3: Configure CI/CD pipelines

Presenters

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What did we do last session?

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- Built docker containers for all three microservices
- Defined Kubernetes pods, services and an ingress
- Configured a local kubernetes environment using minikube
- Deployed to minikube using kubectl

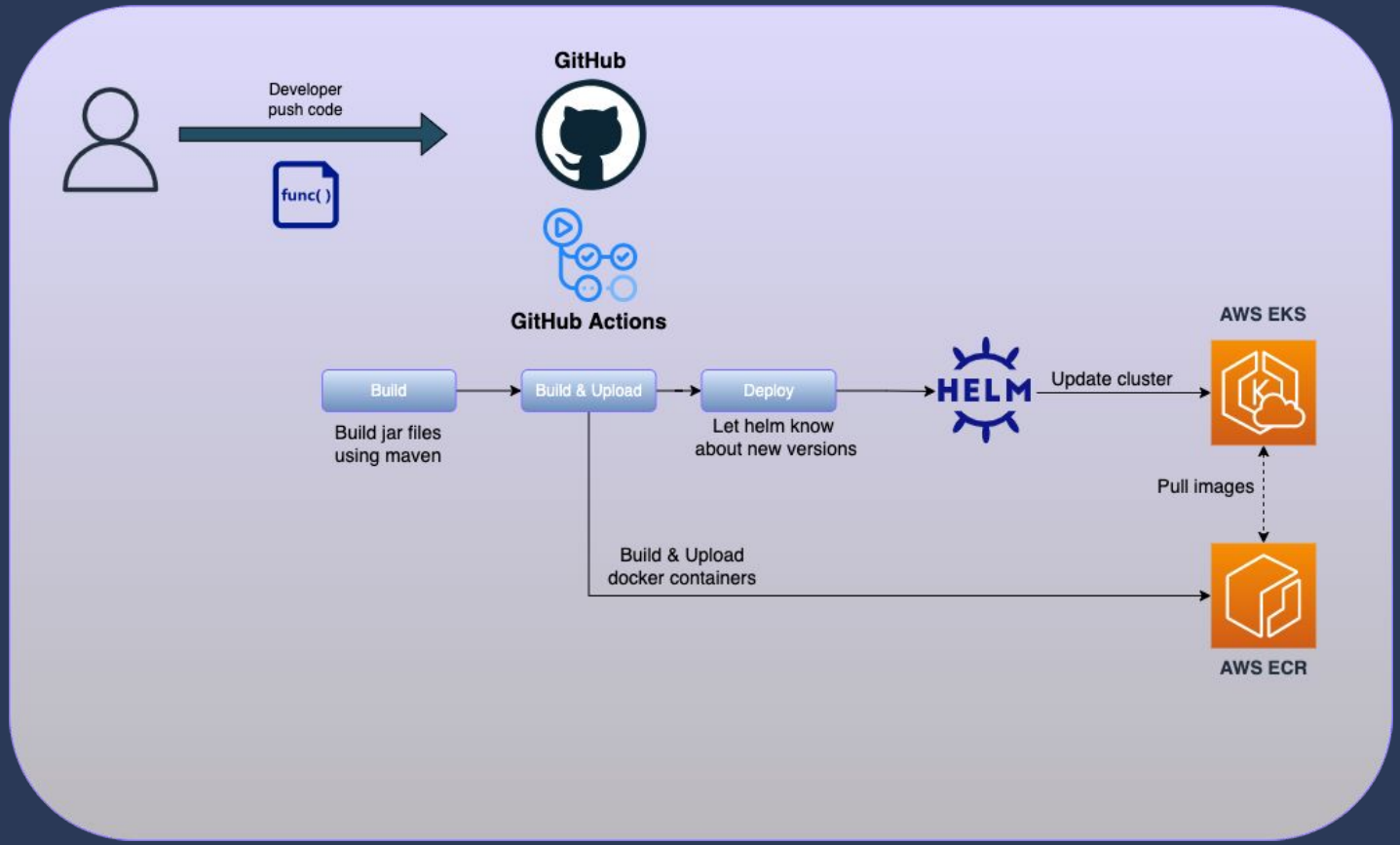
To watch the previous session go to
https://www.youtube.com/watch?v=j9Bjq-xv8KA

3: Configure CI/CD pipelines

Today we will

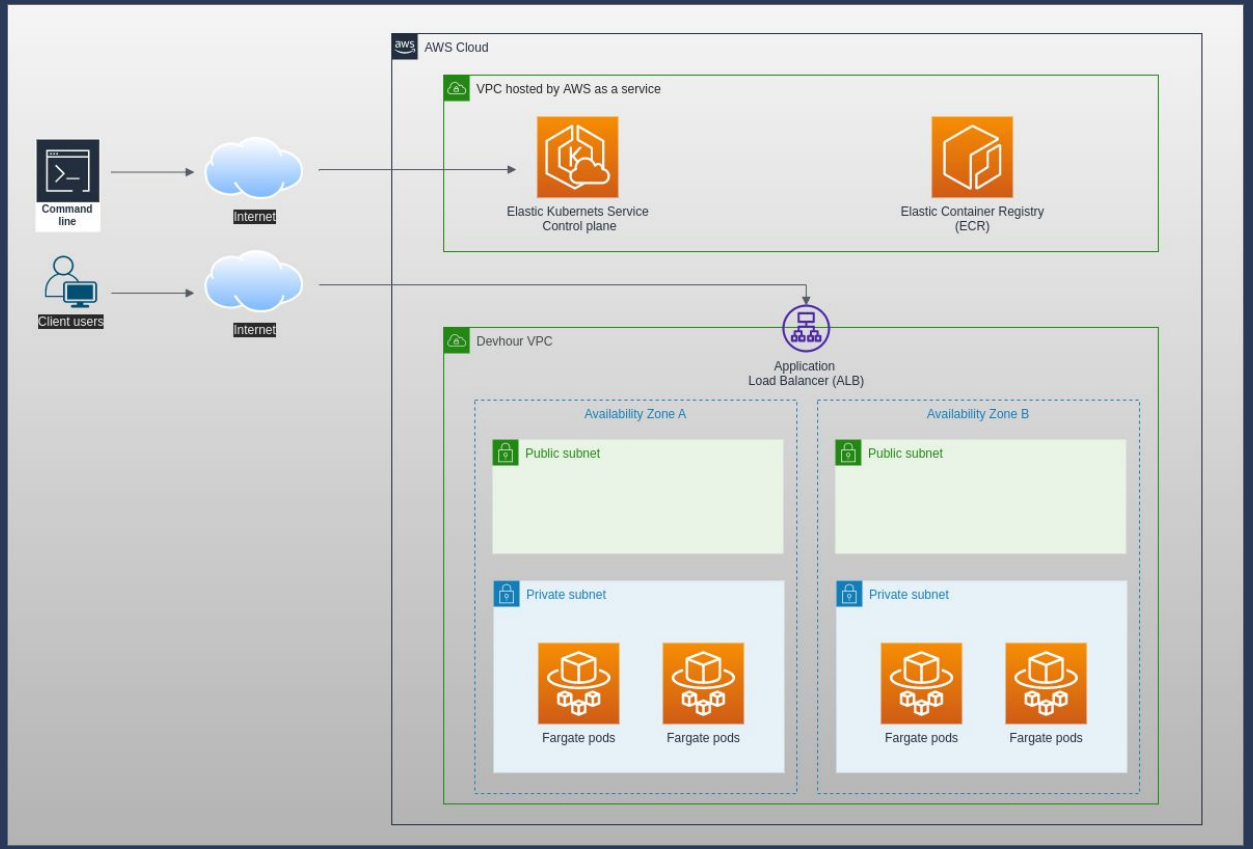
- Configure our maven versioning to work with CI/CD
- Work with GitHub Actions for a pipeline
- Push our docker containers to AWS Elastic Container Registry (ECR)
- Create Helm Charts
- Deploy our docker containers to AWS Elastic Kubernetes Service (EKS) using Helm

Pipeline overview



What is AWS Elastic Kubernetes Service (EKS) ?

- EKS is a service provided by AWS so you do not have to host Kubernetes on your own servers.
- Integrated with many other AWS services like IAM, VPC, CloudTrail and more



What is Helm?

- Helm is more or less a package manager for Kubernetes. If you have ever used yum, apt or similar then Helm is the equivalent for Kubernetes.
- It reduces time spent on managing yaml files and improves development experience
- Helm uses Charts to defined your deployment packages

Enough slides, let’s start coding!