Creating a Serverless Website using AWS Lambda!
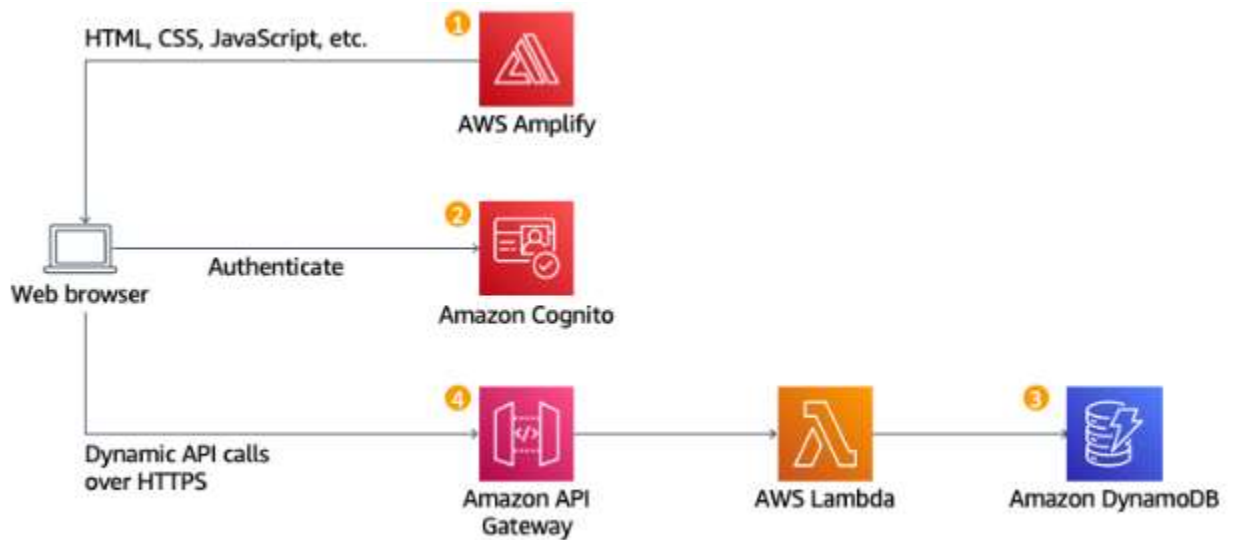
This is AWS Application Architecture:

©AWS Application Architecture

1. **Create a Lambda Function**
   o Provide Function name, select the appropriate Runtime & Architecture for your function. Leave the remaining default settings and then create a function.

Create function **Info**

AWS Serverless Application Repository applications have moved to Create application.

- ● **Author from scratch**
  Start with a simple Hello World example.

Basic information

Function name
Enter a name that describes the purpose of your function.

`myTestFunction`

Use only letters, numbers, hyphens, or underscores with no spaces.

Runtime **Info**
Choose the language to use to write your function. Note that the console code editor supports only Nod

`Python 3.10`

Architecture **Info**
Choose the instruction set architecture you want for your function code.

- ● x86_64
- ○ arm64

- o Once the function is created, this would be the default JSON code in the lambda function:

Code source **Info**

File Edit Find View Go Tools Window   **Test** ▼   Deploy

Go to Anything (Ctrl-P)   lambda_function ×   ⊕

▼ 📁 myTestFunction - / ⚙▾
  ◆▸ lambda_function.py

```
1  import json
2
3  def lambda_handler(event, context):
4      # TODO implement
5      return {
6          'statusCode': 200,
7          'body': json.dumps('Hello from Lambda!')
8      }
9
```

- o The above JSON code will basically not display much except "Hello from Lambda!".

Add Trigger

- Click on Add Trigger: For the trigger configuration, select API Gateway.
- Select Create a new API and HTTP API for API type
- Select Open for security.
- Keep all the defaults.

Up on clicking Add, the successful message will be displayed:

myTestFunction

✅ The trigger myTestFunction-API was successfully added to function myTestFunction. The function is now

Note – if you copy and paste the below **API endpoint URL** into a web browser and you will see the "**Hello from Lambda**!" text displayed.

Triggers (1) Info

🔍 Find triggers

☐	**Trigger**
☐	**API Gateway**: myTestFunction-API arn:aws:execute-api:us-east-1:361030023395:h4aucy9xj7/*/*/myTestFunction API endpoint: **https://h4aucy9xj7.execute-api.us-east-1.amazonaws.com/default/myTest** ▶ Details

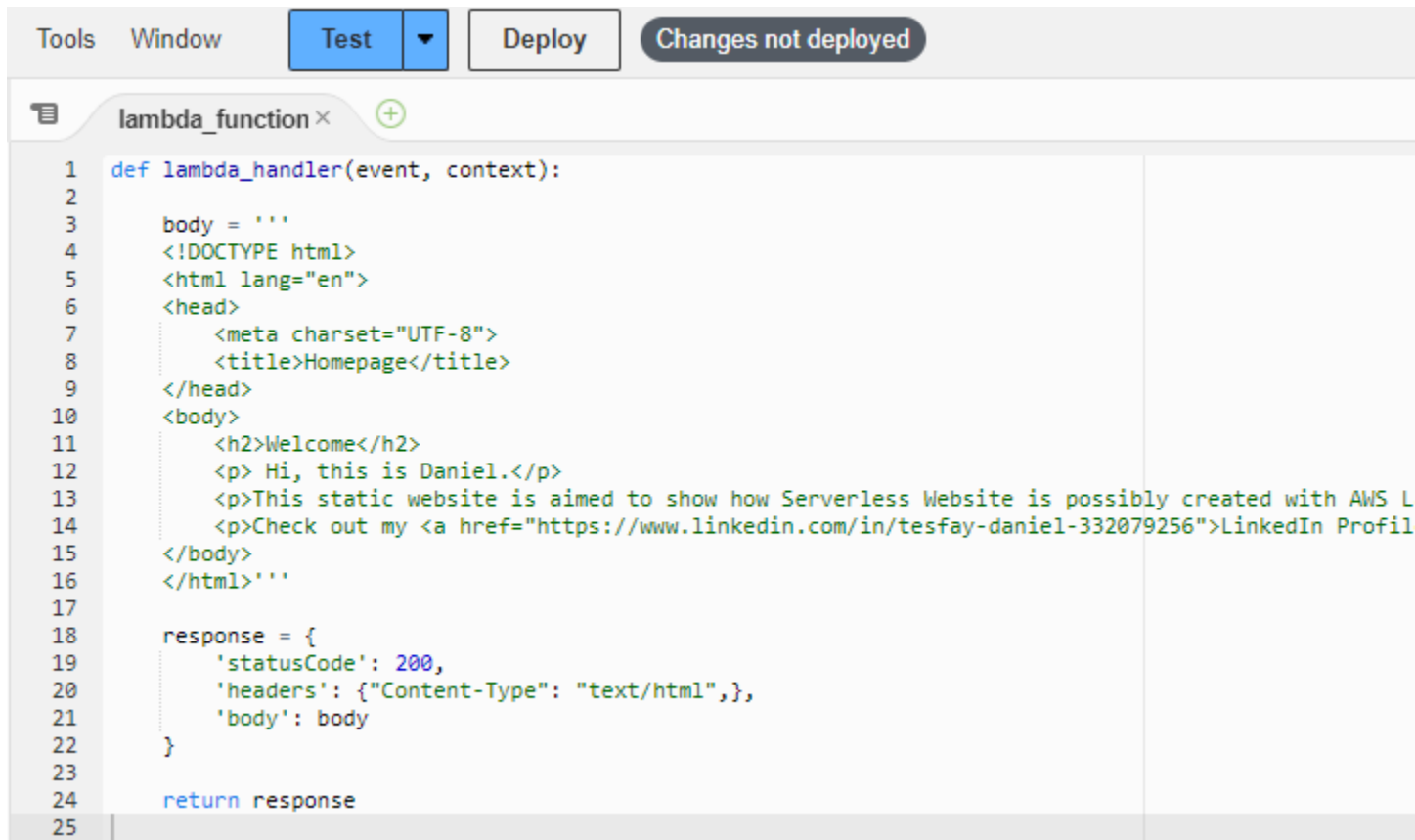← C ⌂ 🔒 https://h4aucy9xj7.execute-api.us-east-1.amazonaws.com/default/myTestFunction

"Hello from Lambda!"

2. Edit Lambda Function with HTML Code

Edit the lambda function with the sample HTML code below. This would replace the JSON string information with new HTML displayed.

- Go to the Function (**myTestFunction**)

```
Tools   Window      Test   ▼    Deploy    Changes not deployed

     lambda_function ×    ⊕
 1   def lambda_handler(event, context):
 2
 3       body = '''
 4       <!DOCTYPE html>
 5       <html lang="en">
 6       <head>
 7           <meta charset="UTF-8">
 8           <title>Homepage</title>
 9       </head>
10       <body>
11           <h2>Welcome</h2>
12           <p> Hi, this is Daniel.</p>
13           <p>This static website is aimed to show how Serverless Website is possibly created with AWS L
14           <p>Check out my <a href="https://www.linkedin.com/in/tesfay-daniel-332079256">LinkedIn Profil
15       </body>
16       </html>'''
17
18       response = {
19           'statusCode': 200,
20           'headers': {"Content-Type": "text/html",},
21           'body': body
22       }
23
24       return response
25
```

- Once editing complete, Deploy the code, then successful notification will be shown at the top of your Amazon Console like shown below:
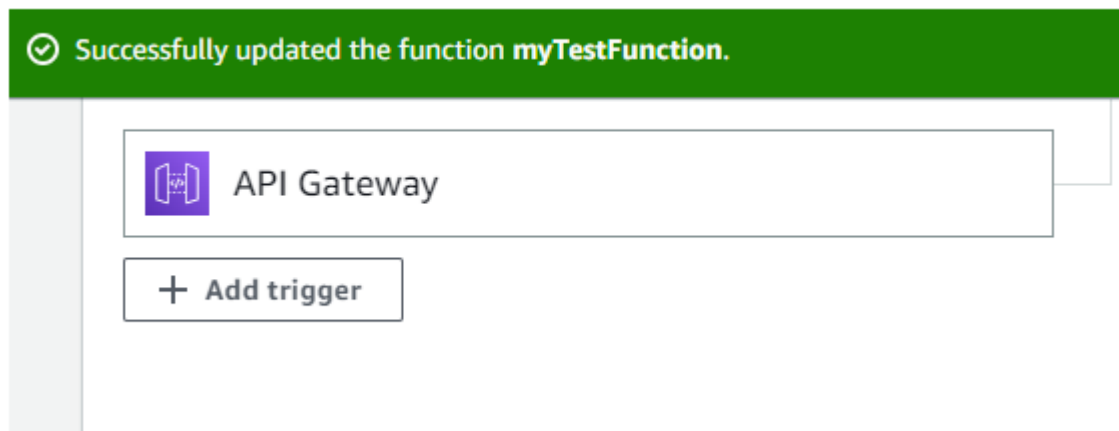
Navigate to the same browser with the JSON string "**Hello from Lambda**!" displayed, refresh the page and you will see the new HTML information displayed as coded above.