

DevOps Kitchen Workshop

Lambda - Invoke SSM document

#week_nine - Invoke SSM Document by Lambda

duration: 1 week

ForgTech company wanna test your ability to type down a clean code by Deploying the structure of resources. This will help you to build a good reputation.

FrogTech intends to use CloudWatch to invoke Lambda Python Function that triggers SSM shell document in order to automate common mitigation response. you have requested to deploy a Lambda Python function that triggers an SSM Shell document that restarts SSH service, besides deploying a temp EC2 machine testing The trigger functionality.

FrogTech is required to use high-level HCL language techniques, by using if conditions allow users to input the resource tag values else insert a random value instead, use local variables to combine common tags, and use one package zip file that includes all function library dependencies and do NOT use AWS native libraries (*i.e. insert the zip package directly to you HCL code Or upload it manually into an S3 then mention it into you HCL code*)

Use IaC Terraform to build all resources and consider the below requirements specifications.

1. Resources must be created at the us-east-1 region.
2. Resources must have common tags combination as below:
3. Common tags:
 - a. Key: "Environment", Value: "terraformChamps"
 - b. Key: "Owner", Value: "<Your_first_name>"
4. Create & Share a document that Explains what you learn.
5. Build an Architecture diagram of the deployment resources.

SSM AWS-RunShellScript example

```
1 {
2     "schemaVersion": "2.2",
3     "description": "Use this document to deploy and configure Linux Servers ",
4     "mainSteps": [
5         {
6             "action": "aws:runShellScript",
7             "name": "runShellScript",
8             "precondition": {
```

```
9      "StringEquals": [
10        "platformType",
11        "Linux"
12      ]
13    },
14    "inputs": {
15      "runCommand": [
16        "#!/bin/bash",
17        "mkdir /testDir",
18        "touch /testDir/testFile"
19      ]
20    }
21  }
22 ]
23 }
24
```

References:

- [\[AWS\] Lambda - Invoke SSM + Terraform Project 07](#)
- [Terraform Tricks](#)
- [\[AWS\] Lambda Concepts Essentials](#)
- [Create dynamic expressions | Terraform | HashiCorp Developer](#)
- https://github.com/Mohamed-Eleraki/terraform/tree/main/AWS_Demo/28-basic_conditionl_expression Can't find link