SAM(Serverless Application Model) with Code Deploy

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**Serverless Application Model(SAM) to BlueGreen Deployment to LambdaFunction Versions & Alias using CodeDeploy. (when new code changes)**

Download SAM.zip file using below link. Or you can run “sam init --runtime python3.7” in cloudshell to clone

<https://github.com/kohlidevops/aws-sam-codedeploy/blob/main/SAM.zip>

//I just worked from AWS Cloud Shell. I just run sam init to clone new sam app.

$sam init –python3.7

Which template source would you like to use? – AWS Quick Start Templates

Choose a AWS Quick Start Application – Hello World Example

Would you like to enable XRAY – N

Would you like to enable CloudWatch Insights – N

Project name – sam-app

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$cd sam-app

$sam build

$vi template.yaml -> Add below line



AutoPublishAlias: live

DeploymentPreference:

Type: Canary10Percent10Minutes

Then save this file (:wq!)

Then rebuild again with updated file

$sam build

Build was succeeded.

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//If you are facing any issue with template.yaml, then kindly download the zip file then unzip it. You can find the updated template.yaml file. Then just copy this file to sam-app

$sam deploy –guided

Settings

Stack Name [sam-app]: enter

AWS Region [ap-south-1]: enter

#Shows you resources changes to be deployed and require a 'Y' to initiate deploy

Confirm changes before deploy [y/N]: y

#SAM needs permission to be able to create roles to connect to the resources in your template

Allow SAM CLI IAM role creation [Y/n]: Y

#Preserves the state of previously provisioned resources when an operation fails

Disable rollback [y/N]: y

HelloWorldFunction may not have authorization defined, Is this okay? [y/N]: y

Save arguments to configuration file [Y/n]: Y

SAM configuration file [samconfig.toml]: enter

SAM configuration environment [default]: enter

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Deploy this changes? Y

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Successfully created. Lambda has been created for sam-app

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Here its my lambda function

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Latest version has been deployed

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Alias has weighted 100 percent

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If you select “live Alias” then test this code

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Then change the content to app.py in sam-app. Back to CloudShell and edit the app.py

$cd sam-app

$cd hello\_world

$vi app.py

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I’m going to change the content “hello world” to “hello latchu” and save this file

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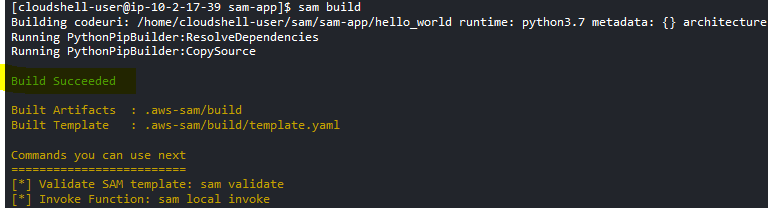
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$cd ..

//make ensure your current working directory sam-app

$sam build

Yes, Build is succeeded



$sam deploy –-guided

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Deploy this changeset? Y

You can see version 1 & 2 with weighted policy (that’s Blue green Deployment)

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So 90 percent request has been redirect to version-1

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Whereas 10 percent request has been redirect to version-2, that is recently built and deployed

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You can see the Blue Green deployment through Code Deploy

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After some times, 100 percent request has been redirect to Replacement – which is version-2

Here we go, 100 percent request has been redirect to Version-2

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Have a look at the Lambda Version Weight percent

Version-2 is mapped

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Finally completely version-2 is mapped to Lambda Alias

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That’s it.