

Lambda demo: Push a Lambda via Serverless to AWS

This demo shows, how to deploy a [AWS Lambda](#) in Python via the [Serverless framework](#). One major benefit of Serverless comes up with its compatibility with more than one private cloud provider. Following this guide will publish a HelloWorld function by default. Other examples are given in this repository ([Image processing pipeling](#), [Using AWS Rekognition for detecting Faces](#)).

Prepare Serverless

1. Install NodeJS and npm.
2. Install serverless itself:

```
npm install -g serverless
```

Create your Serverless environment

1. Change name and path accordingly:

```
serverless create --template aws-python3 --name ServerlessDemo --path  
ServerlessDemo
```

2. Move to your directory, generate a venv for Python and activate it.

```
cd ServerlessDemo  
virtualenv venv --python=python3  
source venv/bin/activate
```

3. Two files are already generated by **serverless** for you:

1. handler.py
2. serverless.yml

4. Change the content of handler.py accordingly or leave it as default (HelloWorld example). Don't forget to install Python packages as needed.
5. If needed, save the requirements:

```
pip freeze > requirements.txt
```

A little warning: If you need several Python packages like **numpy** or **pandas**, you should use [Lambdas Layer feature](#). Otherwise, the upload will be terminated due to service limits as well as your Lambda gets

lazy.

6. Edit serverless.yml:

```
nano serverless.yml
```

The file [serverless.yml](#) can be used to set staging of your deployment, the region, IAM resources and many more.

```
service: ServerlessDemo # NOTE: update this with your service name

provider:
  name: aws
  runtime: python3.6
  stage: dev
  region: eu-central-1

functions:
  ServerlessDemo: # Global name; remember it for calling your Lambda
    handler: handler.lambda_handler # name of your function

plugins:
  - serverless-python-requirements

custom:
  pythonRequirements:
    dockerizePip: non-linux

# Find more options under:
https://serverless.com/framework/docs/providers/aws/guide/
```

7. Initiate everything:

```
npm init -y
npm install --save serverless-python-requirements
```

8. Test your Lambda (with a sample event). Sample events can be retrieved from [AWS documentation](#).

```
sls invoke local -f FUNCTION_NAME (-p SAMPLE_EVENT)
```

9. Deploy your Lambda to AWS

```
sls deploy
```

10. Test your Lambda on AWS:

```
sls invoke -f FUNCTION_NAME (-p SAMPLE_EVENT)
```