

Spinnaker Fundamentals

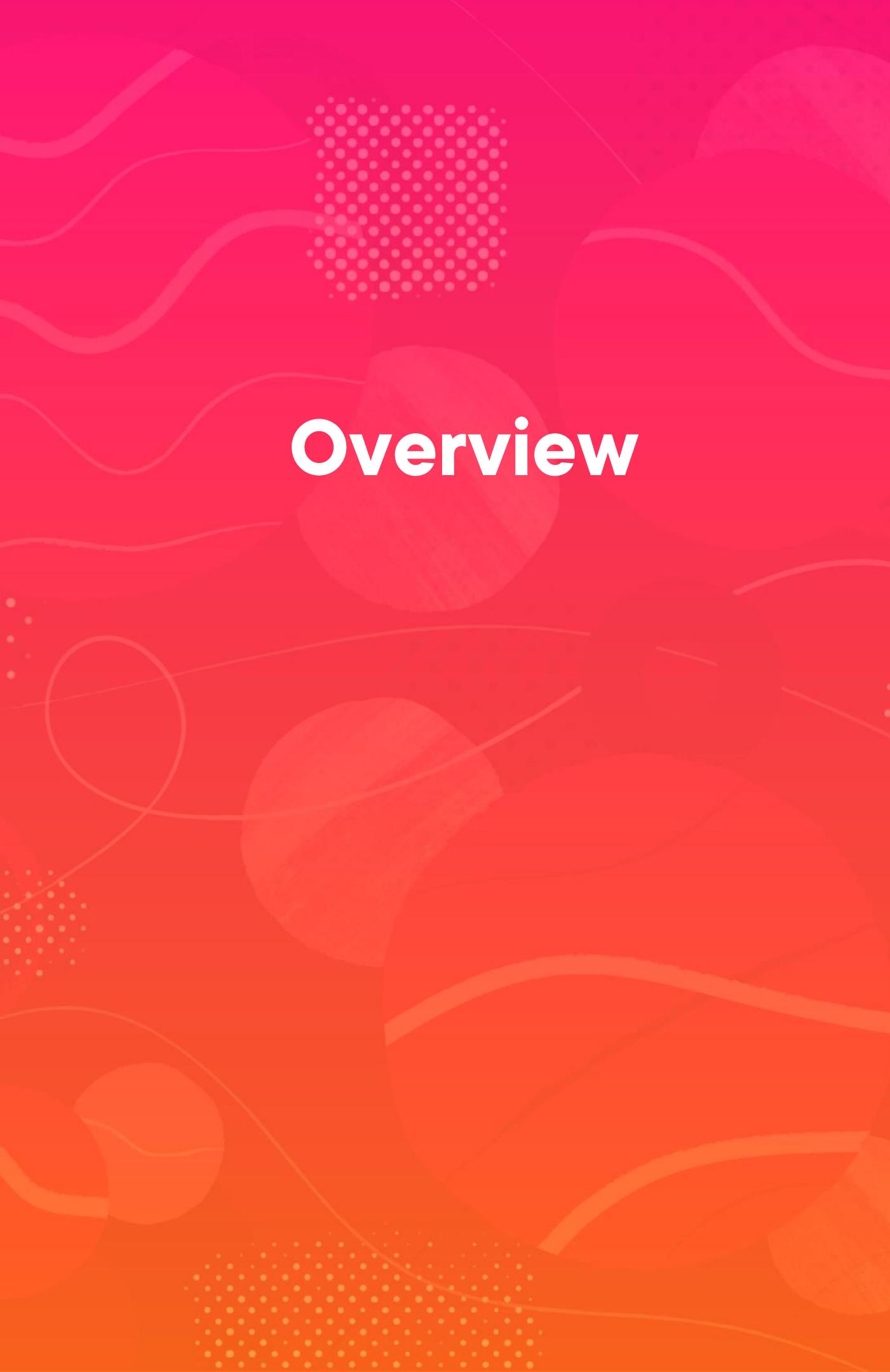
Understanding the Basics



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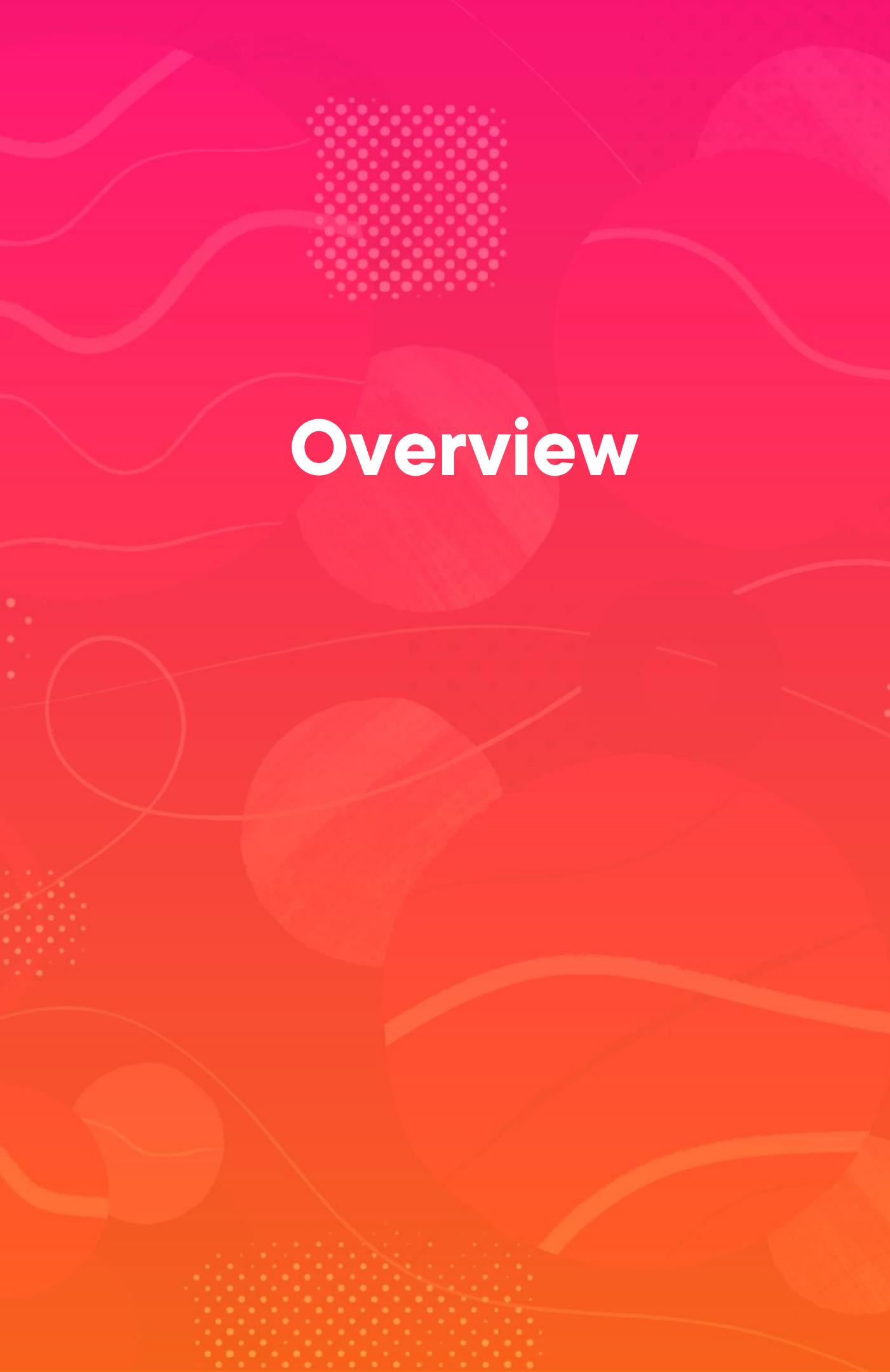
Overview

Develop the skills to install & configure Spinnaker

Understand Spinnaker's architecture and use-cases

Learn ways to operate and monitor Spinnaker in production





Overview

6 modules:

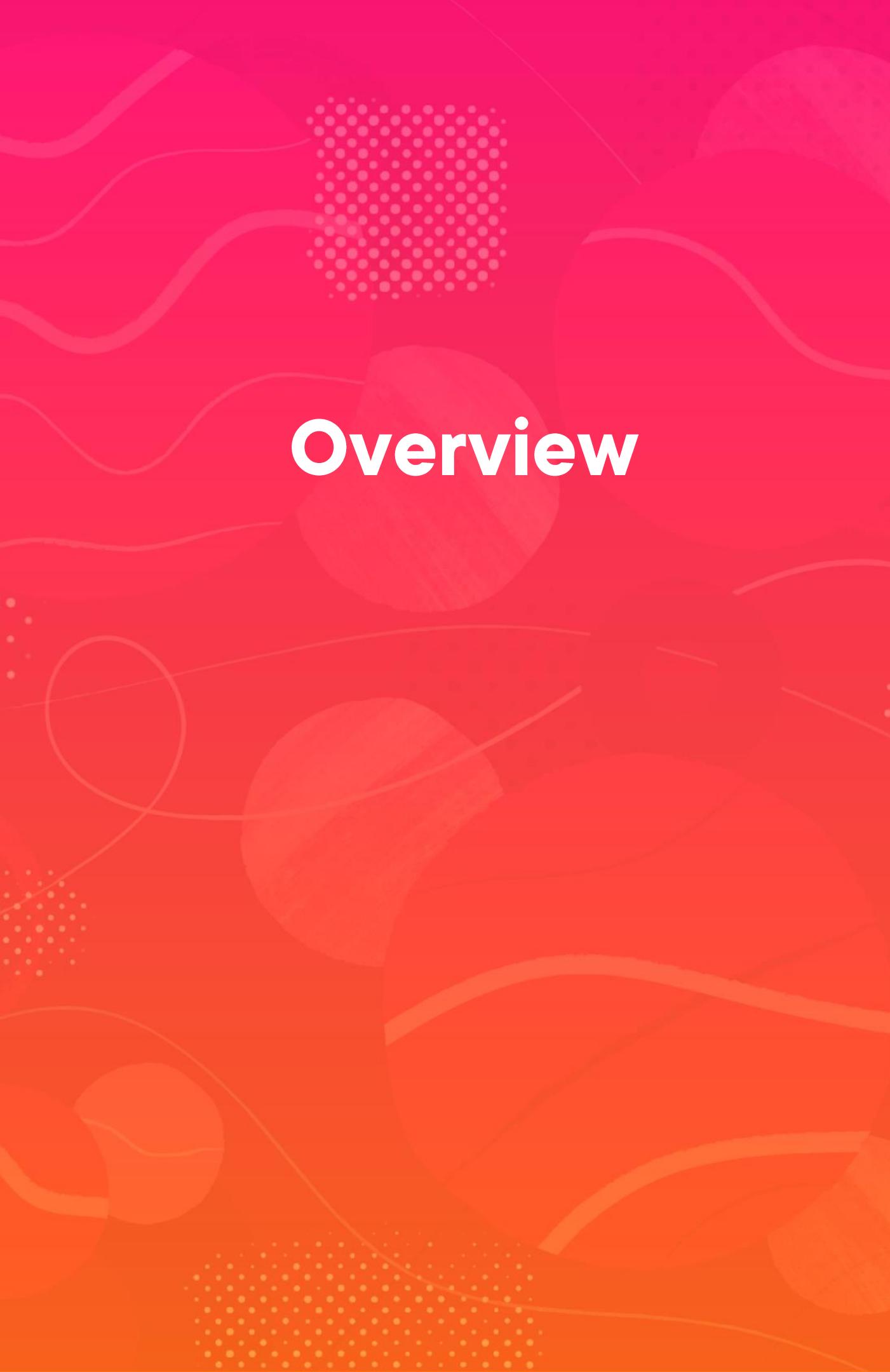
In “Understanding the Basics”

- Spinnaker’s background
- Significance in setting up CI/CD pipelines
- Spinnaker vs other CD tools

In “Installing Spinnaker”

- Install a production grade Spinnaker
- Use Halyard
- Spinnaker’s architecture, cloud-providers, etc.





Overview

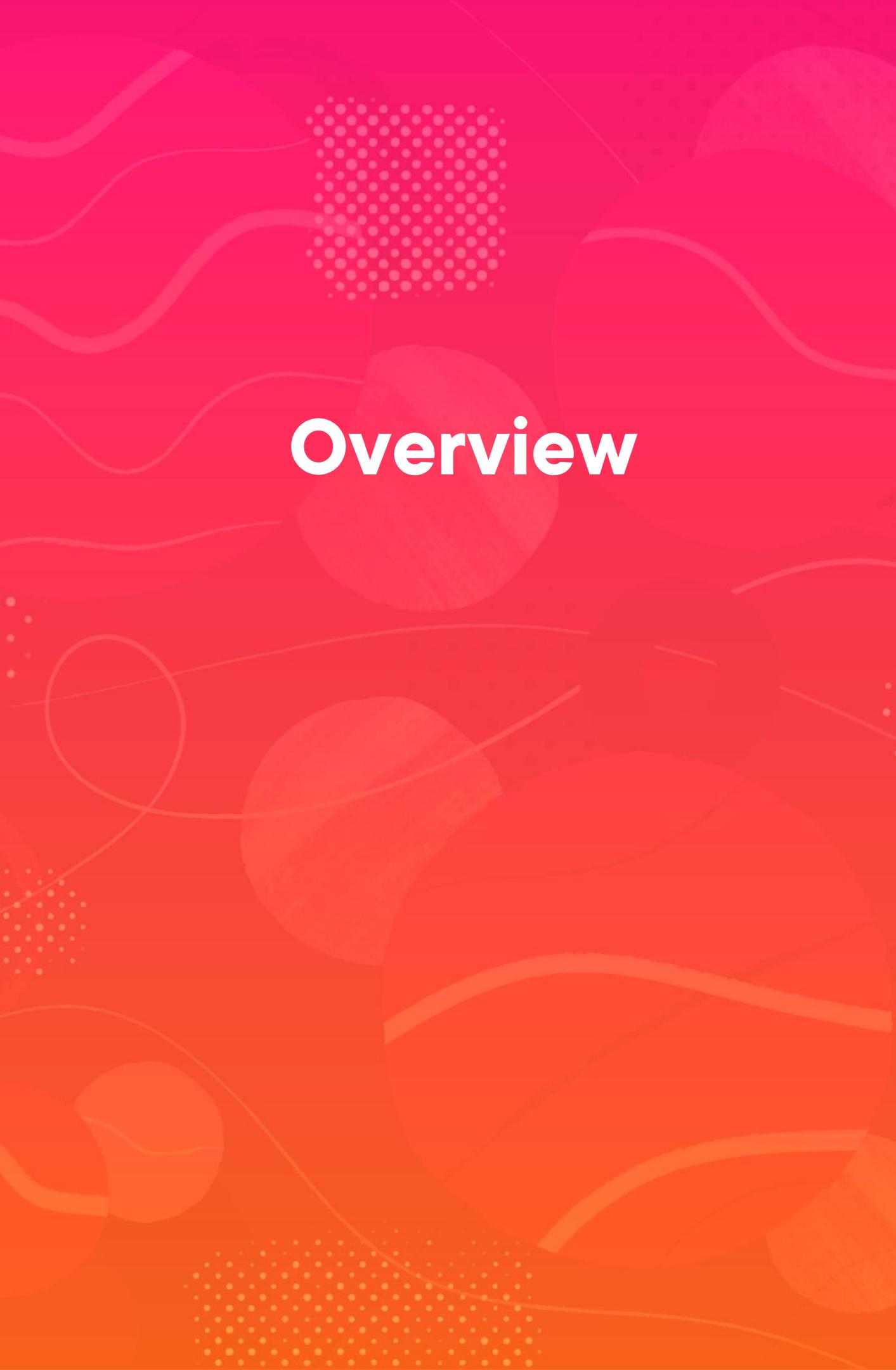
In “Configuring Spinnaker”

- Make Spinnaker production ready
- Secure Spinnaker
- Configure artifacts, triggers, & environments

In “Using Spinnaker”

- Deploy an application
- Explore pipelines, stages, blue-green & canary deployments





Overview

In “Operating Spinnaker”

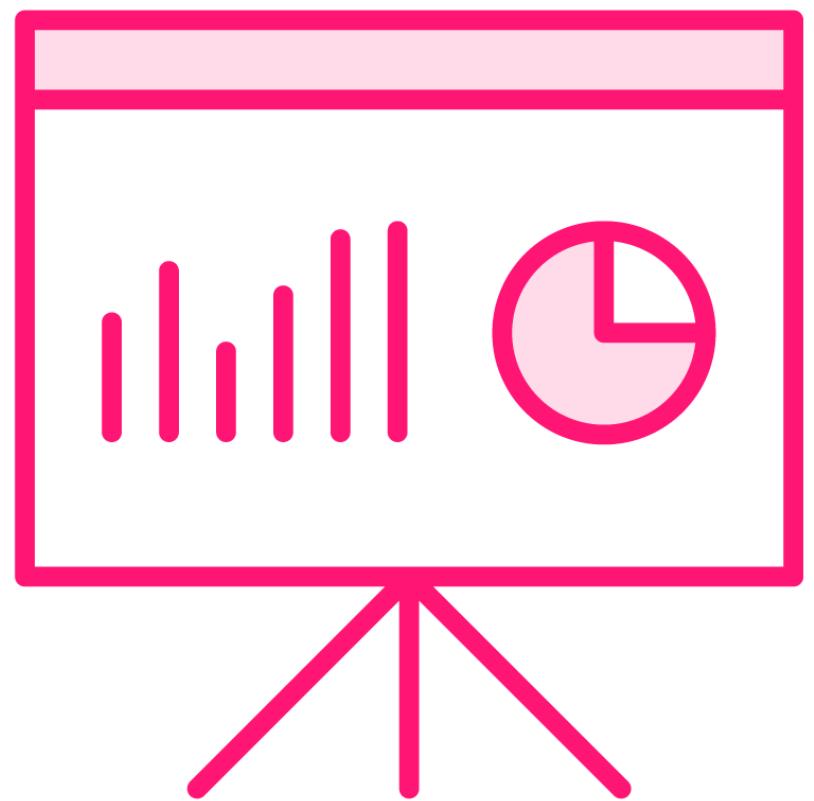
- Spinnaker’s ad-hoc activities

In “Troubleshooting Spinnaker”

- Explore techniques to monitor
- Setup monitoring and logging platform for Spinnaker

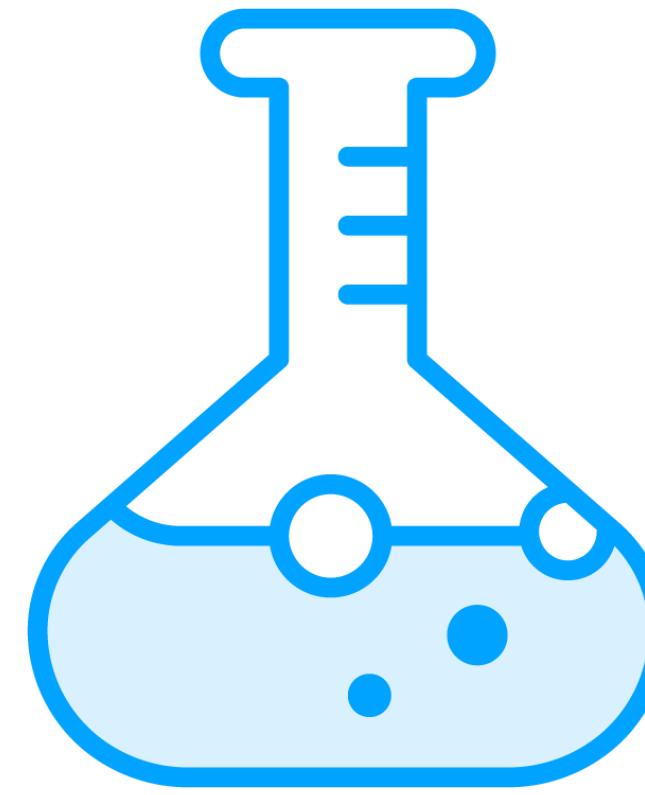


Practitioner Course



Theoretical

+



Lab



Demo

Work alongside the lab videos

Pre-requisites

- Kubernetes cluster to deploy Spinnaker
- Linux based OS to run Halyard commands



Background



CI/CD Pipelines

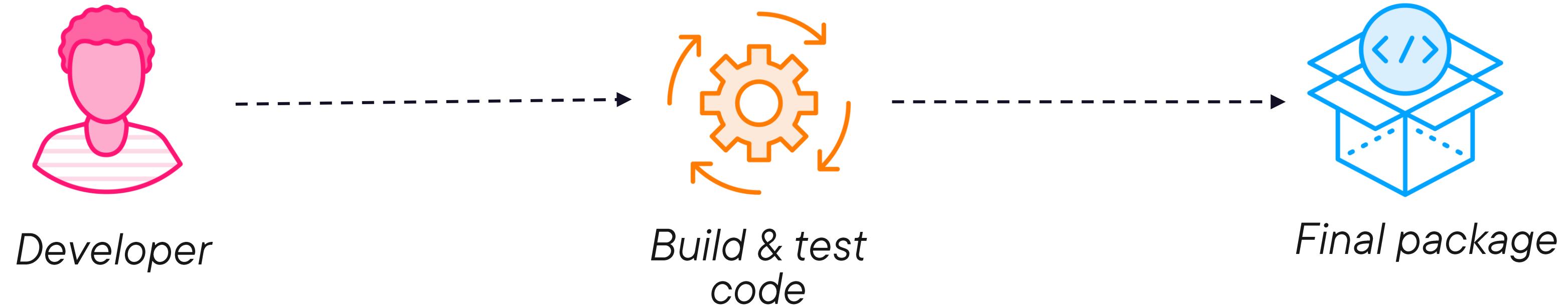


Essential pillars of DevOps practices

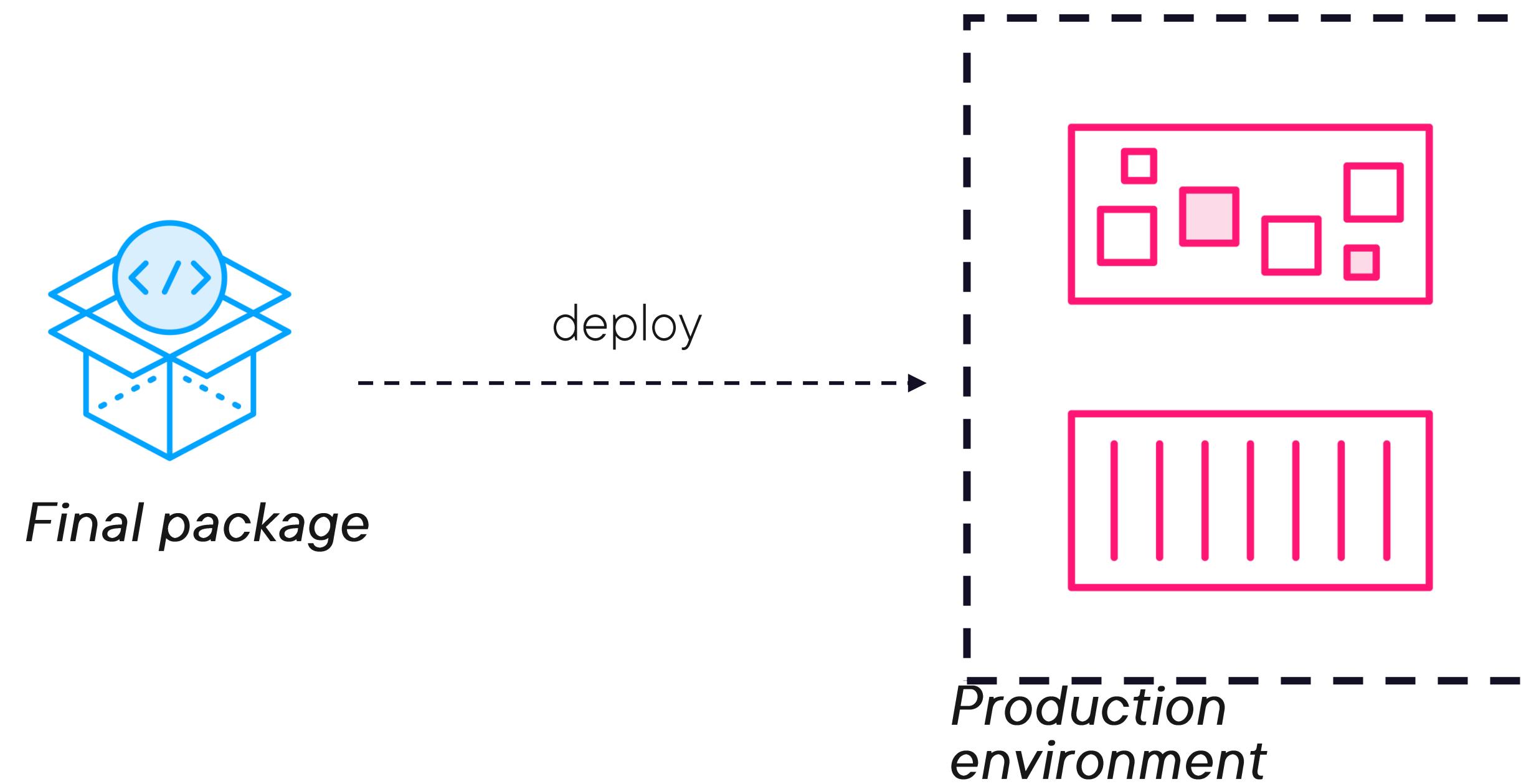
Release applications at high velocity and confidence



Continuous Integration

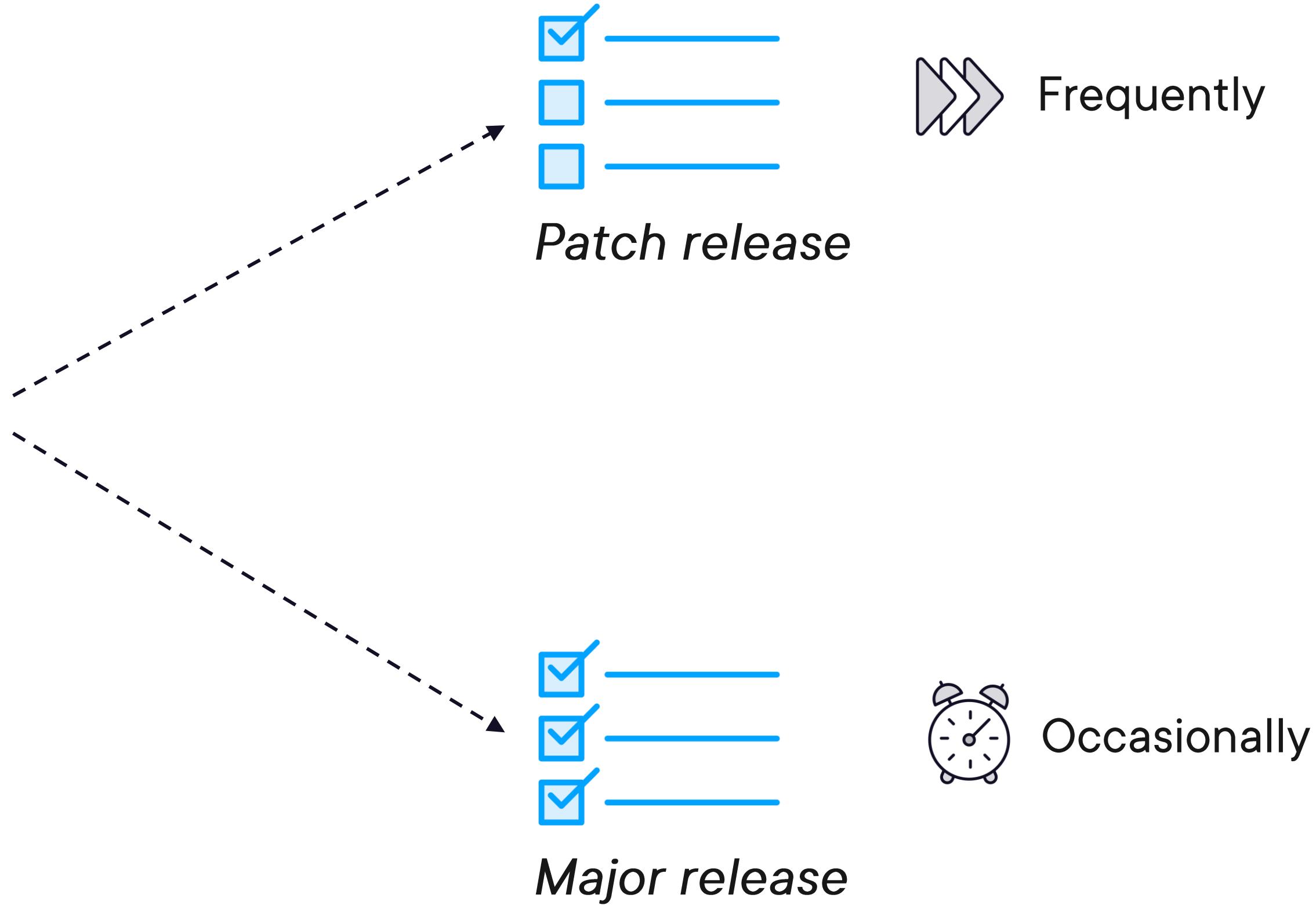


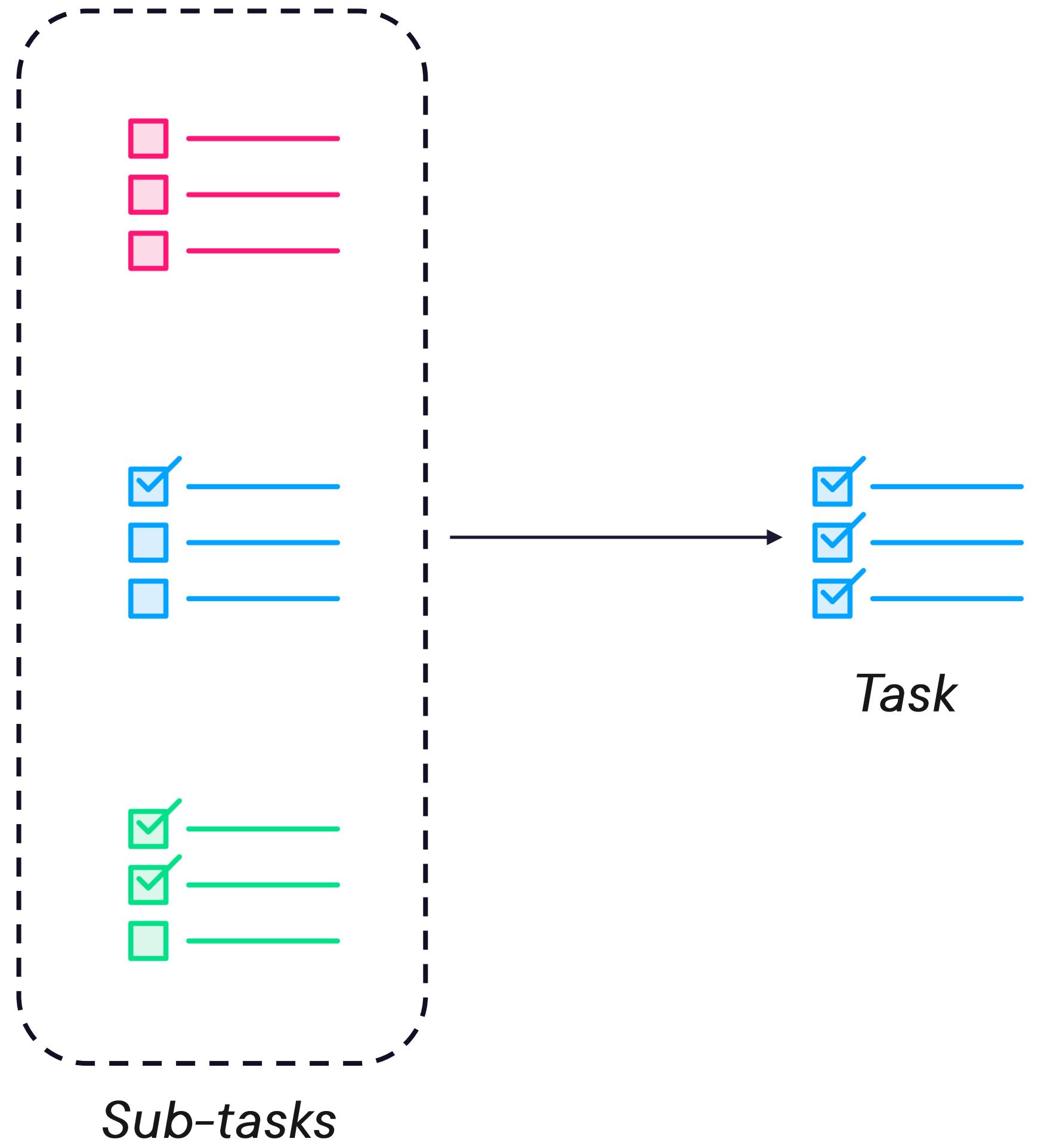
Continuous Deployment





Developers

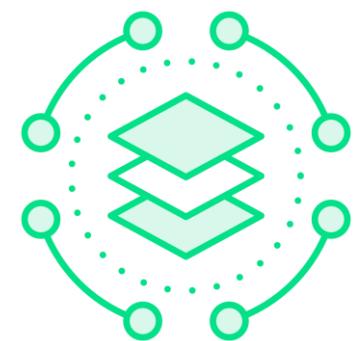




CI/CD Pipelines Challenges



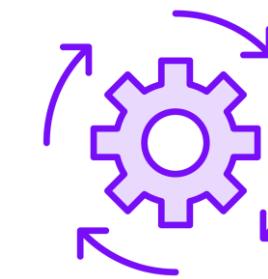
Application versioning



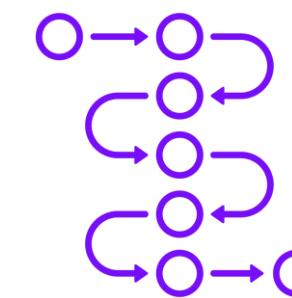
Deployment stages



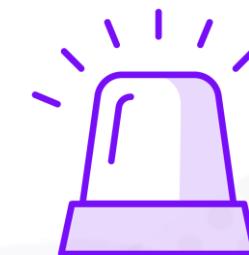
Rollback strategy



Building & testing



Deployment strategies



Alerting





Spinnaker

CI/CD tool simplify builds and deployments

Multiple open-source & commercial CI/CD tools

Spinnaker is a Continuous Deployment(CD) tool



Spinnaker's Timeline

2014

Netflix

Started the development



Spinnaker's Timeline

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Netflix

Started the development

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Netflix

Used Spinnaker actively deploy things into production



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2016

Spinnaker + Google + Microsoft

Support for azure and GCP cloud providers



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Released version v1.0.0

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2022

Spinnaker

Released 1.29.0



Continuous Delivery Foundation (CDF)



Is a vendor neutral home for many CI/CD projects

Is driving initiatives & changes in CI/CD space

Is striving to

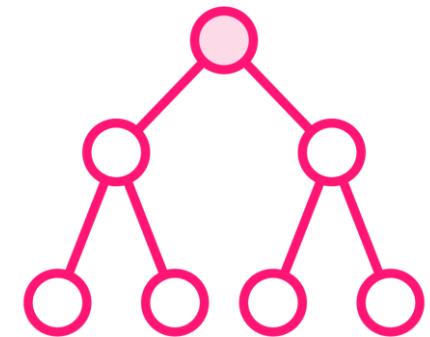
- Evangelize CI/CD methodologies
- Define best CI/CD practices
- Create CI/CD training materials



Spinnaker vs. Other CD Tools



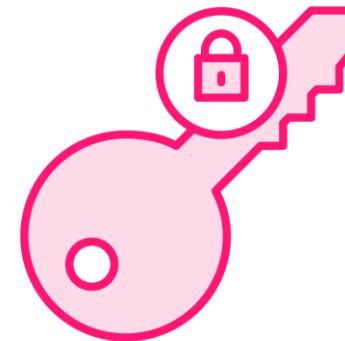
Spinnaker Advantages



Multi-tenant
architecture



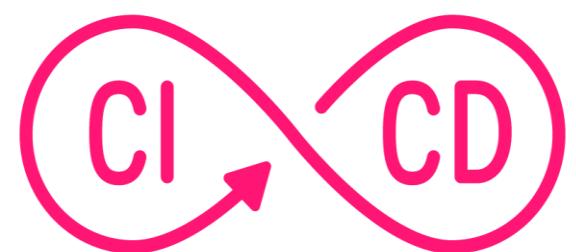
Plug-n-play
model



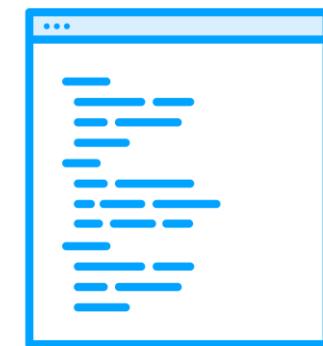
RBAC &
security



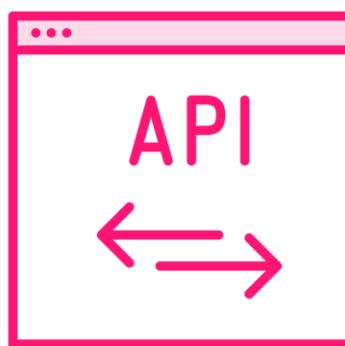
Multi-cloud
support



Multiple
deployment
strategy



Decelerative
pipeline



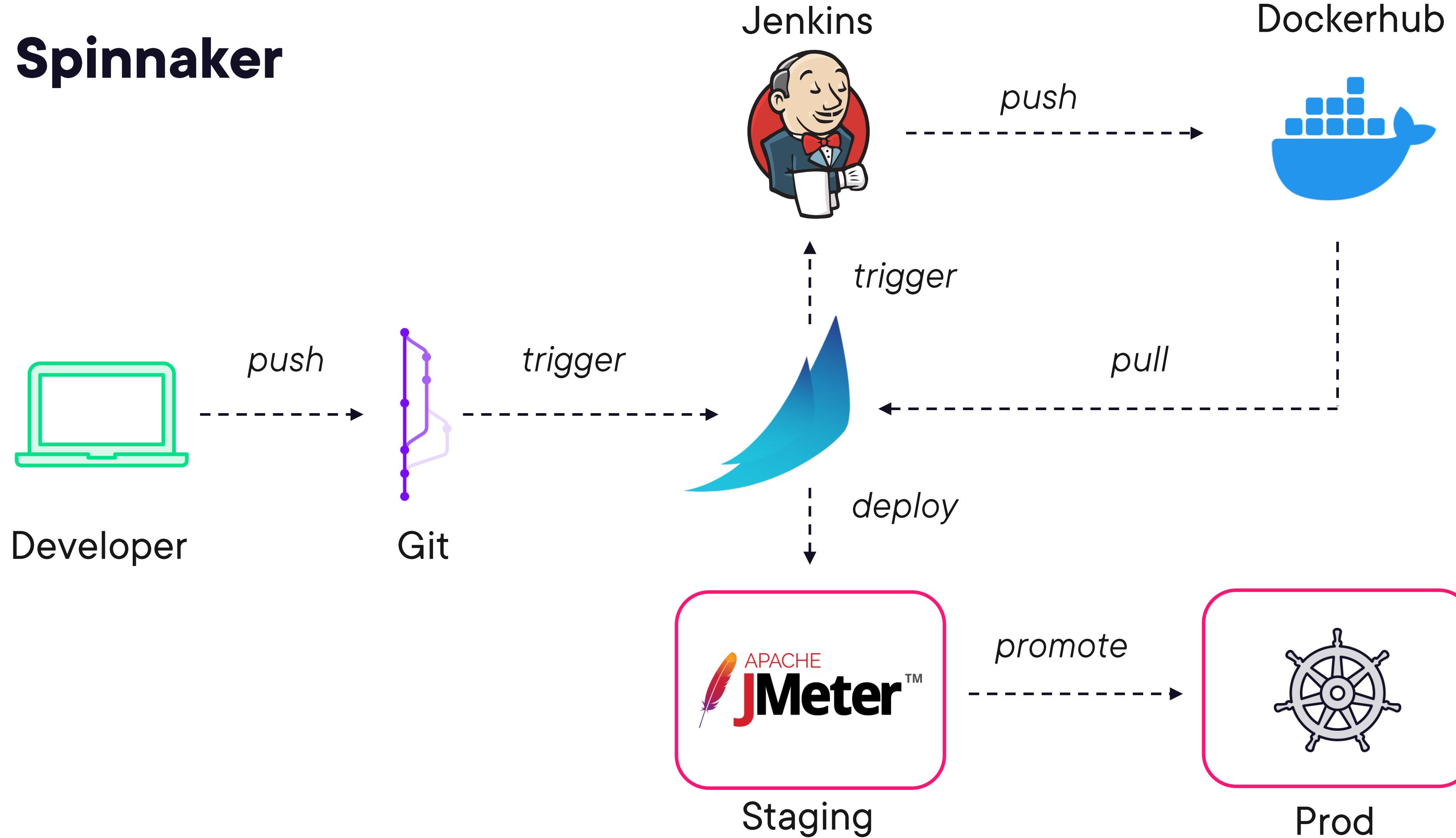
API
integration



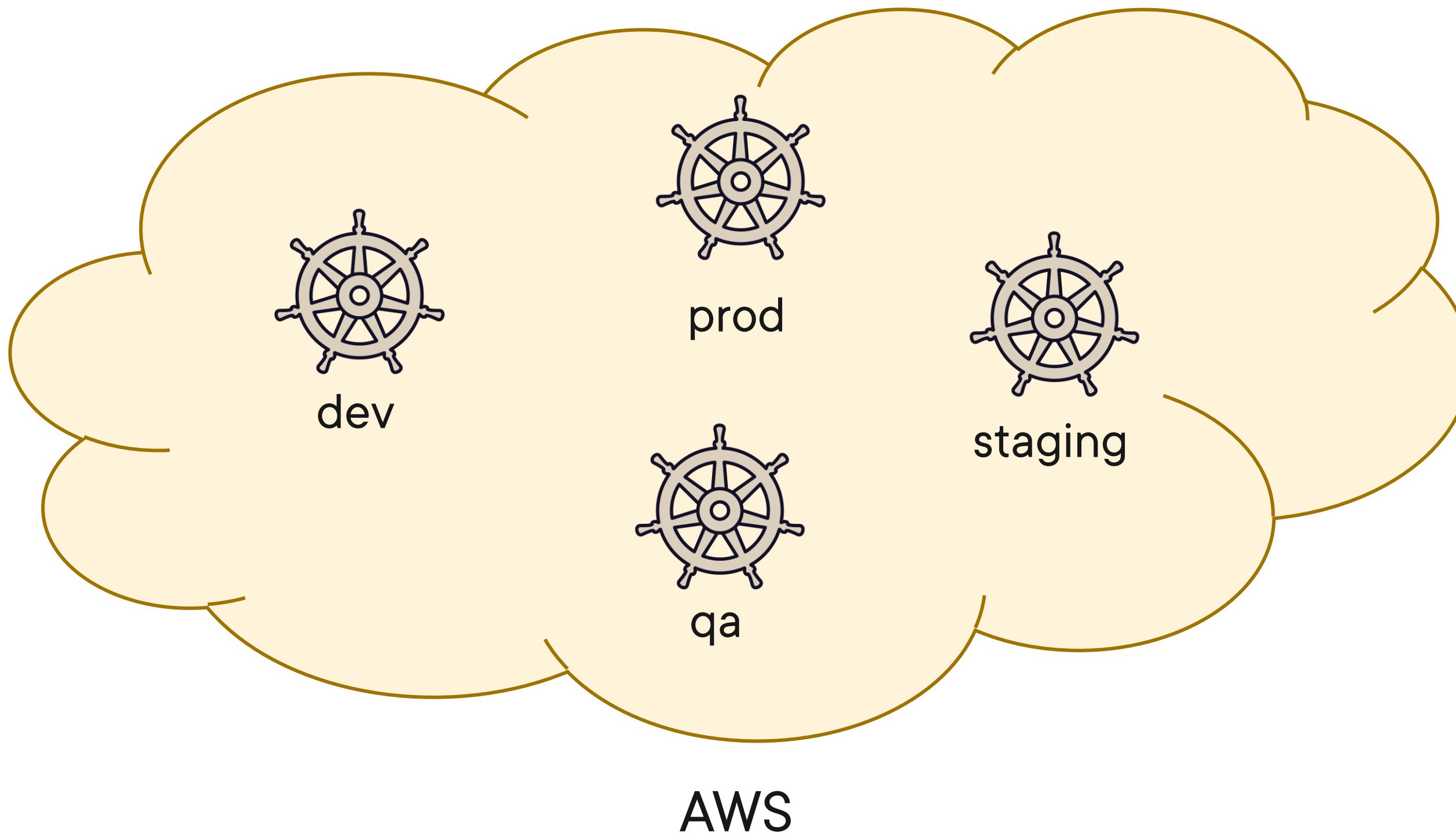
Interactive
UI



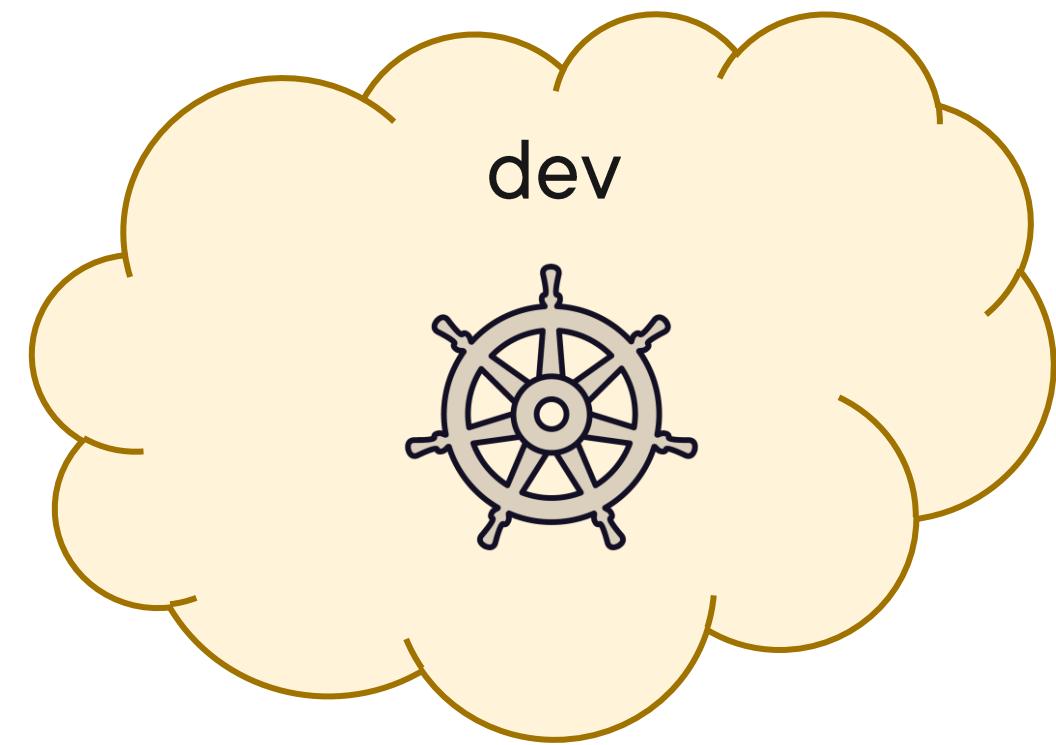
Spinnaker



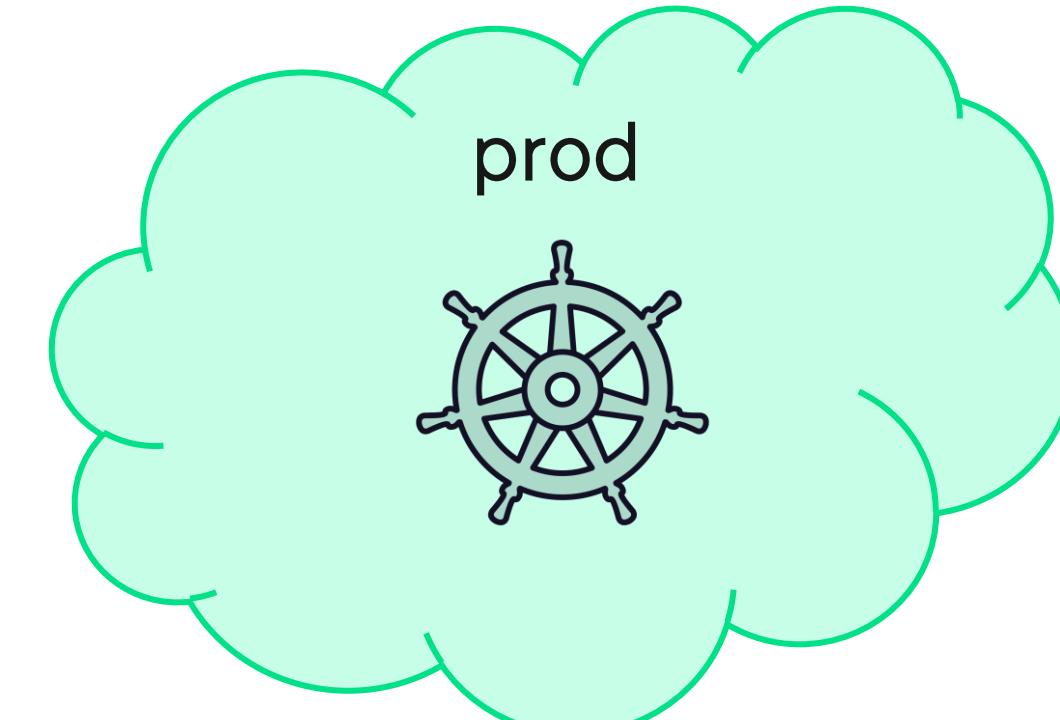
K8s clusters



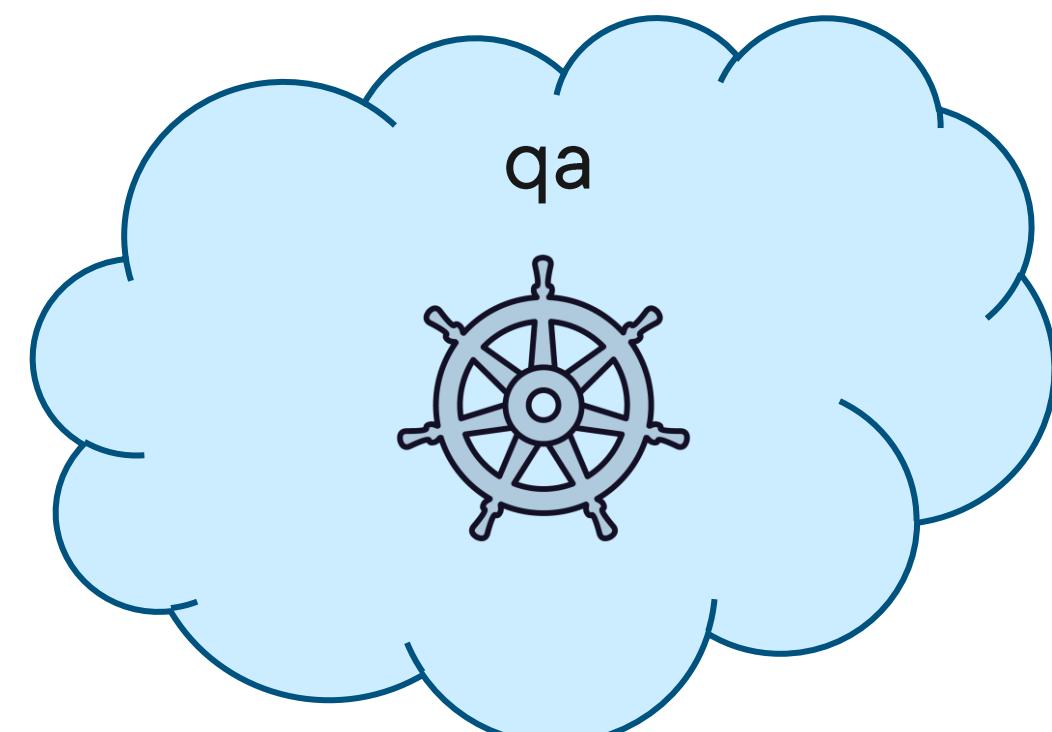
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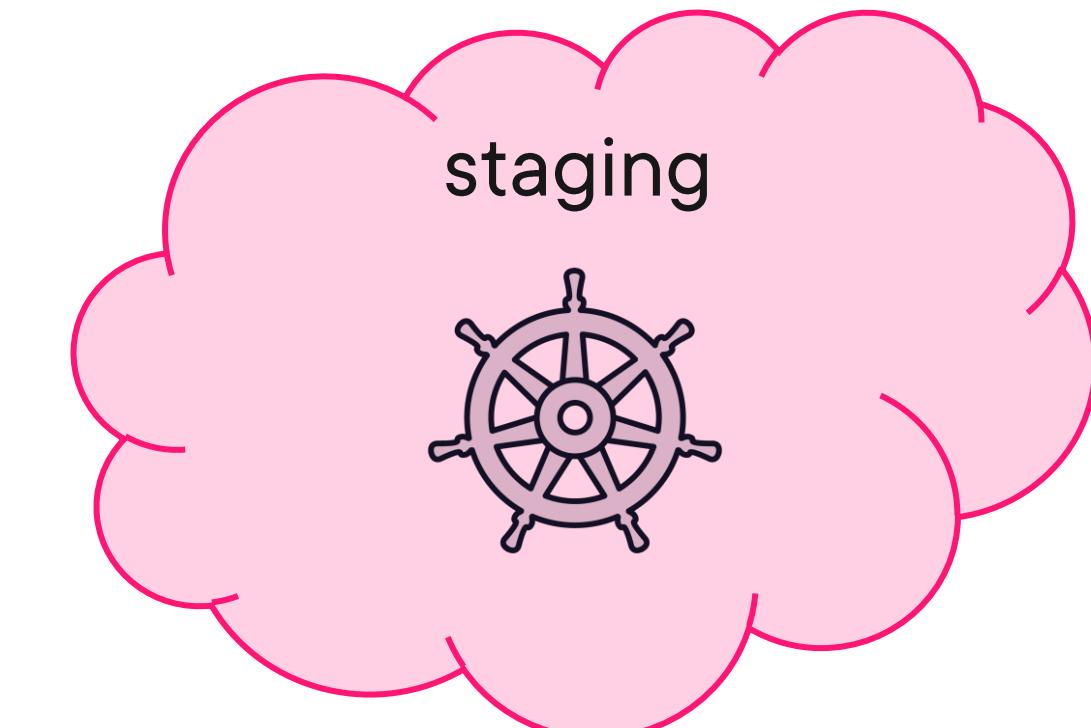
AWS



Google cloud



Azure

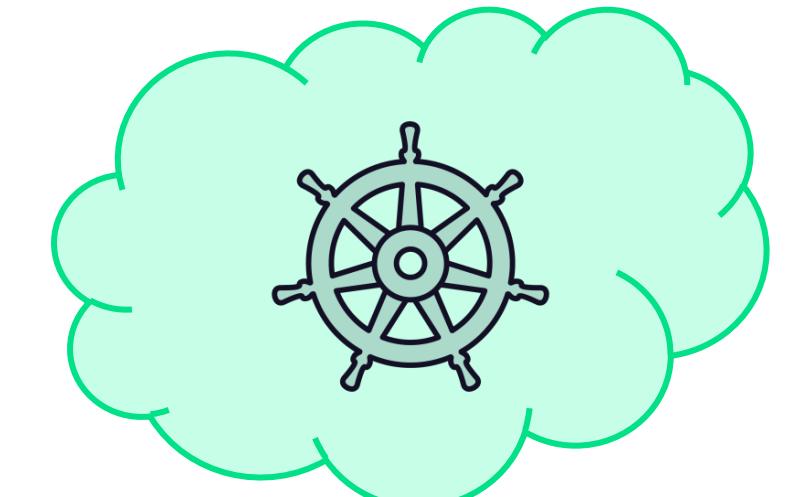
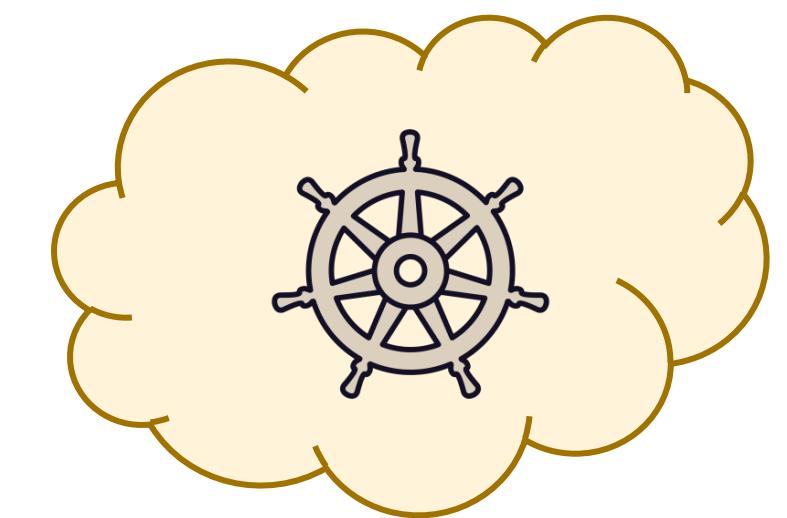
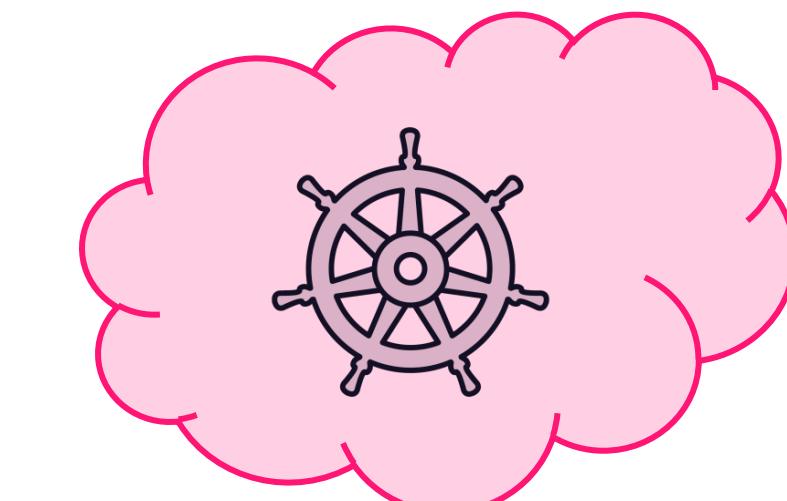
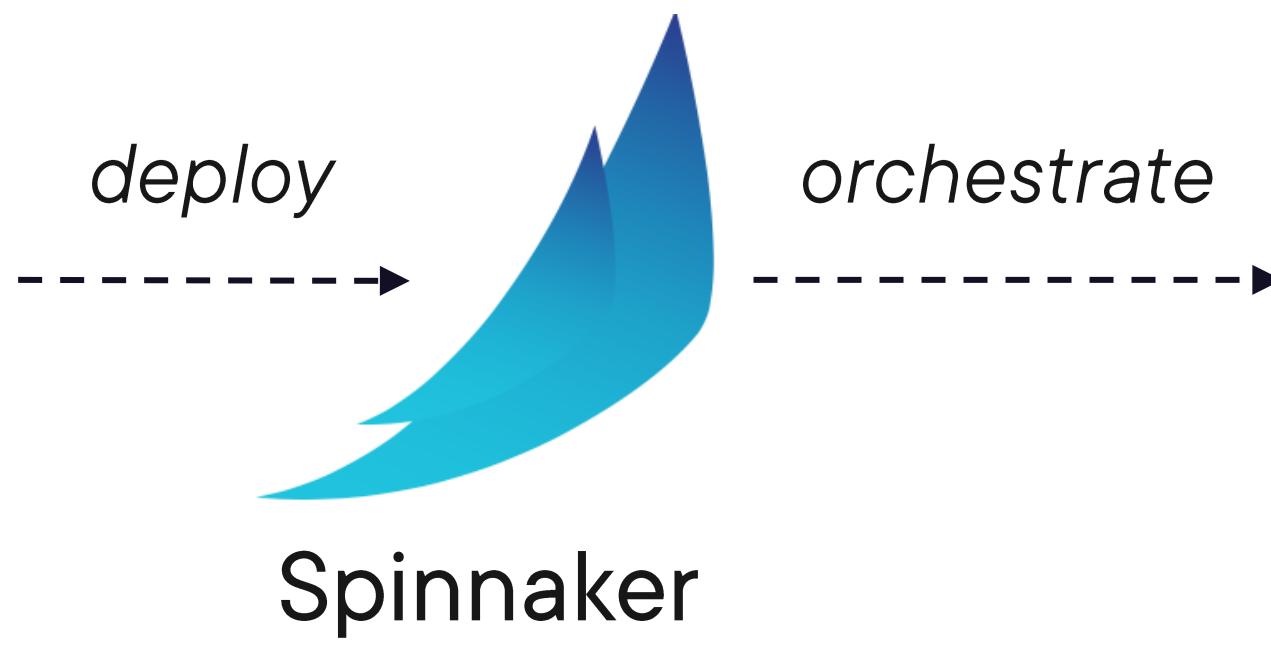


Ali cloud





Dev team

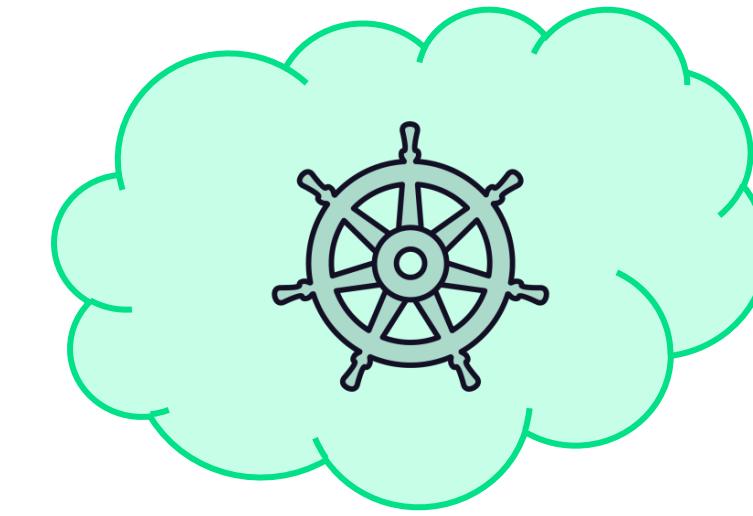
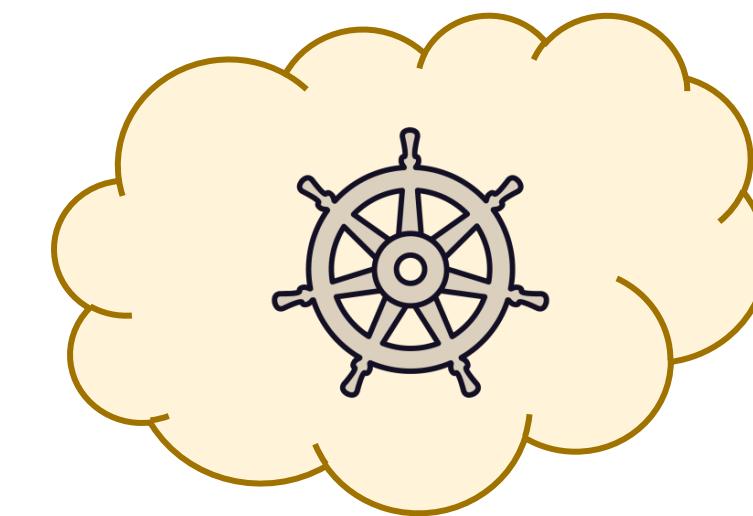
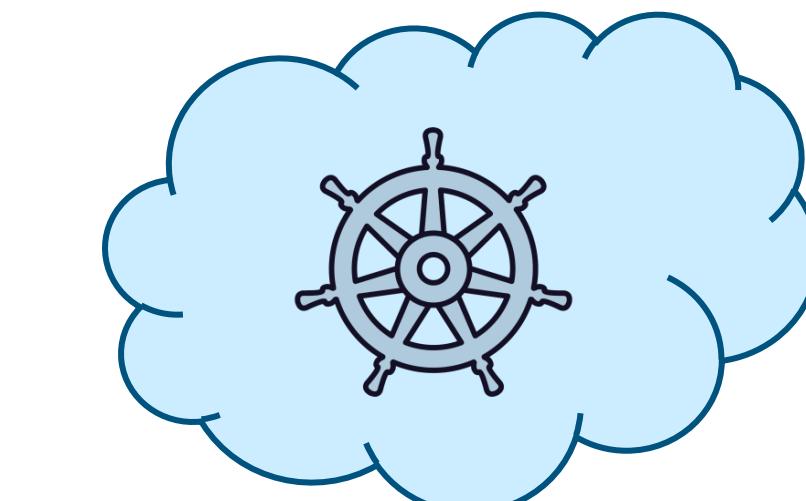
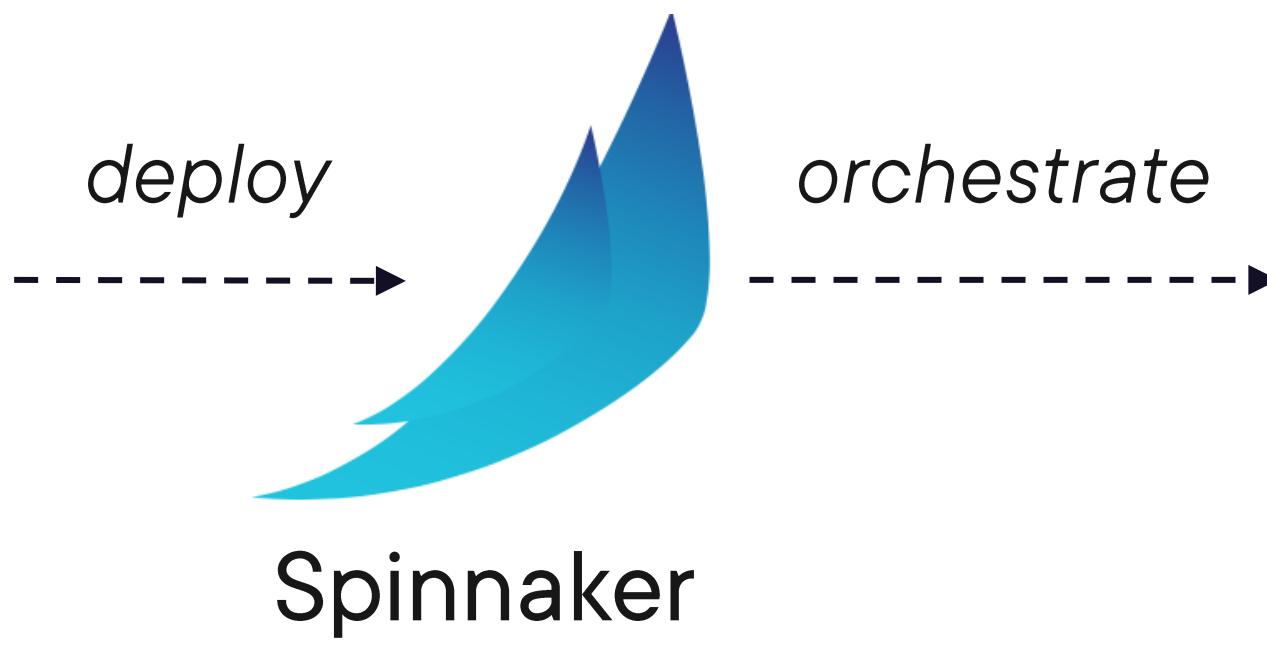


K8s clusters





Dev team

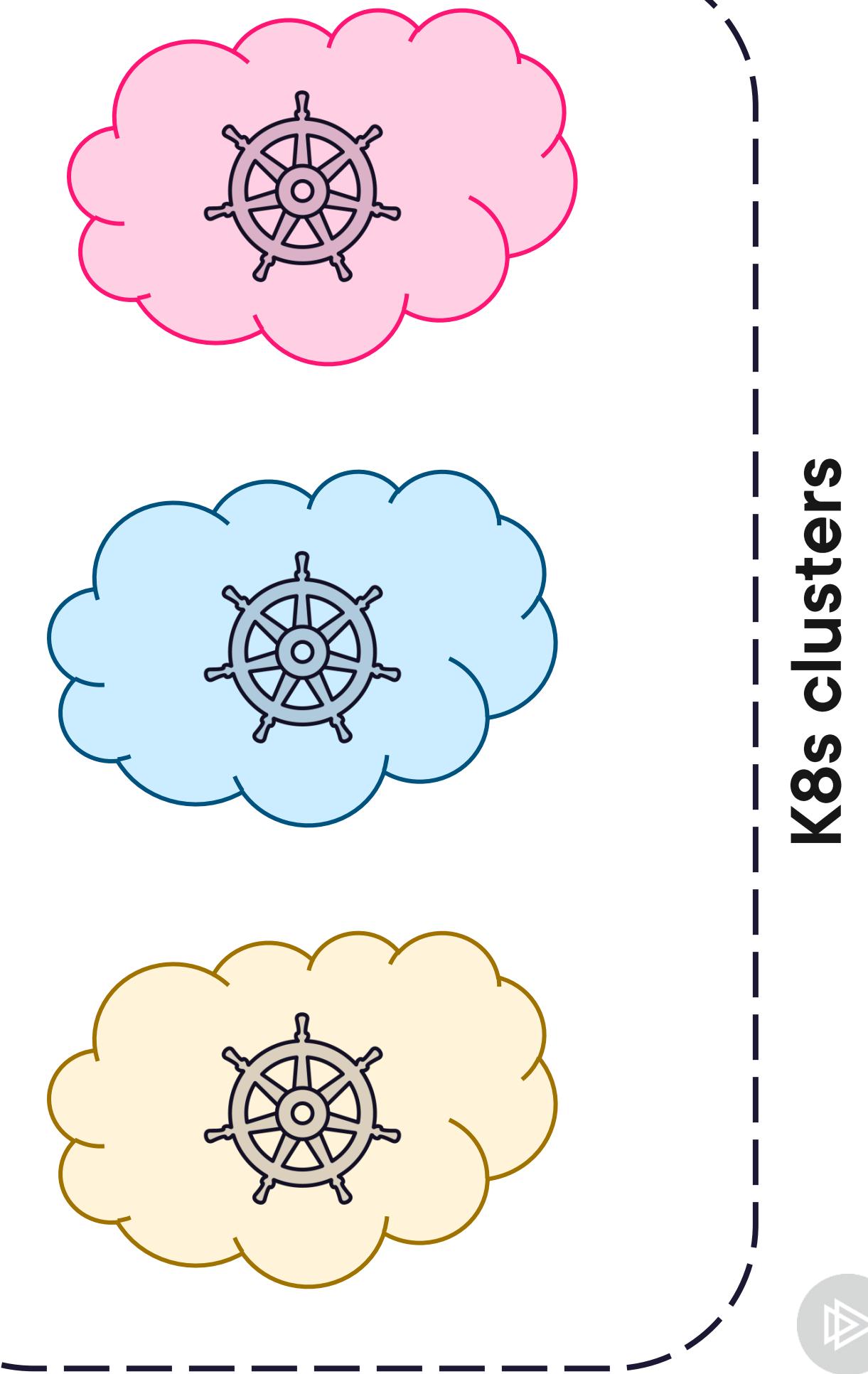
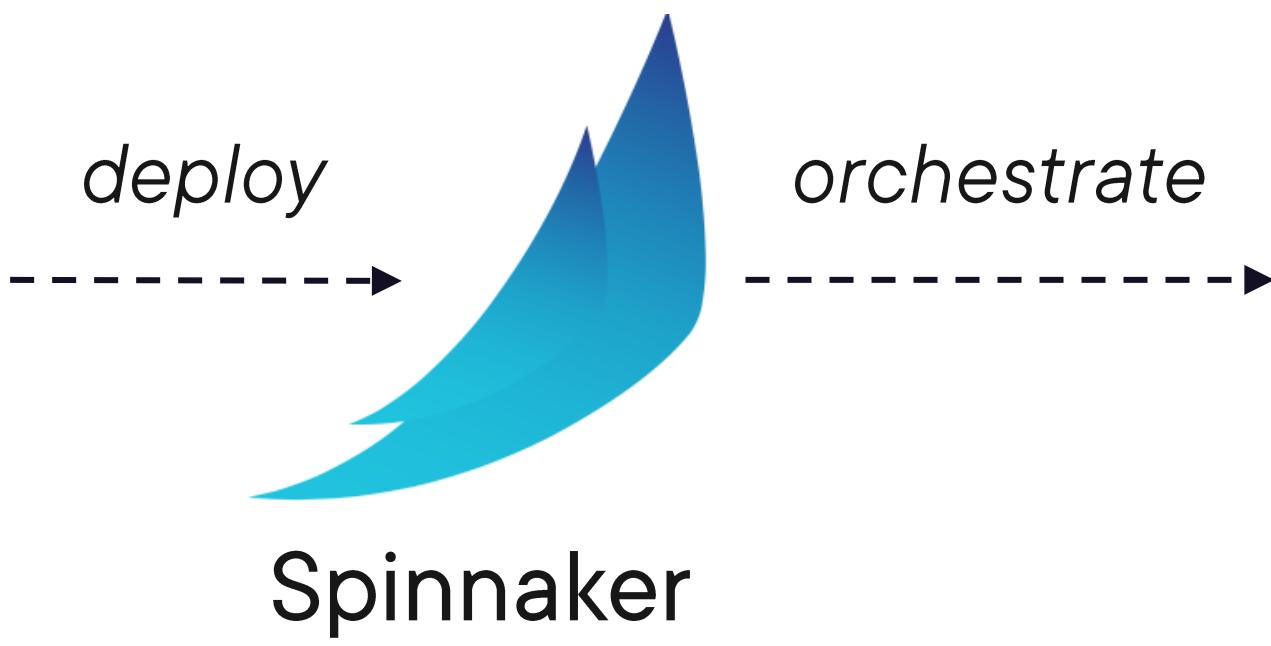


K8s clusters

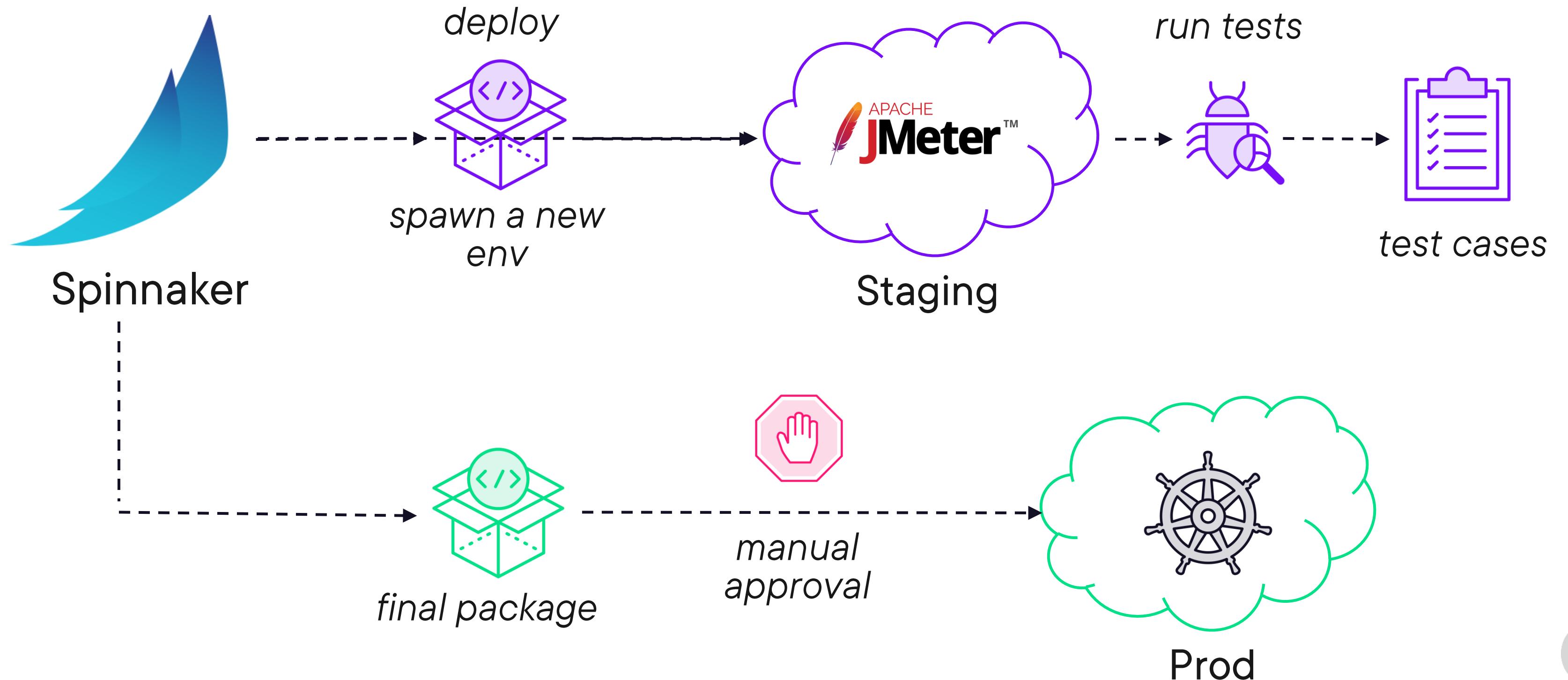




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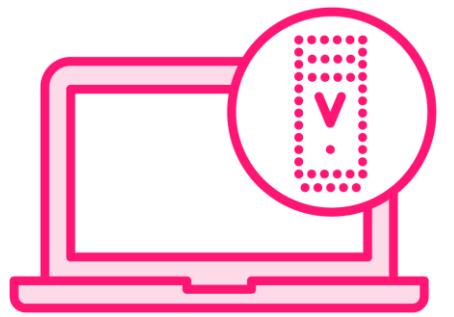


Continuous Testing

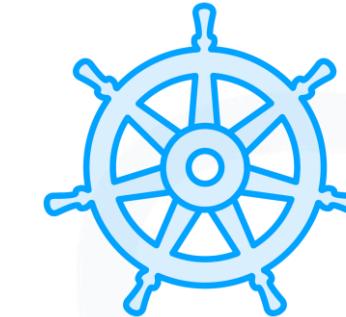


Installing Spinnaker

Install on a single virtual machine



Install inside a Kubernetes cluster



Summary

What Spinnaker is?

How Spinnaker complements CI/CD practices?

CI/CD tools in the market

Spinnaker advantages over other CD tools



Installing Spinnaker

