APM & Distributed Tracing Fundamentals

01 Introduction

The APM & Distributed Tracing Fundamentals exam is intended for individuals who can effectively demonstrate an overall knowledge of Datadog's APM & Distributed Tracing product, independent of a specific job role.

This exam will test and validate knowledge on the following topics:

- Explain the rationale for using APM
- Understand different tracing architectures
- Understand language level differences in automatic instrumentation
- Understand how to instrument applications manually
- Understand how to use APM features including
  – Services
  – Search Syntax
  – Trace vs Live
  – Flame Graphs
  – Deployment Tracking
  – Error Tracking
- Visualize insights using
  – Service Performance Dashboards
  – Generated Metrics
  – Apdex Scores
- Troubleshoot Applications using
  – Trace Search
  – Monitors & Alerting

See **Content outline**, below for a complete list of the topics that this exam covers.

Each exam has a maximum seat time of 2 hours.

02 Target Candidates

Ideal candidates have at least 6 months of experience using the Datadog APM & Distributed Tracing product and associated features. Candidates will demonstrate an understanding of how APM works and how it is best used in production.

RECOMMENDED DATADOG KNOWLEDGE

A Target Candidate should have the following knowledge:

- General Application Performance Monitoring (APM)
- Datadog APM setup and use
- Datadog tracing libraries
- Instrumentation Types
- Trace/Log Correlation
- Datadog APM
  – Services
  – Search Syntax
  – Trace vs Live
  – Trace Search
  – Flame Graphs
  – Profile Collection
  – Deployment Tracking
  – Error Tracking
  – Monitors and Alerting

03   Out of Scope

The following is a list (non-exhaustive) of specific job tasks that earners will not be required to perform:

- Programming
- Systems Architecture
- Testing

04   Exam Content and Outline

QUESTION TYPE

The exam only contains one type of question:

- **Multiple choice:** Has one correct response and two or more incorrect responses (distractors)

Select the response that best answers the question posed. Incorrect answers, also known as distractors, are options that can be a plausible response for the question's content area. Unanswered questions are scored as incorrect.

The exam includes 75 questions that will affect your score.

PRE TEST ITEMS

The exam includes 15 pre-test (unscored) questions that do not affect your score. Datadog collects information about candidate performance on pretest questions to evaluate them for future use on exam forms. Pretest questions are not identified to the candidate on the exam.

CONTENT OUTLINE

The Exam Content Outline includes the knowledge domains and related subdomains of content on the exam.

APM Fundamentals
APM Rationale
Datadog Approach to APM
Tracing Architectures
Language Level Differences—Automatic Instrumentation
OOTB Tracer vs Community Tracer
Tagging
Retention Periods for APM Data

Application Instrumentation
Datadog Tracing Libraries
Instrumentation Types
Datadog Agent Architecture
Sampling vs Retention
APM Data Security
Trace/Log Correlation
Connecting RUM and Traces
Profile Collection
Deployment Tracking
Insight Discovery
Services
Search Syntax
Trace Live vs Retained Search
Profiler Flame Graphs
Deployment Tracking
Identifying Slow Endpoints
Error Tracking
Span Summary
Visualizing Insights
Service Performance Dashboards
Generating Metrics
Calculating Apdex Scores
Troubleshooting Application using APM
Using Trace Search (during incident)
Monitors & Alerting

05   Study and Preparation

It is expected that you have done some preparation for the exam. This can include not only using the platform, but also taking some of Datadog's recommended courses and reading relevant documentation. Below please find a list of recommended materials to go over to get you started.

COURSES

- Introduction to Application Performance Management
- Introduction to Integrations
- Tracking Canary Deployments with Datadog

DOCUMENTATION

- APM & Continuous Profiler
- Getting Started with Tags
- Watchdog Insights for Logs
- Anomaly Monitor
- SLOs
- Datadog Lambda Extension
- Advanced Usage — ddtrace documentation