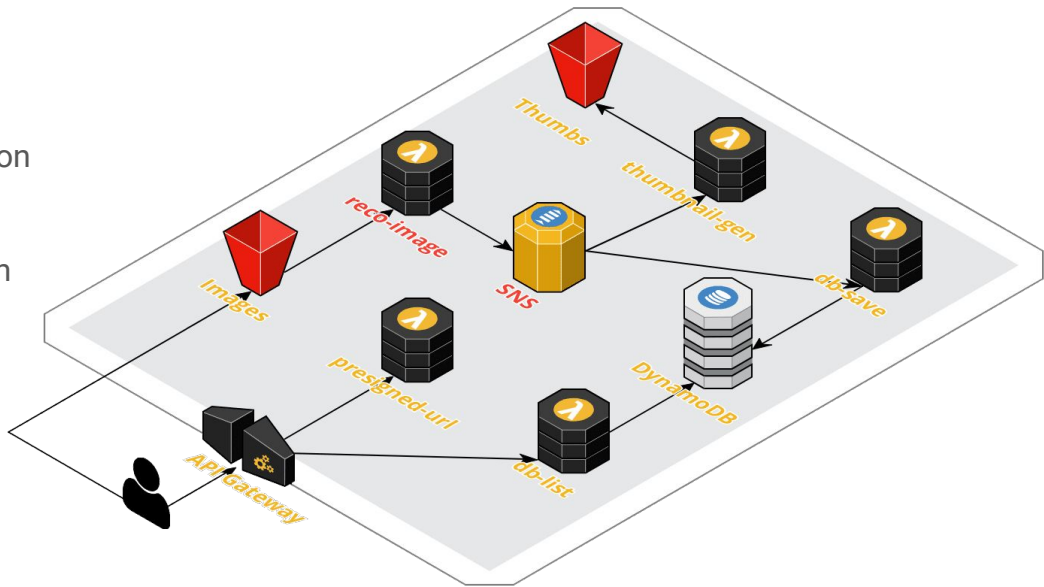# AWStack training - Serverless

Hands On #4 - SNS | Lambda - Publish Results

Overview

This Hands-on is composed of 2 parts:

1. SNS Part : new SNS topic to push recognition results

2. Lambda Part : update "reco-image" function to publish results in the SNS topic

Let's go! | SNS Part

Go to Virginia region `N. Virginia ▾`

Create a SNS topic having these properties:

- **Topic Name**: serverless-reco-results
- **Display Name**: reco-res
- Use all default **settings**

Copy the topic ARN in the clipboard.

Once done -> Go to **Lambda Part**

Context:

In this part we create a SNS topic in order to publish recognition results. Other function or services could then subscribe to this topic and exploit results.
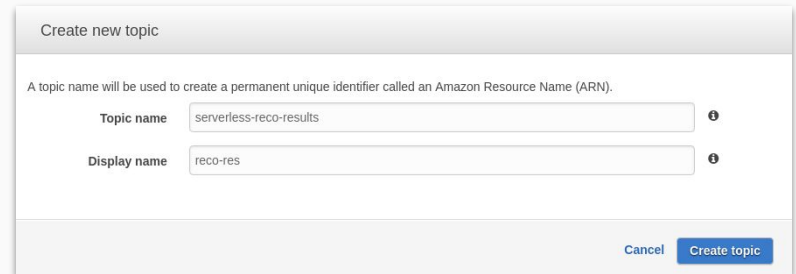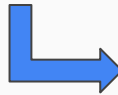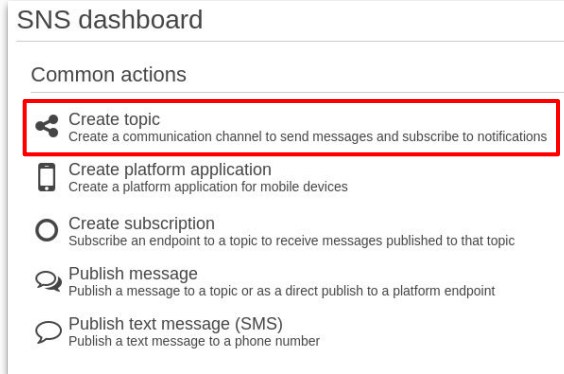
Documentation:

https://docs.aws.amazon.com/sns/index.html

https://docs.aws.amazon.com/sns/latest/dg/sns-getting-started.html

Hint 1

SNS Topic Creation - from SNS dashboard, create a new topic "serverless-reco-results"

SNS dashboard

Common actions

Create topic
Create a communication channel to send messages and subscribe to notifications

Create platform application
Create a platform application for mobile devices

Create subscription
Subscribe an endpoint to a topic to receive messages published to that topic

Publish message
Publish a message to a topic or as a direct publish to a platform endpoint

Publish text message (SMS)
Publish a text message to a phone number

Create new topic

A topic name will be used to create a permanent unique identifier called an Amazon Resource Name (ARN).

Topic name   serverless-reco-results

Display name   reco-res

Cancel   Create topic

Let's go! | Lambda Part

Open the lambda function created with previous hands-on:

- **Name**: py-aws-lambda-image-reco

Do the following updates:

- Edit the **code** to uncomment the last part allowing the function to publish results in the SNS topic
- Add a new **Environment variable** containing the sns topic ARN created previously
    - Name: snsTopicArn
    - Value: paste the topic ARN

Once done -> Go to **Testing part** to test your Lambda

Context:

In this part we update the lambda function py-aws-lambda-image-reco to publish the recognition results in the SNS topic

Documentation:

Hint 2

Lambda Configuration - Add a new
environment variable "snsTopicArn"
with the arn of the SNS topic just
created

Environment variables

You can define environment variables as key-value pairs that are accessible from your function code. These are useful to store configuration settings without the need to change function code. **Learn more.**

| snsTopicArn | arn:aws:sns:us-east-1:███████serverless-reco-results | Remove |
| Key | Value | Remove |

Hint 3

Lambda code - uncomment the
following code

```python
snsTopicArn = os.environ["snsTopicArn"]
response = sns.publish(
        TargetArn=snsTopicArn,
        Message=json.dumps({'default': json.dumps(result)}),
        MessageStructure='json'
    )

print(response)
```

Test the lambda function

Use the test event previously created to test !