Keywords.

a client to assess their strategy to **migrate to the public cloud**. They are currently hosting a customer facing **web application** on their on premise environment based on a **NodeJS application behind an NGINX reverse proxy**. They are **utilizing a MongoDB cluster for storing data** as well as an **FTP server for document storage**. They also maintain a **cron server**, mostly Bash and Python scripts, relevant to a small amount of jobs that need to be executed a few times per day (no more than once per hour). All the above services are hosted on several virtual machines.

the customer currently has 3 environments, namely Test, Acceptance and Production

The customer is interested in migrating the complete envitonment to the Public Cloud want to go live on the Public Cloud 12 months after they have agreed on the vendor to support them

hard requirement for exporting all application and infrastructure logs to an ElasticSearch Cluster. The customer needs to have access to the Kibana dashboard within their headquarters but the cluster/dashboard should not be publically accessible.

The solution needs to:
- be scalable and flexible.
- utilize managed services as much as possible.

Cost optimization should be applied when necessarty, Environment isolation is important, but some shared services would be acceptable if they result in major cost reduction.

Deliverables

provide the following:
- An architectural design for all the components and all the environments.
- An IaC project for deploying an MVP demo (excluding the CRON and the ElasticSearch requirements).

for AWS, write your IaC using: AWS CDK, or alternatively with AWS CloudFormation or Terraform.
for Azure, write your IaC using: ARM Templates, or alternatively with Terraform.
- Include a simple time log of the activities you have performed.
- Document any assumptions and decisions you have made.
- A GIT repo with all the above.