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Kubernetes

Site Reliability Engineering

Objectives

In this module, you will be introduced to the deployment system

Learning Objectives

By the end of this module, you will be able to:

- Explain what a container service is
- Review and modify infracode
- Debug deployment issues
- Explain the difference of create vs. update

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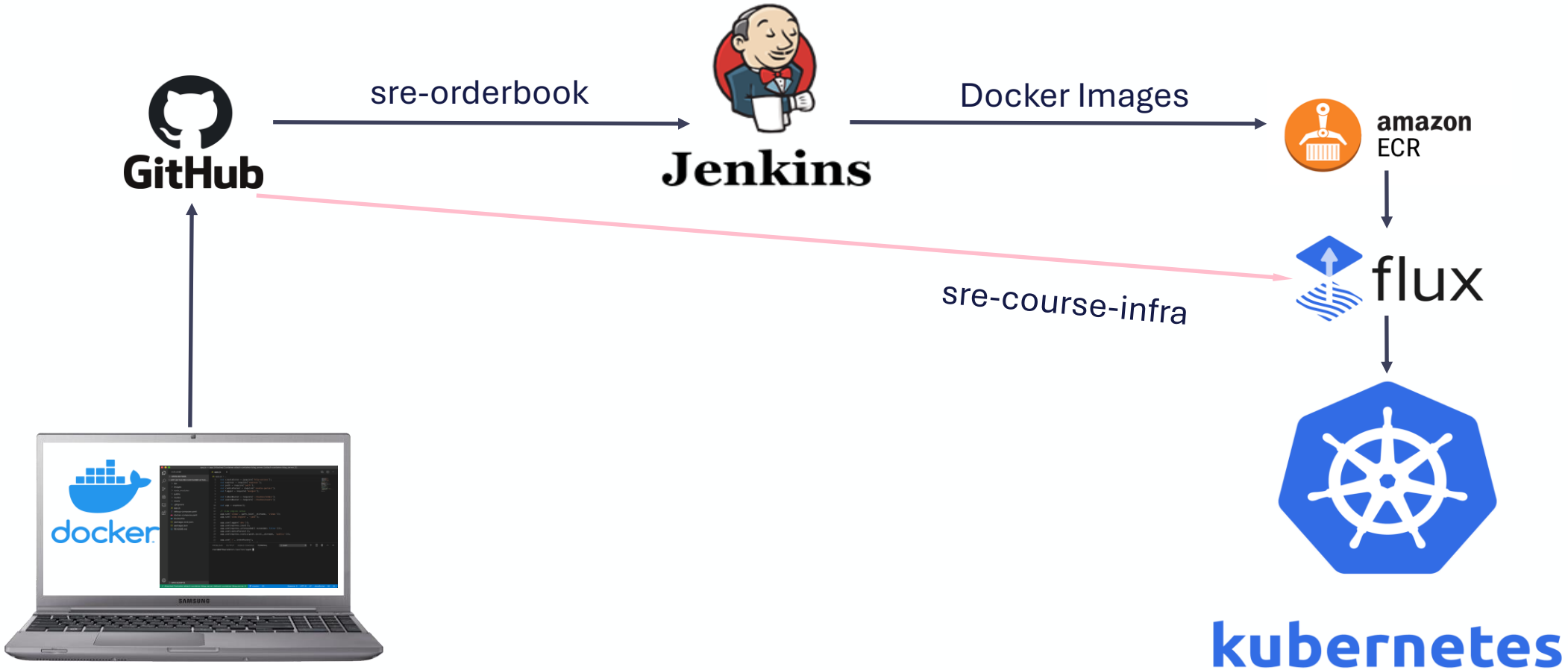
Kubernetes Overview

- A container orchestration tool to manage enterprise scale microservices
- Manages
  - >>> Container infrastructure (networking, load balancing)
  - >>> Deployments
  - >>> Persistent Storage
  - >>> Secrets
  - >>> Variables

Containers to Kubernetes



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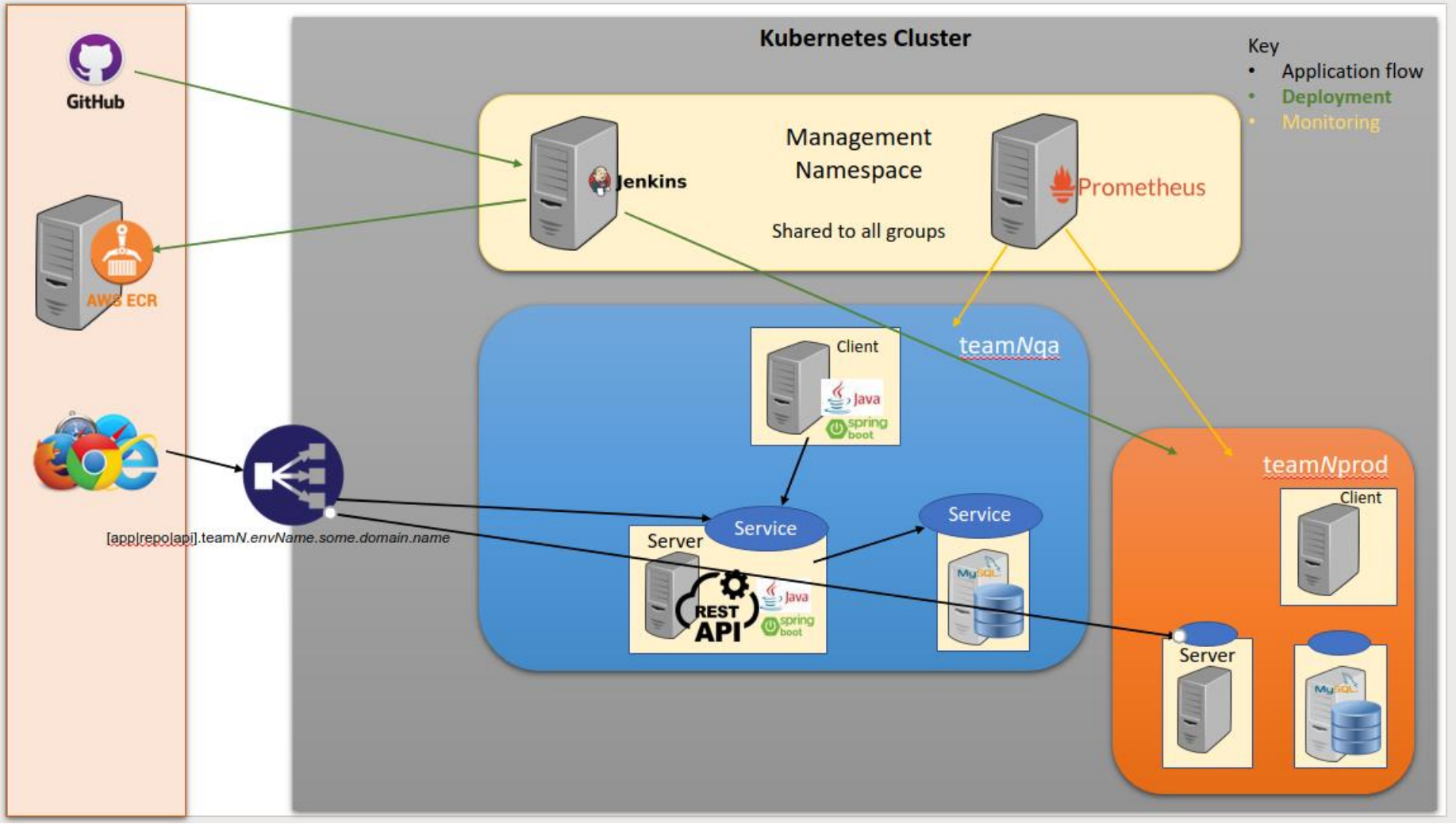
Our Lab Environment



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Services of Help

- Jenkins
  >>> https://jenkins.computerlab.online
- Grafana Monitoring Dashboard
  >>> https://grafana.computerlab.online
- Prometheus metric gathering
  >>> https://prometheus.computerlab.online
- Alertmanager
  >>> https://alertmanager.computerlab.online
- Docker registry repository
  >>> http://ecrlist.computerlab.online/index.php
- Kubernetes
  >>> https://k8sdashboard.computerlab.online

The Lab Repository

- Kubernetes is managed through
  - >>> GitHub.com/The-Software-Guild/sre-course-infra
- DevOps practices must be used with this repository
  - >>> Coding on feature branches
    - ~ Never code on main
  - >>> Pull requests required to merge your code to main branch

Summary Q & A

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