

Project - Deploy web application with Lambda, API Gateway & DynamoDB.

In this Project we are using ^{Primarily} 3 components

1) DynamoDB - For Backend storage database

2) Lambda - It act. as a ^{web} server

3) API Gateway - It acts as a Frontend.

The Customer trying to access my application the request will come to API gateway - And the API gateway process to Lambda - And to get information in Backend DynamoDB.

Practical

Create IAM role. AWS service. ①

- Lambda (use case)

- Next Search as Basic

Permissions - AWS - Lambda Basic Execution role - select use to write logs

Search DynamoDB - ② DynamoDB full access - select Amazon DynamoDB full access.

Or if any issues than go for

Simply associate with - Administrator access.

Next.

Name

Next Create Role.

② Go for Lambda

— Create function

Name [vanusha]

Runtime [Python 3.8]

Execution Role — use an existing role [lambda role]

In change
Default settings.

⇒ Create Function.

Now, we have to change the code.

So, we downloaded the Code — Zip file.

There it contains 3 files.

1/ Contact.us page.

When ever our customer going to access they'll get this page only first.

2/ Success.html.

After that contact us data get success — It immediately loads success.html page.

3/ lambda-function.py.

It throws an error if we are having any errors.

⇒ What Lambda functions do — act as a simple server.

It serves contact.html page whenever our customer sends requests.

Now, Zip all the file - compress it.

Contact, lambda, success

[We can also upload this file for S3 bucket & we can get location]

Now, continue lambda function -

- Go for upload

↓
Zip file

- upload the Zip file.

- click on open

- Save it.

⇒ Now, the all files appears.

Keep - Contact, lambda, success.html functions.

That macosx delete it

⇒ Lambda Completed

Now, Go for DynamoDB. (3)

→ Create table.

- Name - [should be as in your code]
[which is in lambda function]

- partition key - email - string.

→ Go for Default settings

⇒ Create Table.

④ Now Configure API Gateway

→ Select Rest API -> over the Internet
Click on Build.

→ New API

Name [vanusha19]

→ Create API

Next = We have to Create Methods.

~~First~~ 1) Get Operation } Both Methods
2) Post Operation }

First - Go to API.

→ Click on Create Method

- Method type [GET] ①

- enable → Lambda proxy integration

- Select region & Lambda function.

→ Create method.

Now we configured GET Method.

Same for - Post method

② Click on create method

Method type [POST]

- Lambda function

- enable -> Lambda proxy integration

- region & function

→ Create method.

API calls

Now, click on Deploy API

- Stage (New Stage)

- dev

→ deploy it

→ we'll get URL - copy it & Paste it on Browser.

Output

we will get the contact as Lambda function

Contact Us (1)

First Name

→ Anusha

Last Name

→ V

Email ID

anushav0619@gmail.com

Message

→ Hello, this is Anusha Test Project on AWS Serverless delivery

Submit it - whenever we submit - If the data it is stored in backend dynamodb table its going to load.

→ That is another page - It'll show Thanks for trying this project. you can verify data in DynamoDB Table (2)

It is a success message, To verify this we need to go DynamoDB.

⇒ Go for DynamoDB table.

- Go to explore items.

- Go for your table - you'll get your items!

⇒ This what the Architecture of the Project.

Also we can custom Domain name also.

- Go for API Gateway

- Simply to know.

- Custom Domain Names

- Give Domain name & associate to & create Domain name & map it on ~~Domain name~~ Route 53 too.

⇒ Complete.