

# Docker Swarm

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

Pranjal Mahajan

Domain: Dr. T. Subbulakshmi  
VIT Chennai

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# Learning Objectives

**In this tutorial, we will learn about**



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In this tutorial, we will learn about

- Docker Swarm



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- Docker Swarm
- Sharing files using Network File System



# System Requirements

To record this tutorial, I am using

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- **Ubuntu Linux OS 22.04**



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- Ubuntu Linux OS 22.04
- Docker version 27.0.2



# Pre-requisites

To follow this tutorial,





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To follow this tutorial,

- You must have basic knowledge of using Linux terminal



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- You must have basic knowledge of using Linux terminal
- For pre-requisite Linux tutorials, please visit <https://spoken-tutorial.org/>



# Docker-Machine Installation

- Refer to the Additional Reading material of this tutorial



# Docker-Machine Installation

- Refer to the Additional Reading material of this tutorial
- Follow the steps given in the document to install docker-machine



# Docker-machine installation

- Docker-machine installation is required to proceed further



# Docker-machine installation

- Docker-machine installation is required to proceed further
- Docker-machine simplifies setting up and managing Docker Swarm



# Docker Swarm

- Docker Swarm is a container orchestration tool



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- Docker Swarm is a container orchestration tool
- It allows you to manage a cluster of Docker nodes as a single system





# Docker Swarm

- Docker Swarm is a container orchestration tool
- It allows you to manage a cluster of Docker nodes as a single system
- It provides tools to deploy, manage, and scale containerized applications



# Share files using NFS

- **Network File System (NFS)** allows file sharing between nodes in a Swarm setup



# Share files using NFS

- **Network File System (NFS)** allows file sharing between nodes in a Swarm setup
- **This setup provides shared, persistent storage for distributed applications**



# Share files using NFS

- NFS is ideal for storing files needed by multiple services or replicas



# Share files using NFS

- NFS is ideal for storing files needed by multiple services or replicas
- It ensures data consistency and simplifies data management across nodes



# Summary

**In this tutorial, we have learnt about**

- **Docker Swarm**
- **Sharing files using Network File System**



# Assignment

As an assignment, please do the following

- Scale myExample to 5 replicas



# Assignment Observation

```
pranjal@pranjal-VirtualBox: ~$ docker service scale myExample=5
myExample scaled to 5
overall progress: 5 out of 5 tasks
1/5: running
2/5: running
3/5: running
4/5: running
5/5: running
verify: Service myExample converged
pranjal@pranjal-VirtualBox: ~$
```





# About the Spoken Tutorial Project

- Watch the video available at [http://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](http://spoken-tutorial.org/What_is_a_Spoken_Tutorial)
- It summarises the Spoken Tutorial project
- If you do not have good bandwidth, you can download and watch it



# Spoken Tutorial Workshops

## The Spoken Tutorial Project Team

- Conducts workshops using spoken tutorials
- Gives certificates to those who pass an online test
- For more details, please write to [contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)



# Answers for THIS spoken tutorial

- Questions in THIS Spoken Tutorial
- Please Visit <https://forums.spoken-tutorial.org>
- Choose the minute and second where you have the question
- Explain your question briefly
- The Spoken Tutorial project will ensure an answer
- You will have to register to ask questions



# FOSSEE Forum

- For any general or technical questions on Docker, visit the FOSSEE forum and post your question  
<https://forums.fossee.in/>



# Acknowledgement

- **Spoken Tutorial Project was established by the Ministry of Education, Government of India**



# Thank you

- **This is Pranjal Mahajan, a FOSSEE Semester Long Intern 2024, IIT Bombay**

