DevOps - Take Home Assessment

Part I

Deliver Terraform Code

Create a Helm repository using AWS S3 bucket (search on the internet for instructions)
The s3 bucket should be created using Terraform.
Once the bucket is ready, push some example charts into the repository
You will find on the internet Helm s3 plugins that help interact with s3 as a Helm repository.

Part II

Deliver Small App for K8S and a Helm Chart

1. Create a simple HTTP app in the language of your choice that upon query returns the contents of the S3 bucket in JSON format.

2. Create a Dockerfile for the application.

3. Create a Helm chart to deploy the application to Kubernetes.

Considerations:
- Take into account proper configuration of the application via the Helm chart as it requires details for the S3 bucket, address etc.
- Consider adding a mechanism to validate the application’s health

- To develop and deploy your application you can use a local k8s cluster such as minikube.

The final result of the application, its Dockerfile and its Helm chart should all be present in a single GitHub repository.

Part III

Helm Chart GitHub Action

Create a Github action that upon merge to a certain branch packages the application's Helm chart and pushes it to the S3 repository

Notes

All parts of the assessment should be considered as production ready.

The evaluation of your task will also consider things such as best practices, clean and readable code, security, readme file etc.

For any questions about the task feel free to reach out.