Building Resilient Microservices with Istio and Red Hat OpenShift Service Mesh

Course description

Control, manage, trace, monitor, and test your microservices with Red Hat OpenShift Service Mesh.

Red Hat Openshift created an enterprise-ready, multi-tenant platform that made deploying and scaling microservice applications efficient and repeatable. But as these architectures become larger and more complex, defining how these services interact with each other becomes increasingly difficult. Red Hat OpenShift Service Mesh facilitates managing service interaction, providing service tracing, and creating a visual representation of communication pathways.

Building Resilient Microservice Applications with Red Hat OpenShift Service Mesh (DO328) teaches students service monitoring, management, and resilience with Red Hat OpenShift Service Mesh.

This course is based on Red Hat OpenShift Service Mesh 3.1, and Red Hat OpenShift 4.18.

Course content summary
- Introducing OpenShift Service Mesh
- Observing OpenShift Service Mesh
- Managing Traffic with OpenShift Service Mesh
- Securing OpenShift Service Mesh
- Comprehensive Review

Target Audience
- Developers and platform engineers who need to manage and secure reliable microservices communication in a Red Hat OpenShift-based environment.

Prerequisites for this course
- The course Red Hat OpenShift Developer II: Building and Deploying Cloud-native Applications (DO288), or demonstrate equivalent experience with Red Hat OpenShift.
- The course Red Hat Cloud-native Microservices Development with Quarkus (DO378), or demonstrate equivalent experience in creating microservice applications, is recommended, but not required.

Outline for this course

Introducing OpenShift Service Mesh

Describe the basic concepts of microservice architecture and how Red Hat OpenShift Service Mesh provides observability, security, and traffic management for distributed applications.

Observing the OpenShift Service Mesh

Trace and visualize a Red Hat OpenShift Service Mesh with Red Hat OpenShift observability.

Managing Traffic with OpenShift Service Mesh

Manage, control, and test application traffic in Red Hat OpenShift Service Mesh by applying routing strategies, resiliency policies, and fault injection techniques to build safer and more reliable distributed systems.

Securing the OpenShift Service Mesh

Design, implement, and validate a comprehensive zero-trust security posture in Red Hat OpenShift Service Mesh, ensuring all traffic is secured, authenticated, and authorized.

Comprehensive Review

Consolidate and validate the understanding of Red Hat OpenShift Service Mesh.