

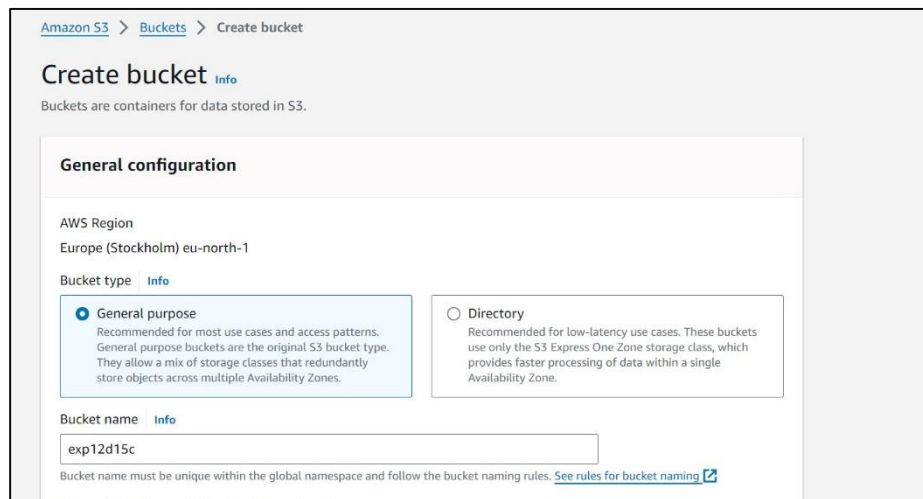
Advance DevOps

Experiment 12

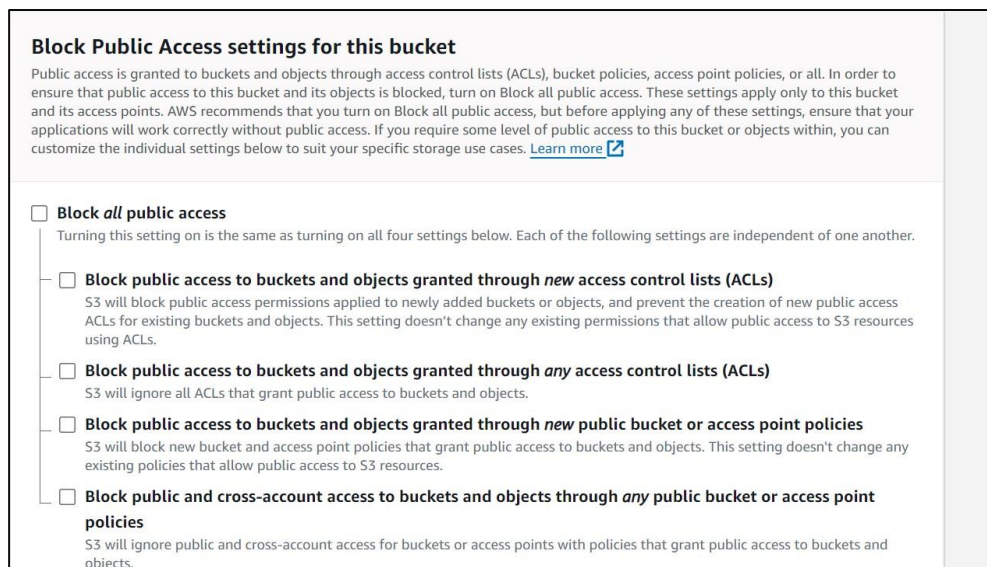
Aim: To create a Lambda function which will log “An Image has been added” once you add an object to a specific bucket in S3.

Steps:

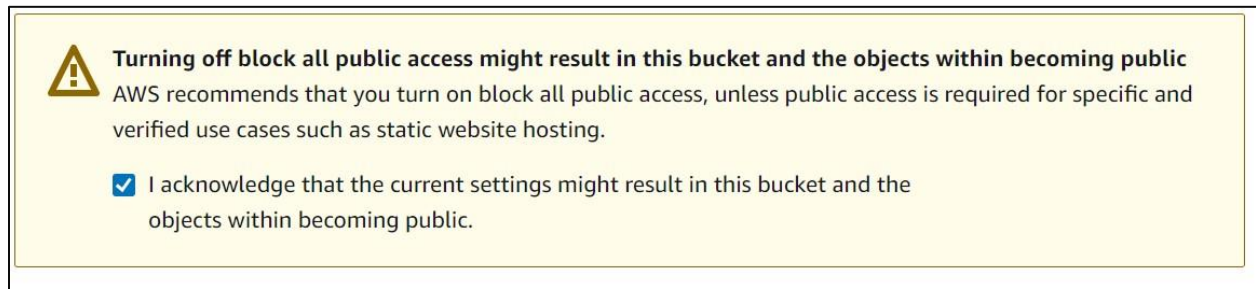
1. First, we have to create a S3 bucket for which give a name to the bucket.



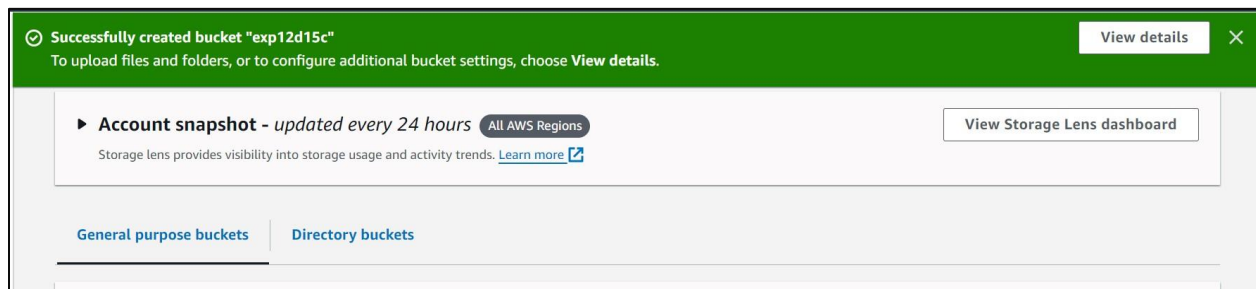
2. To allow public access to the bucket, uncheck the block all public access option.



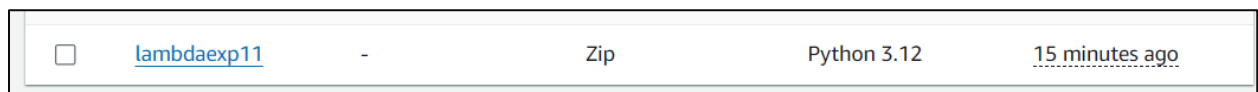
3. Give confirmation that you want to allow full public access and create the bucket



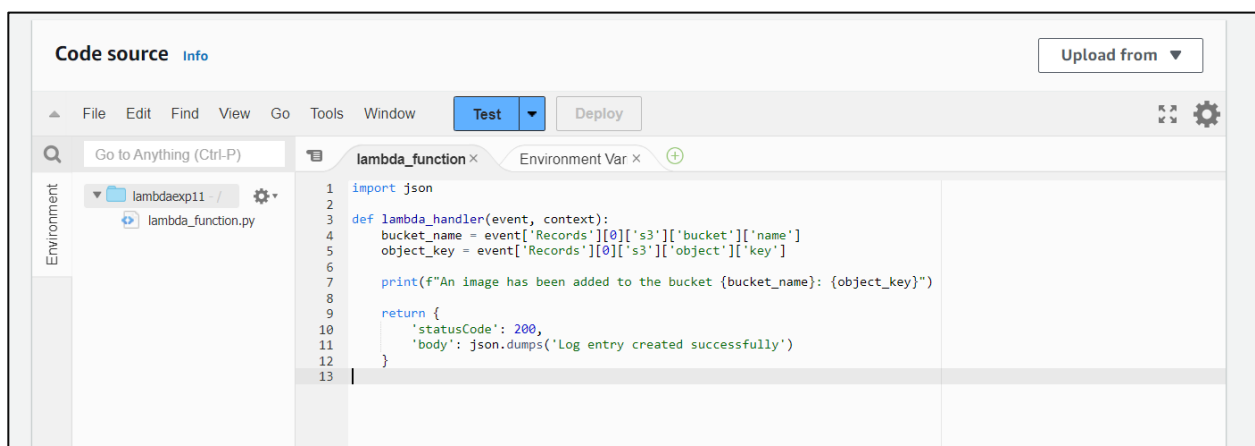
4. You will see the confirmation that the bucket is created successfully



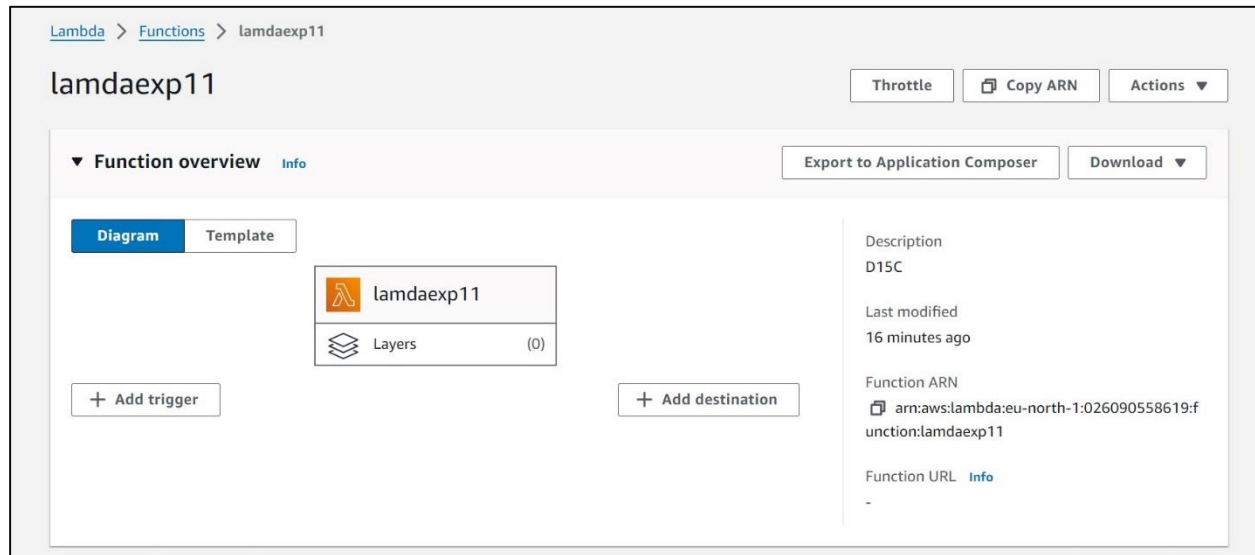
5. After creating the bucket go to the AWS dashboard and search for lambda function service, select the function we created in experiment 11 (lambdaexp11). We are going to add this bucket as a trigger to this function.



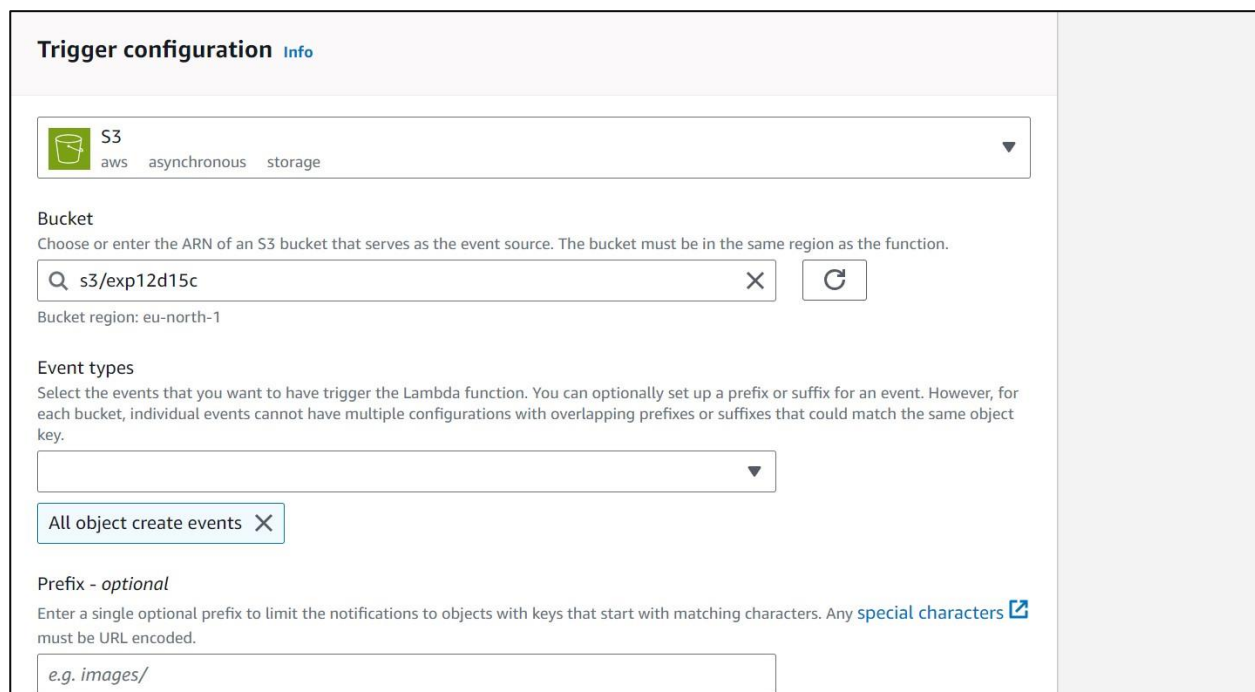
6. After selecting the function scroll down to the code section and add the following lines of code to display the required message when image is added to the bucket.



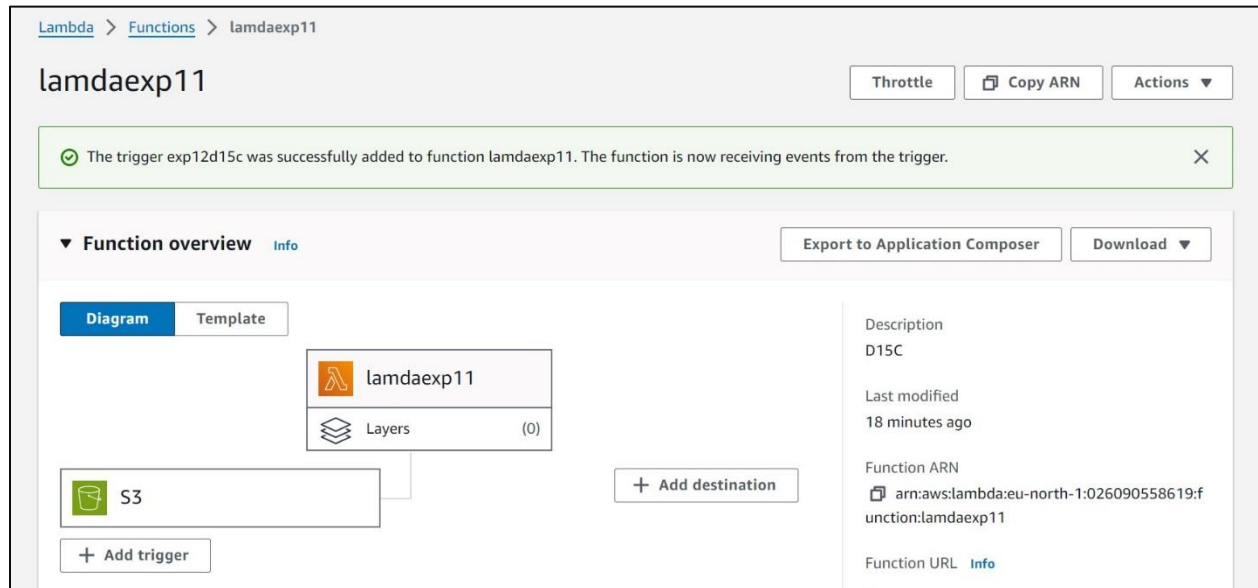
7. Now on the function overview section of the dashboard you can see the “Add trigger” button. Click on that.



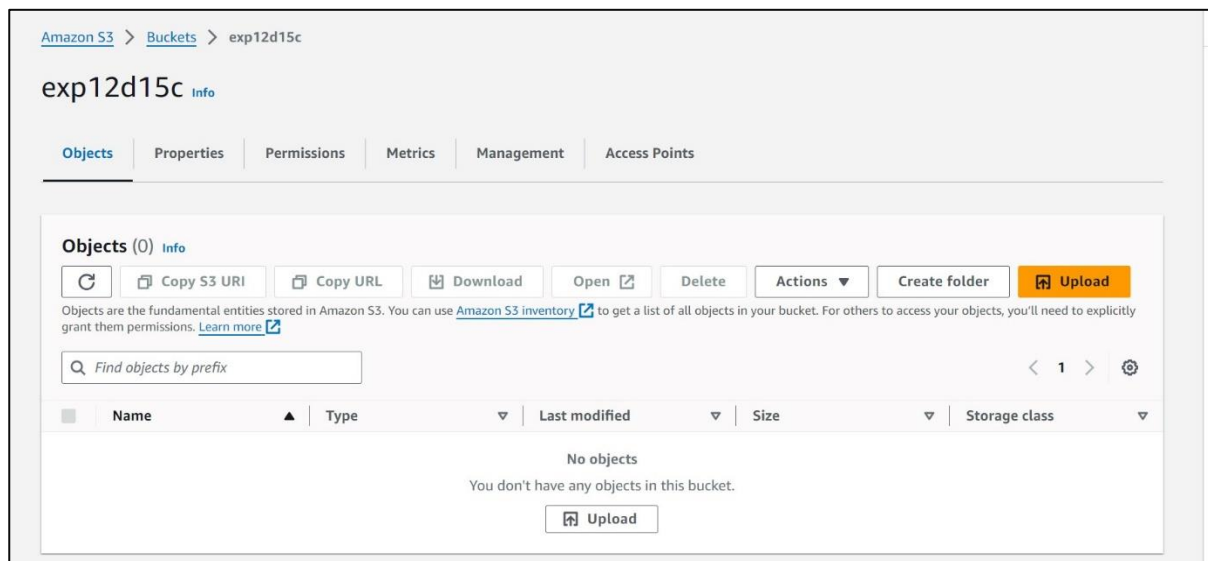
8. It will lead you to the trigger configuration tab. Here select the service as S3 and choose the bucket you just created.

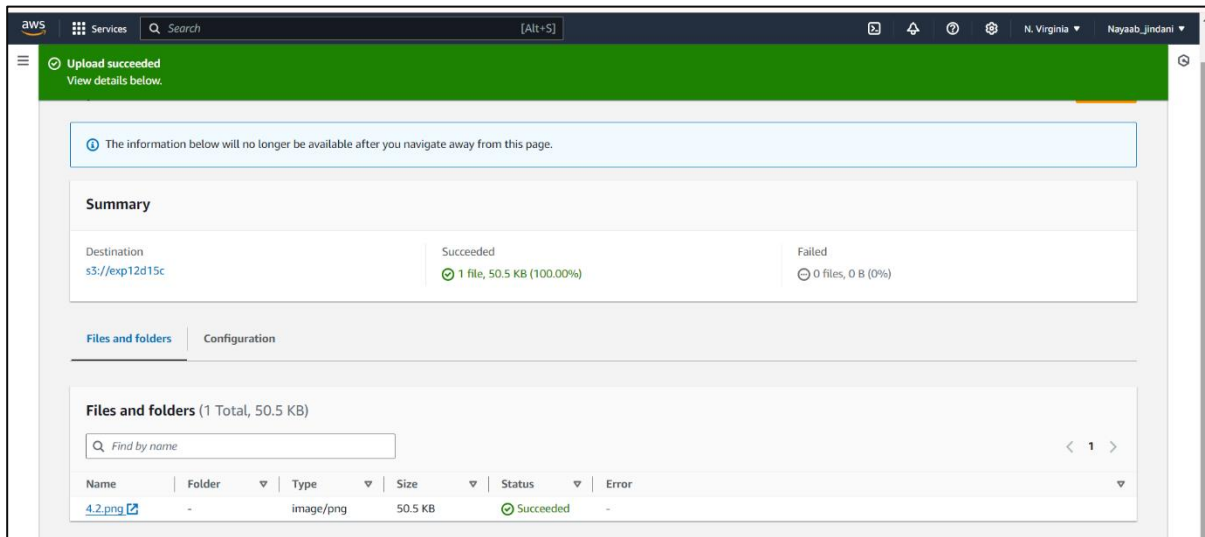


9. Here you can see we have the confirmation message as well as the S3 bucket has been added to our triggers.

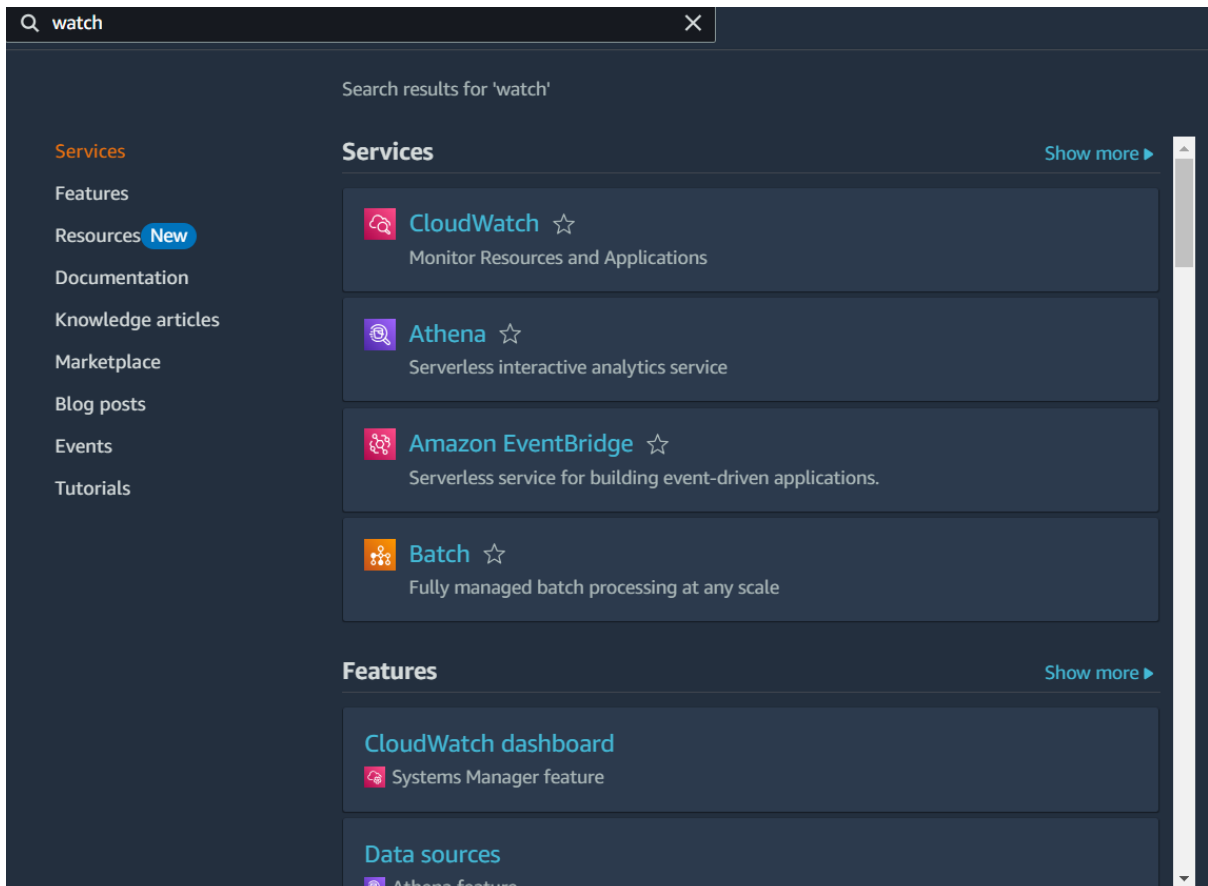


10. Now we will upload a file in the S3 bucket to test. Here I have uploaded an image file.





11. To check the log search for CloudWatch in services



12. Select the function created in log groups

Log groups (3) [Refresh](#) [Actions](#) [View in Logs Insights](#) [Start tailing](#) [Create log group](#)

By default, we only load up to 10000 log groups.

☐ Exact match < 1 > ⚙️

<input type="checkbox"/>	Log group	Log class	Anomaly d...	Data p...	Sensiti...	Retenti...	Metric
<input type="checkbox"/>	/aws/lambda/lambdaexp11	Standard	Configure	-	-	Never expire	-
<input type="checkbox"/>	/aws/lambda/myLambdaFunction	Standard	Configure	-	-	Never expire	-
<input type="checkbox"/>	/aws/lambda/testfunc	Standard	Configure	-	-	Never expire	-

13. Select the log stream

Log streams (1) [Refresh](#) [Delete](#) [Create log stream](#) [Search all log streams](#)

☐ Exact match ☐ Show expired [Info](#) < 1 > ⚙️

<input type="checkbox"/>	Log stream	Last event time
<input type="checkbox"/>	2024/10/08/[\$LATEST]6ab0c7431681419a92e9154a255e1ad3	2024-10-08 16:31:29 (UTC)

14. Here we can see that the message has been displayed in the logs.

▶	Timestamp	Message
		No older events at this moment. Retry
▶	2024-10-08T18:22:36.145Z	INIT_START Runtime Version: python:3.12.v36 Runtime Version ARN: arn:aws:lambda:us-east-1::runtime:188d9ca2e2714ff5637bd2bbe06c...
▶	2024-10-08T18:22:36.264Z	START RequestId: 784e2efc-219c-4d70-8197-a0ca3df2f568 Version: \$LATEST
▶	2024-10-08T18:22:36.265Z	An image has been added to the bucket exp12d15c: 4.2.png
▶	2024-10-08T18:22:36.267Z	END RequestId: 784e2efc-219c-4d70-8197-a0ca3df2f568
▶	2024-10-08T18:22:36.270Z	REPORT RequestId: 784e2efc-219c-4d70-8197-a0ca3df2f568 Duration: 2.17 ms Billed Duration: 3 ms Memory Size: 128 MB Max Memory U...
▶	2024-10-08T18:22:46.119Z	START RequestId: 57941134-711d-4df0-b862-6d58b80f3a61 Version: \$LATEST
▶	2024-10-08T18:22:46.121Z	An image has been added to the bucket exp12d15c: 4.2.png
▶	2024-10-08T18:22:46.121Z	END RequestId: 57941134-711d-4df0-b862-6d58b80f3a61
▶	2024-10-08T18:22:46.121Z	REPORT RequestId: 57941134-711d-4df0-b862-6d58b80f3a61 Duration: 1.65 ms Billed Duration: 2 ms Memory Size: 128 MB Max Memory U...
		No newer events at this moment. Auto retry paused. Resume

Conclusion: In this experiment, we successfully created an S3 bucket and configured it as a trigger for the Lambda function created in the previous experiment. Upon the occurrence of an event, such as uploading a file to the S3 bucket, the Lambda function was triggered, producing the output message: "An image has been added to the bucket." We have successfully demonstrated the effective integration of S3 and Lambda, allowing automatic responses to file uploads in the bucket.