

# 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

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# Docker Compose Manages Your Application Lifecycle



# Docker Compose Features



**Manages the whole application lifecycle:**

Start, stop and rebuild services

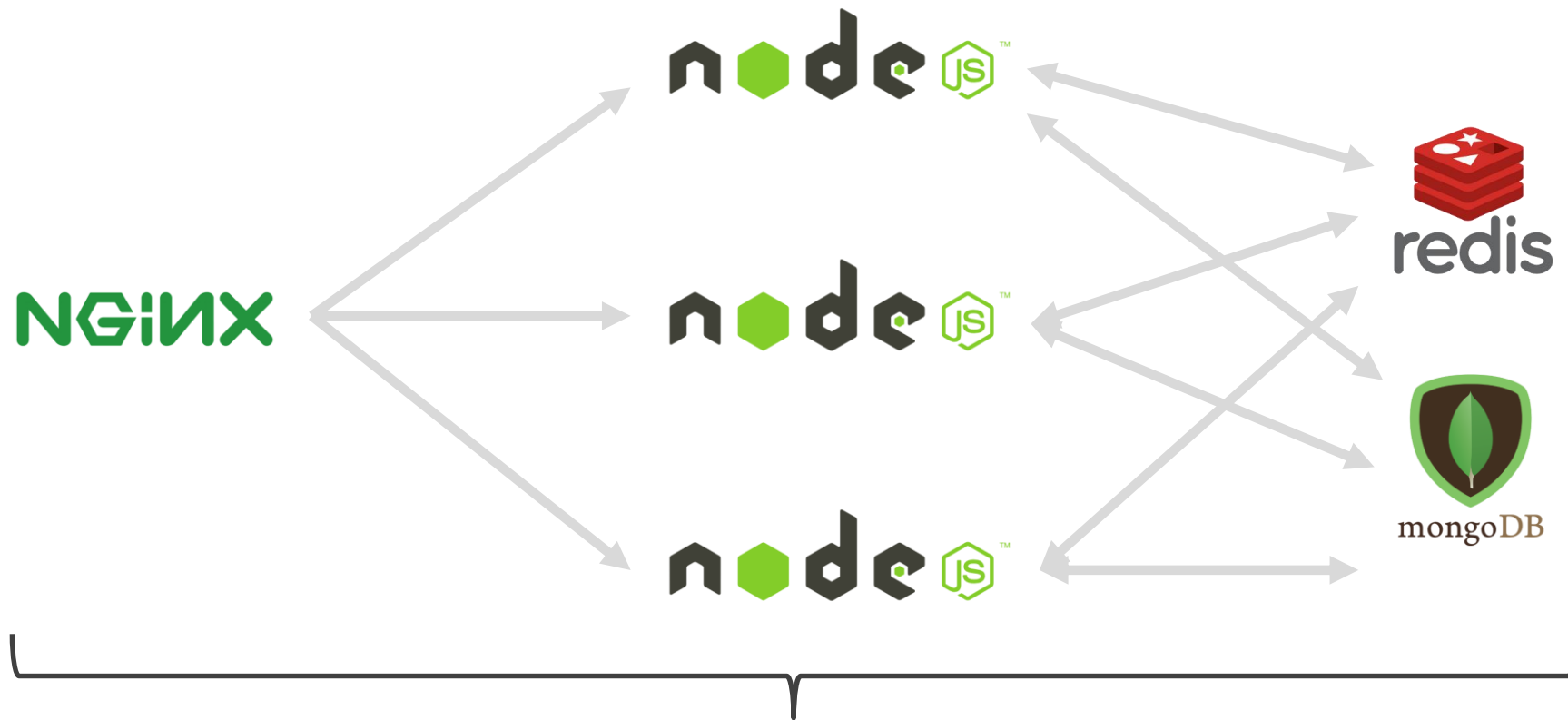
View the status of running services

Stream the log output of running services

Run a one-off command on a service



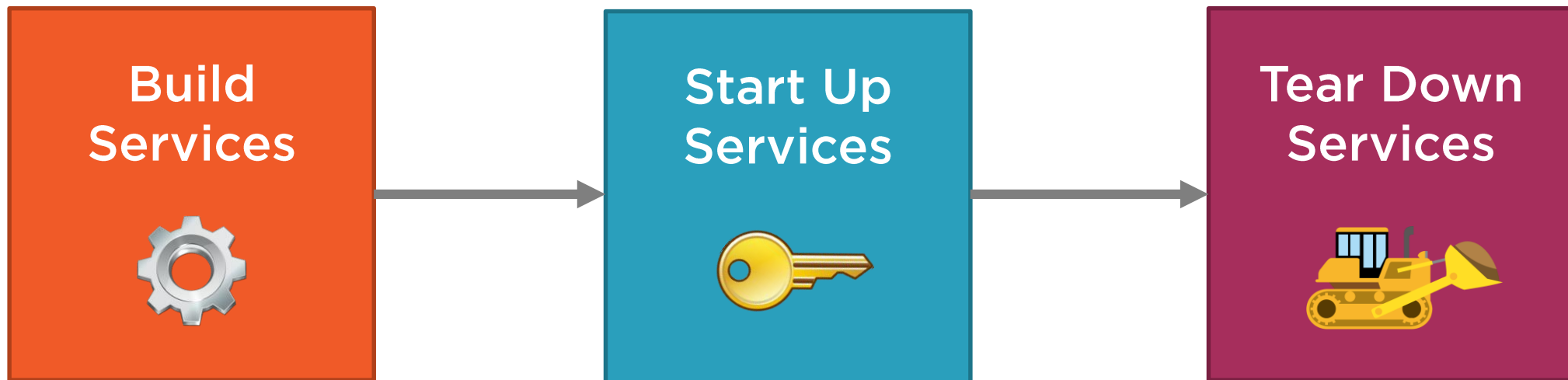
# The Need For Docker Compose



Docker Compose  
(docker-compose.yml)



# Docker Compose Workflow



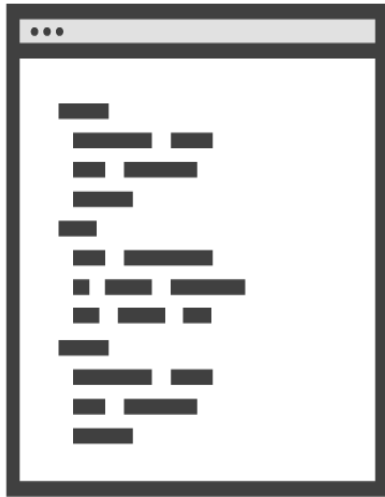
# The docker-compose.yml File

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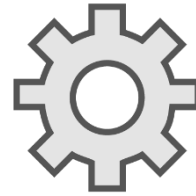




# The Role of the Docker Compose File



`docker-compose.yml`  
(service configuration)



Docker Compose  
Build



Docker Images  
(services)

# Docker Compose and Services

**version: "3.x"**

**services:**



mongoDB

**docker-compose.yml**



# Key Service Configuration Options

**build**

**environment**

**image**

**networks**

**ports**

**volumes**



# docker-compose.yml Example

```
version: "3.x"
services:
  node:
    build:
      context: .
      dockerfile: node.dockerfile
    networks:
      - nodeapp-network
  mongodb:
    image: mongo
    networks:
      - nodeapp-network
networks:
  nodeapp-network
  driver: bridge
```



# Docker Compose Commands

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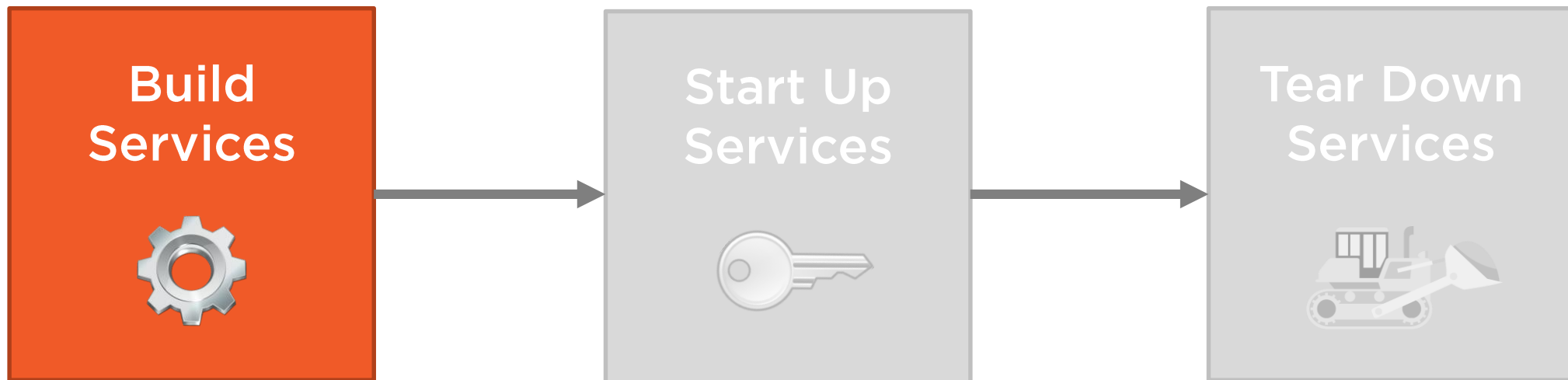


## Key Docker Compose Commands



`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

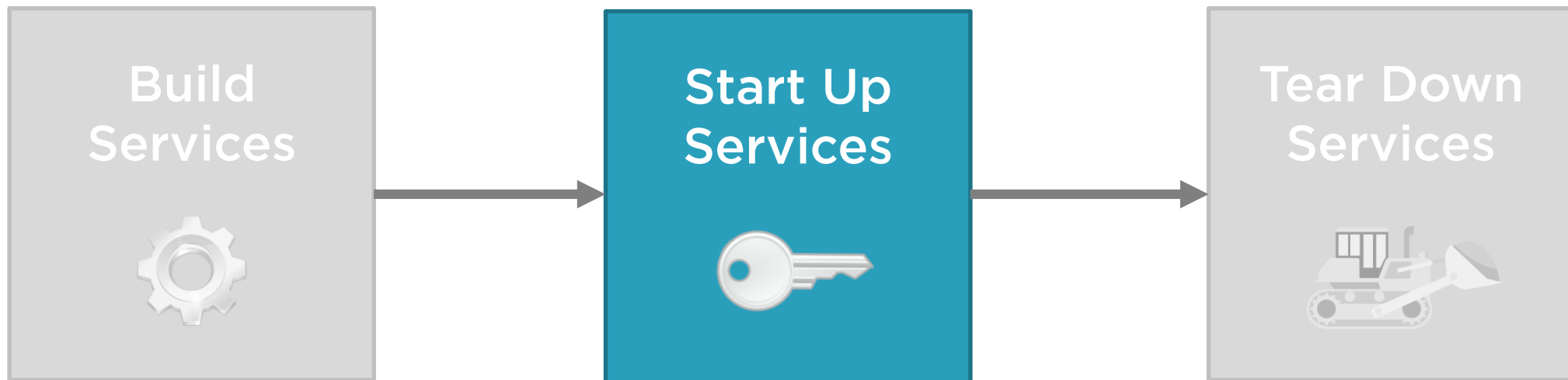
**docker-compose build mongo**



**Only build/rebuild  
mongo service**



# Starting Services Up



# Creating and Starting Containers

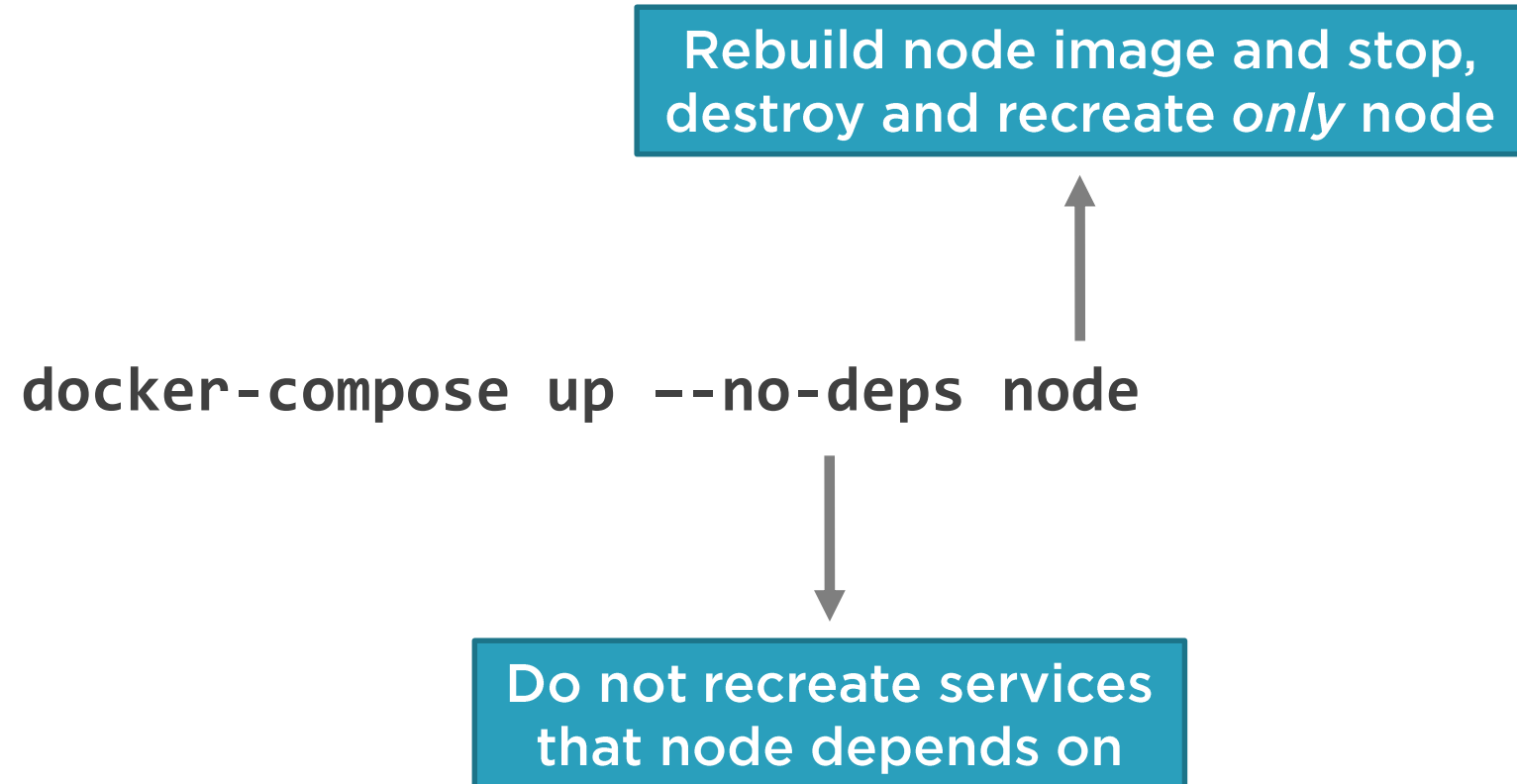
**docker-compose up**



**Create and start the  
containers**



# Creating and Starting Containers



# Tearing Down Services



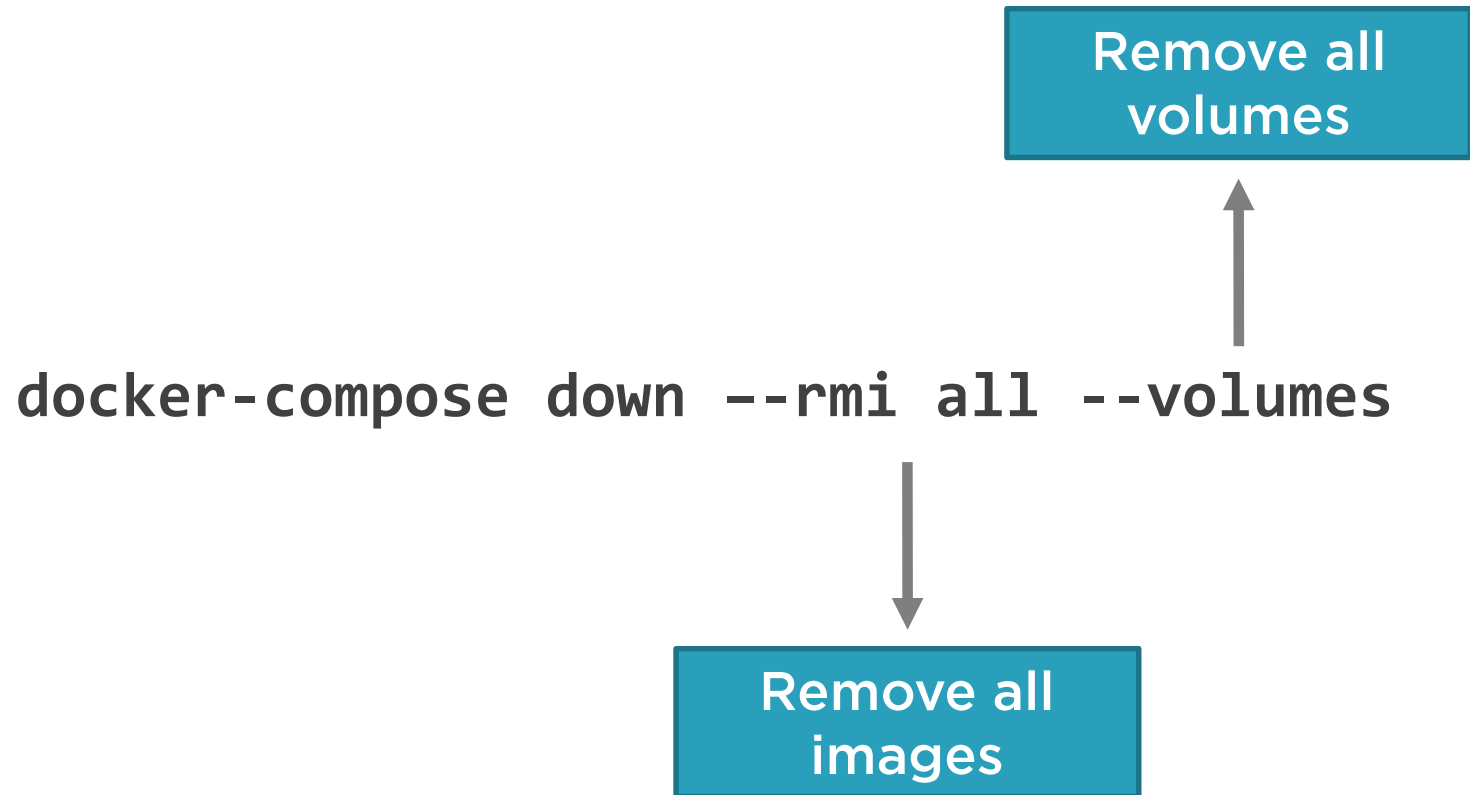
# Stop and Remove Containers

**docker-compose down**



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

# Stop and Remove Containers, Images, Volumes



# Docker Compose in Action

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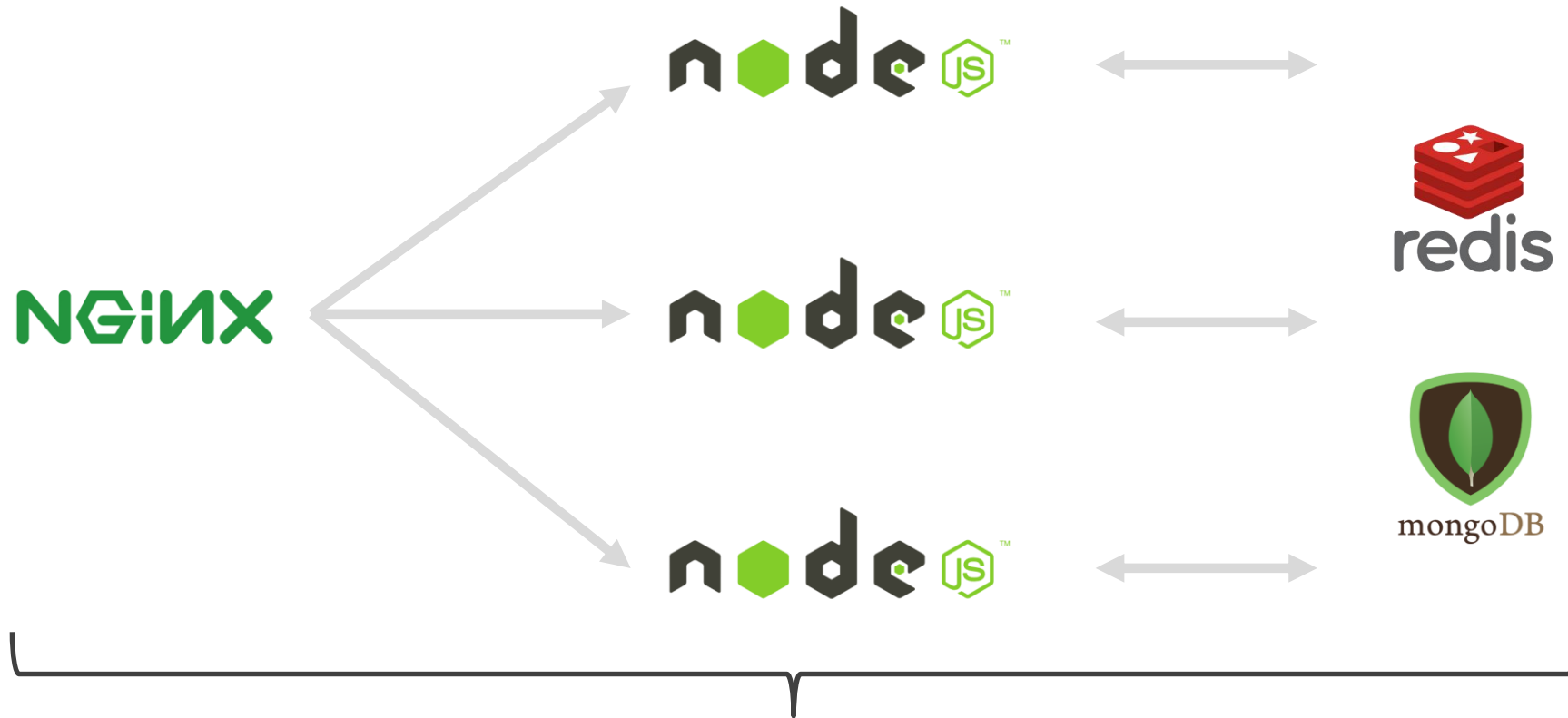


# Setting Up Development Environment Services

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# Development Environment Services



Docker Compose  
(docker-compose.yml)



# Creating a Custom docker-compose.yml File

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# Managing Development Environment Services

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# 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"

