Amazon Web Services Tutorials

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Abstract

This document aims to help groups working on the Feniks project to understand what are Amazon Web Services and how to use them.

Each services will be introduced briefly and the different steps to create and manage them will be explained with screenshots.

Contents

1 What is Amazon Web Services?

1.1 Introduction

Amazon Web Services(AWS) is a cloud service from Amazon, which provides services in the form of building blocks, these building blocks can be used to create and deploy any type of application in the cloud.

1.2 Which services will be used for the project?

We will use the following services to create, maintain and deploy the Feniks application:

- S3 bucket: storage service
- API Gateway: manage restful API
- Lambda Functions: enable to create a serverless application
- DynamoDB: non-relational database

2 AWS CLI

2.1 Introduction

The AWS Command Line Interface (CLI) is a unified tool to manage your AWS services from a terminal. It enables you to control and configure multiple AWS services from the command line and automate them through scripts.

2.2 Ressources

3 S3 Bucket

3.1 Introduction

Amazon S3 stands for Amazon Simple Storage Service. It is used to store

and retrieve any amount of data, at any time, from anywhere on the web. It is basically just a folder where put stuff in the cloud. It can be used to host static website i.e a website that does not require server. The basic unit to store data inside Amazon S3 is the “object”. An object consists of the actual data enriched with metadata. The metadata is a set of name-value pairs that provide additional information about the object.

3.2 How to create a S3 Bucket?

On the top menu click on services

click on S3 underneath Storage

click on Create bucket.

Enter the name of the bucket. The name of bucket must not contain special character or capital letters.

Click on Next and do not change anything

Click on Next

Click on Next

Click on Create bucket

The new bucket will appear on the top of the list. Click on the name of the bucket in order to access to it. You will be able to manage and change the properties and permissions of the bucket.

3.3 Hosting a static website

Now we need to enable the S3 bucket to host a static website. In order to do so, follow the steps below:

Click on properties

Click on Static website hosting.

Select Use the bucket t host a website.

In the field Index document, type in index.html and click on save.
The S3 bucket is now ready to receive all file of the website.

3.4 Permissions

We will now modify the permissions for the S3 bucket and see how we can modify them.

Click on Create bucket

3.5 Ressources

4 API Gateway

4.1 Introduction

API Gateway is an AWS service that supports creating, deploying, and managing a RESTful application programming interface to expose backend HTTP endpoints, AWS Lambda functions, and other AWS services.

An API Gateway API is a collection of resources and methods that can be integrated with Lambda functions, other AWS services, or HTTP endpoints in the backend. The API consists of resources that form the API structure. Each API resource can expose one or more API methods that must have unique HTTP verbs.

4.2 Ressources

5 Lambda functions

5.1 Introduction

5.2 Ressources

6 DynamoDB

6.1 Introduction

6.2 Ressources