

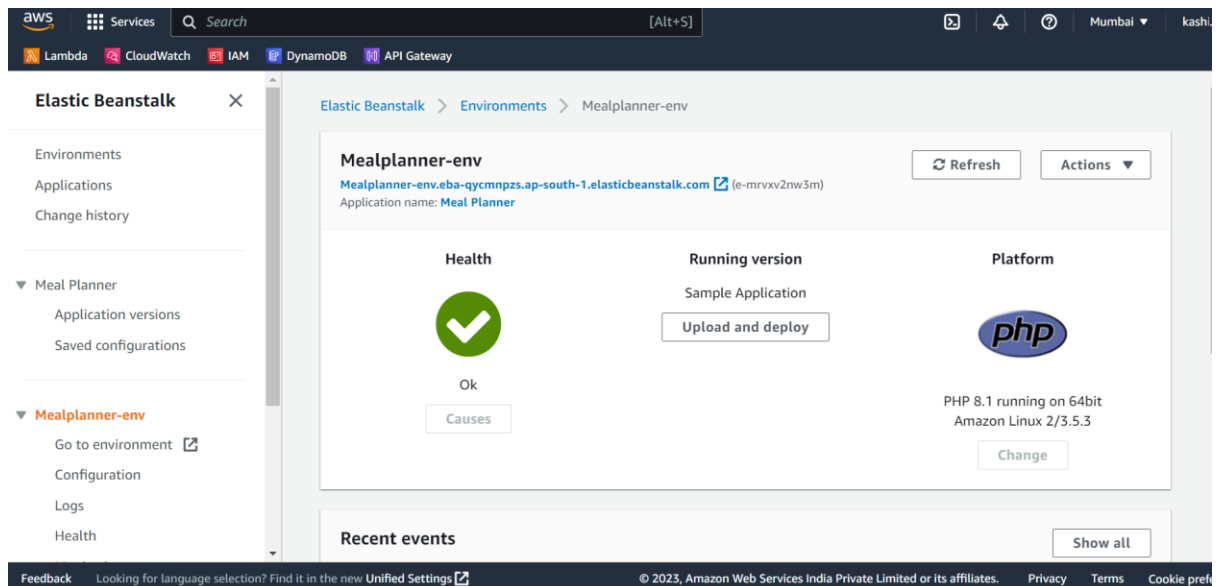
Module 9 case study

Problem Statement:

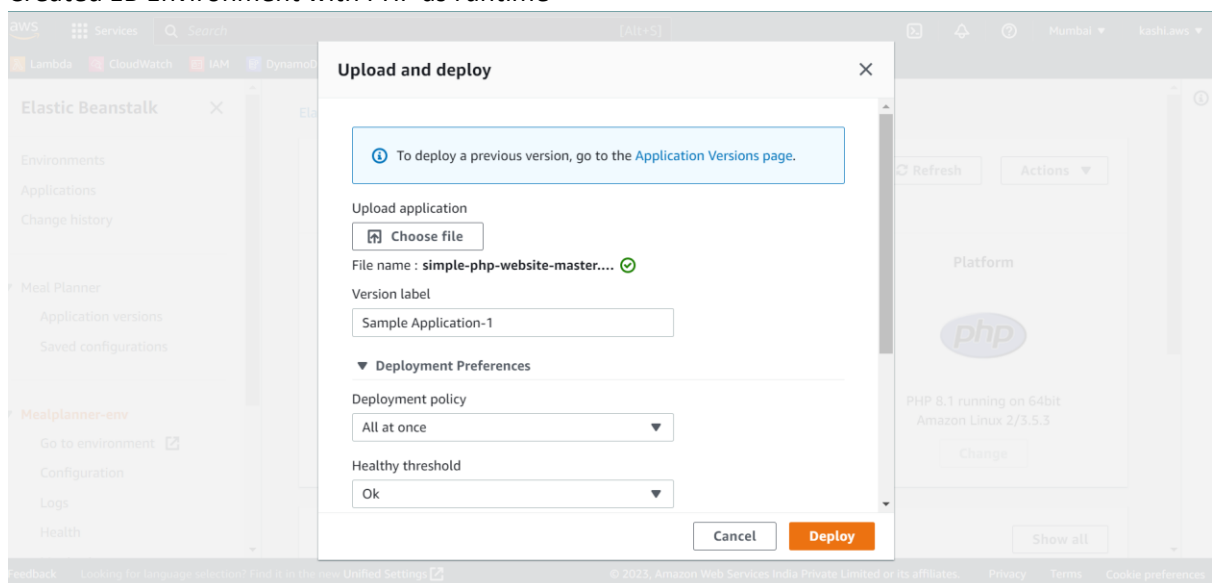
You work for xyz organization. Your organization uses AWS cloud to host their web applications.

You have been asked to:

1. Create a Beanstalk environment to host a Custom PHP application to host our application on it.
2. Upload a new PHP file which reads “Updated Hello World” to the Beanstalk environment
3. Create a Lambda Function which uses S3 bucket Object creation as a trigger.
4. Launch an OpsWork stack and host a Hello World html page in the instance of that stack

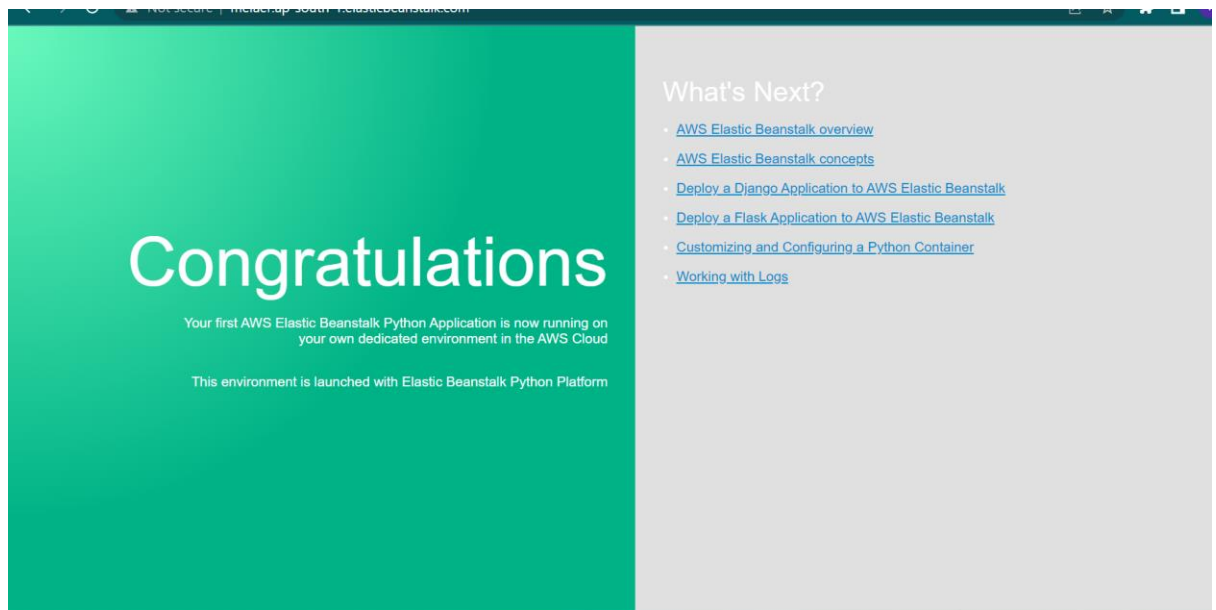


1. Created EB Environment with PHP as runtime

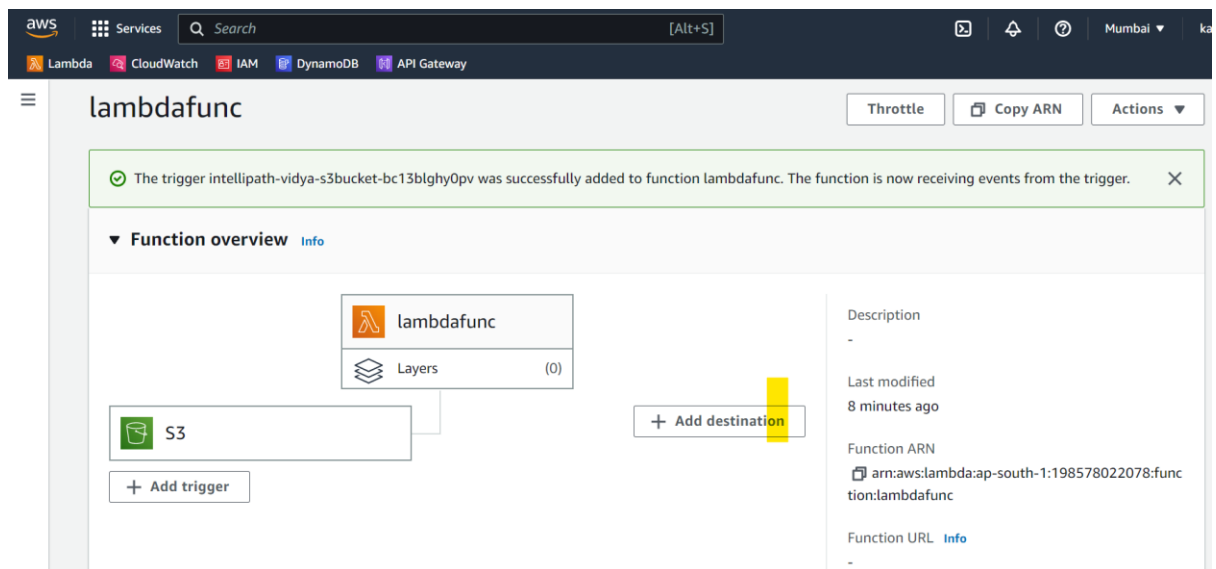


- ➔ PHP Application file added

2.



3.



➔ Lambda function created with python for s3 trigger

The screenshot shows the AWS Lambda console's 'Code source' page. The function name is 'lambda_function'. The code is written in Python and uses the boto3 library to interact with Amazon S3. The code imports json, urllib.parse, and boto3. It prints 'Loading function' and creates an S3 client. The lambda_handler function receives an event and context, prints the event, and then gets an object from the S3 bucket specified in the event. It prints the content type and returns the object's content. An exception is caught and printed.

```
1 import json
2 import urllib.parse
3 import boto3
4
5 print('Loading function')
6
7 s3 = boto3.client('s3')
8
9
10 def lambda_handler(event, context):
11     #print("Received event: " + json.dumps(event, indent=2))
12
13     # Get the object from the event and show its content type
14     bucket = event['Records'][0]['s3']['bucket']['name']
15     key = urllib.parse.unquote_plus(event['Records'][0]['s3']['object']['key'], encoding='utf-8')
16     try:
17         response = s3.get_object(Bucket=bucket, Key=key)
18         print("CONTENT TYPE: " + response['ContentType'])
19         return response['ContentType']
20     except Exception as e:
21         print(e)
22         print('Error getting object {} from bucket {}. Make sure they exist and your bucket is in the same region as this f
23         raise e
24
```

-> This is the lambda function

4.

The screenshot shows the AWS OpsWorks Stacks console. A notification banner at the top states: 'Regional API endpoints are default for new stacks. AWS OpsWorks changed the default API endpoint for new stacks created in the console. When you create a stack, the region of the API endpoint will match the region you choose for your stack. Be aware that if you create a stack in a different API endpoint, your existing AWS SDK or CLI tooling must support them, and might require changes.'

Stack name	Resource region	Layers	Instances	Apps	Actions
My Sample Stack (Linux)	us-west-2	regional	1	1	edit clone delete
php_application	us-west-2	regional	0	1	edit clone delete

At the bottom of the table, there is a '+ Stack' button.

-> stack with html hello world page

aws

Services

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DynamoDB

API Gateway

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Load-based

Apps

Deployments

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Resources

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Stacks

Users

premise and security groups. When you start the instance, OpsWorks uses the associated layer's blueprint to create and configure a corresponding EC2 instance. [Learn more.](#)

Node.js App Server

Search for instances in this layer by name, status, size, type, AZ or IP

Hostname	Status	Size	Type	AZ	Public IP	Actions
nodejs-server1	stopped	t2.medium	24/7	us-west-2a	-	start delete
nodejs-server2	stopped	t2.medium	24/7	us-west-2a	-	start delete
nodejs-server3	stopped	t2.medium	24/7	us-west-2a	-	start delete

[+ Instance](#)

You can [add more layers](#) to this stack or [register an instance](#).