Docker Intermediate Training

Day - 1

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  - o Introduction of Hardware
  - o Introduction of KERNAL
  - o Namespaces
  - o Cgroups
  - o Capabilities
  - o Filesystem
  - o Filesystem
  - o Boot Filesystem
  - o Root Filesystem
  - o User Filesystem
  - o App Filesystem

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  - o Introduction of Docker
  - o Introduction of Container?
  - o Components of Containers & How Containers works?
  - o History & Origin of Docker
  - o Types of Release in Docker
  - o Latest version of Docker
  - o Technology used in Docker development
  - o Official Website & Reference
  - o Major Use Cases of Docker
  - o Major Feature and Advantage of Docker
  - o Terminology used in Docker
  - o Components of Docker
  - o Docker Engine
  - o Docker Registry
  - o Docker Image
  - o Docker Container

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  - o Commonly used commands in Docker
  - o Create a Docker Container
  - o Start a Docker Container
  - o Stop a Docker Container
  - o Restart a Docker Container
  - o Pause a Docker Container
  - o Unpause a Docker Container
  - o Remove a Docker Container
  - o Kill a Docker Container
  - o Difference between Docker Stop & Docker Start
  - o Difference between Docker Pause & Docker Unpause
  - o Difference between Docker Stop & Docker Kill

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  - o Docker Container vs Virtual Machines
  - o Docker Container vs Kubernetes pod
  - o Docker Container vs Podman Container
  - o Dockerd vs containerd
  - o Dockerd vs CRI-O
  - o CRI-O vs runc

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  - o Installing Docker in Centos 7
  - o Installing Docker in Ubuntu 20
  - o Installing Docker in Windows 2019
  - o Configuring Docker

Day - 2

- - Importance of PID 1 of container?
  - Docker run command with example
  - Docker run command with example
  - How to use containers on a daily basis?
  - dockerd exec command with example
  - dockerd attach command with example
  - How to de-attach from container?
  - How to set the name of the container?
  - Copying a files/dir with container using Docker cp
  - Docker diff command with example & use cases
  - Rename a container using Docker rename
  - Inspect a container using Docker inspect
  - List port mappings or a specific mapping for the container
  - Update configuration of one or more containers using "Docker update"
  - Use cases & example of "Docker wait"

- - Docker Container - Fetch the logs of a container
  - Docker Container - Display a live stream of container(s) resource usage statistics
  - Docker Container - Display the running processes of a container
  - Docker Server - Get real time events from the Docker server
  - Docker Server - dockerd service process Troubleshooting
  - Docker Server - Logging of Docker Server
  - Docker Server - Configuration of a Docker server

- - Storage Overview
  - Why do I need Docker volume?
  - What are Docker volumes?
  - Types of Docker volumes?
  - Overview of Docker Volume Mount
  - Overview of Docker Bind Mounts
  - Overview of Docker tmpfs Mounts
  - Creating & Using Docker Volume Mount with Container
  - Creating & Using Docker Bind Mount with Container
  - Creating & Using Docker tmpfs Mount with Container
  - Troubleshoot Volume problems

- - Networking overview
  - Types of default Networking driver in Docker
  - Use bridge networks with Docker container
  - Use overlay networks with Docker container
  - Use host networking with Docker container
  - Use IPvlan networks with Docker container
  - Use Macvlan networks with Docker container
  - Disable networking for a container
  - Configure the daemon and containers