Pipeline Design

Microservices Workshop

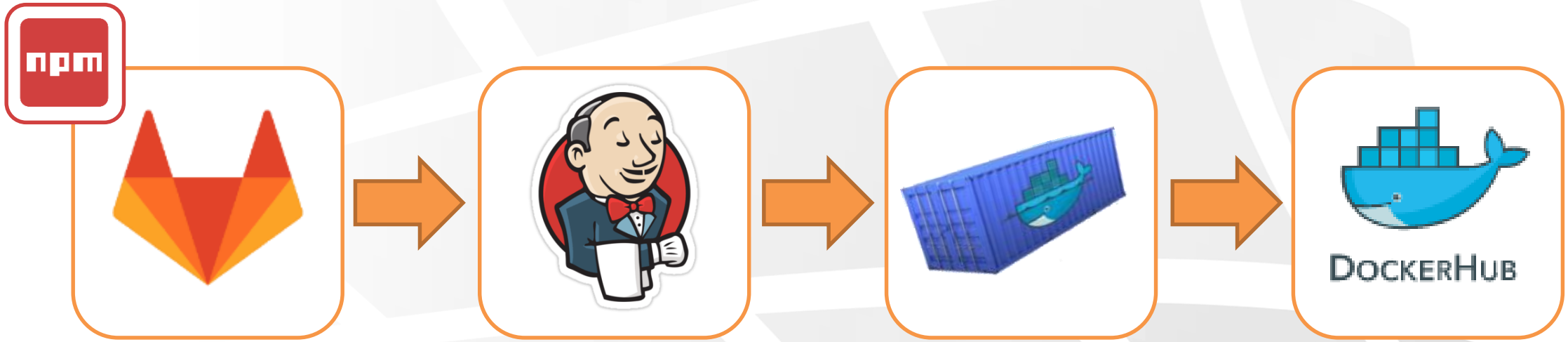
Agenda

- Pipeline Overview
- Pipeline Architecture
- Pipeline Steps
- Lab 03: Create a CI/CD pipeline for a microservices application

Pipeline Overview

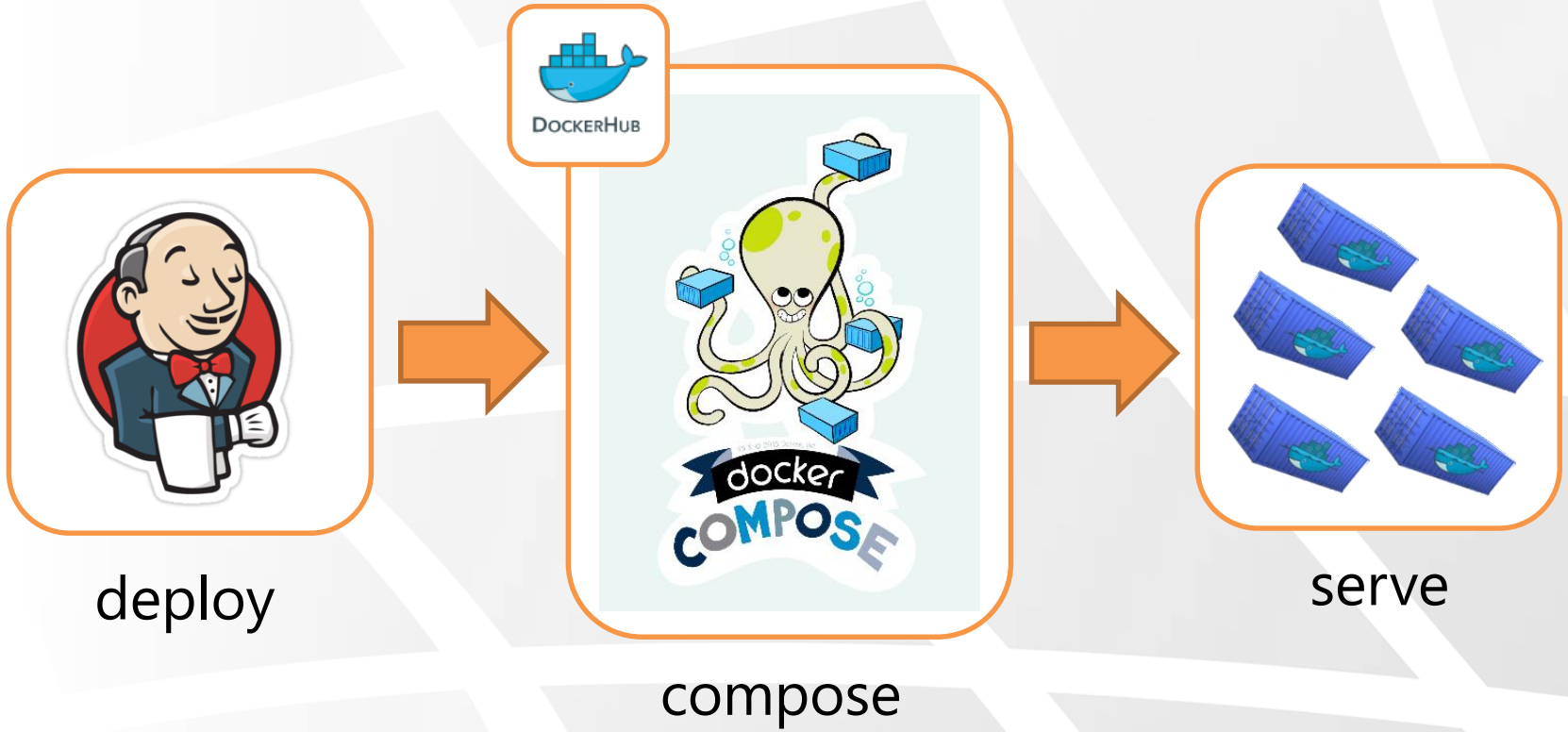
- The application is composed of 5 services developed in NodeJS
- Each service should be deployed as a single Docker container
- Jenkins Blue Ocean will be used to create the jobs
- Docker Hub will be used to store the services images
- The application will be deployed using docker-compose
- Two types of jobs will be needed (build / deploy)
- 6 jobs will be needed in total (5 for builds / 1 for deployment)

Pipeline Architecture – Build Jobs

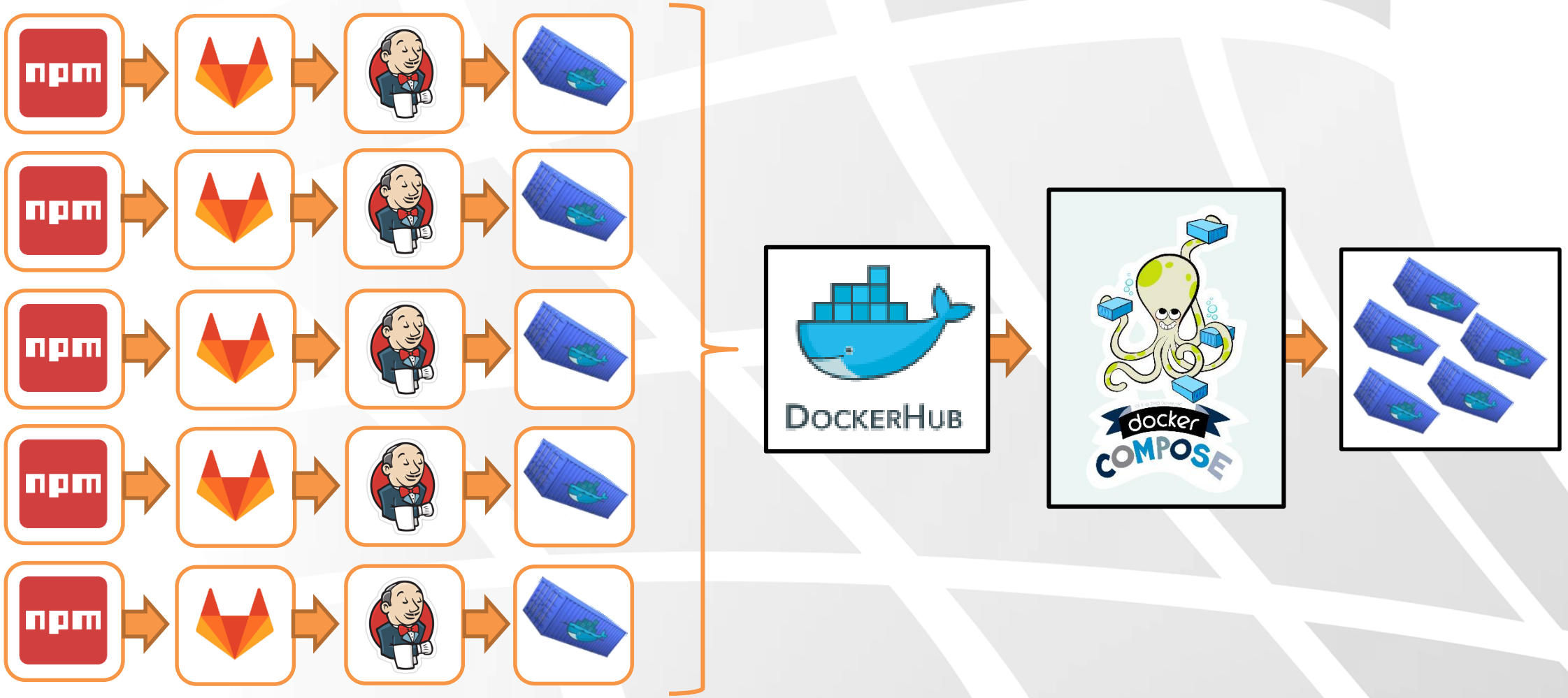


- Create a job for each service (ui, sum, substract, multiplication, division)

Pipeline Architecture – Deployment Job



Pipeline Architecture – Putting All Together



Pipeline Steps - Build

- get sources
- npm build
- npm test
- docker build
- docker tag (latest)
- docker push

Pipeline Steps - Deployment

- get sources
- docker-compose up -d

Questions

Lab 03: Create a CI/CD pipeline for a microservices app

Lab

https://gitlab.com/sela-microservices-workshop/lab-03