IBM Turbonomic: Container Platform Optimization

Duration: 3 Days Course Code: TN930G

Overview:

This advanced-level course teaches how IBM Turbonomic's patented analysis engine delivers visibility, control, and optimization across the entire application stack to assure the performance of running micro-services in Kubernetes and Red Hat OpenShift, as well as the efficiency of the underlying infrastructure.

This course explains how Turbonomic discovers container platform clusters and connects data from APM targets, such as, Instana, for full-stack visualization.
The course teaches how Turbonomic assures performance and maximizes efficiency throughout the stack by intelligently scaling the container cluster to provision and suspend nodes based on application resource demand.
Learners will understand how Turbonomic uniquely solves the problem of resource fragmentation and avoids performance bottlenecks by intelligently moving container pods to manage the fluctuating demand.
Turbonomic provides dynamic cluster scaling as well as horizontal scaling to meet SLO demands. This course includes common troubleshooting techniques for KubeTurbo, container platform planning, dashboards, and SaaS reporting.

Target Audience:

Consultants, System Administrators, DevOps Engineers, Operators, Site Reliability Engineers

Objectives:

- After completing this course, you should be able to:
- Explain how Turbonomic helps in optimizing container environments for performance and cost efficiency
- Gain full stack visualization of the container platforms using Turbonomic
- Understand how Turbonomic discovers container platform environments through Kubeturbo
- Describe the types of actions Turbonomic generates for optimized vertical resizing, continuous proactive pod placement, SLO-based horizontal scaling, and dynamic cluster scaling
- Create policies to automate Turbonomic actions in container environments
- Run planning scenarios to optimize container clusters and migrate containerized workloads from one container platform cluster to another
- Explore the container dashboards in Turbonomic and SaaS reporting
- Evaluate horizontal scaling of pods to meet Service Level Objectives (SLO) for container clusters including support for Large Language Model (LLM) generative AI (gen AI)
- Set up advanced integrations with Prometurbo as well as Operator Resource Mapping (ORM)
- Learn common troubleshooting techniques for Kubeturbo deployments

Prerequisites:

Correct understanding of cloud optimization and containers concepts and knowledge of Turbonomic product is recommended.

Testing and Certification

None

Follow-on-Courses:

None

Content:

Units:

- Unit 1: An overview of container platform optimization
- Unit 2: Discovering container platform environments using Turbonomic
- Unit 3: Full stack visualization
- Unit 4: Optimized vertical resizing
- Unit 5: Continuous pod placement
- Unit 6: Service Level Objective based horizontal scaling
- Unit 7: Dynamic cluster scaling
- Unit 8: Container platform planning
- Unit 9: Container dashboards and SaaS Reporting
- Unit 10: Common troubleshooting techniques

Additional Information:

Official course book provided to participants.

Further Information:

For More information, or to book your course, please call us on +1 (800) 268 7737

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