

Managing Containers with Docker Compose



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Module Agenda

Getting Started with
Docker Compose

The docker-compose.yml
File

Docker Compose
Commands

Docker Compose in Action

Setting Up Development
Environment Services

Creating a Custom
docker-compose.yml File

Managing Development
Environment Services



Getting Started with Docker Compose



Docker Compose Manages Your Application Lifecycle



Docker Compose Features



Manages the whole application lifecycle:

Start, stop and rebuild services

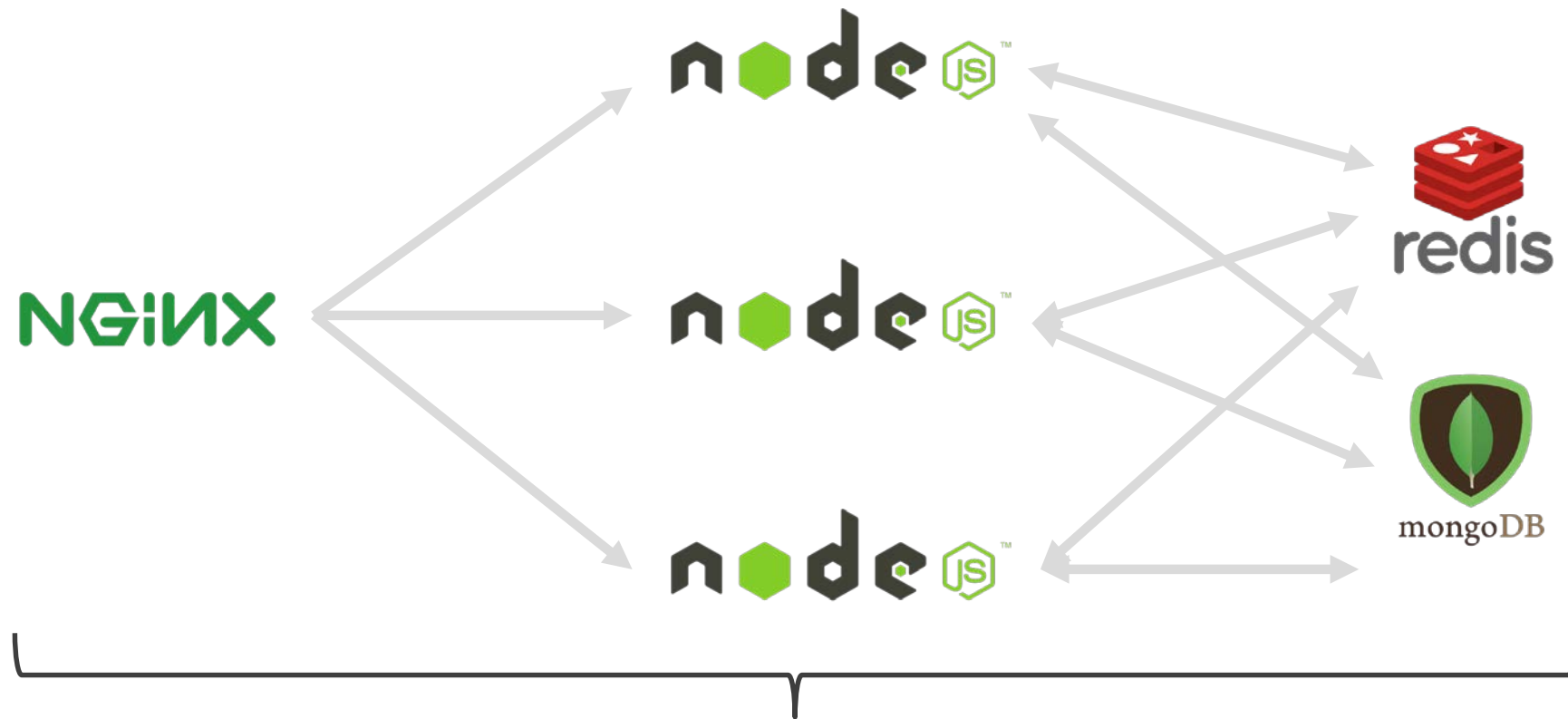
View the status of running services

Stream the log output of running services

Run a one-off command on a service



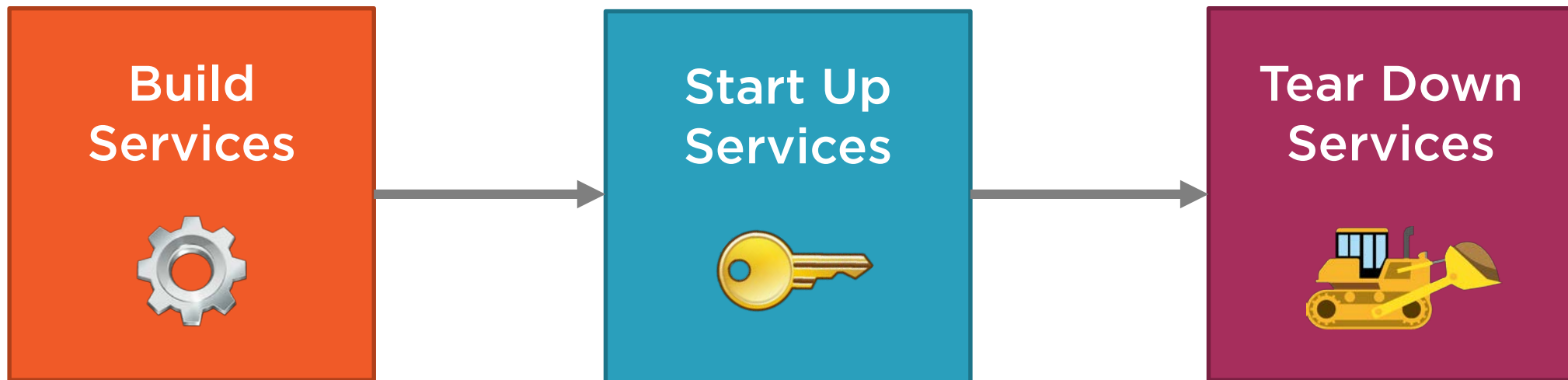
The Need for Docker Compose



Docker Compose
(docker-compose.yml)



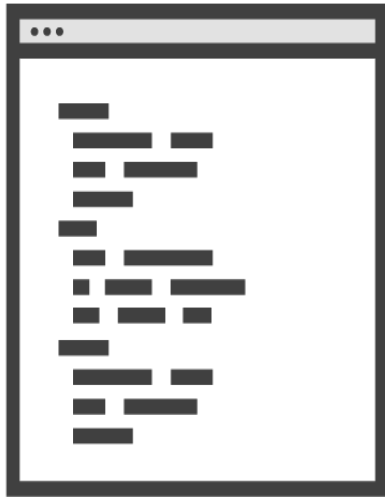
Docker Compose Workflow



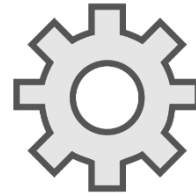
The docker-compose.yml File



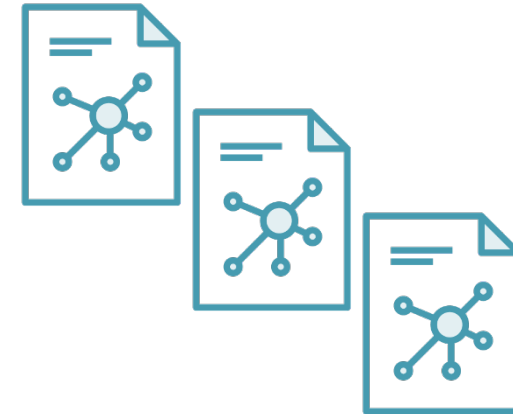
The Role of the Docker Compose File



docker-compose.yml
(service configuration)



Docker Compose
Build



Docker Images
(services)

Docker Compose and Services

version: '2'

services:



mongoDB

docker-compose.yml



Key Service Configuration Options

build

environment

image

networks

ports

volumes



docker-compose.yml Example

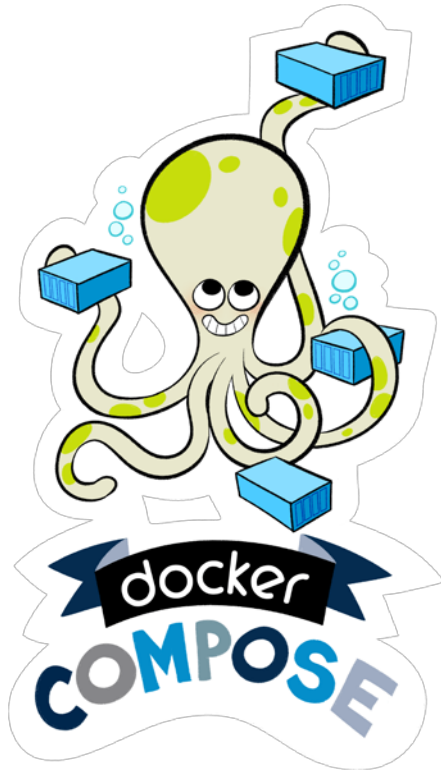
```
version: '2'
services:
  node:
    build:
      context: .
      dockerfile: node.dockerfile
    networks:
      - nodeapp-network
  mongodb:
    image: mongo
    networks:
      - nodeapp-network
networks:
  nodeapp-network
  driver: bridge
```



Docker Compose Commands

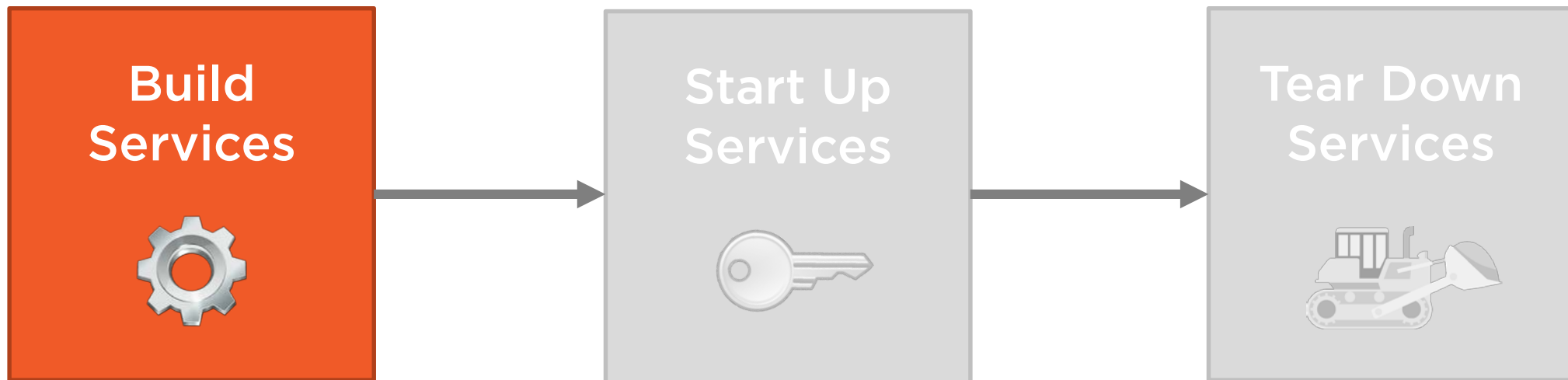


Key Docker Compose Commands



`docker-compose build`
`docker-compose up`
`docker-compose down`
`docker-compose logs`
`docker-compose ps`
`docker-compose stop`
`docker-compose start`
`docker-compose rm`

Building Services



Building Services

docker-compose build



**Build or rebuild services
defined in
docker-compose.yml**



Building Specific Services

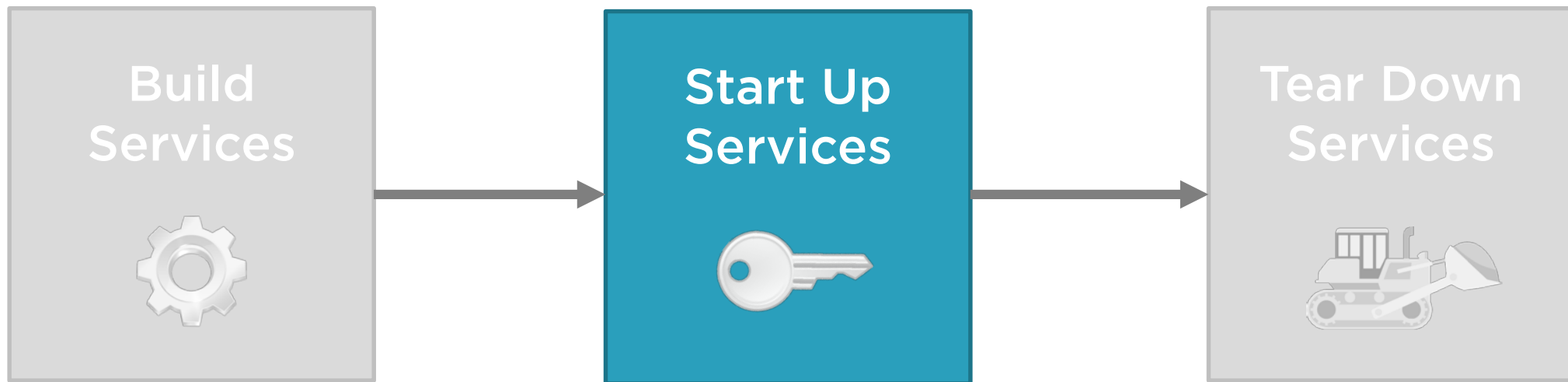
docker-compose build mongo



**Only build/rebuild
mongo service**



Starting Services Up



Creating and Starting Containers

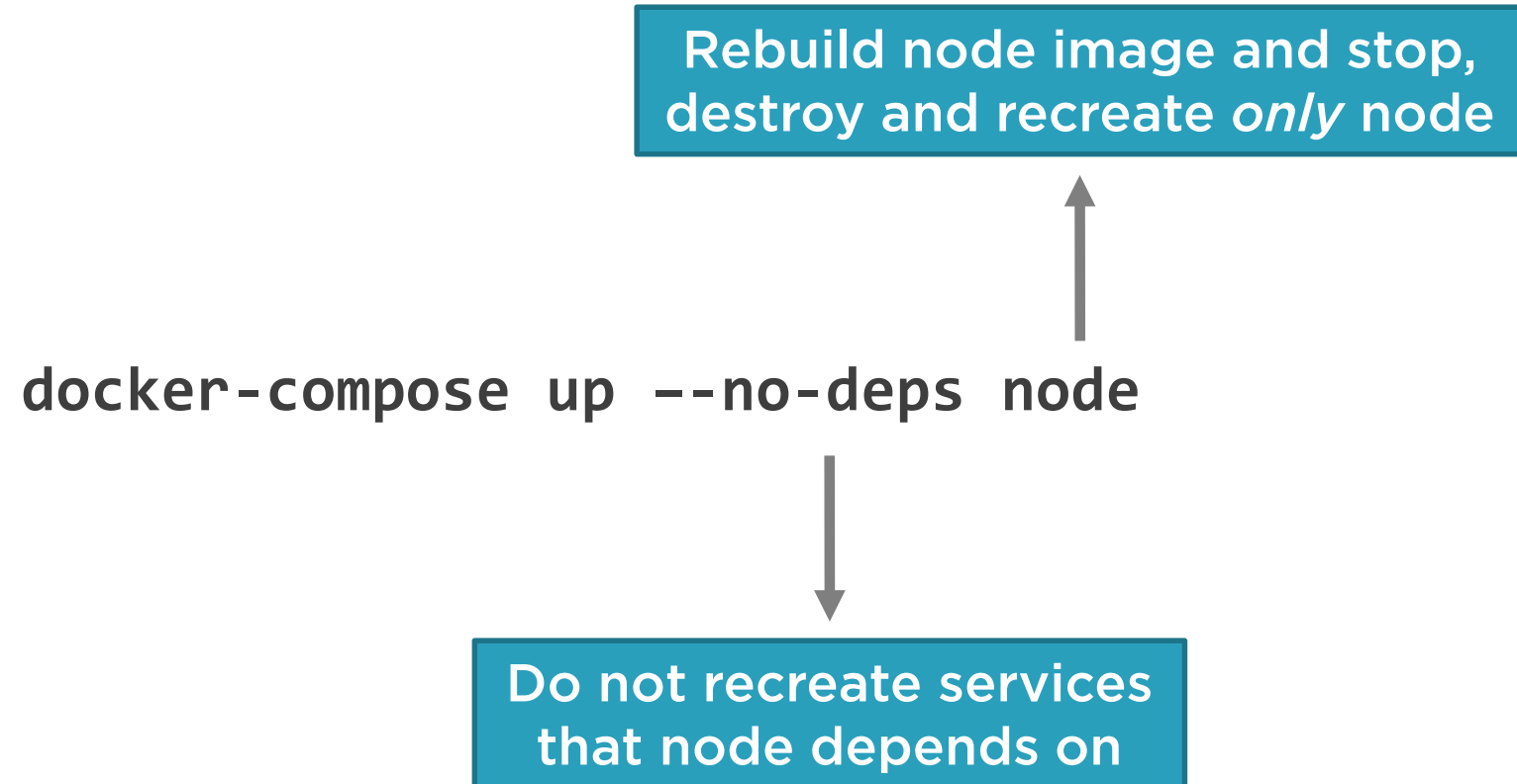
docker-compose up



**Create and start the
containers**



Creating and Starting Containers



Tearing Down Services



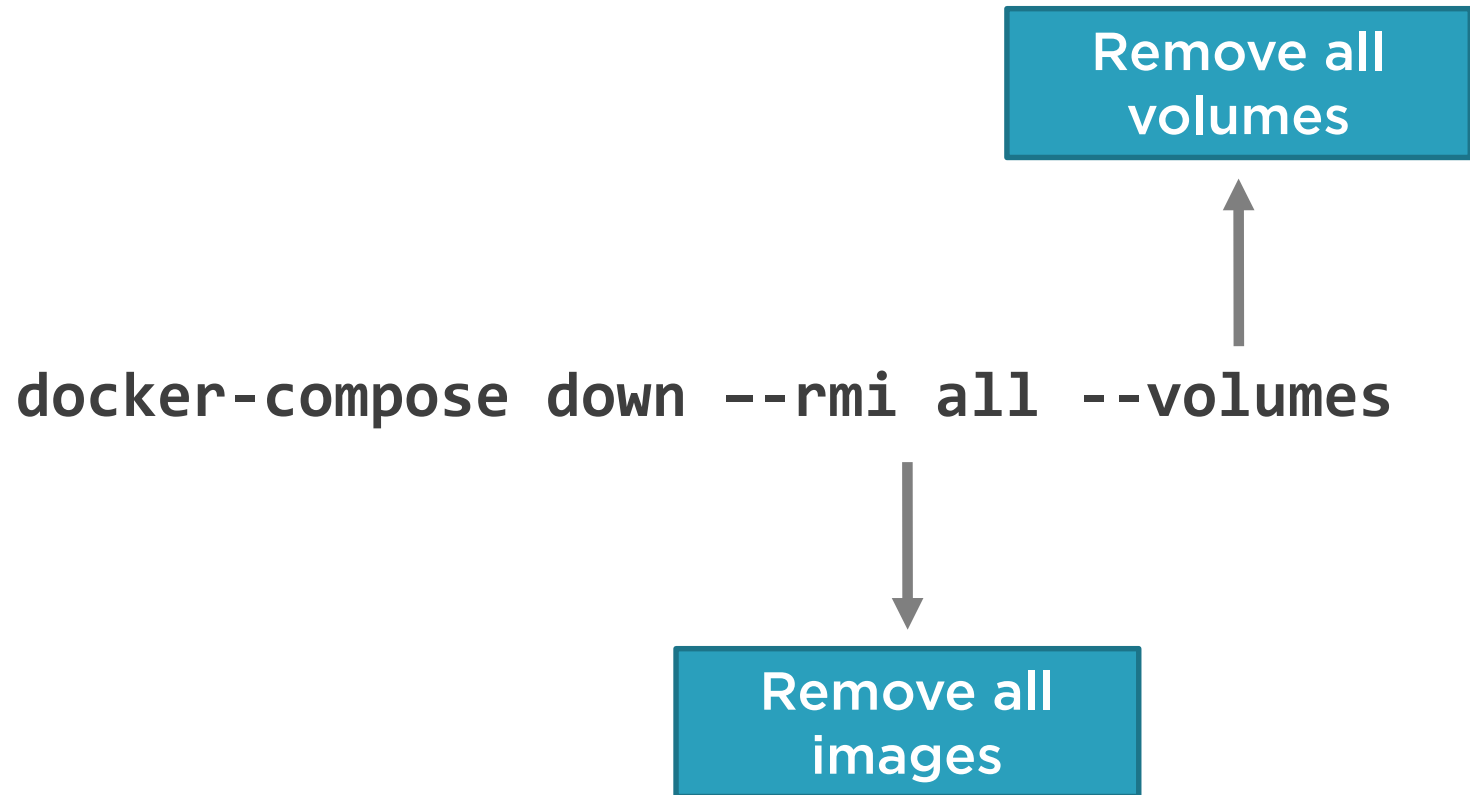
Stop and Remove Containers

docker-compose down



**Take all of the containers
down (stop and remove)**

Stop and Remove Containers, Images, Volumes



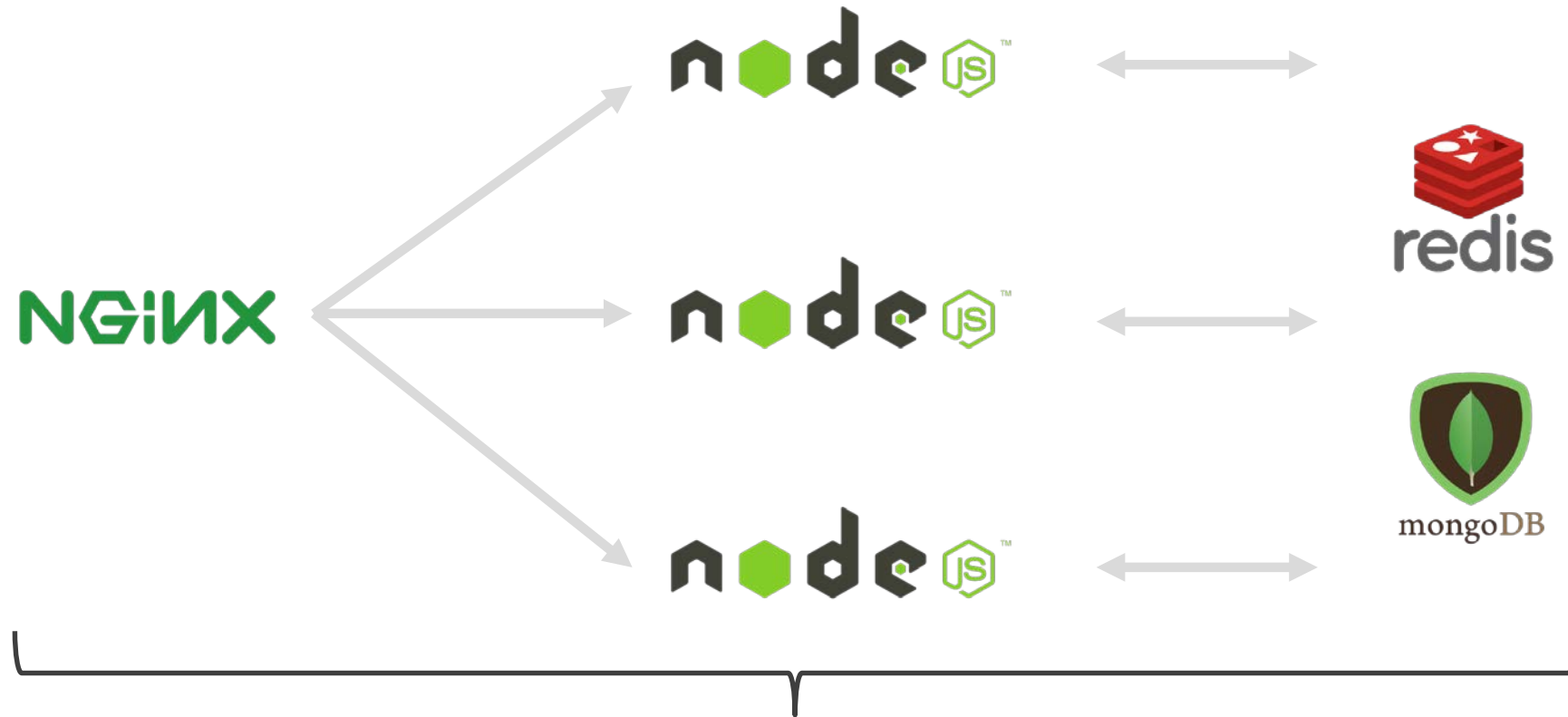
Docker Compose in Action



Setting up Development Environment Services



Development Environment Services



Docker Compose
(docker-compose.yml)



Creating a Custom docker-compose.yml File



Managing Development Environment Services



Summary



Docker Compose simplifies the process of building, starting and stopping services

`docker-compose.yml` defines services

Excellent way to manage services used in a development environment

Key Docker Compose commands include "build", "up" and "down"

