ELASTIC OBSERVABILITY ENGINEER

Observability is an attribute of a system you build, much like usability, high availability, and stability. The goal of designing and building an observable system is to make sure that when it is running, operators responsible for it can detect undesirable behaviors and have actionable information to pin down the root cause in an effective manner. This course provides a strong foundation on using Elastic to implement unified observability with a single platform. You will learn how to collect logs, metrics, uptime and APM data, and then ship them to a single datastore — Elasticsearch. You will also learn how unified observability data can be made even more actionable through machine learning and alerting, as well as easier to correlate data across different sources. Using Kibana, you will also explore how to visualize your observability data through an intuitive user interface. After completing this course, you will be well on your way to becoming an Elastic Certified Observability Engineer.

LESSONS

All lessons include a hands-on lab.

Getting started

Learn why it is important to collect logs, metrics, traces, and uptime data as well as how Elastic Observability makes them actionable through machine learning and alerting, making it easier to find and fix issues before they impact your customers. Also learn how you can use Discover to start exploring your observability data.

Structuring and processing data

Learn how to structure and process your unstructured data using Elasticsearch ingest nodes. You will learn how to use ingest pipelines to structure your data before indexing it into Elasticsearch. You will also learn how to use ingest pipelines for converting, enriching and processing your data in any way you want.

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COURSE INFORMATION

Audience

- Software Developers
- Software Engineers
- Data Architects
- System Administrators
- DevOps

Duration

24 Hours

Language

English

Prerequisites

- No prior knowledge of the Elastic Stack required
- Working knowledge of Linux terminal commands and editors recommended

Requirements

- Stable internet connection
- Mac, Linux, or Windows
- Latest version of Chrome or Firefox (other browsers not supported)
- Disable any ad blockers and restart your browser before class

elastic

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LESSONS

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Collecting logs and metrics

The Elastic Agent is a single, unified way to add monitoring of logs, metrics, and other data. Learn how to use the Elastic Agent along with Fleet and Integrations to collect logs and metrics from popular services and platforms.

Collecting APM data

Learn how Elastic APM can help monitor your applications and services in real time as well as which Elastic components you need to collect traces, errors, performance metrics and user experience data. Discover how Elastic APM supports distributed tracing and how it enables you to analyze performance throughout your microservice architecture all in one view.

Working with Observability data

Learn how to use the Logs app to monitor all of the log events flowing in from your servers and the Infrastructure app to visualize infrastructure metrics that help diagnose issues in your architecture. Also learn how to use the APM app to monitor your software services and applications in real-time as well as visualize detailed performance information on your services, identify and analyze errors. And learn how you can use the User Experience app to quantify and analyze the perceived performance of your web applications.

Actionable observability data

Learn how extracting new insights from your observability data is as simple as clicking a button, making machine learning truly operational. Also learn how to use time series modeling to detect anomalies in your current data and forecast trends based on historical data as well as how to configure alerts on top of machine learning to get notified when anomalies are found in your observability data.

Visualizing observability data

Learn how to leverage Kibana as an observability visualization platform. You will learn to visualize your data in different ways through preconfigured and editable dashboards. You will also learn how to create your own dashboards and visualizations to combine different sources of data that provide you a more unified view of your observability data.

Managing observability data

Learn why and how data streams are well-suited for logs, metrics, traces, and other data. Also learn how index lifecycle management (ILM) is implemented through the hot-warm-cold-frozen architecture to automate how your data streams are managed over time. Finally, learn how to use snapshots to backup your data streams and how searchable snapshots let you use snapshots to search infrequently accessed and read-only data in a very cost-effective fashion.