

Day - 1

- **DAY 1 First Half - Introducing Elasticsearch**

- Pre-requisites and Course Overview
- A Brief History of Search
- How Does Search Work?
- The Inverted Index
- Lucene, an Open Source Search Library
- Introducing Elasticsearch
- Installing and Setting up Elasticsearch
- Basic Concepts in Elasticsearch
- Monitoring the Health of the Cluster

- **Executing CRUD Operations Using the Elasticsearch APIs**

- Introducing the cURL Command Line Utility
- Creating Indices
- Adding Documents to an Index
- Retrieving Whole and Partial Documents
- Updating Whole and Partial Documents
- Deleting Documents and Indices
- Performing Bulk Operations on Documents
- Bulk Indexing of Documents from a JSON File

Day - 2

- **DAY 2 First Half - Executing Search Requests Using Elasticsearch Query DSL**

- Recap: How Search Works
- The Query and Filter Context
- Setting up Fake Data for Queries
- Search Using Query Params
- Search Using the Request Body
- Source Filtering Document Contents
- Full Text Searches
- The TF/IDF Algorithm for Relevance
- Queries with Common Terms
- Boolean Compound Queries
- Term Queries and the Boost Parameter
- Search Using the Filter Context

- **DAY 2 Second Half - Executing Analytical Queries Through Aggregations**

- Types of Aggregation
- Implementing Metric Aggregations
- The Cardinality Aggregation
- Implementing Bucketing Aggregations
- Multi-level Nested Aggregations
- The Filter and Filters Bucketing Aggregations

