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Autore	Kuc Rafa
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Nota di contenuto	Cover; Copyright; Credits; About the Authors; About the Reviewer; www.PacktPub.com; Table of Contents; Preface; Chapter 1: Getting Started with Elasticsearch Cluster; Chapter 2: Indexing Your Data; Chapter 3: Searching Your Data; Chapter 4: Extending Your Querying Knowledge; Chapter 5: Extending Your Index Structure; Chapter 6: Make Your Search Better; Chapter 7: Aggregations for Data Analysis; Chapter 8: Beyond Full-text Searching; Chapter 9: Elasticsearch Cluster in Detail; Chapter 10: Administrating Your Cluster; Chapter 11: Scaling by Example; Index; Full text searching The basics of ElasticsearchInstalling and configuring your cluster; Manipulating data with the REST API; Searching with the URI request query; Summary; Elasticsearch indexing; Mappings configuration; Batch indexing to speed up your indexing process; Introduction to segment merging; Introduction to routing; Summary; Querying Elasticsearch; Understanding the querying process; Basic queries; Compound queries; Using span queries; Choosing the right query; Summary; Filtering your results; Highlighting; Validating your queries; Sorting data; Query rewrite; Summary; Indexing tree-like structures Indexing data that is not flatUsing nested objects; Using the parent-

child relationship; Modifying your index structure with the update API; Summary; Introduction to Apache Lucene scoring; Scripting capabilities of Elasticsearch; Searching content in different languages; Influencing scores with query boosts; When does index-time boosting make sense?; Words with the same meaning; Understanding the explain information; Summary; Aggregations; Aggregation types; Pipeline aggregations; Summary; Percolator; Elasticsearch spatial capabilities; Using suggesters; The Scroll API; Summary
Understanding node discoveryThe gateway and recovery modules; Templates and dynamic templates; Elasticsearch plugins; Elasticsearch caches; The update settings API; Summary; Elasticsearch time machine; Monitoring your cluster's state and health; Controlling the shard and replica allocation; Controlling cluster rebalancing; The Cat API; Warming up; Index aliasing and using it to simplify your everyday work; Summary; Hardware; Preparing a single Elasticsearch node; Horizontal expansion; Preparing the cluster for high indexing and querying throughput; Monitoring; Summary
The Lucene glossary and architectureInput data analysis; Indexing and querying; Scoring and query relevance; Key concepts of Elasticsearch; Key concepts of the Elasticsearch infrastructure; Indexing and searching; Installing Java; Installing Elasticsearch; Running Elasticsearch; Shutting down Elasticsearch; The directory layout; Configuring Elasticsearch; The system-specific installation and configuration; Understanding the REST API; Storing data in Elasticsearch; Retrieving documents; Updating documents; Deleting documents; Versioning; Sample data; URI search; Query analysis
URI query string parameters

Sommario/riassunto

Leverage Elasticsearch to create a robust, fast, and flexible search solution with ease About This Book Boost the searching capabilities of your system through synonyms, multilingual data handling, nested objects and parent-child documents Deep dive into the world of data aggregation and data analysis with ElasticSearch Explore a wide range of ElasticSearch modules that define the behavior of a cluster Who This Book Is For If you are a competent developer and want to learn about the great and exciting world of ElasticSearch, then this book is for you. No prior knowledge of Java or Apache Lucene is needed. What You Will Learn Configure, create, and retrieve data from your indices Use an ElasticSearch query DSL to create a wide range of queries Discover the highlighting and geographical search features offered by ElasticSearch Find out how to index data that is not flat or data that has a relationship Exploit a prospective search to search for queries not documents Use the aggregations framework to get more from your data and improve your client's search experience Monitor your cluster state and health using the ElasticSearch API as well as third-party monitoring solutions Discover how to properly set up ElasticSearch for various use cases In Detail ElasticSearch is a very fast and scalable open source search engine, designed with distribution and cloud in mind, complete with all the goodies that Apache Lucene has to offer. ElasticSearch's schema-free architecture allows developers to index and search unstructured content, making it perfectly suited for both small projects and large big data warehouses, even those with petabytes of unstructured data. This book will guide you through the world of the most commonly used ElasticSearch server functionalities. You'll start off by getting an understanding of the basics of ElasticSearch and its data indexing functionality. Next, you will see the querying capabilities of ElasticSearch, followed by a through explanation of scoring and search relevance. After this, you will explore the aggregation and data analysis capabilities of ElasticSearch and will learn how cluster administration

and scaling can be used to boost your application performance. You'll find out how to use the friendly REST APIs and how to tune Elasticsearch to make the most of it. By the end of this book, you will have be able to create amazing search solutions as per your project's specifications. Style and approach This step-by-step g...
