Red Hat Training and Certification

DO380
Red Hat OpenShift Administration III: Scaling Deployments in the Enterprise

Plan, implement, and manage OpenShift clusters at scale

Red Hat OpenShift Administration III: Scaling Deployments in the Enterprise (DO380) expands upon the required skills to plan, implement, and manage OpenShift® clusters in the enterprise. You will learn how to configure and manage OpenShift clusters at scale to address increasing and special demands from applications and to ensure reliability, performance, and availability.

This course is based on Red Hat® OpenShift Container Platform 4.18.

Course content summary

- Manage OpenShift cluster operators and add operators.
- Implement GitOps workflows using OpenShift GitOps operator.
- Integrate OpenShift with enterprise authentication.
- Query and visualize cluster-wide logs, metrics, and alerts.
- Back up and restore application settings and data with OpenShift APIs for Data Protection (OADP).
- Manage machine pools and machine configurations.

Audience for this course

- Primary: Platform Engineers, System Administrators, Cloud Administrators, and other infrastructure-related IT roles who are responsible for implementing and managing infrastructure for applications.
- Secondary: Enterprise Architects, Site Reliability Engineers (SRE), DevOps Engineers, and other application-related IT roles who are responsible for designing infrastructure for applications.

Outline for this course

- **Authentication and Identity Management**
  Configure OpenShift clusters to authenticate by using LDAP and OIDC enterprise identity systems and to recognize groups that those systems define.
- **Backup, Restore, and Migration of Applications with OADP**
  Back up and restore application settings and data with OpenShift APIs for Data Protection (OADP).

Course reference: https://www.redhat.com/en/services/training/do380-red-hat-openshift-administration-iii-scaling-deployments-in-the-enterprise

- **Pod Scheduling**
  Configure workloads to run on a dedicated set of cluster nodes and prevent other workloads from using those cluster nodes.
- **OpenShift GitOps**
  Deploy OpenShift GitOps for managing clusters and applications.
- **OpenShift Monitoring**
  Troubleshoot performance and availability issues with applications and clusters.
- **OpenShift Logging**
  Deploy logging for Red Hat OpenShift and query log entries from workloads and cluster nodes.
- **Cluster Partitioning**
  Configure a subset of cluster nodes to be dedicated to a type of workload.

Impact on the individual

This course builds upon the essential skills required to configure and manage an OpenShift 4.x cluster, teaching the enhanced skills needed to operate production environments at scale, including:

- Configure pools of cluster nodes with special configurations, and ensure that only the intended workloads for those pools are scheduled on those nodes.
- Configure enterprise authentication and group management with legacy LDAP and cloud-native OpenID Connect (OIDC) identity management systems.
- Deploy, manage, and query OpenShift logging and configure log forwarding to external log aggregators and security information and event management (SIEM) systems.
- Automate cluster configuration and application deployment by using OpenShift GitOps.
- Troubleshoot application and cluster performance and availability issues by using OpenShift Monitoring.
- Configure and automate application-level backups using OpenShift APIs for Data Protection (OADP).

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