

# DataDog Course Content(3 days)

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## Getting started

What is Datadog?

**Discussion:** Problem specification for Datadog

1. Datadog as a solution for low visibility across multistack environments
2. Datadog application performance monitoring (APM) and Continuous Profiler
3. Request tracing, log management, metric collection, and analysis with AI
4. Real user monitoring and traffic observing on premises, in the cloud, and hybrid
5. Datadog as a trend visualization tool; dashboards explained
6. Alerts and collaboration on monitoring and keeping systems up
7. Security and compliance monitoring with Datadog
8. Datadog's usage tiers and pricing models (how to get what you need)

## Agent

- Basic Agent Usage
- Kubernetes
- Autodiscovery
- Proxy
- Network
- Prometheus Checks
- Troubleshooting
- Adding Python packages
- Security

## Datadog Watchdog

- Overview

## Datadog Alerting

- Monitor Types
- Manage Monitor

- Check Summary
- Notifications
- Downtimes

## **Datadog Log Management**

- Log Collection & Integrations
- Processing
- Live Tail
- Explorer
- Logging without Limits
- Log monitor
- Archives
- Security

## **Datadog Datadog API**

- Overview
- Authentication
- Success and errors
- Rate limiting
- Troubleshooting
- Service Checks
- Comments
- Dashboard Lists
- Downtimes

## **Datadog Security**

- Agent
- APM (Tracing)
- Log Management
- Other considerations

## **Datadog Tagging**

- Assigning Tags
- Using Tags

## **Datadog Graphing**

- Dashboards
- Metrics
- Notebooks

- Event Stream
- Infrastructure
- From the query to the graph
- Graphing JSON

## **Datadog APM (Tracing)**

- Setup
- Advanced Usage
- Use the APM UI
- Getting Further
- Trace API
- Community Libraries

## **Datadog Developer Tools**

- DogStatsD
- Metrics
- Libraries
- Community Office Hours
- Write an Agent Check
- Write a Prometheus Check
- Integrations

## **datadog Account Management**

- Team management
- Organization settings
- SSO with SAML
- Multi-org accounts

## **Part 1: Getting Started With Datadog** **Exercise: Datadog Agent installation on all environments.**

1. Installing Datadog on workstations (Linux and Windows)
2. Installing Datadog in the cloud
3. Setting up distributed instances over a hybrid infrastructure

## **Part 2: Datadog Integrations**

1. Exploration of available integrations
2. **Exercise:** Activating "Agent Autodiscovery"
3. Installation of multiple integrations; mirroring your stack
4. **Exercise:** Configuring infrastructure and database integrations

1. Connecting AWS and MongoDB using the agent

### **Part 3: Datadog Dashboards**

1. **Exercise:** Exploring Datadog default dashboards
2. Creating custom dashboards using metrics widgets
3. Introduction to Datadog Notebooks
4. **Exercise:** Creating a postmortem notebook

### **Part 4: Monitoring Logs With Datadog**

1. **Discussion:** Collecting and managing logs with Datadog
2. Discovering and mastering tags
3. How to configure Datadog to collect logs from different environments
4. Creating log integration pipelines
5. Making sure Datadog collects the right logs
6. **Exercise:** Setting up log collection between **Docker** and a **Ruby on Rails** app
  1. Fresh environment preparation (Docker)
  2. Configuring Datadog for log collection
  3. Ruby on Rails: Datadog integration configuration
  4. Analyzing collected logs

### **Part 5: Using Datadog as an APM Tool (Tracing)**

1. **Discussion:** Exploring Datadog tracing terminology and use cases
2. Discovering how to use Datadog's APM features
3. Setting up environments for monitoring
4. Optimizing Datadog for end-to-end tracing (latency and errors)
5. How to analyze trace data
6. **Exercise:** Configuring APM for the environment and app in Part 4
  1. Analyzing trace data for the app

### **Part 6: Continuous Profiling With Datadog**

1. Discovering the advantages of profiling
2. A demonstration of how to set up, run, test, and clean profiles

### **Part 7: Synthetic Testing**

1. How to conduct synthetic tests with Datadog
2. **Exercise:** Testing APIs and browser tests with Datadog

### **Part 8: Monitoring Kubernetes With Datadog**

1. How to configure the Datadog agent for K8s monitoring
2. Setting up logs in K8s
3. Switching on K8s APM with Datadog
4. Kubernetes end-to-end monitoring with Datadog