# CMG Demo Step By Step

Steps to creating the application and infrastructure:

- Create Terraform for:
  - VPC
  - Subnets:
    - public-private subnet architecture to reduce exposure of resources
  - NAT Gateway:
    - to allow outbound internet access for the node groups (eg worker nodes pulling images)
  - Internet Gateway:
    - internet access for public subnets
  - Node Groups:
    - spread across availability zones for fault tolerance
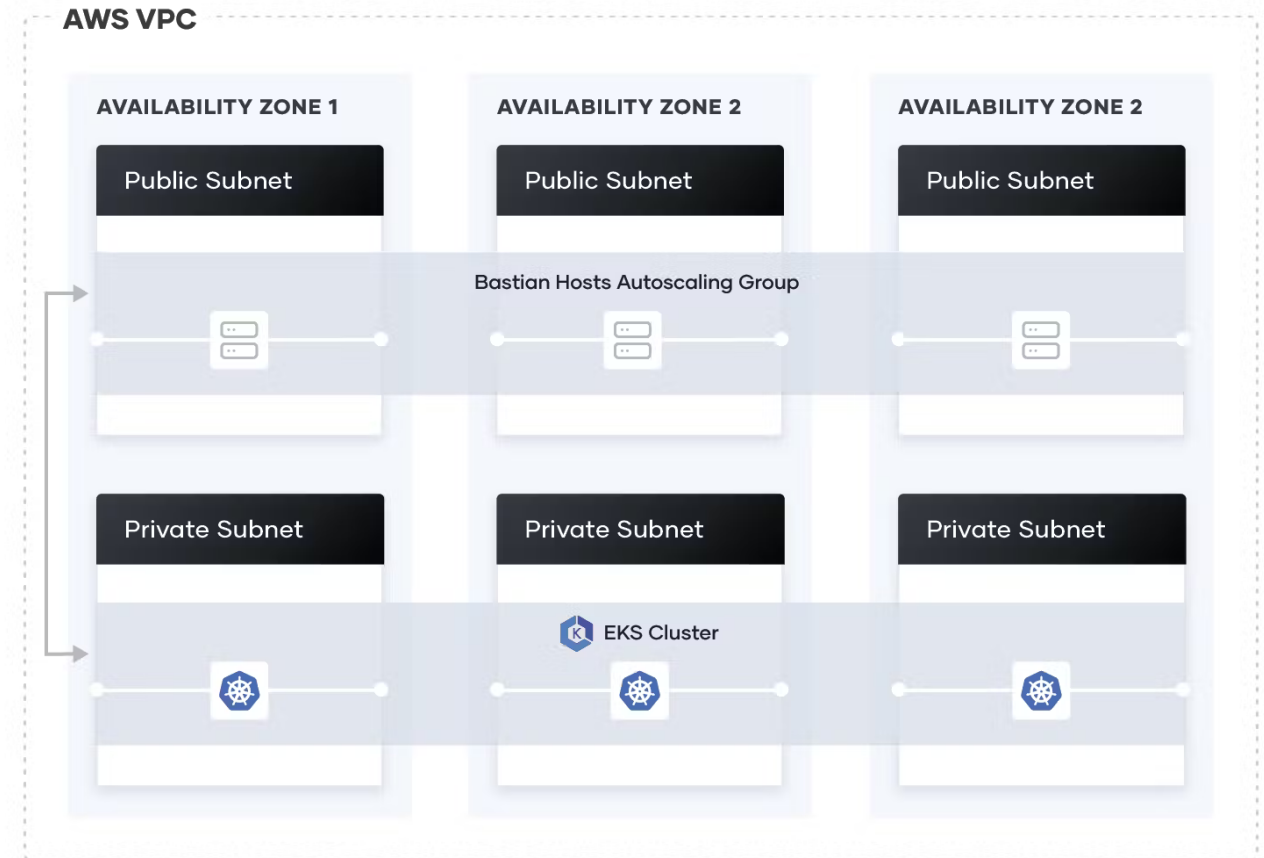
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    - RDS - AWS managed postgres database
    - ECS - Container Registry
- Kubernetes resources:
  - Cluster AutoScaler
  - Load Balancer type Services
  - Deployments
  - HorizontalPodAutoScaler
- Application:
  - Go Backend
  - React.JS Frontend
  - Sops for secret management
  - glue scripts for deployment and templating