Cloud Plus Plus Services

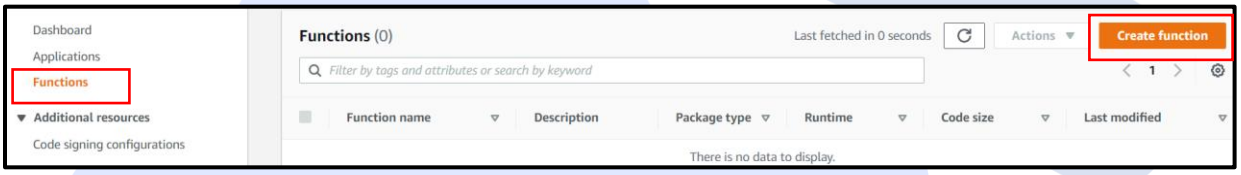
Event-driven architecture using AWS Lambda & Amazon S3.

Tutorial Objectives:

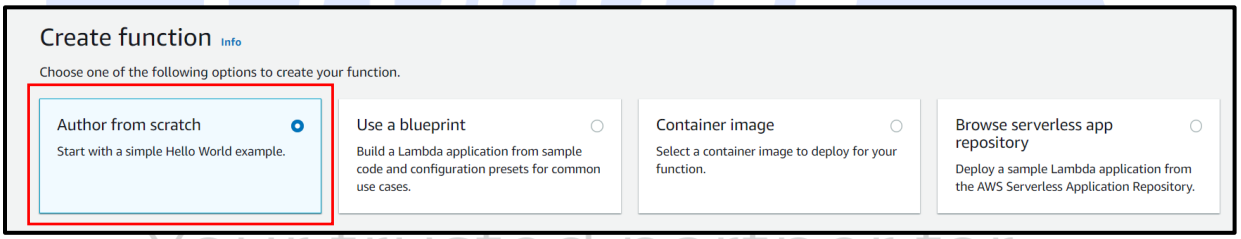
1. Learn to create Lambda using AWS Management Console.
2. Learn to implement event-driven architecture using S3 as event source to invoke Lambda function

Step 1: In **Lambda** service console, go to **Function** in side panel.

Click on **Create Function.**



Select **Author from Scratch** to create a Function.

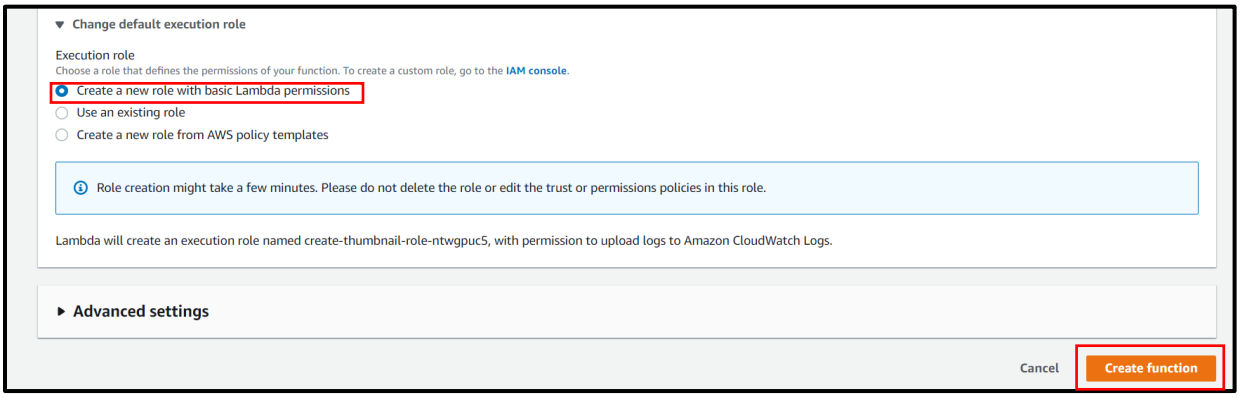


- Function Name: **create-thumbnail**
- Runtime: **Python 3.7**

Expand **Change default execution role.**

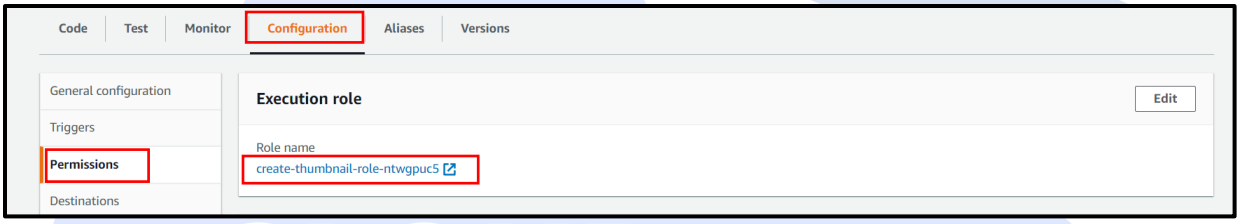
Execution Role: **Create a new role with basic Lambda permissions**.

Click **Create Function**.



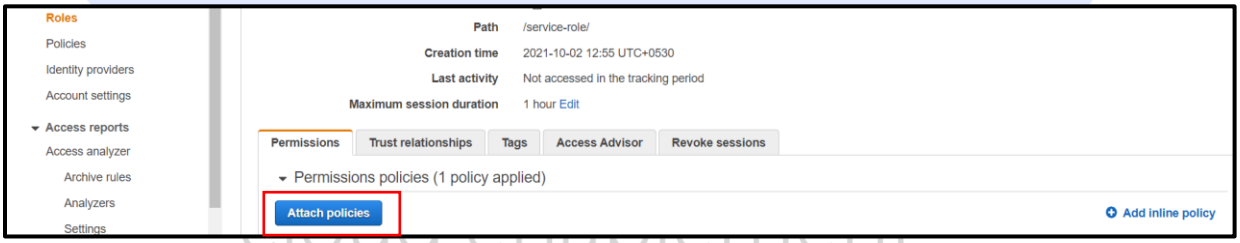
Click on **Configuration**. In the left side panel, Click on **Permissions**.

Click on the role name which appears.



This will redirect you to **IAM console**.

Click on **Attach policies**.



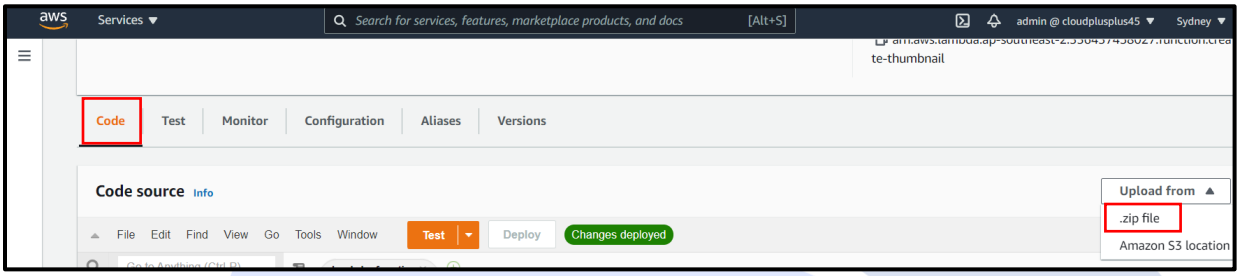
Select Policy Name: **AmazonS3FullAccess** and Click **Attach policy**.

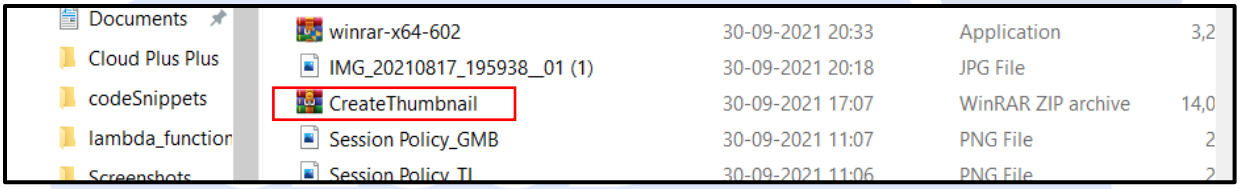
Step 2: Click on the following link: *https://s3-us-west-2.amazonaws.com/us-west-2-aws-training/awsu-spl/spl-88/2.3.15.prod/scripts/CreateThumbnail.zip*

This will download the **CreateThumbnail.zip** file on your local machine.

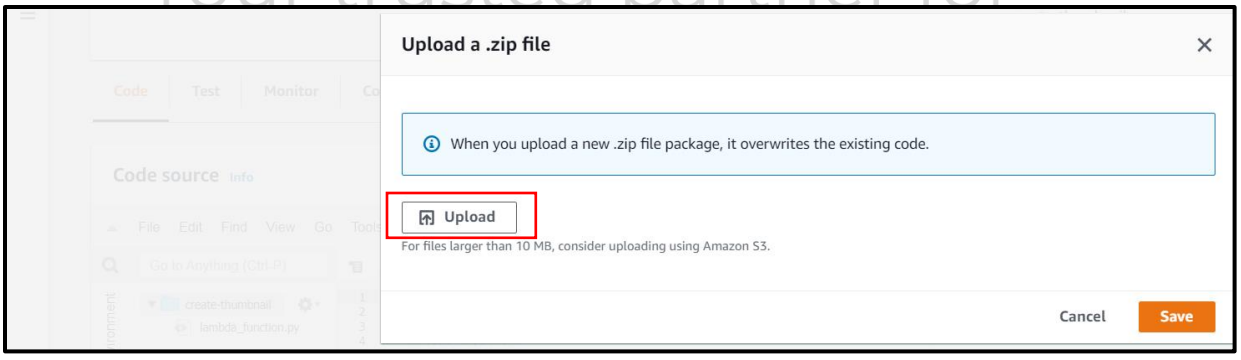
Go back to **Lambda** console.

Click on **Code** and at the right corner upload from **.zip file**



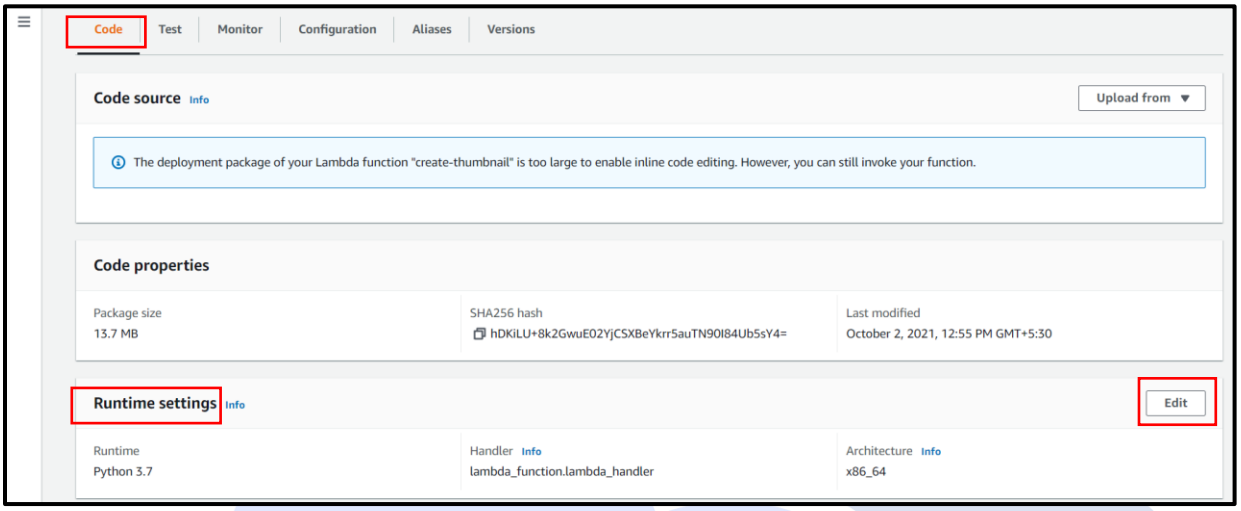


Select **CreateThumbnail** file and Click **Save.**



Click on **Code.**

In **Runtime settings** Click on **Edit.**



- Handler**: CreateThumbnail.handler**

The zip file we have downloaded has a python program with name **CreateThumbnail.py**.

This code has a function called handler.

Thus the handler name is **CreateThumbnail.handler**

Click **Save.**

Step 3: Open the new AWS tab and go to **S3 console.**

Create two buckets in the same region as of Lambda Function i.e. **Sydney** here**.**

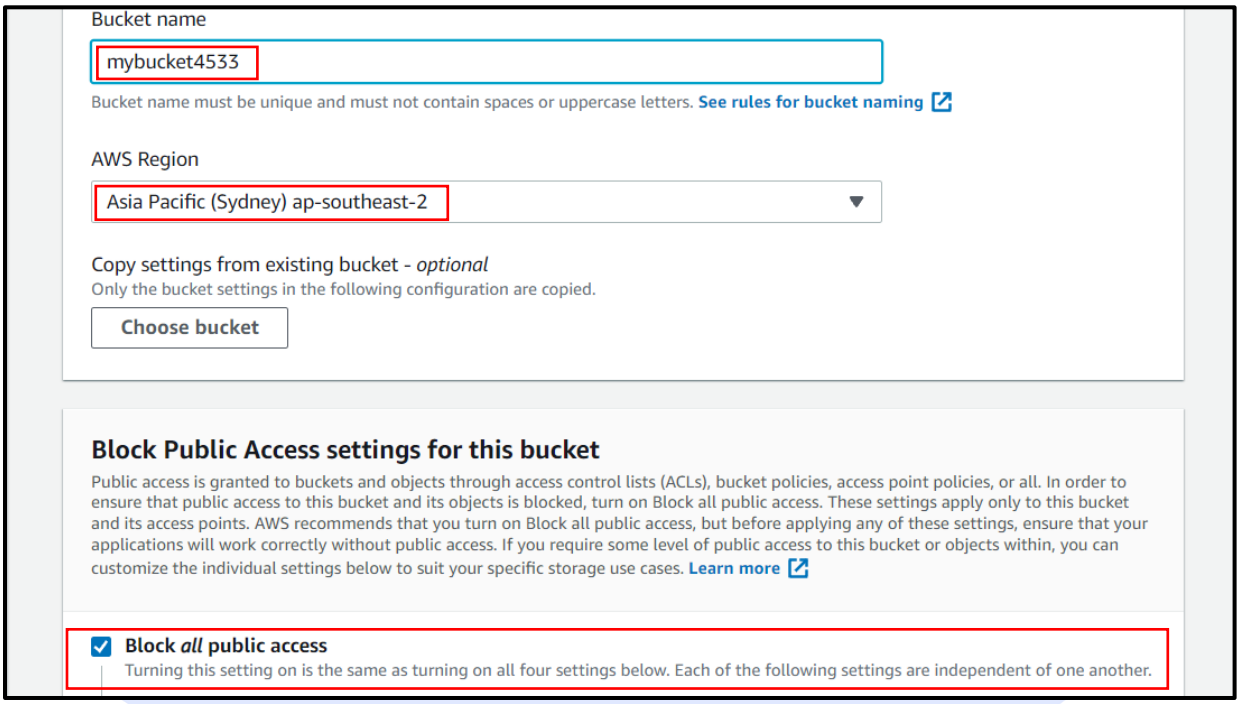
Create first bucket.

Click on **Create bucket.**

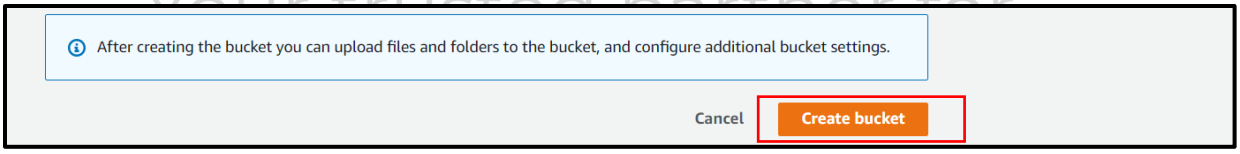
Bucket name: **mybucket4533**

AWS region should be same.

Public Access should be blocked**.**



Click **Create bucket.**



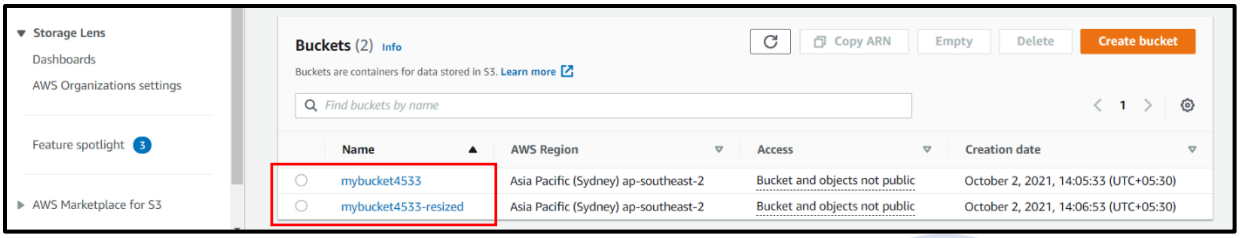
Similarly follow the same above step for creating second bucket

- **Bucket Name:** Paste the name of the previous bucket you have created and append **-resized** at the end of the name i.e. (**mybucket4533-resized**)

- Click **Create.**

Now you have the buckets named as

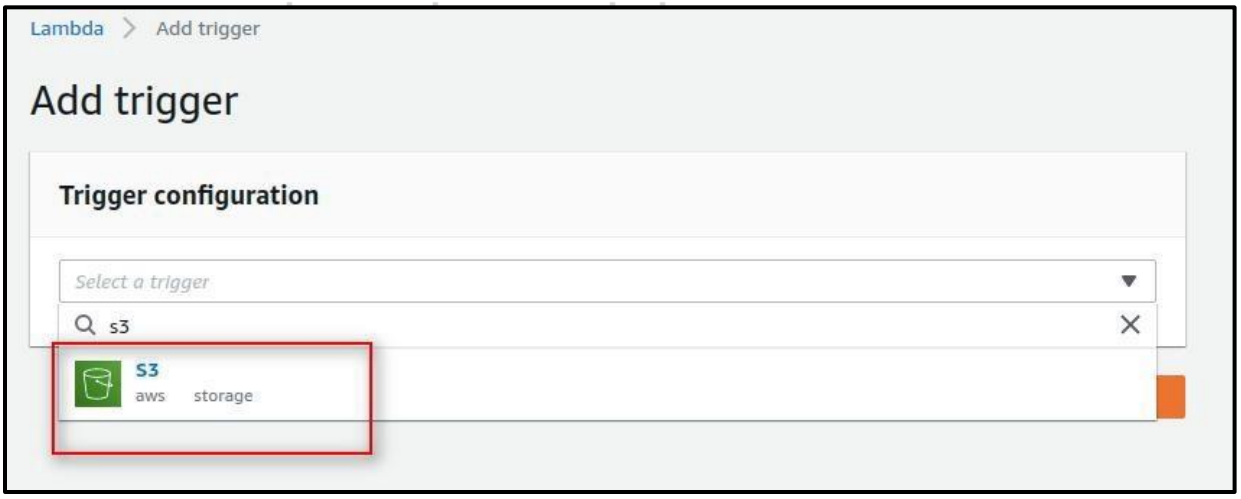
- **mybucket4533**
- **mybucket4533-resized**



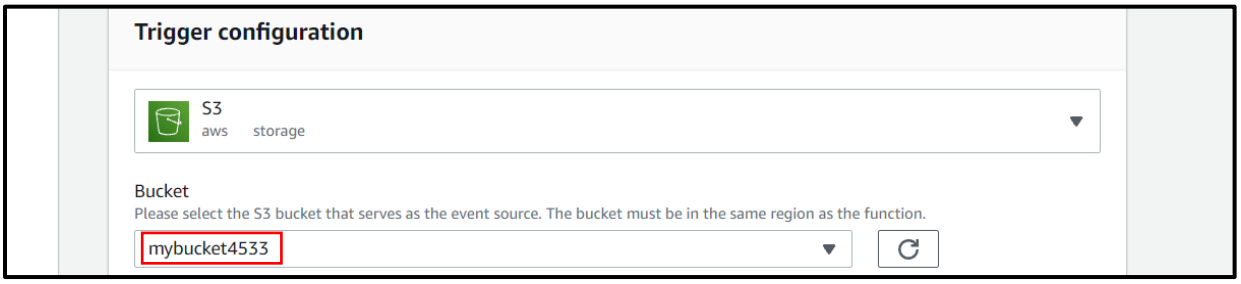
Step 4: Go to **Lambda** Function.

Click **Add Trigger**.

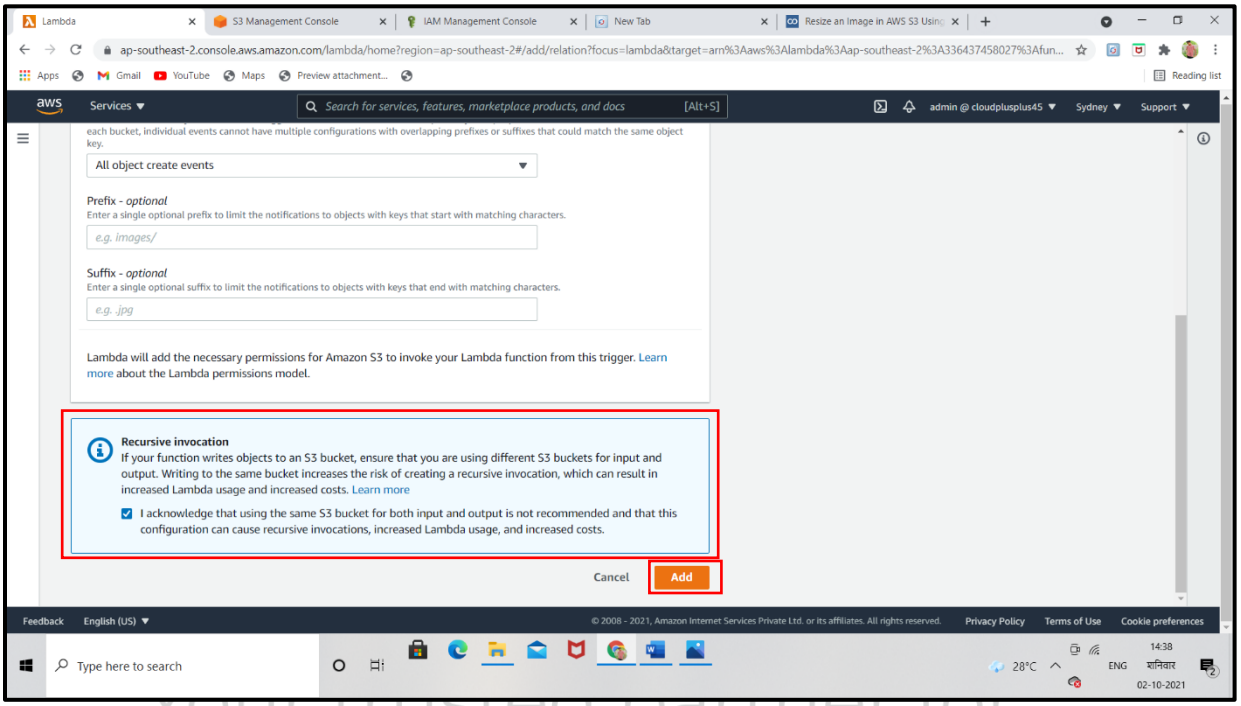
Select **S3** Trigger.



Select Bucket: **mybucket4533**

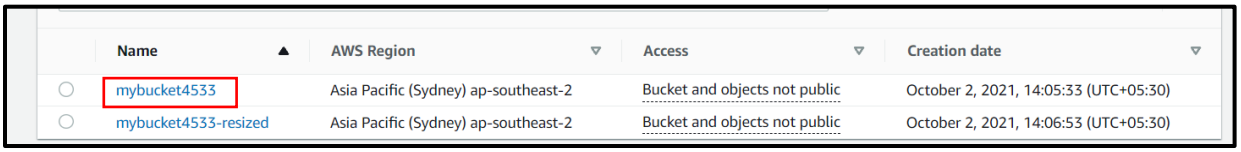


Click on **I Acknowledge** and click **Add**.

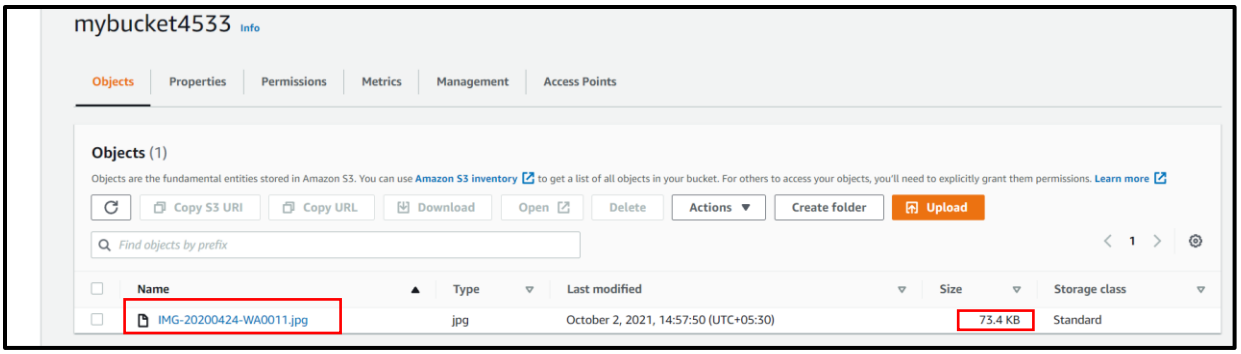


Step 5: Go to **S3** console.

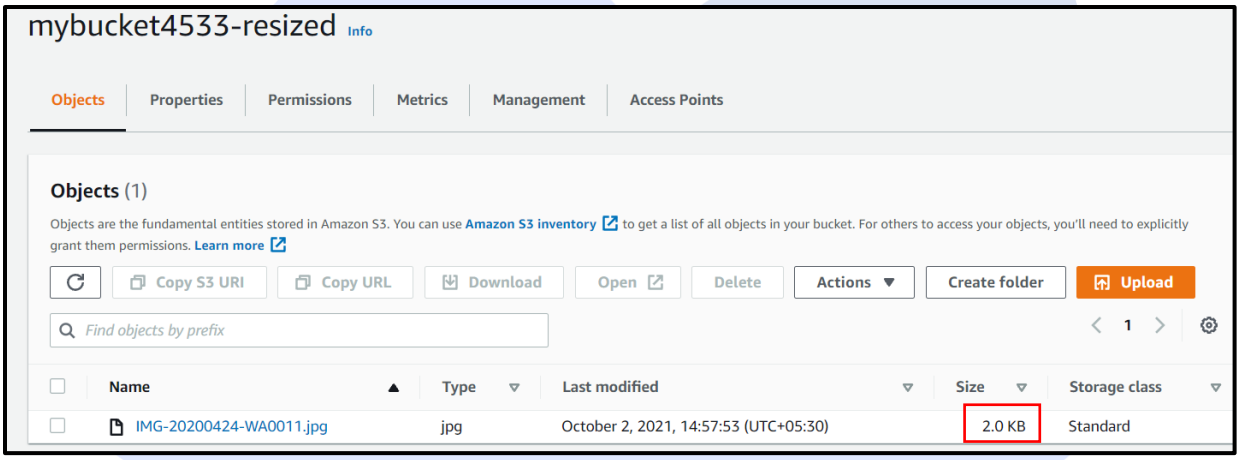
Go to **Source** bucket and upload any image file with no space in the file name.



Size of the file here is **73.4 KB**.



Now Go to **Resized** bucket and check **the resized image**.



So the size of newly resized file is **2 KB**.

NOTE: Empty S3 buckets and delete buckets. Delete Lambda function.

Was this document helpful? YES / NO

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Archis Davanpelli	2-October-2021

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