SERVICE LAYER – IMAGES AND THUMBNAILS

Resource Deployment Logs:

```
C:\Users\Shris\PycharmProjects\thumbail_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\thumbail_service\lambda\lambda_upload.zip'.
Lambda function 'image-download' created successfully.
Deleted temporary zip file 'C:\Users\Shris\PycharmProjects\thumbail_service\lambda\lambda_download_image.zip'.
Lambda function 'image-thumbnail-generate' created successfully.
Deleted temporary zip file 'C:\Users\Shris\PycharmProjects\thumbail_service\lambda\lambda_generate_thumbnail.zip'.
Lambda function 'image-thumbnail' created successfully.
Deleted temporary zip file 'C:\Users\Shris\PycharmProjects\thumbail_service\lambda\lambda_download_thumbnail.zip'.
Successfully created api gateway api_id:mxi6ug8boj.
API URLs and their purposes:
1. Upload Image: https://mxi6ug8boj.execute-api.us-east-1.amazonaws.com/dev/upload (POST) - Uploads an image to S3
2. Download Image: https://mxi6ug8boj.execute-api.us-east-1.amazonaws.com/dev/download/{file_name} (GET) - Downloads an image from S3
3. Download Thumbnail: https://mxi6ug8boj.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:
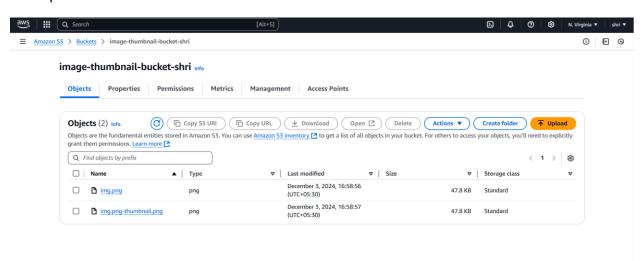
URL: /upload

1.Request

```
C:\Users\Shris\PycharmProjects\thumbail_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
```
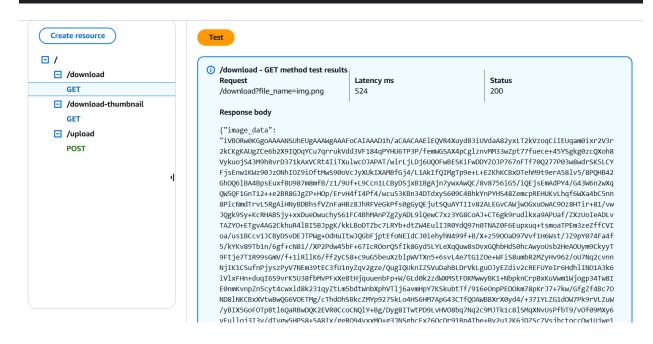
2.Output

----

download image

Output:

```
C:\Users\Shris\PycharmProjects\thumbail_service\.venv\Scripts\python.exe C:\Users\Shris\PycharmProjects\thumbail_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":
"iVBORw0KGgoAAAANSUhEUgAAAWgAAAFoCAIAAAD1h/aCAACAAElEQVR4XuydB3iUVdaA82yxLT2kVzoqCiIEUqam0ixr2V3r2kCKgKAUgZCe6b2X9IQOqYCu7qrrukVdd3VF184qPYHU6TP3P/femWGSAX4pCglznvMM33wZpt77fuece+45YSgkg0zcQXoh8VykuojS43M9hRvrD371kAxVCRt4IiiTXulwcOJAPAT/wlrLjLDj6UQOFwBESKiFwDDYZOJP767nFTf70Q277P03w8wdrSK5LCYFjsEnw1KWz90JzONhIOZ9iOftMwS90oVcJyXUkIXAMBfGj4/L1AkIfQIMgTp9e+L+EZKhKBxDTehM9t9erA58lv5/8PQHB42GhOQ6lBA4BpsEuxfBU987m8mfB/z1/9Uf+L9Ccn1LCByDSj1B1gAjn7ywxAwQC/8v8756i65/iQEjsEmAdPY4/G43W6n2wXXg
QW5QF1GnT12++e2BR8GJgZP+HOp/ErvH4fI4Pf4/wcu53KBn34DTdxyS609C4BhkYnPYHS48ZemcpREHUKvLhqf6WXa4bC5nn8PPicNmdTrvL5RgAiHNyBDBhsfVZnFaHBz8JhRFVeGkPfs0gGyQEjutSQuAYTIIv82ALEGvCAWjwOGxu0wAC9Oz8HTir+81/vwJQgk9Sy+KcRHABSjy+xxDueDwuchyS61FC4BhMAnPZgZyADL9lQewC7xz3YG8CoAJ+CT6gk9rudlkxa9APUaf/ZXzUoIeADLvTAZYO+ETgv4AG2CkhuR41BI5BJpgK/kkLBoDTZbc7LRVb+dtZW4EulJQR0YdQ97n0TNAZ0F6Eupxuq+tsmoaTPEm3zeZ/CVIo
a/us1BCcv1JCByDSvDEJTPWg+OdHuItwJQGbFjptEfoNEIdCJ0iehyhN499f+B/X+z59OOaD97Vvf1H6Wst/JZ9pY074Fa4f5/kYKv89Tb1n/6gf+cN81//XP2Pdw45bF+67ICROOrQSf1k8GyyLYLeXQQuw8sDvxGQhbhdS0hcAwy
oUsb2HeAOUym9CkyyT9F+je7T1R99sGmV/f+1iR11K6/ff2yCC8+c9uG5beuXXzb1p1VWTXn5+6svL4e7tG1ZOe+WFiS8umbQ2MZyEv48WFiS8umbR2MZyEv+82/QugIQUknIZSVuDahBLDrVkLguOJyEZ

Download Thumbnail

> Functions > image-thumbnail

Code | **Test** | Monitor | Configuration | Aliases | Versions

✓ **Executing function: succeeded (logs ↗)**
  ▼ Details

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

{
  "statusCode": 200,
  "body": "{\"image_data\":
  \"iVBORw0KGgoAAAANSUhEUgAAAWgAAAFoCAIAAAD1h/aCAACAAElEQVR4XuydB3iUVdaA82yxLT2kVzoqCiIEUqam0ixr2V3r2kCKgKAUgZCe6b2X9IQOqYCu7qrrukVdd3VF184qPYHU6TP3P/femWGSAX4pCglznvMM33wZpt77f
uece+45YSgkg0zcQXoh8VykuojS43M9hRvrD371kAxVCRt4IiTXulwcOJAPAT/wlrLjLDj6UQOFwBESKiFwDDYZOJP767nFTf70Q277P03w8wdrSK5LCYFjsEnw1KWz90JzONhIOZ9iOftMwS90oVcJyXUkIXAMBfGj4/L1AkIfQIMg
Tp9e+L+EZKhKCBxDTehM9t9erA581v5/8PQHB42GhOQ61BA4BpsEuxfBU987m8mfB/z1/9Uf+L9Ccn1LCByDSjxB1BgAjn7ywxAwQC/8v8756i65/iQEjsEmAdPY4/G43W6n2wXQW5QF1GnT12++e2BR8GJgZP+HOp/ErvH4fI4Pf4
/wcu53KBn34DTdxyS609C4BhkYnPYHS48ZemcpREHUKvLhqf6WXa4bC5nn8PPicNmdTrvL5RgAiHNyBDBhsfVZnFaHBz8JhRFVeGkPfs0gGyQEjutSQuAYTIIv82ALEGvCAWjwOGxu0wAC9Oz8HTir+81/vwJQgk9Sy+KcRHABSjy+xx
DueDwuchyS61FC4BhMAnPZgZyADL9lQewC7xz3YG8CoAJ+CT6gk9rudlkxa9APUaf/ZXzUoIeADLvTAZYO+ETgv4AG2CkhuR41BI5BJpgK/kkLBoDTZbc7LRYb+dtZW4EulJJR0YdQ97n0TNAZ0F6Eupxuq+tsmoaTPEm3zeZffCVIo
a/us1BCcv1JCByDSvDEJTPWg+OdHuItwJQGbFjptEfoNEIdCJ0iehyhN499f+B/X+z59OOaD97Vvf1H6Wst/JZ9pY074Fa4f5/kYKv89Tb1n/6gf+cN81//XP2Pdw45bF+67ICROOrQSfIk8Gyd5LYLeXQQuw8sDvxGQhbhdS0hcAwy
oUsb2HeAOUym9CkyyT9Ftje7T1R99sGmV/f+1iR11K6/ff2yCS8+c9uG5beuXXzb1p1VWTXn5+6svL4e7tG1Z0e+WFiS8umbR2MZyHv962/oU7Nq2cvnnNjIK1CSufnPjyszY7EC3fU1nyZgv2ze8f1UlHY3Pg/QugIQUknIZSVuDahBLD

Summary