

DOCKER

Docker Stack : Introduction

Docker : Docker Swarm

- Stack : Stack is a group of interrelated services that share dependencies, and can be orchestrated and scaled together.
- A single stack is capable of defining and coordinating the functionality of an entire application.
- Complex Application may have multiple Stacks as well.
- Docker Stack uses Compose's YAML format and complements the Swarm-specific properties for service deployments.
- File Name could be like [docker-stack.yml](#)

Docker : Docker Swarm

- Build Own Image:
- Sample_Nginx Project
- Build Image form Dockerfile
`docker build --tag=friendly_hello .`
- Push image on Docker Hub
`docker tag <image> <username/repository:tag>`
`docker push <username/repository:tag>`

Docker : Docker Swarm

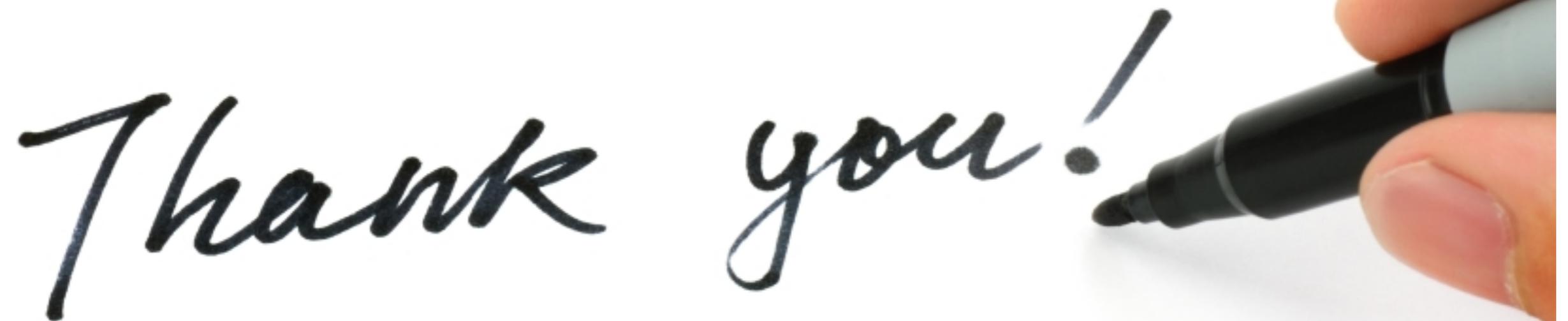
- Docker Stack deploy YML file:
- Explore the docker-compose.yml file.
- Pull the Image from Repository.
- Run 5 instances of that image as a service called web
- Limiting each one to use, at most, 10% of a single core of CPU time and 50MB of RAM.
- Immediately restart containers if one fails.
- Map port 4000 on the host to web's port 80.
- Instruct web's containers to share port 80 via a load-balanced network called webnet.
- Define the webnet network with the default settings, which is a load-balanced overlay network.

Docker : Docker Swarm

- Deploy the Service in Docker Swarm
`docker stack deploy -c docker-compose.yml nginx_start`
- Verify Service
`docker service ls`
- List Stack name
`docker stack services nginx_start`
- A single container running in this Service is called Task. So Single Service can execute multiple Tasks.

Will see you in Next Lecture...

Thank you!

A close-up photograph of a hand holding a black marker, writing the words 'Thank you!' in a cursive script on a white surface. The hand is positioned on the right side of the frame, with the fingers gripping the marker. The text is written in a fluid, handwritten style.

See you in next lecture ...