Associate Certification Learning Path

- Welcome
- Instructions
- The Dynatrace Platform
- Monitoring & Infrastructure Observability
- Notebooks & Dashboards
- Business Analytics and DEM
- Data, Reporting & Analysis
- DQL (Dynatrace Query Language)
- Security
- Automation

Ingestion

Other

Welcome

Welcome to the Dynatrace Associate Certification Learning Path.

The Dynatrace Associate Certification is the starting point for all certification programs at Dynatrace and validates that an observability and security practitioner can relay the value of Dynatrace and apply base-level knowledge and skills in all modules of the Dynatrace platform.

Upon completion of this learning path you will be able to:

- Describe the value Dynatrace brings to observability and security though the various capabilities available.
- Demonstrate the ability to navigate the Dynatrace platform at a high-level.
- Navigate through a monitored business application, starting from the user interface and through all layers of the application, including services, database and infrastructure.
- Navigate Smartscape and infrastructure health.
- Analyze a problem identified by Dynatrace, showing root cause and impact.
- Explain how to use Notebooks and Dashboards to investigate a problem, determine the root cause, share results with stakeholders, and

proactively monitor systems to prevent the issue going forward.

- Explain how Dynatrace could help remediate problems through workflows and automation.
- Describe, at a high-level, the function and purpose of DQL.

Instructions

This learning path is the key to your success in achieving the required skills and knowledge needed for the Associate Certification. We recommend that you follow along in order to best prepare for your certification exam.

Prerequisites

Before embarking on the Dynatrace Associate Learning Path and scheduling the exam, ensure you meet the following prerequisites:

- Familiarity with Service Oriented Application (SOA) Architectures.
- Understanding of Application Servers such as WebSphere, WebLogic, JBoss, Tomcat, IIS, etc.
- Knowledge of the structures of mobile and web applications and their underlying hosting architecture, including databases, networks, and processes.
- General familiarity with application performance metrics.
- Proficiency with operating systems like Windows, UNIX, VMware, etc.
- Understanding of Cloud and New Stack Technologies such as Azure, Docker, Kubernetes, Cloud Foundry, IBM Cloud, OpenStack, OpenShift,

etc.

- Six-months of experience using the Dynatrace Platform (Recommended).

Learning Path Overview

To prepare for the Dynatrace Associate Learning Certification exam, please complete the following:

- **All learning path sections:** Go through every section of the Dynatrace Associate Learning Path meticulously.
- **Review buttons and subtopics:** Ensure all buttons and subtopics within each section are thoroughly reviewed to grasp the nuances of the Dynatrace platform comprehensively.
- **Complete recommended action items:** Pay special attention to the "call to action" section at the end of each lesson and execute the recommended action items to reinforce your learning.
- **Schedule your exam:** Once you feel confident in your understanding of the material and have completed all sections, schedule your exam to become a certified Dynatrace Associate.

Exam Details

Before embarking on the Dynatrace Associate Learning Path and scheduling the exam, ensure you meet the following prerequisites:

- The exam consists of 60 written questions and 10-15 practical questions.

- The written section includes both multiple-choice and multiple-response questions.
- For multiple-response questions, partial percentage for each correct answer is given, and the same percentage is deducted for an incorrect choice.
- Exam is proctored by ProctorU and proctoring is provided in English only.
- The practical section is open book.

Exam Support

Equipment Requirements
This is everything you will need to begin testing with ProctorU.

VISIT WEBSITE

How to Test Your Equipment
We recommend testing your equipment prior to exam day. Be sure to test the equipment you are planning to use on exam day so you can troubleshoot any issues.

VISIT WEBSITE

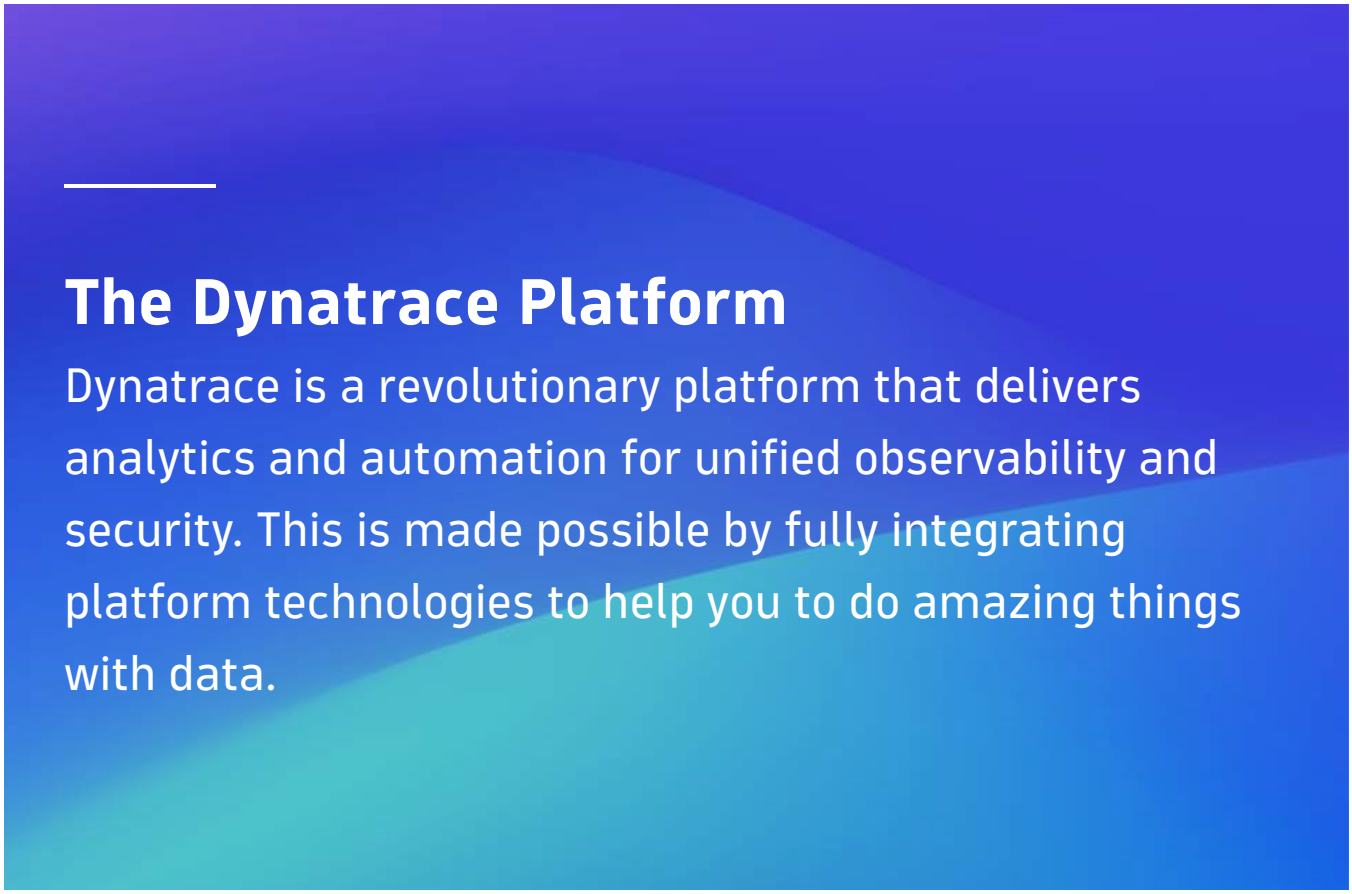
Exam Day FAQs
Some of the most commonly asked questions by test-takers.

VISIT WEBSITE

Accommodation

If you require accommodation to access the exam, please create a support ticket to request assistance. Dynatrace is committed to ensuring exam accessibility for all individuals.

The Dynatrace Platform



This section will focus on:

- Understanding the Dynatrace Platform Capabilities.
- Navigating the Dynatrace Web UI.

- Accessing Dynatrace Support and Resources.
- Optimizing Digital Experiences.

The Dynatrace Platform

Dynatrace is a software intelligence platform that provides unified observability for monitoring, analyzing, and optimizing software development, security, and business analytics. It leverages advanced AI to automate discovery, analysis, and key business processes, providing precise answers and intelligent automation. Key features include:

- **Observability:** Real-time monitoring and visualization of application performance & infrastructure.
- **Security:** Enterprise-grade data privacy and compliance management.
- **Automation:** Automated discovery and analysis using AI-driven insights.
- **Integration:** Supports various cloud, container, and technology integrations.

Dynatrace helps organizations predict, prevent, and resolve issues before they impact customers, driving better business outcomes.

Dynatrace Web User Interface (UI)

The Dynatrace Web User Interface (UI) is designed to be easy to use and navigate, enhancing the user experience.

Review the resources to learn about navigating the Dynatrace User Interface (UI).

Navigating the Interface

Estimated Time: 3 mins.

WATCH VIDEO

Dynatrace Docs: Navigate the Dynatrace Platform

Estimated Time: 10 mins.

READ DOCUMENT

Platform Capabilities

Dynatrace enhances observability, security, and automation with real-time monitoring, AI-driven insights, and automated workflows. It supports application performance management, infrastructure monitoring, digital experience tracking, and integrates with cloud platforms and container technologies. Additionally, it offers business analytics for data-driven decision-making.

Get to know more about basic capabilities on the Dynatrace Platform page.

Dynatrace Docs: What is Dynatrace?

READ DOCUMENT

Stay Informed & Empowered

As the Dynatrace Platform continues to grow and evolve, it's important to stay informed about the latest tools and technologies. You can explore new features and updates through **Dynatrace Documentation**.

For support and enablement, the **Dynatrace Support Center** provides resources, including documentation, community discussions, on-demand courses, live training, and certifications. This ensures you have access to the latest information and expert guidance to maximize the platform's capabilities.

The **Dynatrace Hub** is a marketplace for apps, extensions, and technologies that enhance the platform's functionality. Here, you can browse, install, and manage different solutions to address your observability needs. With the Hub, you can stay to stay up-to-date with the latest innovations and easily integrate new capabilities into your environment.

Visit, explore, and bookmark each support page.

Dynatrace Documentation

VISIT PAGE

Dynatrace Hub

VISIT PAGE

Dynatrace Support Center

VISIT PAGE

System Resilience & Optimal Digital Experiences

After learning about the Dynatrace platform's capabilities, user interface, and support resources, we will explore strategies for maintaining system resilience and ensuring optimal digital experiences. These strategies help you proactively address issues before they impact customers, ensuring smooth interactions and preventing costly outages.

Explore the resources to learn about system resilience and optimizing digital experiences for customers.

Delivering An Excellent Digital Experience for Customers in a Complex Digital World

Estimated Time: 5 mins.

READ BLOG

Mastering Chaos Engineering Experiments with Gremlin and Dynatrace

Estimated Time: 1 hour 17 mins.

WATCH WEBINAR

Call to Action

To help you gain hands on experience in this subject area it is recommended that you take the following actions.

Consider your current IT environment then complete the following:

1. What questions do you need to answer day-to-day? Write down your answer and explore how you can answer them as you're going through this Learning Path.

2. If you currently use Dynatrace, how are you using it? Write down your answer and explore how you can answer them as you're going through this Learning Path.

3. Start exploring! Try the Dynatrace Playground to get started, and navigate the UI.

> Log in with a Dynatrace user account, or create a trial account to get started.

Monitoring & Infrastructure Observability

This section will focus on:

- Understanding Dynatrace's Monitoring & Observability.
- Optimizing IT Operations.
- Using Dynatrace Apps.
- Leveraging AI-Powered Insights.

Monitoring & Infrastructure Observability

Dynatrace provides monitoring and infrastructure observability by collecting and analyzing data from every layer of the technology stack, from user interactions to backend processes. This continuous stream of information allows you to detect anomalies, track performance trends, and identify potential issues before they impact the user experience.

Dynatrace Apps

Dynatrace offers apps that provide extensive monitoring and observability across IT environments. These apps automatically discover and monitor components like cloud platforms, Kubernetes clusters, and databases, integrating metrics, logs, and traces into a unified view. This helps organizations quickly identify issues, optimize resources, and ensure system reliability. Through AI-powered insights downtime is reduced and performance is improved, making these apps essential for maintaining high-quality user experiences.

Visit the each resource to learn more about Dynatrace apps.

Dynatrace Docs: Dynatrace Apps

READ DOCUMENT

Dynatrace App Spotlights

Estimated Time: 4 hours

WATCH VIDEOS

Additional Resources

Visit each page to learn more about Monitoring & Infrastructure Observability

Dynatrace Docs: Improve Database Performance (Classic)

READ DOCUMENT

Dynatrace Docs: Infrastructure Observability

READ DOCUMENT

Dynatrace Docs: Dynatrace OneAgent

READ DOCUMENT

Kubernetes Monitoring

VISIT PAGE

Call to Action

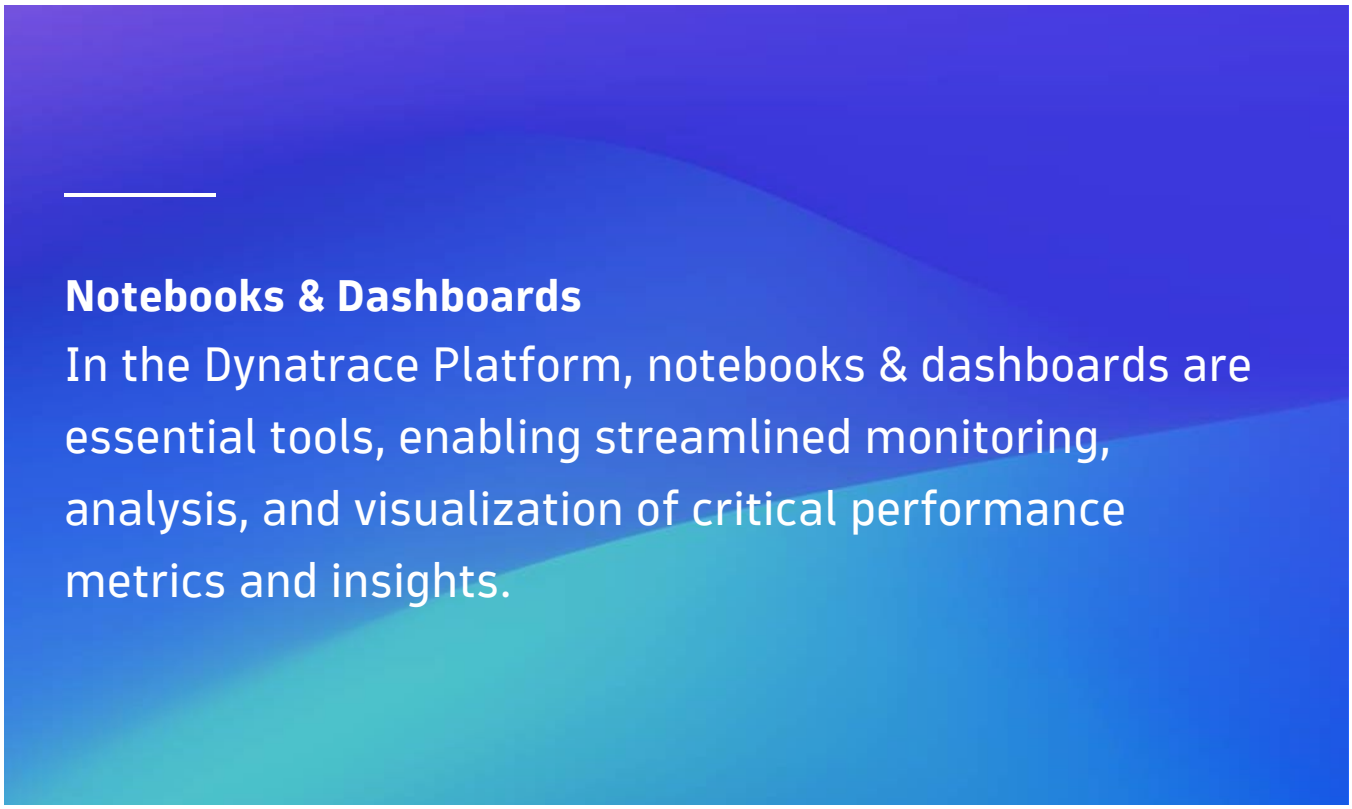
To help you gain hands on experience in this subject area it is recommended that you take the following actions.

Use the Dynatrace Playground to complete the following:

1. Check out the Kubernetes app. What clusters do you see? Dig into the namespaces and workloads in one of the clusters.

2. Using the Databases app, put the information into a Notebook.

Notebooks & Dashboards



In this chapter you will focus on:

- Understanding Dynatrace Notebooks.
- Using Dashboards and Customizations.

Dashboards & Notebooks

Dynatrace Notebooks and Dashboards are essential tools for data-driven analytics and real-time monitoring.

- **Notebooks** enable custom exploration and visualization of observability data, integrating external sources and predictive analytics within interactive documents.
- **Dashboards** provide continuous monitoring and visualizations of key performance metrics.

Together, they empower users to leverage their data effectively for comprehensive insights and proactive management.

Notebooks

Learn more about Notebooks using the resources below:

Dynatrace Docs: Notebooks

READ DOCUMENT

Dynatrace Notebooks Update

Estimated Time: 40 mins.

WATCH VIDEO

Dashboards

Dashboards are a cornerstone of the Dynatrace Platform, offering visual interfaces that provide real-time insights into application and infrastructure performance. By aggregating key metrics and data in a clear, customizable format, dashboards allow users to monitor, analyze, and troubleshoot issues, easier than ever. Whether tracking response times, identifying anomalies, or assessing overall system health, dashboards serve as a centralized hub for informed decision-making.

Visit Dynatrace Docs to learn more about Dashboards.

Dynatrace Docs: Dashboards

VISIT PAGE

Call to Action

To help you gain hands on experience in this subject area it is recommended that you take the following actions.

Complete the following in the Dynatrace Playground or in your own environment:

1. Create a Notebook. Try adding different tiles, like DQL queries and markdown tiles.
2. Using what you created in a Notebook, do the same in a Dashboard. Consider how the apps are different. What use cases can either app be used for?
3. Using the list of day-to-day items you may use Dynatrace for consider how Notebooks and Dashboards be used to solve those items.

Business Analytics and DEM

In this chapter you will focus on:

- Understanding Business Analytics & DEM.
- Using Business Events.
- Understanding Real User Monitoring (RUM).
- Implementing Synthetic Monitoring.

Business Analytics & DEM

Dynatrace helps businesses understand their systems' performance and customer interactions by combining data from various sources into easy-to-read, real-time visualizations. Business Analytics connects application performance and user experience to business metrics, allowing business and IT teams to collaborate with shared insights. This ensures businesses can meet their goals and keep customers happy by using Business Analytics and Digital Experience Monitoring (DEM) for optimal performance and engagement.

Business Analytics

At Dynatrace, Business Analytics connects application performance and user experience to business metrics, enabling business and IT teams to collaborate through shared real-time perspectives. Business Analytics leverages business events to achieve the precision many business use cases demand.

Visit the resource to learn more about Business Analytics.

Dynatrace Docs: Business Analytics

READ DOCUMENT

Business Events

Business events are key to Business Analytics and Digital Experience Monitoring (DEM). They link application performance and user experience to business metrics, providing precise insights for better decision-making. Business events help monitor user interactions, track performance, and identify trends.

Check out each resource to learn more about Business Events.

What are Business Events?

Estimated Time: 2 mins.

WATCH VIDEO

Digital Experience Monitoring (DEM)

Digital Experience Monitoring (DEM) provides monitoring of user interactions across web, mobile, and other digital touchpoints, ensuring applications are available, functional, and performing well. Key components of DEM are Real User Monitoring (RUM) and Synthetic Monitoring.

Check out Dynatrace Docs to learn more about DEM.

Dynatrace Docs: Digital Experience Monitoring (DEM)

READ DOCUMENT

Real User Monitoring (RUM)

Real User Monitoring (RUM) tracks and analyzes real-time user interactions within applications. RUM provides insights into user behavior and performance metrics. This data is integrated into the DEM framework and application performance is fed into Business Analytics, allowing for a holistic view of the digital experience.

Check out each resource to learn more about RUM.

What is Real User Monitoring (RUM)?

Estimated Time: 8 mins.

READ BLOG

Dynatrace Docs: Define Applications for Real User Monitoring (RUM)

READ DOCUMENT

Synthetic Monitoring

Synthetic monitoring simulates user interactions with applications using automated scripts, identifying performance issues before they affect real users. This proactive testing provides valuable data for Business Analytics, helping understand how performance impacts key metrics.

Check out each resource to learn more about Synthetic Monitoring.

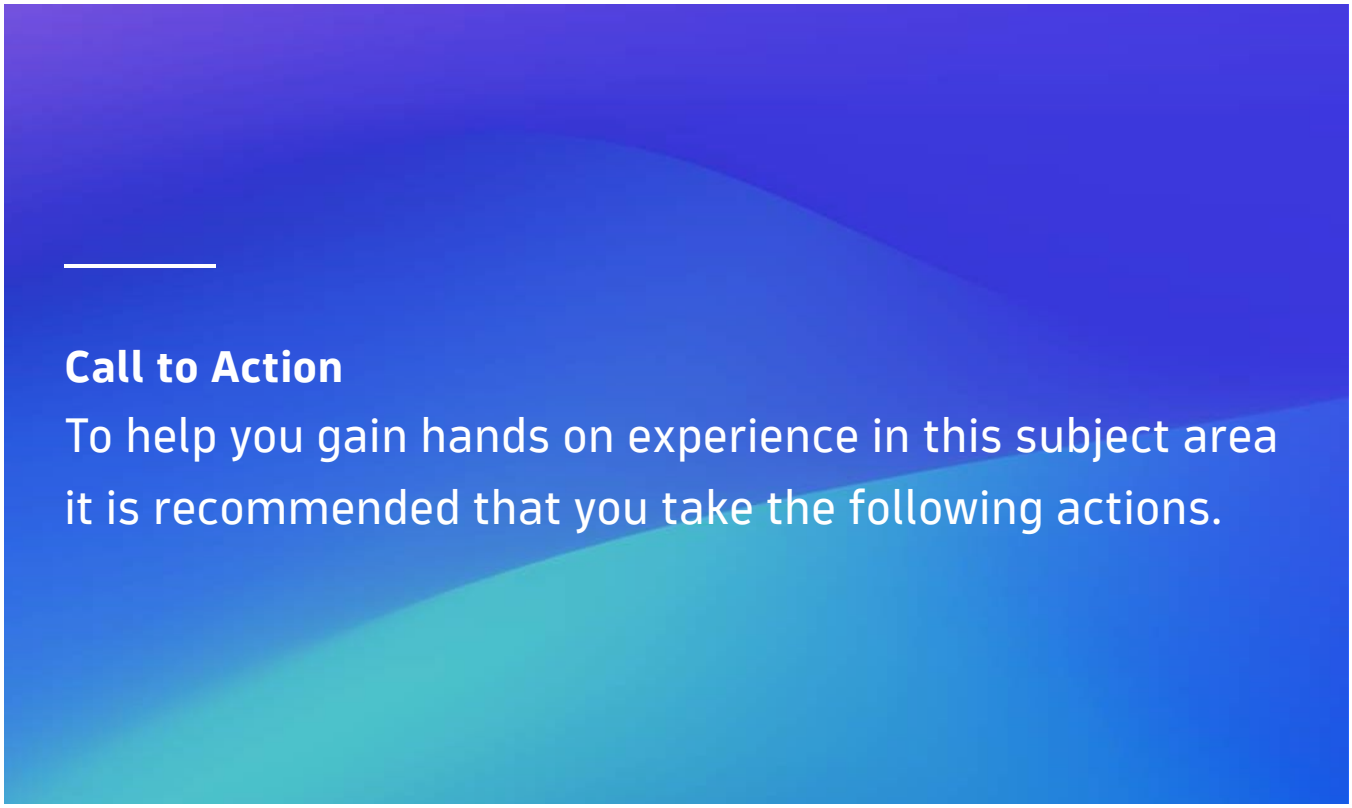
Dynatrace Docs: Synthetic Monitoring

VISIT PAGE

What is Synthetic Monitoring?

Estimated Time: 10 mins.

READ BLOG

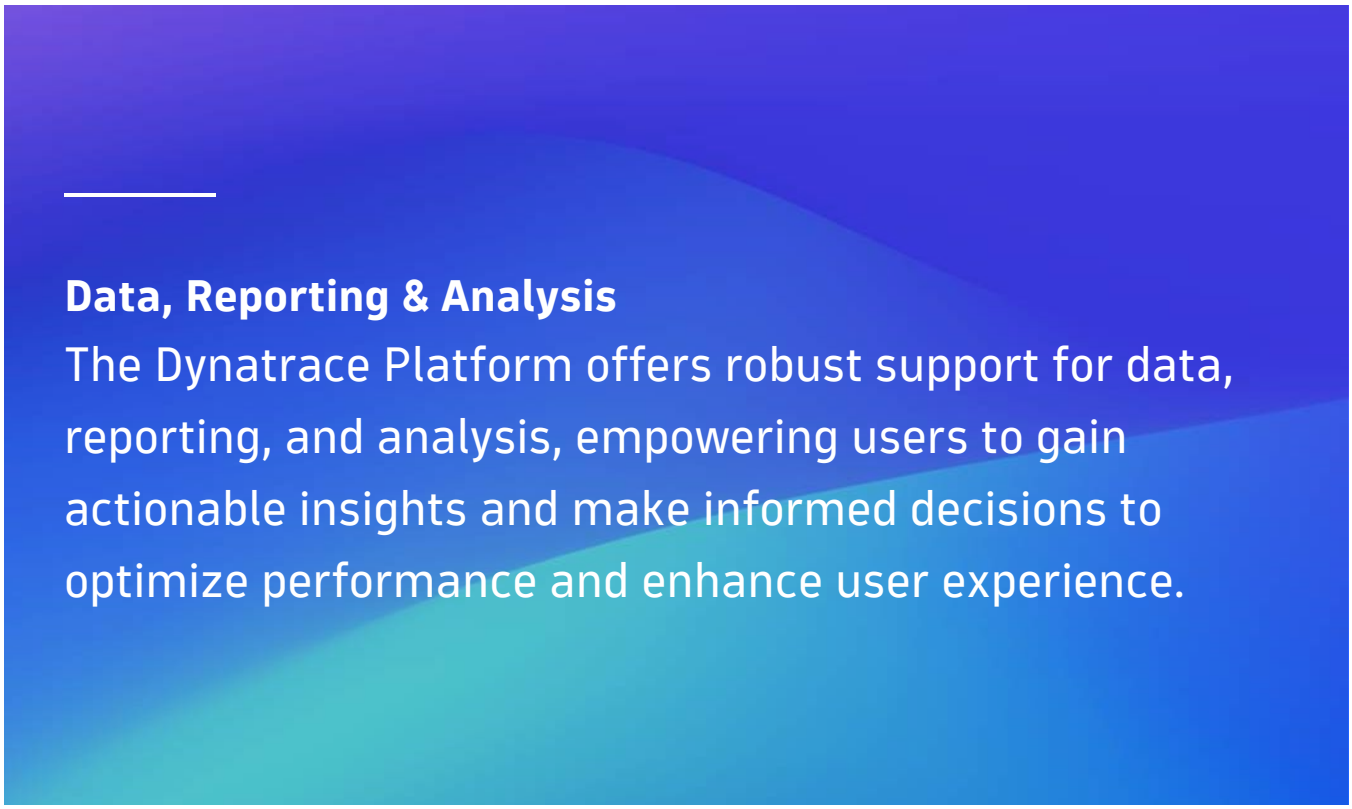


Complete the following in the Dynatrace Playground or your own tenant:

1. Explore the "Problems" app and look at what Dynatrace automatically detects. What does Dynatrace highlight to you when you click into a problem?

2. Add a section to a notebook with the query "fetch bizevents". What kind of data is returned?

Data, Reporting & Analysis



In this chapter you will focus on:

- Understanding Dynatrace's AI-driven analytics.
- Monitoring system performance.
- Exploring data with dashboards.
- Exporting data using APIs.
- Analyzing user behavior.

- Segmenting user sessions.
- Utilizing performance metrics.

Analyze, Monitor & Explore Data

The Dynatrace Platform uses AI and real-time monitoring to analyze data from applications, microservices, and infrastructure. It detects unusual behavior and alerts you to potential issues before they affect performance.

The platform monitors every part of the technology stack, from the user experience to the code level, collecting data like metrics, traces, and logs. You can track important metrics like response times, error rates, and resource use to find and fix performance issues.

Davis AI, links events and provides context, making it easier to find the root cause of problems. You can create custom dashboards and visualizations to explore trends, compare performance over time.

Dashboard Reports

Dashboard Reports help you visualize and analyze data from applications, microservices, and infrastructure. The dashboards offer interactive visualizations, allowing you to explore trends, compare performance over time, and identify root causes. You can subscribe to weekly or monthly (or both) reports delivered right to your email.

Visit Dynatrace Docs to learn how to subscribe to Dynatrace Dashboard Reports.

Dynatrace Docs: Subscribe to Dynatrace Dashboard Reports

READ DOCUMENT

Dashboards API

The API makes it easy to integrate with other tools, ensuring seamless data analysis across different platforms.

Visit the resources to learn more about Dashboards API.

Dynatrace Docs: Dashboards API

READ DOCUMENT

Interacting with the Dynatrace APIs using an OAuth Client

Estimated Time: 2 mins.

WATCH VIDEO

User Analytics

User analytics provide valuable data on how users interact with applications. It tracks metrics like bounce rates, top landing, exit pages, and conversion rates, offering insights into user behavior.

Learn more about user analytics on Dynatrace Docs.

Dynatrace Docs: User Behavior Analysis

READ DOCUMENT

Session Segmentation & User Journey Analysis

Session segmentation helps track and analyze a users journey (also called session, visit, or click path) by breaking interactions into smaller parts. This shows typical user paths, drop-off points, and high-engagement sessions.

Get to know more on Dynatrace Docs.

Dynatrace Docs: Session Segmentation

READ DOCUMENT

Analyze Application Performance

The Performance analysis section displays various performance metrics for your application. By expanding the Review the application overview page, you can access detailed performance analysis options. This helps you monitor key metrics, identify issues, and optimize your application's performance.

Get to know more on Dynatrace Docs.

Dynatrace Docs: Performance Analysis

READ DOCUMENT

Understand and Utilize Metrics

Understanding and using metrics from dashboards helps reveal trends, detect issues, and highlight areas for improvement.

Check out various types of metrics on Dynatrace Docs.

Dynatrace Docs: Metrics

READ DOCUMENT

Dynatrace Docs: Built-in Metrics on Grail

READ DOCUMENT

Dynatrace Docs: Metrics Classic

READ DOCUMENT

Call to Action

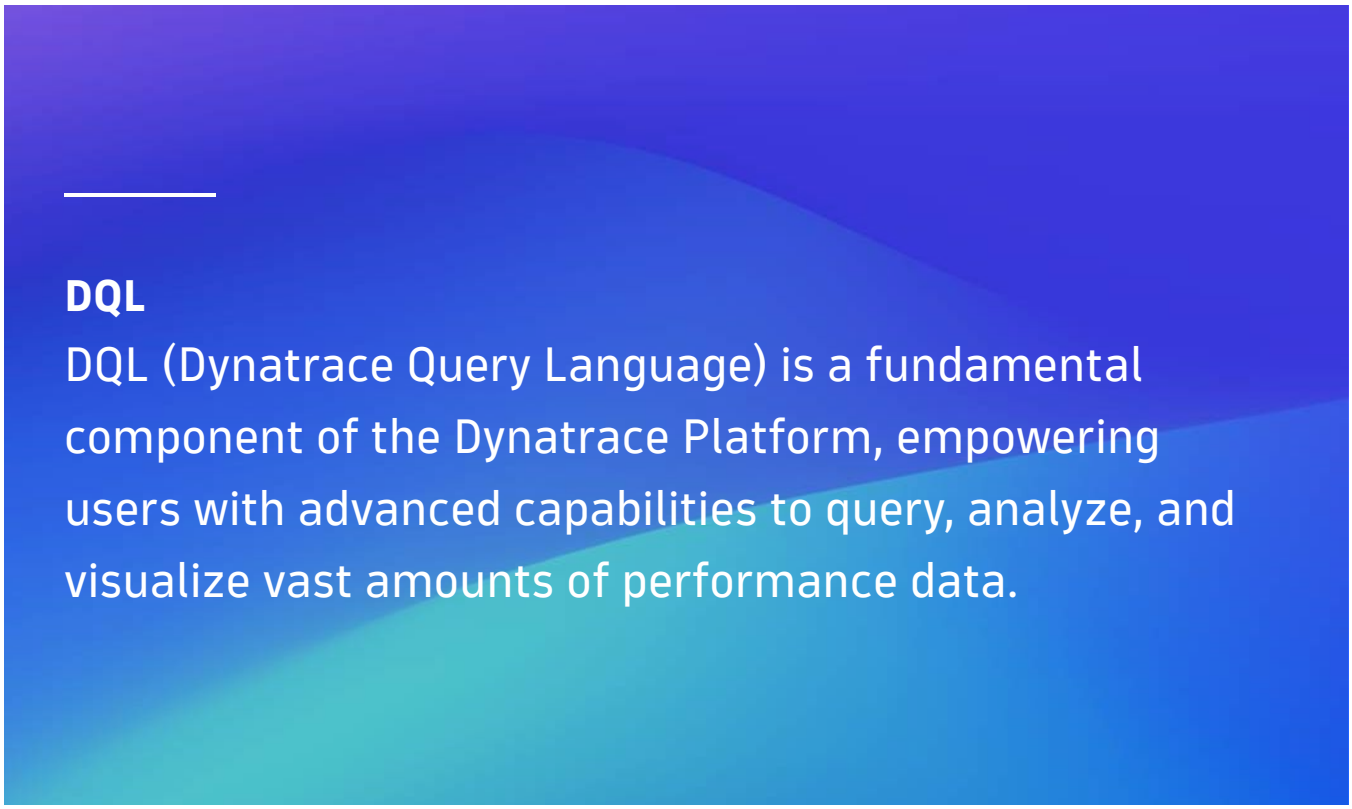
To help you gain hands on experience in this subject area it is recommended that you take the following actions.

Complete the following in the Dynatrace Playground or in your own tenant:

1. Start exploring the RUM data. Notice how the data is accessible in many different ways, not just within Notebooks and Dashboards.

2. Explore metric data. You may have already accessed metrics in a Notebook or Dashboard, how does a tool like the "Data Explorer" show this differently?

DQL (Dynatrace Query Language)



In this chapter you will focus on:

- Understanding DQL
- Running DQL Queries
- Creating Simple DQL Queries

DQL (Dynatrace Query Language)

DQL (Dynatrace Query Language) is a powerful tool to explore data. With DQL, you can spot trends, find anomalies and outliers, statistical modeling and understand system behavior. The data is stored in Dynatrace Grail storage. DQL is built for processing arbitrary event data and requires no up-front description of the input data's schema contrary to relational databases like SQL tables.

Learn more about DQL with these resources:

A Practical Guide to DQL (Dynatrace Query Language)

Estimated Time: 36 mins.

WATCH VIDEO

Dynatrace Docs: Dynatrace Query Language

VISIT PAGE

Dynatrace Docs: How to Use DQL Queries

VISIT PAGE

Call to Action

To help you gain hands on experience in this subject area it is recommended that you take the following actions.

1. Complete the "Beginners Exercise" on and practice handling basic commends with DQL language.

Security

In this chapter you will focus on:

- Understanding Dynatrace Security Measure.
- Using Davis Security Advisor.
- Identifying Third-Party Vulnerabilities.
- Addressing Code-Level Vulnerabilities.
- Performing Security Investigations.

- Responding to Security Notifications.

Security

Dynatrace incorporates robust security measures, including encryption, access controls, and compliance with industry standards, to protect sensitive data and ensure the integrity of monitoring processes. The platform continuously monitors for vulnerabilities and potential threats, to proactively address security risks and maintain resilience against attacks.

Visit resources to learn more on Application Security.

Dynatrace Docs: Application Security

READ DOCUMENT

Dynatrace Hub: Application Security

VISIT WEBSITE

Third-Party Vulnerabilities

Third-party vulnerabilities are weaknesses in external vendors' systems, software, or processes that can be exploited to compromise an organization's security. These vulnerabilities often lie outside the direct control of the organization, making them harder to detect and mitigate. Common sources include software flaws, inadequate security protocols, and lack of visibility into vendor practices.

Read more on Dynatrace Documents.

Dynatrace Docs: Third-Party Vulnerabilities

READ DOCUMENT

Davis Security Advisor

The Davis Security Advisor is displayed in Third-Party Vulnerabilities above the vulnerability list on the Third-party vulnerabilities page. It recommends the fixes that would most improve the overall security of your environment.

Visit Dynatrace Docs to learn more on Davis Security Advisor.

Dynatrace Docs: Davis Security Advisor Calculations

READ DOCUMENT

Dynatrace Docs: Davis Security Score Calculations

READ DOCUMENT

Code-Level Vulnerabilities

Code-level vulnerabilities are flaws in software code that can be exploited to compromise security. They often stem from coding errors, insecure libraries, or poor security practices. Addressing these vulnerabilities can help to prevent data breaches, system crashes, and unauthorized access.

Read more on Dynatrace Documents.

Dynatrace Docs: Code-Level Vulnerabilities

READ DOCUMENT

Security Investigator

Security Investigator is designed to streamline evidence driven investigations on data in Grail. It features assisted functionalities and automations to expedite and support investigation resolution, leveraging logs, metrics, and traces.

Read more on Dynatrace Documents.

Dynatrace Docs: Security Investigator

READ DOCUMENT

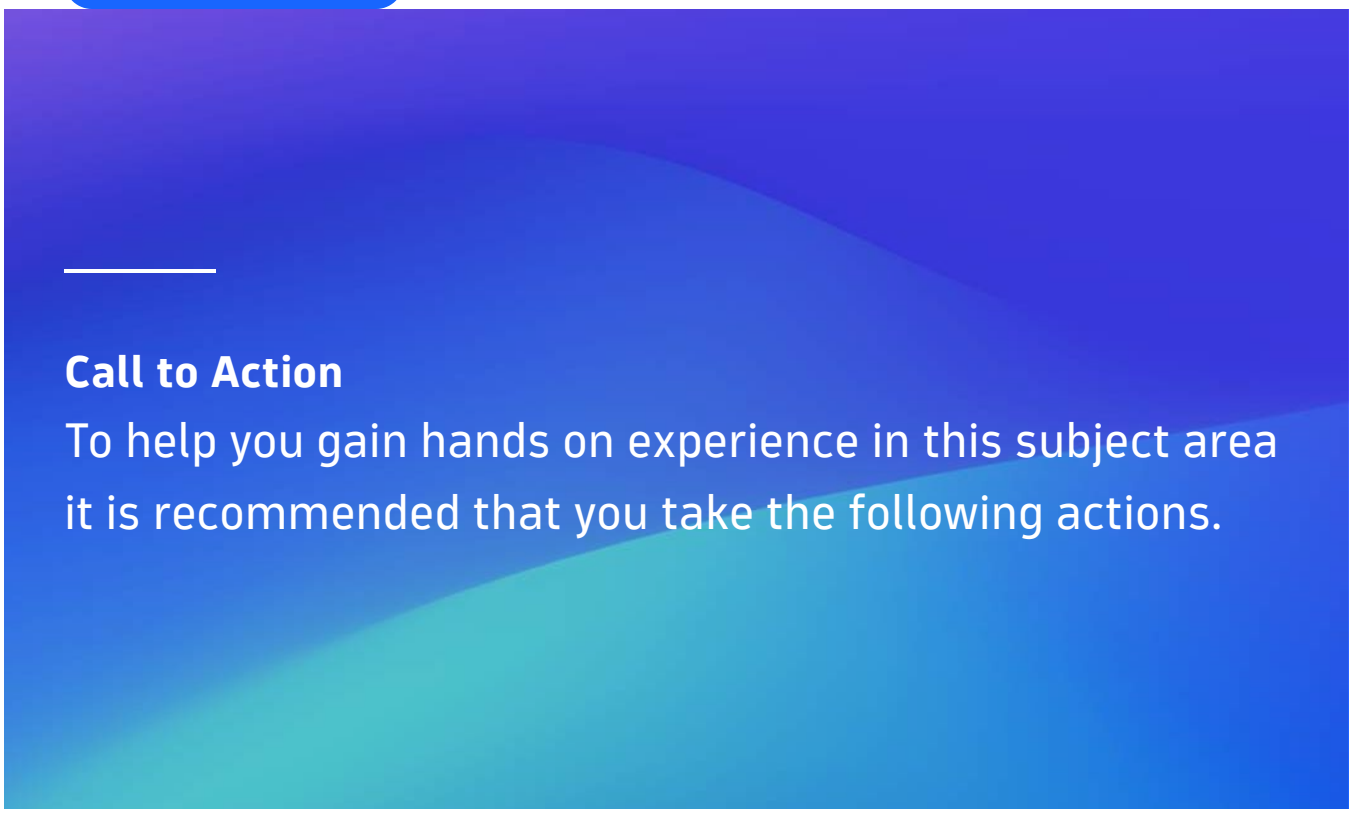
Vulnerabilities

Vulnerabilities helps you detect, visualize, analyze, monitor, and fix vulnerabilities in your application stack. It can identify code-level, third-party, and runtime vulnerabilities, showing all issues in a combined, prioritized view.

Explore more on the Dynatrace Docs.

Dynatrace Docs: Vulnerabilities

READ DOCUMENT

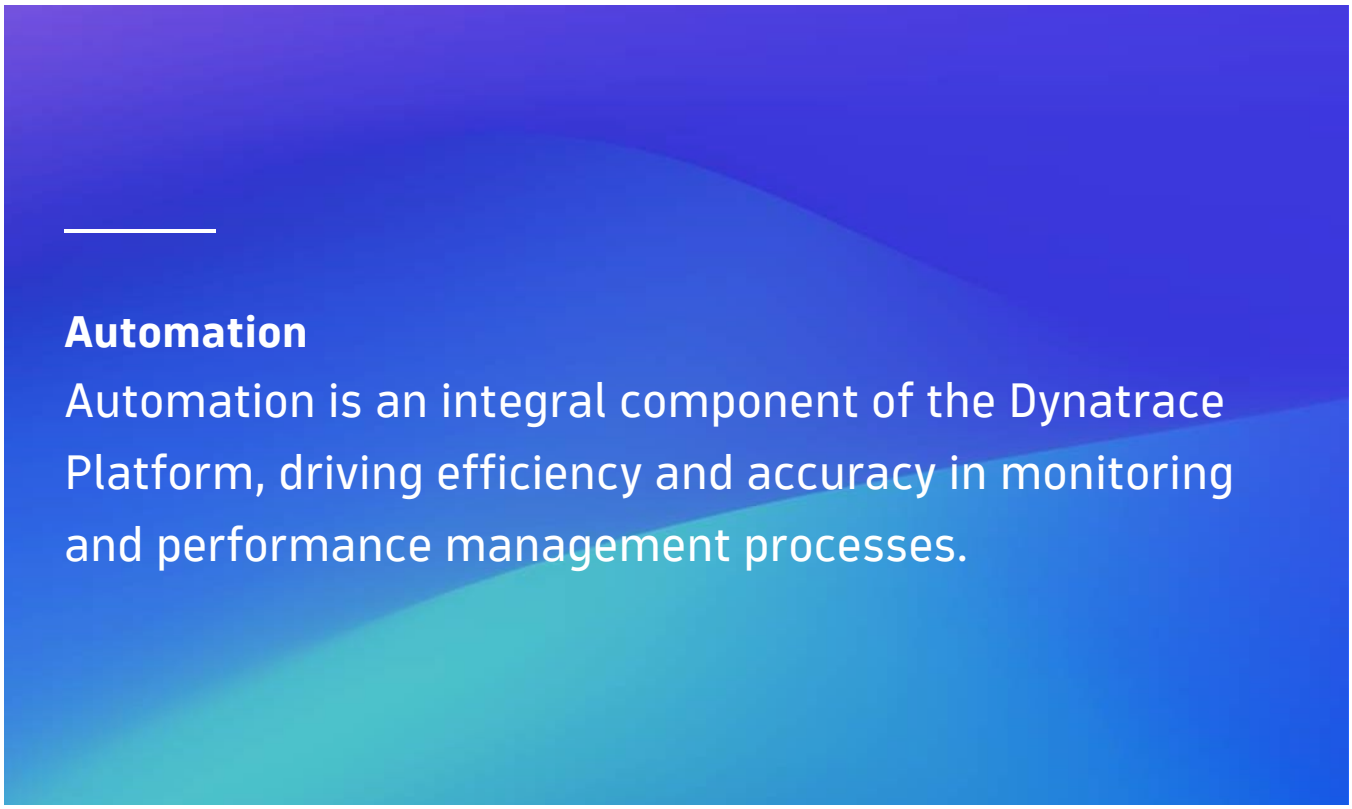


Using the Dynatrace Playground complete the following:

1. Explore the vulnerabilities that are detected. What are the critical vulnerabilities? Do you see how Dynatrace detects if sensitive data is connected to the detection?

2. Consider what happens in your organization when someone (or a tool) detects a vulnerability. Is there an automatic process present to create actionable items or tickets? How can Dynatrace integrate into a tool like this?

Automation



In this chapter you will focus on:

- Understanding at Dynatrace.
- Automating Workflows.

Automation

Dynatrace uses automation to streamline tasks like anomaly detection, root cause analysis, and performance optimization. The **AutomationEngine** leverages AI-driven insights to

automate workflows across observability, security, and business data, making it easy to create and manage automated processes with no-code and low-code tools.

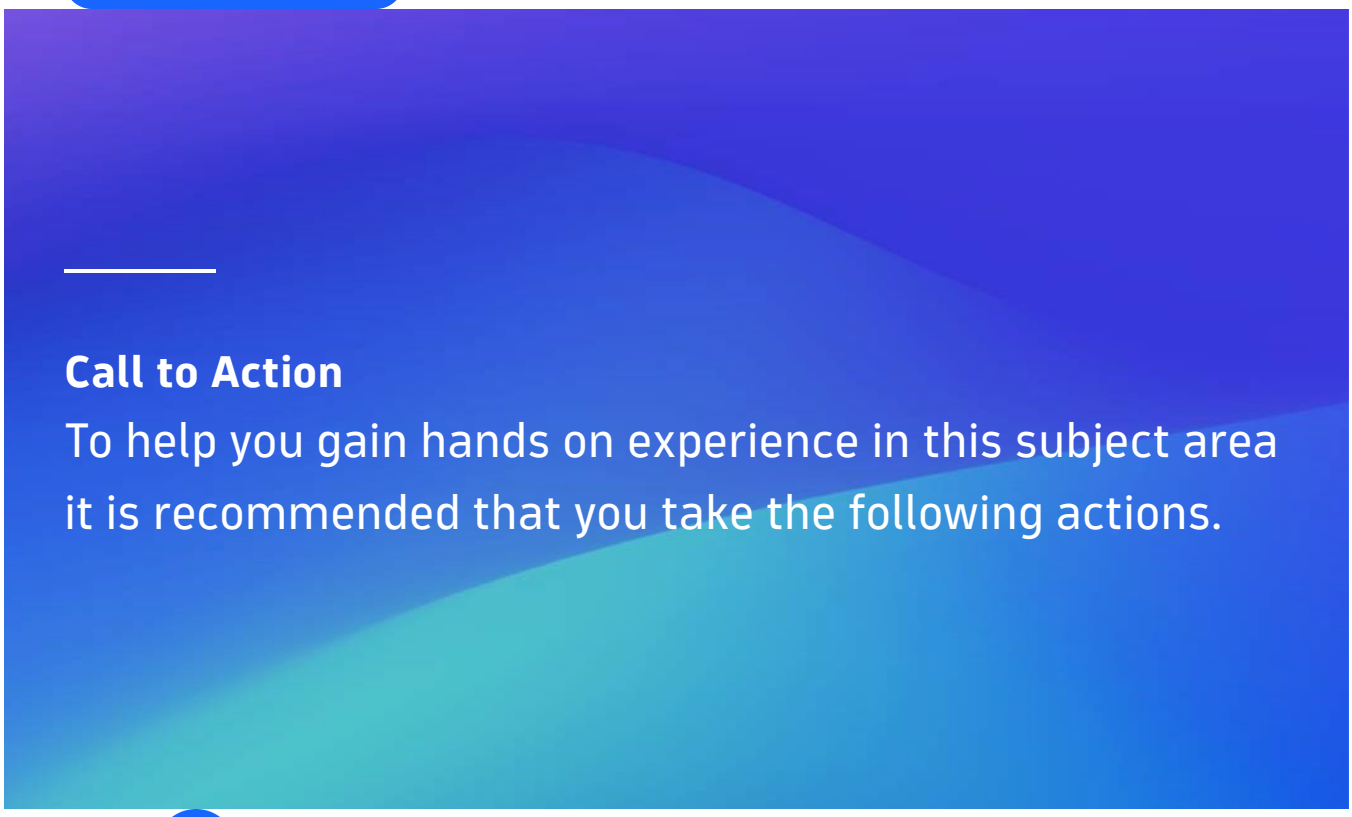
Learn more automation for manual tasks on Dynatrace Docs.

Dynatrace Docs: AutomationEngine

READ DOCUMENT

Dynatrace Docs: Introduction to Workflows

READ DOCUMENT



1 Use the Workflows Quick Start Guide practice automating a workflow.

Ingestion

In this chapter you will focus on the basics of:

- Understanding Ingestion Mechanisms
- Analyzing Log Ingestion
- Exploring Cloud Integrations
- Monitoring VMware Monitor Hub

Ingestion

Dynatrace collects metrics, logs, traces, and other data to give a complete view of system performance and behavior. This allows for real-time monitoring, analysis, and proactive management of applications and infrastructure. Users can detect issues, optimize performance, and ensure great user experiences.

Log Ingestion

Log ingestion is the process of collecting log data from various sources within an infrastructure. The logs are stored in the Grail data lakehouse for analysis, automation, and monitoring. OneAgent simplifies this by automatically discovering logs and offering central management options. In serverless environments or where OneAgent installation isn't possible, the Logs Ingestion API can be used.

Learn more on Dynatrace Docs.

Dynatrace Docs: Log Ingestion

READ DOCUMENT

Cloud Integrations

Learn more on Dynatrace Docs.

Dynatrace Docs: Cloud Integrations

READ DOCUMENT

VMware Monitor Hub

VMware Monitor Hub enables the ingestion of metrics and logs from VMware vSphere environments. It connects to vCenter to gather data on clusters, hosts, VMs, datastores, and disks, helping monitor health and performance.

Learn more on Dynatrace Docs.

Dynatrace Docs: VMware vSphere Monitoring

READ DOCUMENT

Other

In this chapter you will focus on:

- Understanding Dynatrace Topology
- Investigating Logs
- Understanding Use Cases for the Software Hub

Dynatrace Topology

Dynatrace Topology, visualized through **Smartscape**, automatically discovers and maps all components and dependencies in your application environment. It provides a real-time, interactive view of your entire technology stack, helping you understand how everything is interconnected.

Learn more on Dynatrace Docs.

Dynatrace Docs: Visualize your environment topology through Smartscape

READ DOCUMENT

Investigate Logs

Log Management and Analytics gives you direct access to the log content of all your system's mission-critical processes. Log data typically contain a lot of information. One way to handle a large amount of data is to narrow down the log records and parse them.

Learn more on Dynatrace Docs.

Dynatrace Docs: Log Content Analysis

READ DOCUMENT

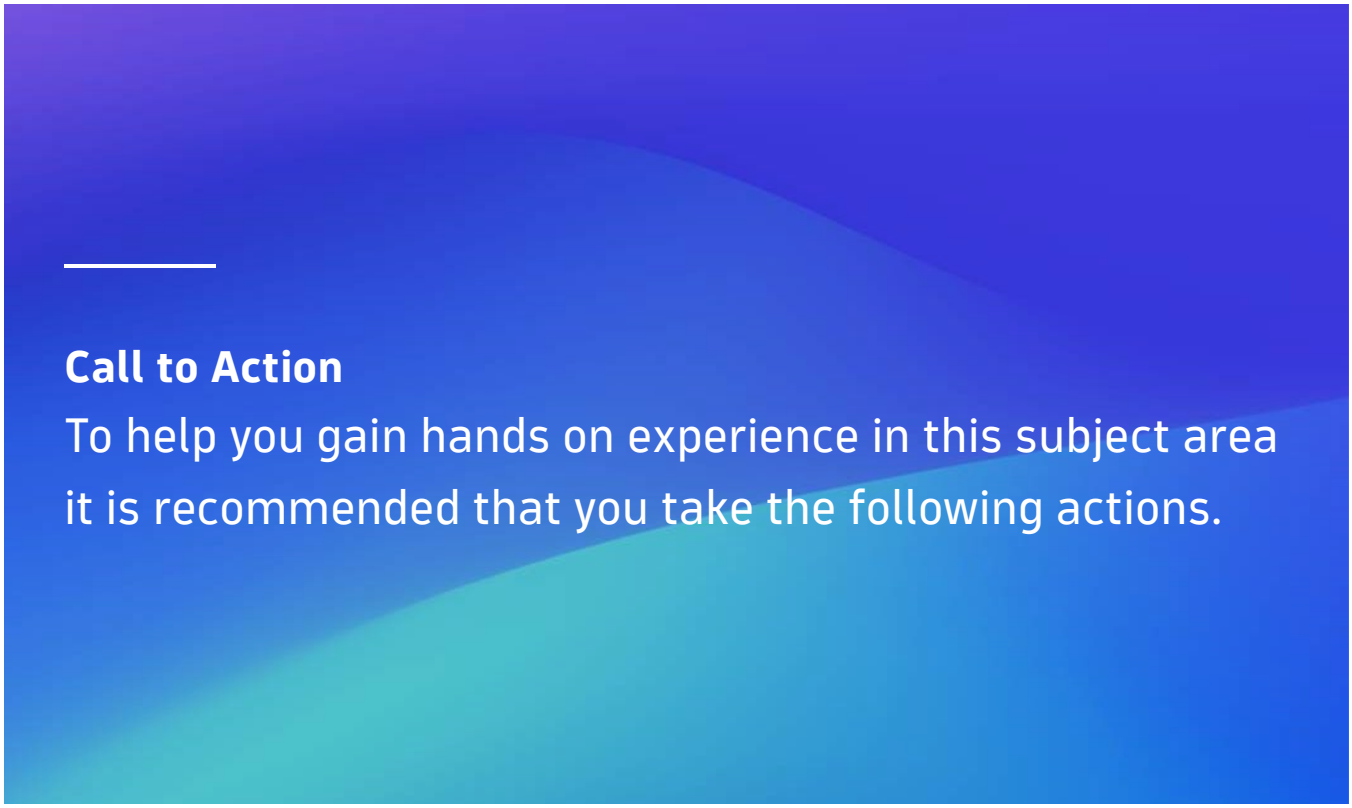
Dynatrace Hub

The Dynatrace Hub enhances software development and deployment through automated observability, cloud integration, continuous delivery, and IT operations management. It leverages AI-powered insights to monitor applications, optimize performance, and ensure operational excellence across multi-cloud environments.

Learn more on Dynatrace Docs.

Dynatrace Docs: Dynatrace Hub

READ DOCUMENT



1. Throughout this learning path, you've gone through a lot of different types of entities. Ensure you know how to separate them when looking at data (for example, the difference between Hosts and Process Groups).

2. Dynatrace can do much more than just investigate lines of log data. Can you find any examples of log events or metrics in the Dynatrace Playground? (Hint: Try searching for the prefix "log." in the Metrics app)