

SERVICE LAYER – IMAGES AND THUMBNAILS

Resource Deployment Logs:

```
C:\Users\Shris\PycharmProjects\thumbnail_service\.venv\Scripts\python.exe -X pycache_prefix=C:\Users\Shris\AppData\Local\JetBrains\PyCharmCE2024.3\cpython-cache "C:/Program File
S3 bucket 'image-thumbnail-bucket-shri' created successfully.
SQS Queue 'ImageThumbnailQueue' created successfully.
Lambda Execution Role created successfully.
Lambda function 'image-upload' created successfully.
Deleted temporary zip file 'C:\Users\Shris\PycharmProjects\thumbnail_service\lambda\lambda_upload.zip'.
Lambda function 'image-download' created successfully.
Deleted temporary zip file 'C:\Users\Shris\PycharmProjects\thumbnail_service\lambda\lambda_download_image.zip'.
Lambda function 'image-thumbnail-generate' created successfully.
Deleted temporary zip file 'C:\Users\Shris\PycharmProjects\thumbnail_service\lambda\lambda_generate_thumbnail.zip'.
Lambda function 'image-thumbnail' created successfully.
Deleted temporary zip file 'C:\Users\Shris\PycharmProjects\thumbnail_service\lambda\lambda_download_thumbnail.zip'.
Successfully created api gateway api_id:mx16ug8boj.
API URLs and their purposes:
1. Upload Image: https://mx16ug8boj.execute-api.us-east-1.amazonaws.com/dev/upload (POST) - Uploads an image to S3
2. Download Image: https://mx16ug8boj.execute-api.us-east-1.amazonaws.com/dev/download/{file_name} (GET) - Downloads an image from S3
3. Download Thumbnail: https://mx16ug8boj.execute-api.us-east-1.amazonaws.com/dev/download-thumbnail/{file_name} (GET) - Downloads a thumbnail of an image
Permission granted to API Gateway to invoke Lambda function 'image-upload'.
Permission granted to API Gateway to invoke Lambda function 'image-download'.
Permission granted to API Gateway to invoke Lambda function 'image-thumbnail-generate'.
Permission granted to API Gateway to invoke Lambda function 'image-thumbnail'.
Permission granted to Lambda 'image-upload' to send messages to SQS.
Error adding SQS trigger for 'image-thumbnail-generate' Lambda: An error occurred (ResourceConflictException) when calling the CreateEventSourceMapping operation: An event sour
Process finished with exit code 0
```

Upload:

URL: /upload

1.Request

```
C:\Users\Shris\PycharmProjects\thumbnail_service\.venv\Scripts\python.exe -X pycache_prefix=C:\Users\Shris\AppData\Local\JetBrains\PyCharmCE2024.3\cpython-cache "
Upload successful: {'message': 'File img.png uploaded successfully.', 'file_url': 'https://image-thumbnail-bucket-shri.s3.amazonaws.com/img.png'}

Process finished with exit code 0
```

2.Output

aws

Search

[Alt+S]

N. Virginia

shri

Amazon S3

Buckets

image-thumbnail-bucket-shri

image-thumbnail-bucket-shri

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

< 1 >

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	img.png	png	December 3, 2024, 16:58:56 (UTC+05:30)	47.8 KB	Standard
<input type="checkbox"/>	img.png-thumbnail.png	png	December 3, 2024, 16:58:57 (UTC+05:30)	47.8 KB	Standard

download image

Output:

```
C:\Users\Shris\PycharmProjects\thumbnail_service\.venv\Scripts\python.exe C:\Users\Shris\PycharmProjects\thumbnail_service\tests\download_image.py
File "img.png" downloaded successfully.
```

Create resource

/

/download

GET

/download-thumbnail

GET

/upload

POST

Test

/download - GET method test results

Request	Latency ms	Status
/download?file_name=img.png	524	200

Response body

{ "image_data":
"iVBORw0KGgoAAAANSUhEUgAAAGAAAAGoCAIAAAD1h/aCAACAAAE1EQVR4XuydB3iUVdaA82yxLT2kVzoqCiIEUqam0ixr2V3r
2kCKgKAUGZCe6b2X9IQoqYCu7qrrukVdd3VF184qPYHU6TP3P/femWGSAX4pCg1znvMM33wZpt77fuece+45YSgkg0zcQXoh8
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Download Thumbnail

Functions > image-thumbnail

Code

Test

Monitor

Configuration

Aliases

Versions

Executing function: succeeded (logs 2)

Details

The area below shows the last 4 KB of the execution log.

{
 "statusCode": 200,
 "body": "{ \"image_data\":
\\\"iVBORw0KGgoAAAANSUhEUgAAAGAAAAGoCAIAAAD1h/aCAACAAAE1EQVR4XuydB3iUVdaA82yxLT2kVzoqCiIEUqam0ixr2V3r2kCKgKAUGZCe6b2X9IQoqYCu7qrrukVdd3VF184qPYHU6TP3P/femWGSAX4pCg1znvMM33wZpt77fuece+45YSgkg0zcQXoh8Vykuojs43M9hRvrD371kAxVCrt4iITXuIwcoJAPAT/wlrLjLDj6UQ0FwBESKiFwDDY2O3P767nFTf7QO277P03w8wdrSK5LCYFjsEnw1KWz90JzOnhIOZ9iOfTmWS90oVcJyXUkIXAMBfGj4/L1AKIfQIMgTp9e+L+EZKhKCBxDtehM9t9erA581v5/8PQH842GhOQ61BA4BpsEuxfBU987m8mFB/z1/9Uf+L9Ccn1LCByD5jxB1BgAjn7ywxAwQC/8v87561G5/iQEjsEmAdPY4/G43W6n2wXqQW5QF1GnT12++e2BR8GjgZP+HOP/ErVh4F14Pf4/wcu53KBn34Dtdxys609C4BhkYnPYH548ZemcPREHUKVLhqf6wXa4bC5nn8PicNmndTrvL5RgAiHnlyBDBhsfVZnFaHBz8JhRFVeGkPfs0gGyQEjutsQuAYTIiV82ALEGvCAWjwOGxuOwAC90z8HTir+81/vwJQgk9Sy+KcRHAB5jy+xxDueDwuchys61FC4BhMANPZgZyADL9lQewC7xz3YG8CoA3+Ct6gk9rud1kxa9APUaf/ZX2UoIeADLVTAZY0+ETgv4AG2CkhuR41B1S8Jpgk/kkLBoDTZbc7LRYb+dtZW4Eu1IJR0YdQ97n0TNAZ0F6Eupxuq+tsmoaTPEm3zeZffCvIoa/us1BCcv1JCByD5vDEJTPWg+OdHuItwJQGbFjptEfoNEIdCJ0iehyhN499f+B/X+z5900ad97Vvf1H6wst/JZ9pY074Fa4f5/kYKv89Tb1n/6gf+cN81//XP2PdW45bF+67ICR0orQSFik8Gyd5LYLeXqQuw8sDvxGQhbHd50hcAwyOusb2HeAOUym9CkyyT9Ftje7T1R99sGmV/f+1iR1lK6/ff2yC58+c9uG5beuXzb1pWVTXn5+6svL4e7tG1Z0e+WF1S8umbR2MZYHv962/oU7Nq2cvnnNjIK1CSufnPjysZPyV7NEm39tEC3fU1nyZqv2gze/QuGIQknIZSVuDahBLD

Summary