

OEC132

Elastic Certified Engineer

Durata: 5 gg

Descrizione

Il corso ha come obiettivo quello di trasferire le competenze fondamentali e il giusto mindset per poter operare con gli strumenti dello stack ELK (ElasticSearch, Logstash, Kibana), mettendo in luce i punti di forza di queste tecnologie e le migliori pratiche per il loro utilizzo.

Inoltre mira a dare una comprensione più approfondita delle funzionalità di ricerca ed elaborazione di dati, una visione completa degli strumenti di visualizzazione dati.

Il corso è finalizzato all'acquisizione della certificazione Elastic Certified Engineer.

A chi è rivolto?

Il corso è rivolto ad amministratori di sistema, sviluppatori software, data analyst o responsabili di settore aziendali in cui si processano grandi flussi di dati e si vuole dare una comprensione delle problematiche tecniche a cui si deve fare fronte e a cui ElasticSearch dà una risposta.

Prerequisiti

Per la partecipazione al corso sono richieste competenze in ambito sistemistico generali, molto apprezzate saranno le competenze in ambito Linux.

In alternativa è possibile fruire al meglio del corso se si è dotati di una buona conoscenza delle architetture software, prettamente basate sul modello client/server su reti TCP/IP.

Contenuti

Getting Started

- Course Overview
- Elasticsearch Overview

Installation and Configuration

- Deploy, Configure, and Start an Elasticsearch Cluster That Satisfies a Given Set of Requirements
- Secure a Cluster Using Elasticsearch Security
- Define Role-Based Access Control Using Elasticsearch Security
- Deploy and Configure a Multi-Node Elasticsearch Cluster
- Encrypt Cluster and Client Elasticsearch Networks
- Configure User Access Control for Elasticsearch

Indexing Data

- Define an Index That Satisfies a Given Set of Requirements
- Perform Index, Create, Read, Update, and Delete Operations on the Documents of an Index
- Define and Use Index Aliases
- Define and Use an Index Template for a Given Pattern that Satisfies a Given Set of Requirements
- Define and Use a Dynamic Template That Satisfies a Given Set of Requirements
- Use the Reindex API and Update by Query API to Reindex and/or Update Documents
- Define and Use an Ingest Pipeline That Satisfies a Given Set of Requirements, Including the Use of Painless to Modify Documents
- Define Elasticsearch Indices and Aliases
- Define Elasticsearch Index Templates and Dynamic Mappings
- Perform CRUD Operations on Documents in Elasticsearch
- Reindex Elasticsearch Documents

Mappings and Text Analysis

- Define a Mapping That Satisfies a Given Set of Requirements
- Define and Use a Custom Analyzer That Satisfies a Given Set of Requirements
- Define and Use Multi-Fields with Different Data Types and/or Analyzers
- Configure an Index So That It Properly Maintains the Relationships of Nested Arrays of Objects
- Configure an Index That Implements a Parent/Child Relationship
- Define Mappings in Elasticsearch
- Define and Use Custom Elasticsearch Analyzers

Cluster Administration

- Allocate the Shards of an Index to Specific Nodes Based on a Given Set of Requirements
- Configure Shard Allocation Awareness and Forced Awareness for an Index
- Diagnose Shard Issues and Repair a Cluster's Health
- Back Up and Restore a Cluster and/or Specific Indices
- Configure a Cluster for Use with a Hot/Warm Architecture
- Configure a Cluster for Cross-Cluster Search
- Allocate Shards of Indices to Specific Elasticsearch Nodes
- Configure Shard Allocation and Forced Awareness in Elasticsearch
- Back Up and Restore Elasticsearch Indices
- Configure Elasticsearch Clusters for Cross-Cluster Search
- Diagnose and Repair Elasticsearch Clusters

Queries

- Write and Execute a Search Query for Terms and/or Phrases in One or More Fields of an Index
- Write and Execute a Search Query That is a Boolean Combination of Multiple Queries and Filters
- Highlight the Search Terms in the Response of a Query
- Sort the Results of a Query by a Given Set of Requirements
- Implement Pagination of the Results of a Search Query

- Use the Scroll API to Retrieve Large Numbers of Results
- Apply Fuzzy Matching to a Query
- Define and Use a Search Template
- Write and Execute a Query That Searches Across Multiple Clusters
- Define and Execute Search Queries in Elasticsearch
- Define and Use a Search Template in Elasticsearch

Aggregations

- Write and Execute Metric and Bucket Aggregations
- Write and Execute Aggregations That Contain Sub-Aggregations
- Write and Execute Pipeline Aggregations
- Define and Execute Aggregations in Elasticsearch