

Training program:

## **Elasticsearch - architecture and advanced topics**

Info:

<b>Name:</b>	<b>Elasticsearch - architecture and advanced topics</b>
<b>Code:</b>	<b>BigDataML-elastic</b>
<b>Category:</b>	BigData, Streaming and Machine Learning
<b>Target audience:</b>	developers architects
<b>Duration:</b>	3 days
<b>Format:</b>	30% lecture / 70 % workshop

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# Training program

## 1. Architecture

- 1.1. noSQL scalability introduction
- 1.2. Eventual consistency and CAP
- 1.3. Multi node infrastructure management
- 1.4. Network issues
- 1.5. split-brain

## 2. Document data modeling

- 2.1. Flat aggregates
- 2.2. Soft relations
- 2.3. Embedded documents

## 3. Full-text search

- 3.1. Algorithms
- 3.2. Strategies

## 4. Why Elasticsearch?

- 4.1. Alternatives
- 4.2. Elastic Stack

## 5. Using z Elasticsearch

- 5.1. Installation and configuration
- 5.2. Data modification and search
- 5.3. testing

## 6. Storage architecture

## 7. Advanced search

## 8. Performance tuning

**9. Integrating Elasticsearch with a legacy system**

**10. Architecture maintenance**

10.1. Diagnosing problems

10.2. Security

10.3. Tools

10.3.1. Head

10.3.2. Kopf

10.3.3. Sense

10.3.4. Marvel

10.3.5. Curator

10.4. Monitoring