

## End-to-End Dynatrace Professional Training (40 hrs.)

### Course Overview:

Performance Monitoring, AI-Powered Observability, and Automation

### Course Objective:

This course provides comprehensive training on Dynatrace, focusing on full-stack monitoring, AIOps, security, cloud observability, and automation. Participants will gain hands-on experience configuring and managing Dynatrace SaaS / Managed, deploying OneAgent, analyzing application performance, troubleshooting infrastructure issues, and leveraging AI-powered insights for proactive incident resolution.

### Learner Prerequisite:

- 1. Basic knowledge of IT infrastructure, cloud environments, and application monitoring,
- 2. Familiarity with Linux/Windows command-line operations,
- 3. Understanding of networking, logging, and application performance monitoring (APM) is a plus Fresher to Experience

### Day 1: Introduction & Environment Setup

Objective: Understand the fundamentals of Dynatrace and set up a monitoring environment.

#### Introduction to Dynatrace

- Overview of Application Performance Monitoring (APM)
- Dynatrace architecture & deployment models
- Key capabilities: Full-stack monitoring, AI-powered analytics, and automation

#### Environment Setup

- Installing Dynatrace OneAgent on various platforms (Windows, Linux, Kubernetes)
- Configuring Dynatrace SaaS vs Managed deployment
- Connectivity and firewall requirements

#### Basic Navigation & UI Overview

- Dynatrace dashboard walkthrough
- Understanding topology, Smartscape visualization, and host monitoring
- Introduction to key concepts: entities, tags, and metadata

#### Hands-on Lab

- Setting up a trial Dynatrace account
- Installing OneAgent and verifying monitoring setup

## Day 2: Application & Infrastructure Monitoring

Objective: Gain expertise in monitoring applications, services, and infrastructure.

### Application Performance Monitoring (APM)

- Transaction tracing & distributed tracing
- Understanding PurePath technology
- Code-level diagnostics and deep monitoring

### Infrastructure Monitoring

- Monitoring hosts, processes, and containers
- Network performance monitoring
- Custom monitoring via Dynatrace Extensions

### Service and Database Monitoring

- Detecting bottlenecks in microservices architecture
- Database performance insights and query-level analysis

### Hands-on Lab

- Configuring dashboards & alerts for application and infrastructure monitoring
- Analyzing service flow and dependency mapping

## Day 3: AI-Powered Problem Detection & Automation

Objective: Leverage AI-driven anomaly detection and automate incident response.

### Dynatrace AI (Davis AI)

- Understanding automatic anomaly detection
- Root cause analysis using AI
- Impact analysis & event correlation

### Custom Problem Detection & Alerting

- Custom thresholds and synthetic alerting
- Integration with third-party tools (ServiceNow, PagerDuty, Slack, etc.)

### Automation & Remediation

- Auto-remediation using Dynatrace Workflows
- SLOs, SLIs, and performance baselining

### Hands-on Lab

- Setting up alerts and notification channels
- Configuring automated remediation workflows

## Day 4: Cloud-Native Monitoring & Advanced Features

Objective: Master cloud-native monitoring and explore advanced use cases.

### Cloud-Native Observability

- Monitoring Kubernetes, OpenShift, and serverless workloads

- Managing cloud integrations (AWS, Azure, GCP)

#### Log Monitoring & Analytics

- Setting up log ingestion & query-based analysis
- Correlating logs with application performance issues

#### Security & Compliance

- Runtime application security monitoring (RASP)
- Vulnerability scanning and security posture management

#### Hands-on Lab

- Deploying Dynatrace Operator in Kubernetes
- Analyzing logs and detecting security threats

### Day 5: Customization, Extensions & Certification Prep

Objective: Extend Dynatrace capabilities and prepare for the Professional Certification.

#### Custom Dashboards & Reports

- Creating role-based dashboards
- Custom visualizations and business analytics

#### Extending Dynatrace with APIs & Plugins

- Using Dynatrace API for automation
- Developing custom extensions

#### Certification Preparation & Best Practices

- Exam format and key topics for Dynatrace Professional Certification
- Performance optimization best practices

#### Hands-on Lab

- Developing API-based integrations
- Mock exam and Q&A session