SAMBŌDHI

Microsoft

OpenShift Training Course

Project Based Immersive Learning Course

OpenShift Training Course Overview

Sambodhi and Education Nest's OpenShift training classes are designed to equip learners with comprehensive knowledge of all the key features and fundamentals of OpenShift. The course covers topics such as containers, Kubernetes, Red Hat OpenShift Container Platform, and provides hands-on exercises to manage containers effectively. OpenShift is a cloud-native platform that enables developers to quickly develop, deploy, and manage applications in a cloud environment. With OpenShift, developers can build, deploy, and manage applications securely and at scale. OpenShift also offers a platform for running applications in a hybrid cloud environment, leveraging both public and private clouds' benefits. This course provides an opportunity for learners to gain expertise in OpenShift, enabling them to leverage this cloud platform's potential for their projects and future endeavors.

Benefits of OpenShift Training Course:

Sambodhi and Education Nest's OpenShift training program offers several benefits for professionals looking to advance their careers in data management. OpenShift was recently recognized as one of the best tools and technologies for developers, IT professionals, and businesses. This course provides learners with the skills and knowledge required to become Certified Red Hat OpenShift

professionals, who are among the highest-paid IT professionals today. Additionally, there are numerous job opportunities for OpenShift professionals worldwide, with top companies actively recruiting experts in this field. By completing this course, learners will be equipped to pursue exciting career opportunities and leverage the growing demand for OpenShift professionals.

Who should learn?

The OpenShift is suitable for a wide range of individuals, including:

- System administrators
- Developers
- Architects
- Cloud administrators
- Professionals who want to enhance their skills in OpenShift Container Platform.

Why do you need OpenShift Training Course?

Average Salary Growth:

The average salary for OpenShift professionals varies depending on factors such as experience, location, and industry. According to Payscale.com, the average salary for an OpenShift developer in the United States is around $107,000 per year. However, salaries for professionals with advanced skills and experience can exceed $150,000 per year. As OpenShift continues to grow in popularity and demand, the salaries for professionals in this field are projected to increase in the coming years.

Industries:

OpenShift professionals are in high demand across various industries and multinational corporations (MNCs). OpenShift is a cloud-native platform; this platform is widely used by companies in industries such as finance, healthcare, e-commerce, and technology. Many Fortune 500 companies, including IBM, Amazon, and Microsoft, are actively recruiting OpenShift professionals to support their cloud-based infrastructure and application

development needs. The demand for OpenShift experts is expected to continue to rise in the coming years.

Position in Market:

According to the data employment and job research website, the demand for OpenShift professionals is expected to grow significantly in the coming years. As more organizations adopt cloud technologies and look to develop, deploy, and manage applications in the cloud, the demand for skilled OpenShift professionals is projected to increase. The job market for OpenShift professionals is expected to grow by around 20% annually in the United States alone, with a similar trend seen across the world.

Designations:

- OpenShift Administrator
- OpenShift Developer
- Cloud Engineer
- DevOps Engineer
- Kubernetes Administrator
- Platform Engineer

Why OpenShift Training Course from Education Nest

- **Free Demo on Request**
- **Live Interactive Learning**
- **Lifetime Access**
- **Flexible Schedules**
- **24x7 Support**
- **One on One Doubt Clearing**

- **Real Time Project-Based Learning**
- **Certificate Oriented Curriculum**

Key Skills Covered:

- Containers
- Development
- DevOps
- Deployment
- Compute OpenShift
- Kubernetes
- Red Hat OpenShift

OpenShift Training Course Syllabus

Module 1: Get Started with Container technology

- Introduction Installing Docker on Ubuntu
- Installing Docker on CentOS
- Starting a Docker Host in the Cloud
- Running Hello World in Docker
- Running a Docker Container in Detached Mode
- Creating, Starting, Stopping, and Removing Containers
- Building a Docker Image with a Dockerfile
- Sharing Data in Your Docker Host with Containers

Module 2: Container Image Creation and Sharing

- Introduction
- Keeping Changes Made to a Container by Committing to an Image

- Writing Your First Dockerfile

- Packaging an application Inside a Container

- Optimizing Your Dockerfile by Following Best Practices

- Versioning an Image with Tags

- Publishing Your Image to Docker Hub

Module 3: Describing Kubernetes Architecture

- Introduction Understanding Kubernetes Architecture

- Kubernetes Objects

- Kubernetes API Primitives

- Creating a Multi Node Kubernetes Cluster

- Starting Containers on a Kubernetes Cluster with Pods

- Using a Replication Controller to Manage the Number of Replicas of a Pod

- Running Multiple Containers in a Pod

- Validating Nodes & the Cluster

- Running the Kubernetes Dashboard

Module 4: Describing OpenShift Architecture

- How OpenShift, Kubernetes and docker work together

- Accessing your cluster and logging in

- Creating projects and deploying applications

- Accessing your application by creating routes

- Investigating application components

- Comparing command-line and web workflows

Module 5: Working with services

- Testing application resiliency

- Working with labels and selectors

- Scaling applications

- Tracking application health and status

Module 6: Scaling Applications in OpenShift

- Using container metrics
- Creating Horizontal Pod Autoscaler
- Setting resource requests and limits
- Load testing with the Apache HTTP server benchmarking tool

Module 7: Continuous integration and continuous deployment

- Promoting images
- Invoking object triggers
- Service discovery
- Protecting sensitive data with secrets
- Altering applications with config maps

Module 8: Storage

- Creating and managing persistent storage
- Using the system:admin user to administer your cluster
- Attaching persistent storage to applications
- Making remote storage available in containers
- Removing persistent storage from applications
- Cleaning up persistent storage volumes

Module 9: Build and image management

- Deploying applications OpenShift platform container using S2I
- Introduction
- Launching demo app with source strategy
- S2I Builder Primer
- Deploying results app with Nodejs S2I Builder
- Launching DB with a template

Module 10: Security

- Adding permissions to users by assigning roles
- Managing project resource limits and quotas
- Setting default limits and quotas for projects
- Examining how Linux enforces limits and quotas
- Learning how SE Linux isolates container resources
- Understanding security contexts and application permissions
- Scanning container images for security issues
- Using security context constraints
- Analyzing OpenSCAP security scan reports

Module 11: Networking

- Designing cluster networks
- Understanding network traffic flow in OpenShift
- Configuring Open vs Switch
- Configuring OpenShift network plugins
- Using DNS in OpenShift

Career Support

Profile Building:

At Sambodhi and Education Nest, we provide the services of experienced professionals who can offer personalized assistance in crafting your CV and online profiles. They take into account your unique educational and experiential background, ensuring that your job application stands out from the rest.

Interview Preparation:

The upcoming interview preparation service will include personalized one-on-one sessions and the option for mock interviews if needed.

Job Referrals:

At Education Nest, we receive a variety of job requirements from diverse sources such as organizations, our clients, HR consultants, and a vast network of Education Nest currently employed in different companies. We strive to meet these varied requirements to the best of our abilities.

Continuous Support:

At Sambodhi and Education Nest, we provide ongoing support to our learners for as long as they need it. Many of our learners have received multiple job offers and promising employment opportunities as a result of the skills they acquire during our program.