

## Continuous Integration Tool

Jenkins – a free open-source CI tool that is written in Java and requires a web server to operate on. Similar to other CI tools, Jenkins allows for automating builds, tests, and delivering/deploying software. Jenkins can be installed through native system packages, Docker, or even run standalone by any machine with a Java Runtime Environment (JRE) installed.

Jenkins has been around since 2011 and is used by thousands of users around the world. Built on the Java Virtual Machine (JVM), it provides more than 1,500 plugins that extend Jenkins to automate with practically any technology software delivery teams use. In 2019, Jenkins surpassed 200,000 known installations making it the most widely deployed automation server.

Jenkins's User Documentation is well thought out with menus to help navigate to desired information. The process to get started is streamlined with their Guided Tour. It starts by advising your prerequisites and then instructions on what to download and what commands to run on your terminal.

Some of the highlights that Jenkins have are:

- Local application
- Completely free
- Deep workflow customization
- Rich in features and plugins
- Easy installation thanks to the pre-installed OS X, Unix and Windows packages
- Made by developers for developers
- A well-established product with an excellent reputation

## APM Tool

Datadog - a tool that helps you monitor and manage your applications. APM enables you to analyze and isolate dependencies, remove bottlenecks, reduce latency, track errors, and increase code efficiency to optimize your application.

Datadog, the leader in cloud-based infrastructure monitoring, filed for a \$100M IPO. The \$100M dollar figure is a placeholder and will almost surely rise significantly in the actual offering, after generating \$198.1M of revenue in 2018.

Datadog's Documentation is also pretty straightforward and easy to navigate with the help of menu items to guide you to your desired location of information. There are guides as well to take you step by step with downloading and initializing the tool.

## Features:

- Seamlessly correlate between application performance to logs and underlying infrastructure metrics in one integrated platform.
- Tracing without Limits: Search and analyze 100% of traces (no sampling) in real-time and retain only the ones that matter to you using tag-based rules.
- Continuous Profiling: Analyze code-level performance across your entire stack with minimal overhead, identify your most resource-consuming methods (CPU, memory, etc.) using tags, and correlate it with relevant requests and traces.
- Real User Monitoring (RUM) and Synthetics: Measure and improve your front-end application performance and end-user experience in real-time or by simulating controlled browser and API tests, and tie them to relevant traces, logs, and infrastructure metrics.
- Auto-detect anomalies to surface issues and reduce alert fatigue with ML-based Watchdog.
- Navigate applications seamlessly with the Service Map and other out-of-the-box dashboards and visualizations to reduce resolution time and release features more quickly.
- With over 450+ turn-key integrations, Datadog seamlessly aggregates metrics and events across your full DevOps stack.