



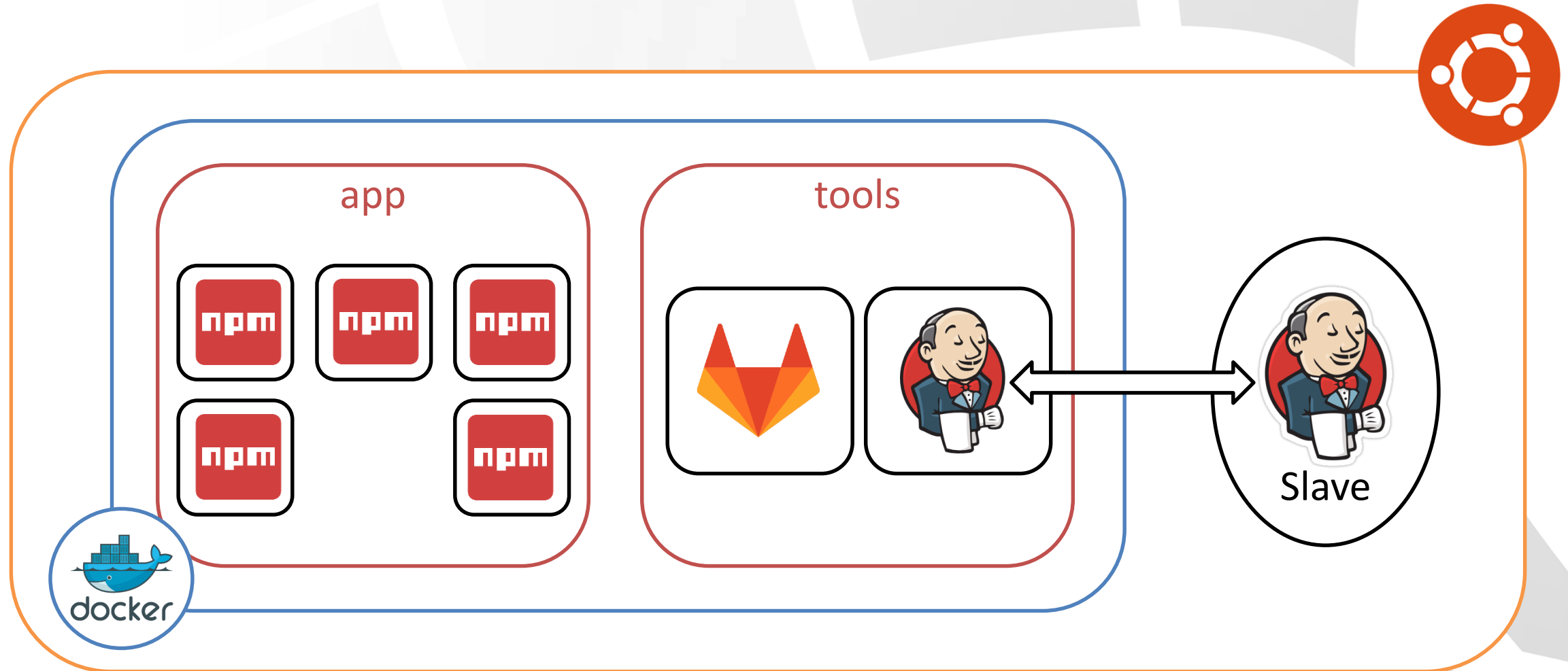
# Lab Environment

## Microservices Workshop

# Agenda

- ✦ Lab Environment Overview
- ✦ The Environment Configuration
- ✦ Lab 01: Setting up the required infrastructure with Docker

# The Lab Environment

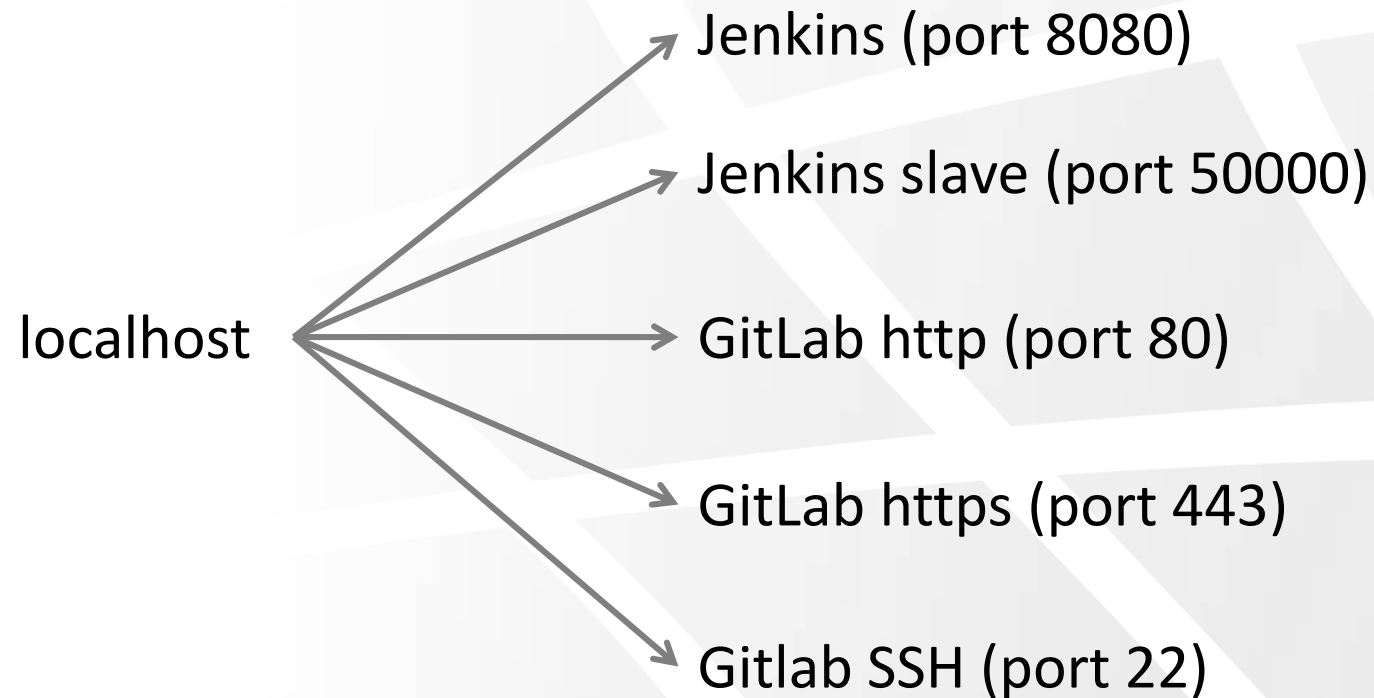


# The Environment Configuration

- ✦ Ubuntu Desktop to host the environment
- ✦ docker-compose to set up the environment tools as Docker containers:
  - ✦ GitLab
  - ✦ Jenkins
- ✦ Use the Ubuntu server as Jenkins Slave

```
version: '3.3'
services:
  gitlab:
    image: 'gitlab/gitlab-ce:latest'
    restart: 'always'
    hostname: 'gitlab.sela.com'
    ports:
      - '80:80'
      - '443:443'
      - '22:22'
    networks:
      - tools
    volumes:
      - "gitlab_config:/etc/gitlab"
      - "gitlab_logs:/var/log/gitlab"
      - "gitlab_data:/var/opt/gitlab"
  jenkins:
    image: 'selaworkshops/jenkins-blueocean'
    restart: 'always'
    hostname: 'jenkins.sela.com'
    ports:
      - '8080:8080'
    networks:
      - tools
    volumes:
      - "jenkins_home:/var/jenkins_home"
networks:
  tools:
volumes:
```

# Networking

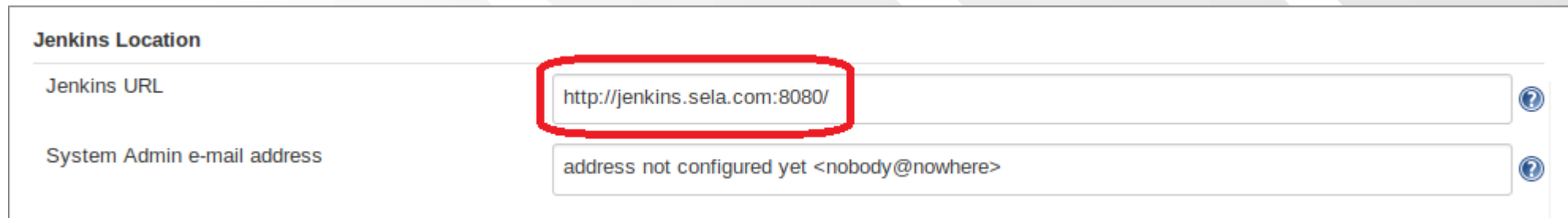
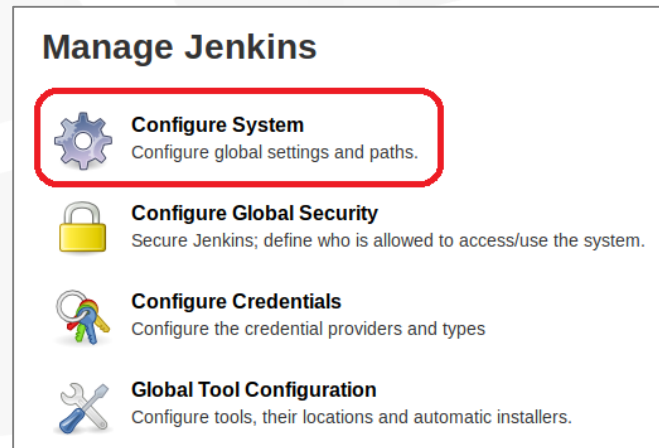
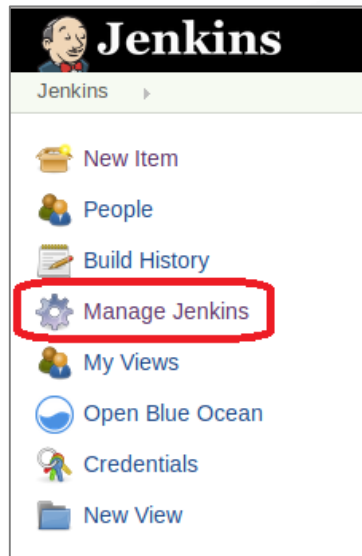


```
administrator@admi
File Edit View Search Terminal Help
127.0.0.1 localhost
127.0.1.1 administrator
127.0.1.1 gitlab.sela.com
127.0.1.1 jenkins.sela.com

# The following lines are desirable for
::1 ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

✦ Edit the host file for easy management ( /etc/hosts )

# Jenkins Configuration



The 'Jenkins Location' configuration page is shown with the 'Jenkins URL' field highlighted by a red rectangle. The page includes: Jenkins URL and System Admin e-mail address.

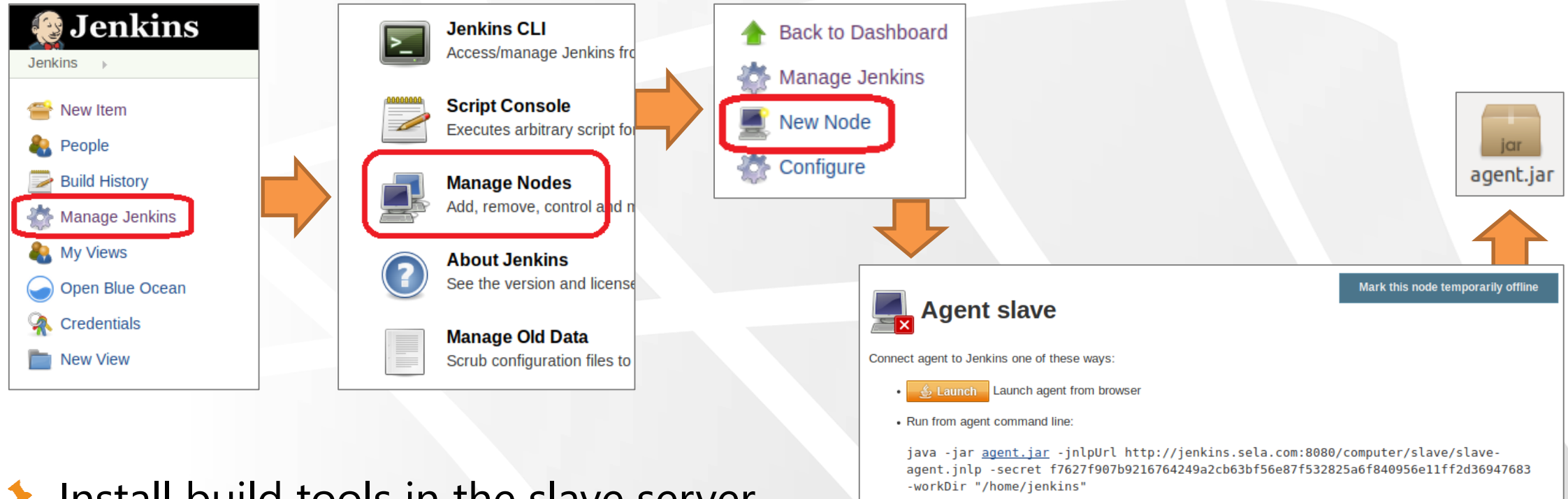
✳ The Jenkins URL should be "localhost"

# GitLab Configuration

- ✦ We will use "gitlab.sela.com" to access to gitlab.
- ✦ Gitlab will take a while to be installed

```
gitlab:  
  image: 'gitlab/gitlab-ce:latest'  
  restart: 'always'  
  hostname: 'gitlab.sela.com'  
  ports:  
    - '80:80'  
    - '443:443'  
    - '22:22'  
  networks:  
    - tools  
  volumes:  
    - "gitlab_config:/etc/gitlab"  
    - "gitlab_logs:/var/log/gitlab"  
    - "gitlab_data:/var/opt/gitlab"
```

# Jenkins Slave Configuration



- ✦ Install build tools in the slave server
- ✦ Run the "agent.jar" with the secret text to start the slave



# Questions



# Lab 01: Setting up the required infrastructure

## Lab



<https://gitlab.com/sela-microservices-workshop/lab-01>