Docker for Beginners

Day 5 – Docker Compose
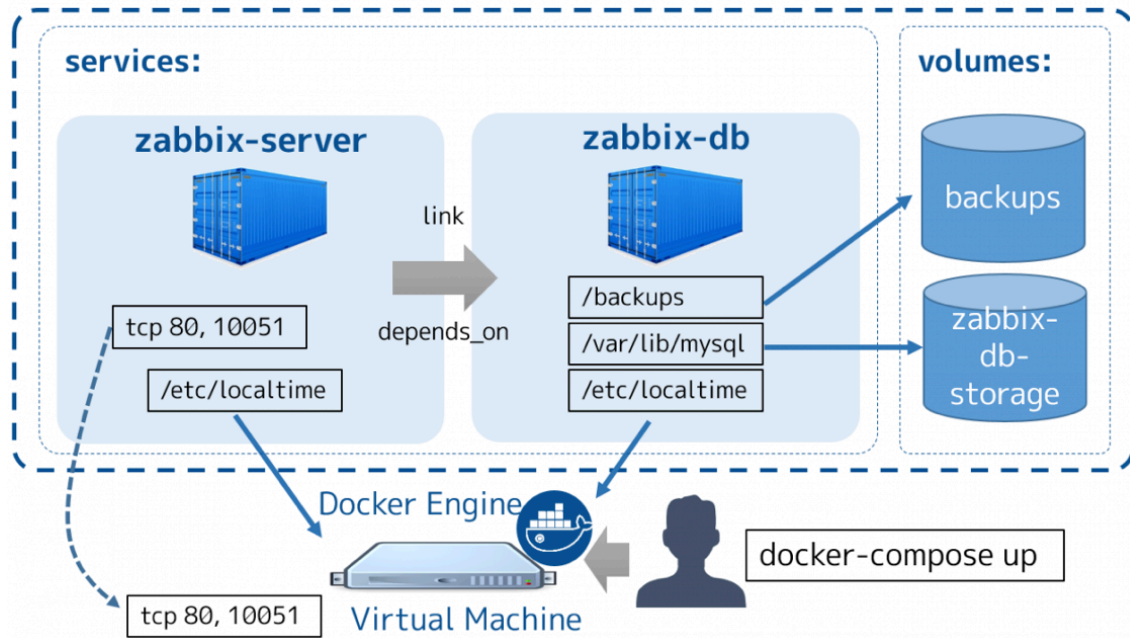
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Docker Compose
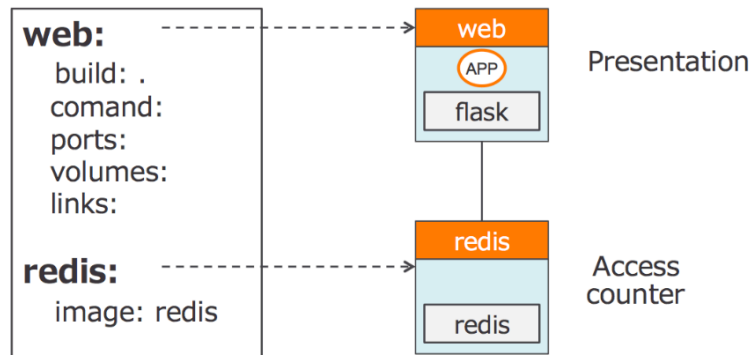
➢ Compose is a tool for defining and running multi-container Docker applications

➢ Very useful when a Docker application includes more than one container (for example, a webserver and DB running in different containers);

➢ Building, running, and connecting the containers from separate Dockerfiles is cumbersome and time-consuming.

➢ Docker Compose solves this problem by allowing you to use a YAML file to define multi-container apps.

➢ You can configure as many containers as you want, how they should be built and connected, and where data should be stored.

➢ When the YAML file is complete, you can run a single command to build, run, and configure all of the containers.

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Docker Compose

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Docker Compose

➢ Compose is a tool for defining and running multi-container Docker applications

➢ Compose has commands for managing the whole lifecycle of your application:

   o Start, stop, and rebuild services

   o View the status of running services

   o Stream the log output of running services

   o Run a one-off command on a service

Docker Compose

➢ Deploying Services using a docker-compose.yaml file

```yaml
version: '3'
services:
   db:
     image: mysql:5.7
     volumes:
       - db_data:/var/lib/mysql
     restart: always
     environment:
       MYSQL_ROOT_PASSWORD: somewordpress
       MYSQL_DATABASE: wordpress
       MYSQL_USER: wordpress
       MYSQL_PASSWORD: wordpress
   wordpress:
     depends_on:
       - db
     image: wordpress:latest
     ports:
       - "8000:80"
     restart: always
     environment:
       WORDPRESS_DB_HOST: db:3306
       WORDPRESS_DB_USER: wordpress
       WORDPRESS_DB_PASSWORD: wordpress
volumes:
   db_data:
```

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Docker Compose

➢ Useful commands:

```
# Build and startup a set of Compose Services in Daemon mode
$ docker-compose up -d

# List the running processes
$ docker-compose ps

# Stop a specific service
$ docker-compose stop wordpress

# Start a specific service
$ docker-compose start wordpress

# Run a command in a container managed by service "db"
$ docker-compose run db date

# Bringing a service down (destroy)
$ docker-compose down wordpress
```
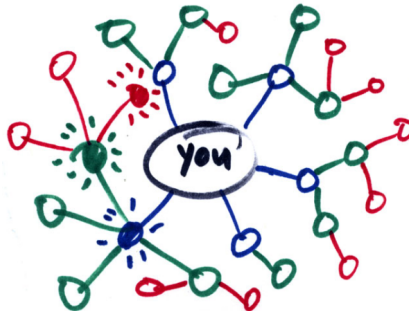
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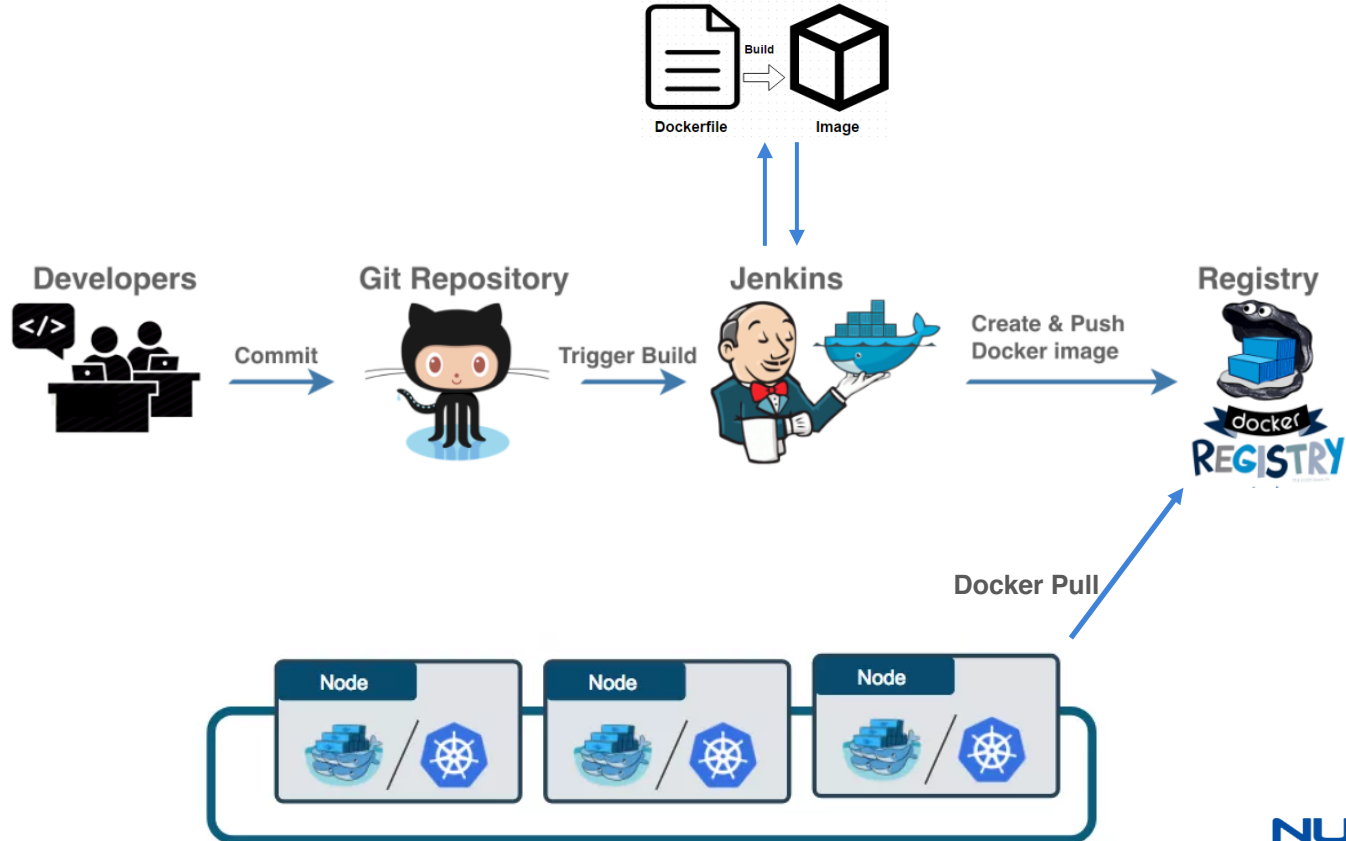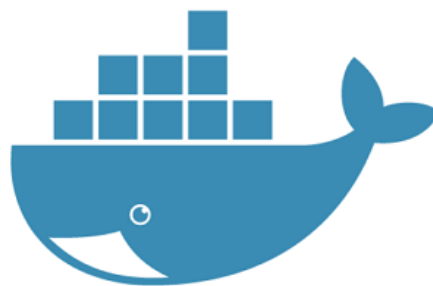# Docker Compose

LAB TIME

Connecting the dots…

DevOps Workflow

Thank You

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