## Key Components

**Cloud Provider**
AWS

**Infrastructure as Code**
Provisioning - Terraform, Kops
AMI Package Management - Packer
Continuos Deployment - Ansible
Continuos Integration - Jenkins (Pipeline as Code)

**Containerisation**
Docker
Kubernetes and its related tools like helm charts

**Registry**
DockerHub
Chart Museum

**Source Code**
GitHub

**Collaboration/Notification**
Slack, PagerDuty,SNS, emails etc.,

**Datastore**
AWS Aurora PostgreSQLDB

**Vulnerability Scanning tools**
Docker and Kubernetes Scanner

**Monitoring/Observation**
Grafana, Prometheus, Prom Alert Manager, EFK Stack

## Explanation

- We can choose any cloud provider you want to, I have decided with AWS as they are more stable to rely on and we can build the entire stack without much hassles.
- I have chose to use maximum of CNCF Cloud Native Projects wherever possible, to **avoid costs** and major developments have already been taken place and also the open source contributions are enormous in DevOps world.
- All the key components that I have chosen are the projects which is contributed and managed regularly and they are **Cloud agnostic** in nature and they can **run on any cloud** for flexibility.
- Yet, If needed we can use the best paid products, may be for better monitoring and security of infra as these cannot be compromised at any cost.
- The application can easily scale, and it will be highly resilient and performs best HA capability using the architecture stack that I have provided.