Earnin CloudOps Challenge

Your objective is to provide a simple, yet elegant and robust solution, that can easily run and extended upon by others.

Your solution should be implemented in a standard open-source tool chain using commonly available libraries and tools.

Please upload your submission and CC your recruiter within 48 hours of receiving it. If you need more time, please let us know.

Your submission should include:

- A tarred and gzipped copy of your solution
- All source code required to run and/or build.
- Instructions on how to build/execute your code
- Discussion topics

Challenge

Imagine an engineering team that requires to run a new job on AWS.

This job will do the following:

- Read a file from S3
- Process the data in the file, and store results into an RDS database.
- *You do not need to write this code*. But feel free to include suggestions for the engineering team in order to make sure the code will work with the solution you provide.

Your objective is to provide a solution that does the following:

- Provision an AWS resource where the job can be run.
- Provide a solution that is portable, and can be easily adapted or re-used for similar jobs.
- Use best practices wrt security and how you handle data.

Your solution can assume the following things

- The credentials to AWS will be provided using one of the methods described here: https://docs.aws.amazon.com/cli/latest/userguide/cli-chap-getting-started.html#config-settings-and-precedence
- The S3 bucket has been created for you and data is being written into it daily
- The RDS database has already been created for you
- The RDS database is accessible to the VPC CIDR 10.0.1.0/24 that you're deploying into.
- The job is a single standalone script, that accepts all its parameters either as arguments or environment variables.
- There is no need to create a new VPC or subnets, we have a target VPC with both public and private subnets available. They will be made available through variables named: VPCID, PRIVATESUBNETID and PUBLICSUBNETID

Discussion topics:

- How would you advise the engineering team to deploy their job?
- How would you automate, the deployment of the job so the engineering team would not need to deploy it.
- How would you make this job run periodically, Once every day.
- How would you optimize for cost, knowing that the job will run less than one hour, and needs to run once a day.
- How would you make sure that the job ran and finished successfully.
- What would you do if it had failed