AWS : Serverless BUILD SERVERLESS APPLICATION ON AWS CLOUD

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RDS

POSTGRESQL

PostgreSQL has become the preferred open source relational database for many enterprise developers and start-ups, powering leading business and mobile applications. Amazon RDS makes it easy to set up, operate, and scale PostgreSQL deployments in the cloud. With Amazon RDS, you can deploy scalable PostgreSQL deployments in minutes with cost-efficient and resizable hardware capacity.

Repository to deploy:

https://github.com/trainmefordevsecops/serverless-project/tree/master/infrastructure/lambda-project/rds

commands:

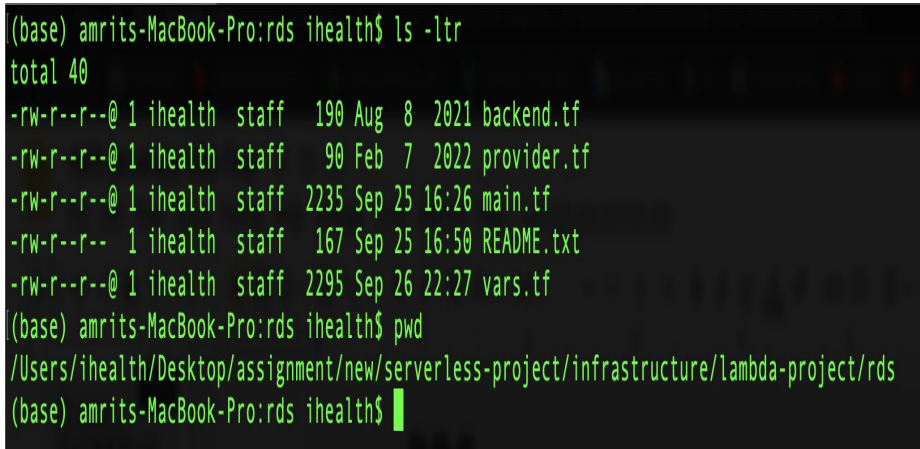
git clone git@github.com:trainmefordevsecops/serverless-project.git
cd serverless-project/infrastructure/lambda-project/rds

terraform13 init

terraform13 plan

terraform13 apply

** need to update vpc and subnet id's **



Lambda :

STEPS)

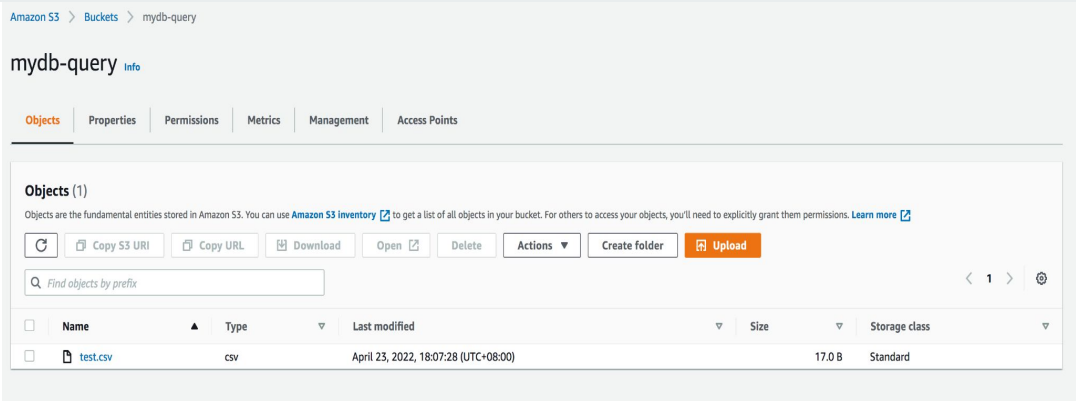
1) Create s3 bucket = mydb-query

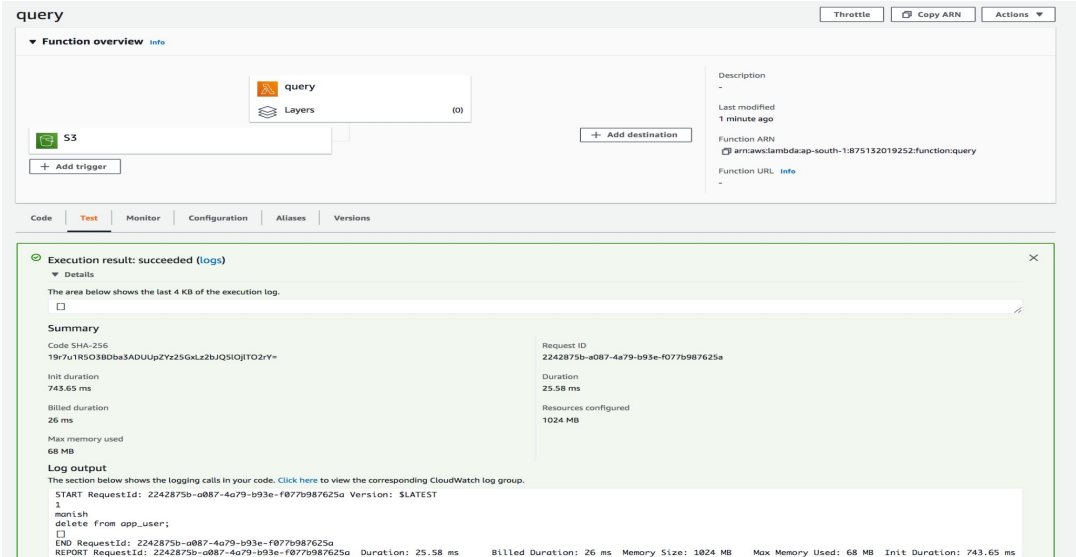
   This is the placeholder for csv file which is the trigger for lambda to execute Postgresql query

2) Lambda function

   Executes the python code to query postgresql, sends logs to cloudwatch

   This lambda can be used to process any batch operation in serverless mode.

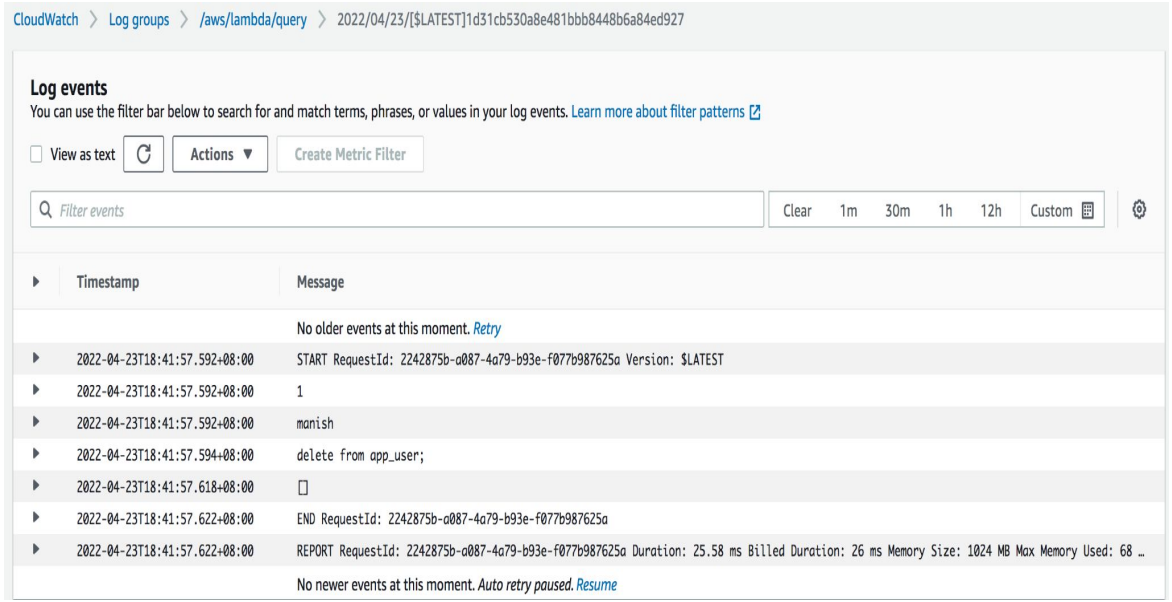




Lambda :

STEPS)

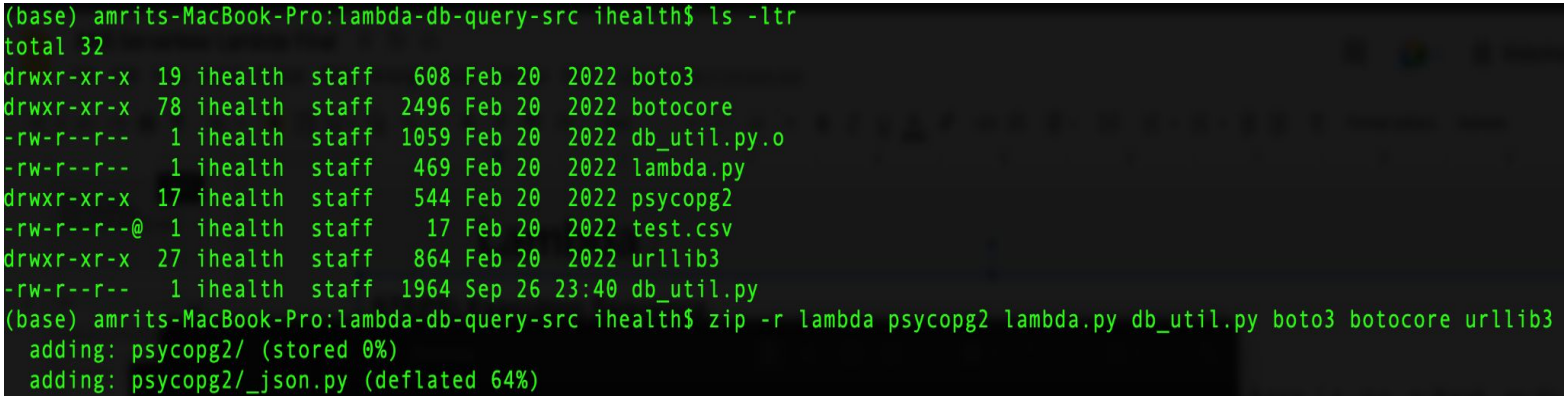
3) cloudwatch : Store logs



Lambda :

STEPS) Execution Sequence

1) Terraform-fargate-example part should be executed which will create base, i.e vpc , subnet , route etc.
2) rds part need to be executed to created the postgresql first
   Needs input from terraform-fargate-example provide to fetch vpc and subnet details and replace in vars.tf
   run terraform13 init && terraform13 apply
3) Need to move to directory serverless-project/serverless-application/lambda-db-query-src and create lambda.zip



zip -r lambda psycopg2 lambda.py db_util.py boto3 botocore urllib3

4) Copy this zip to cp -f lambda.zip ../../infrastructure/lambda-project/lambda-db-query/files/
5)

Lambda :

STEPS) Execution Sequence

5) Replace db_host, db_query, vpc, s3_resources, s3_bucket, bucket values in vars.tf (min)
6) Run below commands for creation of lambda with required resources
terraform13 init
terraform13 plan
terraform13 apply

Testing:
Upload a csv file with requires values, trigger will be generated and updated in postgresl db.
Else
Can simply click on lambda test to run it manually and test .