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ABOUT KUBERNETES

Kubernetes is the open-source orchestrator which is used to create, manage and deploy containerized applications (microservices). It supports container APIs with quick shipping and scaling with decoupled architecture. It acts as a self-service platform that creates a hardware abstraction layer for the development team. Thereby, they can quickly access the resources as well as can handle the additional load.

WHY KUBERNETES?

In a production zone, you have to maintain the continuous process on containers and there is no downtime. Actually it is not easy to perform continuous delivery all the time but Kubernetes can easily manage a deployment service for your system.Kubernetes can manage a container using the DNS name or using their own IP address so that you can automate your processes quickly.

KUBERNETES VIRTUAL TRAINING BY DECCANSOFT

The goal of our Docker Kubernetes LIVE Training course is to deliver high-quality training that covers solid fundamental knowledge on core concepts with a practical approach. Attend this LIVE training and explore your cloud-native career with Docker/Kubernetes.

A fresh LIVE batch starts from November 14, 2021, from 5.00 PM-8.00 PM (IST). A trend this 3 Weekend training.

Enroll now for the live batch and get an interactive and immersive learning experience.

OUR TRAINING METHODOLOGY

In this course, we will start with the basics about Docker containerization and its commands and then progressively develop docker applications using .NET core. This will give the experience of working with a live project in real-time development scenarios. Additionally, you will be trained under Docker volume, compose methodology, Port forwarding, Docker registry, and more. The same is reflected in our syllabus for your detailed reference.

Meanwhile, you will learn an overview of different kinds of Kubernetes features and their functionalities. This will help you to manage the stored infrastructure and application deployment in the Kubernetes platform.

Our star trainer Mr. Sandeep Soni having 25+ years of experience in the IT industry has compiled this course and he will be himself delivering it.

The teaching methodology of Mr. Sandeep Soni is very simple but comprehensive, every topic in the docker/Kubernetes begins with in-depth concepts. You will get a comfortable state about what is being talked regards the course, followed by practical demos. All the topics and their features should be incorporated in real-time situations.

WHO CAN DO THIS COURSE?

1. Any MS.NET developer with experience in web programming /basic Linux system administration
2. Architects looking forward to building Docker/Kubernetes containers-based applications.

WHAT WILL YOU GET IN THIS LIVE TRAINING? (SPECIAL OFFER FOR THIS BATCH ONLY!)

- Exhaustive training by Microsoft Certified Trainer, Mr. Sandeep Soni having 25+ years of experience.
- You will get video access to the recorded sessions of the live training.
- You will get in-detailed and Complete Courseware prepared by Mr. Sandeep Soni himself and the same can be used for practice and reference.
- You can attend Docker/Kubernetes Full-day Bootcamps in the future.

KUBERNETES SYLLABUS

Introduction to Kubernetes and its Architecture

- What is Kubernetes
- Why Kubernetes
- Kubernetes features
- Kubernetes Architecture

- Kubernetes Cluster
- Kubernetes Master
  - API Server
  - Etcd
  - Scheduler
  - Controller Manager
- Worker nodes
- Container Runtime
  - Kubelet
  - Kube-proxy
  - cAdvisor
- Kubernetes Objects Overview
  - Kubernetes Pods
  - Replication Controllers and Replication sets
  - Deployments
  - Services
  - Volumes and Persistent Volumes
  - Stateful Sets
  - Daemon Sets
  - Jobs and Cron Jobs

Installing Kubernetes Installation

- Docker for Desktop
- Minikube
- AKS/EKS

Working with Pods and Kubectl Commands

- Create out first pod with kubectl
- Basic Kubectl Commands
- Inspecting Kubernetes Objects using kubectl
- About Kubernetes Generators
- Imperative vs Declarative Commands

- Exploring YAML Syntax
  - Name and Metadata
  - Labels and Label Selectors
- Kubernetes Namespace
- Kubernetes Generators
- Working with Dashboard

Working with Kubernetes Objects

- Pods
- Replication Controller
- Replica Sets
- Creating Deployment
- Self Healing Applications.
- Handling Rolling Updates and Rollbacks
- Best practices in rolling upgrades, canary deploys, blue-green deploys etc

Services and Ingress

- Service Types
  - Creating a ClusterIP Service
  - Creating a NodePort
  - LoadBalancer Service
- Working with Ingress
- Ingress Controllers
- Ingress Annotations and rewrite target
- Kubernetes Services DNS
- Network Policies
- Working with Probes

Advanced Kubernetes Objects

- ConfigMap and Environment Variables
- Working with Secrets and sensitive information
- Kubernetes Volumes

- Persistent Volumes and Persitent Volume Claims
- StatefulSet
- DaemonSets
- Jobs
- Scheduling using Cron Jobs
- Monitoring and Probes

Azure Kubernetes Service

- About AKS
- Creating AKS Cluster using Portal
- Creating AKS Cluster using CLI
- Connecting to AKS Cluster using Kubectl
- Deploying Kubernetes Objects to AKS
- Pulling Images from ACR and DockerHub
- System Nodes vs User Nodes
- AKS Networking: Azure CNI vs Kubenet
- AKS Logging and Monitoring

Cluster Administration

- Kubernetes Dashboard
- Manage Memory, CPU and API resources.
- Authentication and Authorization
- Using RBAC Authorization
- Using ABAC Authorization