



# Elastic Stack Workshop

ElasticNew - Version: 1

 2 days Course

## Description:

This two-day instructor-led course provides students with the knowledge and skills to implement and develop systems with Elasticsearch. The course focuses on teaching individuals how to design Elasticsearch environment, setup and configure, create indices and build simple and complex queries.

This course also gives an overview of Elastic Stack: Elasticsearch, Logstash and Kibana. We'll explore How to load data into Elasticsearch with logstash, search, analyze and visualize it with Kibana.

## Intended audience:

This course is intended for Database Administrators, Developers, Developer Operations, and System Architects.

## Prerequisites:

Familiarity with programming concepts and information systems

## Objectives:

- Elasticsearch Cluster Architecture
- Setup and configuration
- Index Mapping and Data Manipulations
- Querying Elasticsearch
- Introduction to Logstash
- Introduction to Kibana

## Topics:

Module 01 - Introduction to Elasticsearch

- What is Elasticsearch?
- Lucene
- ELK and elastic products
- Elasticsearch Architecture
- latest Version New Features

## Module 02 - Setup and Configuration

- Setup an Elasticsearch cluster
- Configuration
- elasticsearch.yml
- Configuration Tips
- Lab 02 - Setup and Configuration

## Module 03 - Mapping and Data Manipulations

- Elasticsearch Mapping and data types
- Dynamic Mapping
- Analyzers
- Nested Object, Parent-Child and Geospatial support
- Mapping Changes
- Mapping Templates
- Data Manipulations
- Lab 03 - Mapping and Data Manipulations

## Module 04 - Querying Elasticsearch

- Search API
- Simple Query Examples
- Query DSL
- Complex Queries
- Aggregations
- Lab 04 - Querying Elasticsearch

## Module 05 - Introduction to Logstash

- What is Logstash?
- Configuration
- Inputs and filters
- Lab 05 – Load data with Logstash

## Module 06 - Introduction to Kibana

- What is Kibana?
- Installation and Configuration
- Discover your data
- Create a new visualization
- Create a Dashboard
- Lab 06 – Create Dashboard and Visualizations

## Module 07 - Introduction to Beats and APM

- What is Beats?
- Beats Types
- APM
- Lab 07 – Using Metricbeat