Elasticsearch

Course Duration: 32 Hours (4 Days)

Overview

The Elasticsearch course is designed to equip learners with the knowledge and skills necessary to effectively deploy, manage, and utilize Elasticsearch, a powerful open-source, distributed search, and analytics engine. Throughout the course, participants will engage with various modules, beginning with an introduction to Elasticsearch, where they will learn about its use cases and terminologies, setting the foundation for the rest of the program. As learners progress, they will delve into practical aspects such as Installing and configuring Elasticsearch and Kibana, understanding Indexing data, mastering Mapping and Text analysis, and managing Cluster administration. Advanced topics include Writing complex queries, implementing aggregations, and Ensuring cluster security. By the end of the course, students will be well-prepared to pursue the Elastic Engineer Certification, demonstrating their proficiency in managing and operating Elasticsearch clusters. This comprehensive course Elasticsearch provides a blend of theoretical knowledge and hands-on experience, making it an invaluable resource for anyone looking to become proficient in Elasticsearch.

Audience Profile

Koenig Solutions' Elasticsearch course offers comprehensive training on deploying, managing, and utilizing the powerful search and analytics engine Target audience and job roles for the Elasticsearch course include:

- Data Analysts seeking to visualize and interpret complex data sets
- DevOps Engineers responsible for maintaining scalable and highly available systems
- Software Developers who implement search and analytics features within applications
- System Administrators managing and optimizing the performance of Elasticsearch clusters
- Search Engineers designing advanced search capabilities
- Data Scientists needing to process and analyse large volumes of data quickly
- IT Professionals aiming to understand Elasticsearch as part of a larger tech stack
- Database Administrators transitioning to or integrating with Elasticsearch systems
- Data Architects designing systems that include search and analytics functions
- Security Analysts focused on securing and monitoring Elasticsearch clusters
- Machine Learning Engineers leveraging Elasticsearch for data retrieval in ML models
- Technical Managers overseeing teams that use Elasticsearch in their projects
- Cloud Engineers who deploy and manage Elasticsearch on cloud platforms

Course Syllabus

Module 1 – Introduction

- Overview of Elastic Search
- Use Case
- Elastic Search Terminologies

Module 2 – Installation and Configuration

- Lab: Deploy Elastic Search
- Lab: Create a Single Node Cluster and Join Another Nodes

- Lab: Configure cluster nodes
- Lab: Deploy and configure Kibana

Module 3 - Indexing Data

- Lab: Create, Read, Update and Delete Operation in Elasticsearch
- Lab: Bulk API
- Lab: Index Templates
- Lab: Create custom & dynamic Index Templates
- Lab: Reindexing or Updating Documents

Module 4 - Mapping and Text Analysis

- Lab: Define Index Mapping
- Lab: Managing Custom Analyzer
- Lab: Analyzers
- Lab: Field Mappings

Module 5 - Cluster Administration

- Lab: Allocate the Shard of an Index to Specific Nodes
- Lab: Managing Users and Roles Using Kibana
- Lab: Back Up and Restore a Cluster
- Lab: Backup and Restore Specific Indices
- Lab: Configure a Cluster for Use with a Hot/Warm Architecture
- Configure Cross-Cluster

Module 6 - Queries

- Lab: Search Query
- Lab: Multiple Queries into one
- Lab: Highlighting the Search Terms
- Lab: Sor/ng the Query Results
- Lab: Implement Pagination

Module 7 – Aggregations

- Lab: Metric and Bucket Aggregations
- Lab: Nested Metric Aggregations