# **Description**

create a Lambda function (CreateThumbnail) that Amazon S3 can invoke when objects are created. Then, the Lambda function can read the image object from the source bucket and create a thumbnail image into the target bucket.

# **Acceptance criteria**

1. Create Lambda Function
2. Create S3 buckets

# **Reference**

<https://docs.aws.amazon.com/lambda/latest/dg/with-s3-example.html>

# **Instructions**

1. Open the [roles page](https://console.aws.amazon.com/iam/home#/roles) in the IAM console.
2. Choose **Create role**.
3. Create a role with the following properties.
   * **Trusted entity** – **AWS Lambda**.
   * **Permissions** – **AWSLambdaExecute**.
   * **Role name** – **lambda-s3-role**.
4. Open the [Amazon S3 console](https://console.aws.amazon.com/s3).
5. Create two buckets. The target bucket name must be *source* followed by **resized**, where *source* is the name of the bucket you want to use for the source. For example, mybucket and mybucketresized.
6. In the source bucket, upload a .jpg object example HappyFace.jpg
7. When you invoke the Lambda function manually before you connect to Amazon S3, you pass sample event data to the function that specifies the source bucket and HappyFace.jpg as the newly created object so you need to create this sample object first.
8. Create the Function

The following example code receives an Amazon S3 event input and processes the message that it contains. It resizes an image in the source bucket and saves the output to the target bucket.

**Note**

For sample code in other languages, see [Sample Amazon S3 Function Code](https://docs.aws.amazon.com/lambda/latest/dg/with-s3-example-deployment-pkg.html).

1. Add permissions to the Lambda function access policy to allow Amazon S3 to invoke the function.
2. Add notification configuration to your source bucket. In the notification configuration, you provide the following:
   * Event type for which you want Amazon S3 to publish events. For this tutorial, you specify the s3:ObjectCreated:\* event type so that Amazon S3 publishes events when objects are created.
   * Lambda function to invoke.

## **Test the Setup**

Now you can test the setup as follows:

1. Upload .jpg or .png objects to the source bucket using the Amazon S3 console.
2. Verify that the thumbnail was created in the target bucket using the CreateThumbnail function.
3. View logs in the CloudWatch console.