Tips & Tricks

Python packages

- Natural Language Toolkit for preprocessing and sentiment analysis.
- profanityfilter for profanity check.

Triggering multiple functions using the same event

Usually, an event (e.g., S3 object created) triggers a single function. However, you might want/need to trigger multiple functions with the same event. To do so, you can use the EventBrigde or the SNS service. Here follows an example with the EventBridge.

```
# This enables all S3 bucket events to be sent to EventBridge
awslocal s3api put-bucket-notification-configuration \
  --bucket YOUR_BUCKET_NAME \
  --notification-configuration '{"EventBridgeConfiguration": {}}'

# Define an EventBridge rule with an event pattern to match the desired
events in your S3 bucket.
# An example of the content of the event-pattern.json file is the
following:
#
# {
#  "source": [
#    "aws.s3"
#   ],
#   "detail-type": [
#     "Object Created"
#   ],
#   "detail": {
#     "bucket": {
#       "name": [
#         "YOUR_BUCKET_NAME"
#       ]
#     }
# }
# }
#
awslocal events put-rule \
  --name "YOUR_TRIGGER_NAME" \
  --event-pattern file://event-pattern.json \
  --state ENABLED

# Attach your Lambda functions as targets to the EventBridge rule
awslocal events put-targets \
  --rule YOUR_TRIGGER_NAME \
  --targets \
    Id=YOUR_FUNCTION_NAME_1,Arn=$(awslocal lambda get-function --function-
name YOUR_FUNCTION_NAME_1 | jq -r .Configuration.FunctionArn) \
```

```
    Id=YOUR_FUNCTION_NAME_2,Arn=$(awslocal lambda get-function --function-
name YOUR_FUNCTION_NAME_2 | jq -r .Configuration.FunctionArn)
```

Update function code

While you're developing and tryig out your functions, you might need to update the code of an already deployed function.

To do so, first recreate your ZIP archive and then update the function code as follows:

```
awslocal lambda update-function-code \
--function-name YOUR_FUNCTION_NAME \
--zip-file fileb://YOUR_FUNCTION_ZIP.zip
```

Delete a function

```
awslocal lambda delete-function --function-name YOUR_FUNCTION_NAME
```

Manually uploading/download a file to/from an S3 bucket

You can upload a file to an S3 bucket with the following command:

```
awslocal s3 cp YOUR_FILEPATH s3://YOUR_BUCKET_NAME
```

You can download a file from an S3 bucket with the following command:

```
awslocal s3 cp s3://YOUR_BUCKET_NAME/YOUR_FILEPATH YOUR_FILEPATH
```

Adding Python packages to your Lambda

You can install Python packages and make them available when you package your code in the ZIP archive.

For example, as in the tutorial for the "Resizer Lambda". Further details can be found in the official docs: https://docs.aws.amazon.com/lambda/latest/dg/python-package.html#python-package-create-dependencies

> Please note, the **unzipped** archive dimension is limited to 250 MB!

Adding resources (e.g., ML model files) to your lambda

You can also add further resources and make them available to your code. For example, when using Natural Language Toolkit, you can first pre-download the required data for your functions (e.g., corpora and

tokenizers for the preprocess function), and then add them to ZIP archive of your Lambda function so that they can be immediately used at runtime.

Debugging and Troubleshooting

The command to run LocalStack enables the debug mode, so you can check the log in the console.

At http://localhost:4566/_localstack/health you can check if the services you need to use are available / running.