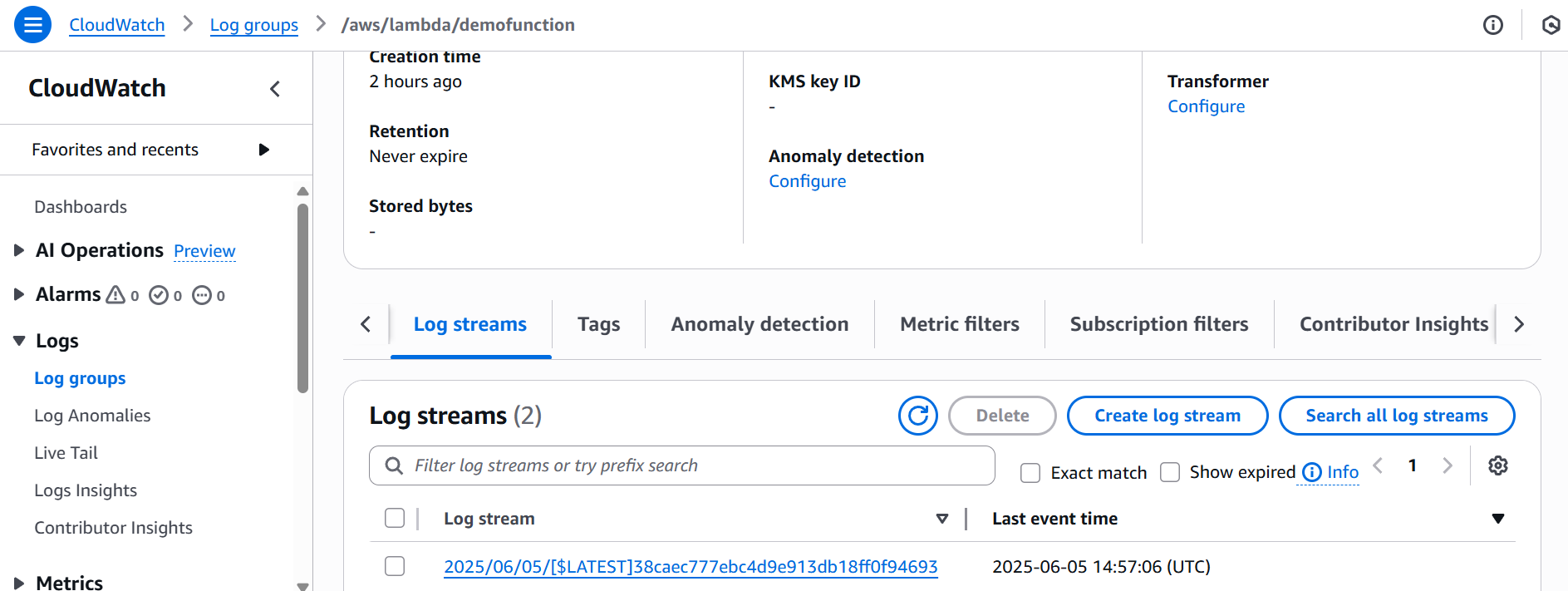


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**Method 1.** (A) Go to the Lambda function’s "Monitor" tab and open CloudWatch Logs.

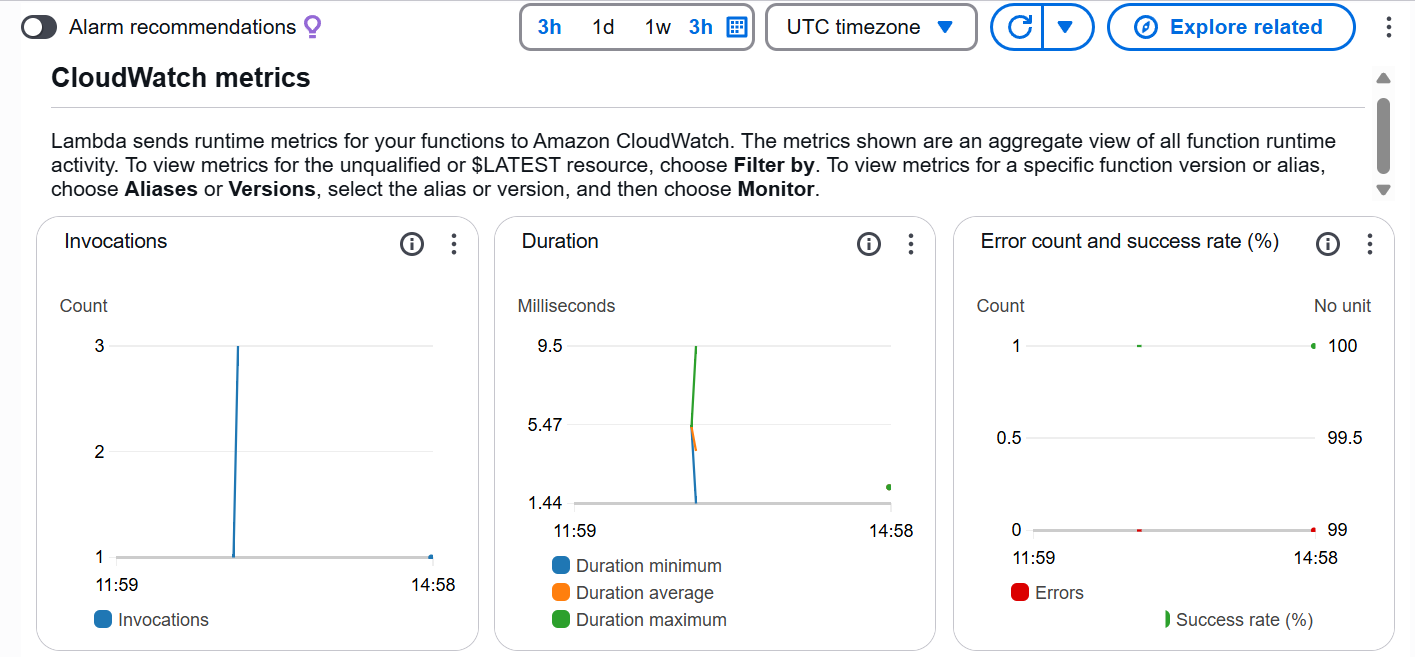
(B) Check the logs to verify if the function was triggered.



**Method 2:** Use Amazon CloudWatch Metrics

In CloudWatch > Metrics, navigate to: Lambda > By Function Name

Select your function to see the number of invocations and errors.



NOTE-

1. If access issues occur, go to the IAM console.

2. Locate the Lambda execution role and attach the "AmazonS3ReadOnlyAccess" policy or a custom policy with appropriate S3 permissions.