

# AWS: Serverless BUILD SERVERLESS APPLICATION ON AWS CLOUD

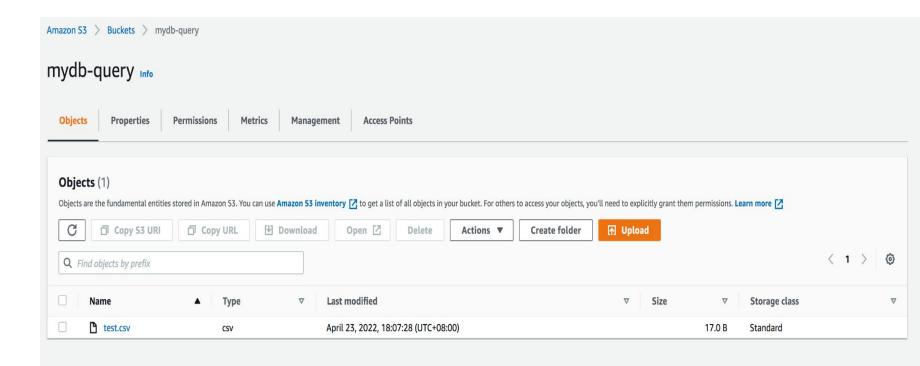
**Lambda Manual Execution** 

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### S<sub>3</sub> bucket

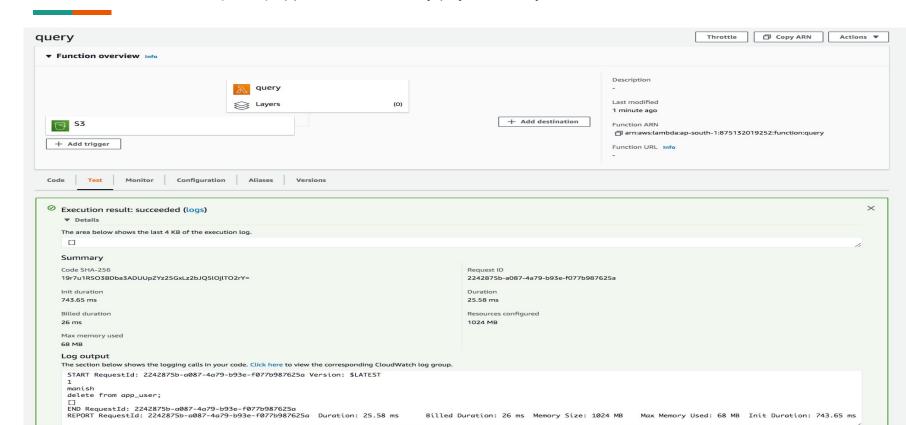
S3: public cloud storage service in amazon

An S3 customer first creates a bucket in the AWS region of his or her choice and gives it a globally unique name. AWS recommends that customers choose regions geographically close to them to reduce latency and costs.



#### lambda

AWS Lambda is a serverless, event-driven compute service that lets you run code for virtually any type of application or backend service without provisioning or managing servers. You can trigger Lambda from over 200 AWS services and software as a service (SaaS) applications, and only pay for what you use.



# Lambda: components used

Zip: contains code for lambda

 $\textbf{Link}: \underline{\texttt{https://github.com/trainmefordevsecops/serverless-project/tree/master/serverless-application/lambda-db-query-src}$ 

cmd: zip -r lambda psycopg2 lambda.py db\_util.py boto3 botocore urllib3

Lambda: Environment variables

Environment variables (8)  The environment variables below are encrypted at rest with the default Lambda service key.	
Key	Value
bucket	mydb-query
db_host	dev-my.c13jmuerptqv.ap-south-1.rds.amazonaws.com
db_name	myappdb
db_pass	Mypassword
db_port	5432
db_query	CREATE TABLE IF NOT EXISTS app_user (id integer NOT NULL DEFAULT '1',name varchar(40))
db_user	myuser
env	dev

## Lambda: components used

Handler : lambda.lambda\_handler

VPC, Subnet: Inputs from you infra created

Run Time: Python3.8

**Security Group**: allow outbound all

Policy and Role: --->

```
"Statement": [
        "Action": [
            "ec2:DetachNetworkInterface",
            "ec2:DescribeNetworkInterfaces",
            "ec2:DeleteNetworkInterface",
            "ec2:CreateNetworkInterface"
        "Effect": "Allow",
        "Resource": "*",
        "Sid": ""
        "Action": [
            "logs:PutLogEvents",
            "logs:GetLogEvents",
            "logs:DescribeLogStreams",
            "logs:CreateLogStream",
            "logs:CreateLogGroup"
        "Effect": "Allow",
        "Resource":
            "arn:aws:logs:ap-south-1:875132019252:log-group:/aws/lambda/query:*",
            "arn:aws:logs:ap-south-1:875132019252:log-group:/aws/lambda/guery"
        "Sid": ""
        "Action": [
            "s3:ListBucket",
            "s3:GetObject",
            "rds:*",
            "ec2:DescribeVpcs",
            "ec2:DescribeVpcAttribute",
            "ec2:DescribeSubnets",
            "ec2:DescribeSecurityGroups",
            "ec2:DescribeInternetGateways",
            "ec2:DescribeAvailabilityZones",
            "ec2:DescribeAccountAttributes"
        "Effect": "Allow".
        "Resource": "*",
        "Sid": ""
"Version": "2012-10-17"
```