



elasticsearch

What is it and why should you use it

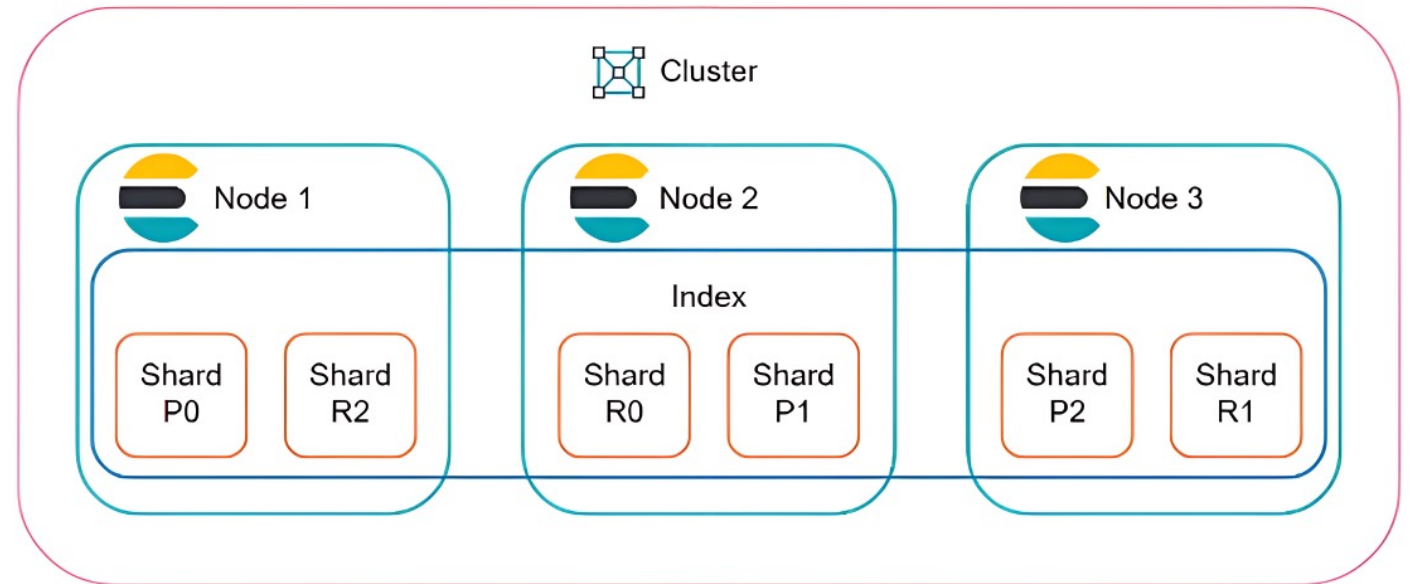
Elasticsearch is...

An advanced search engine based on Apache Lucene

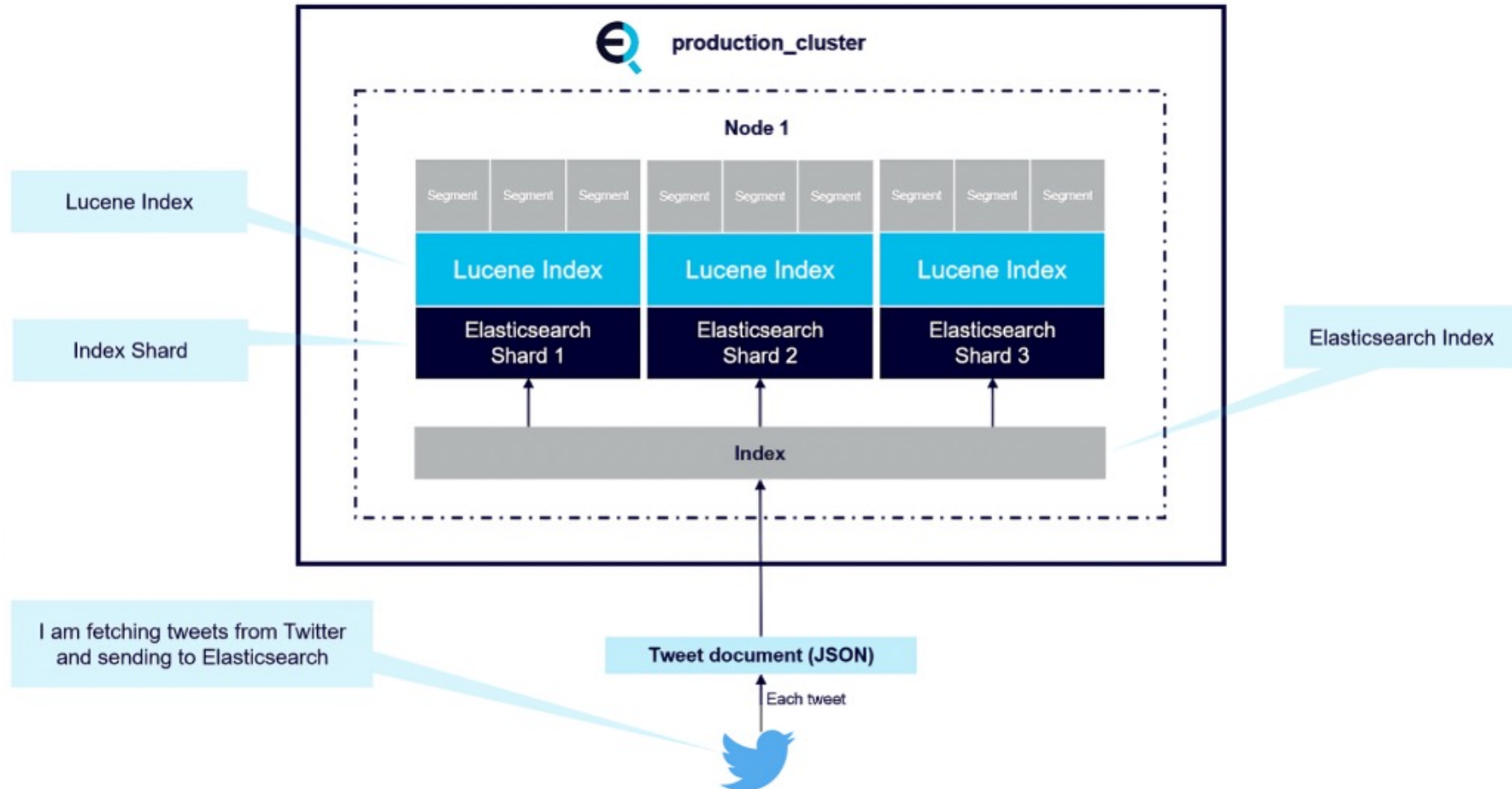
Where data is stored as JSON Documents

In indexes and shards

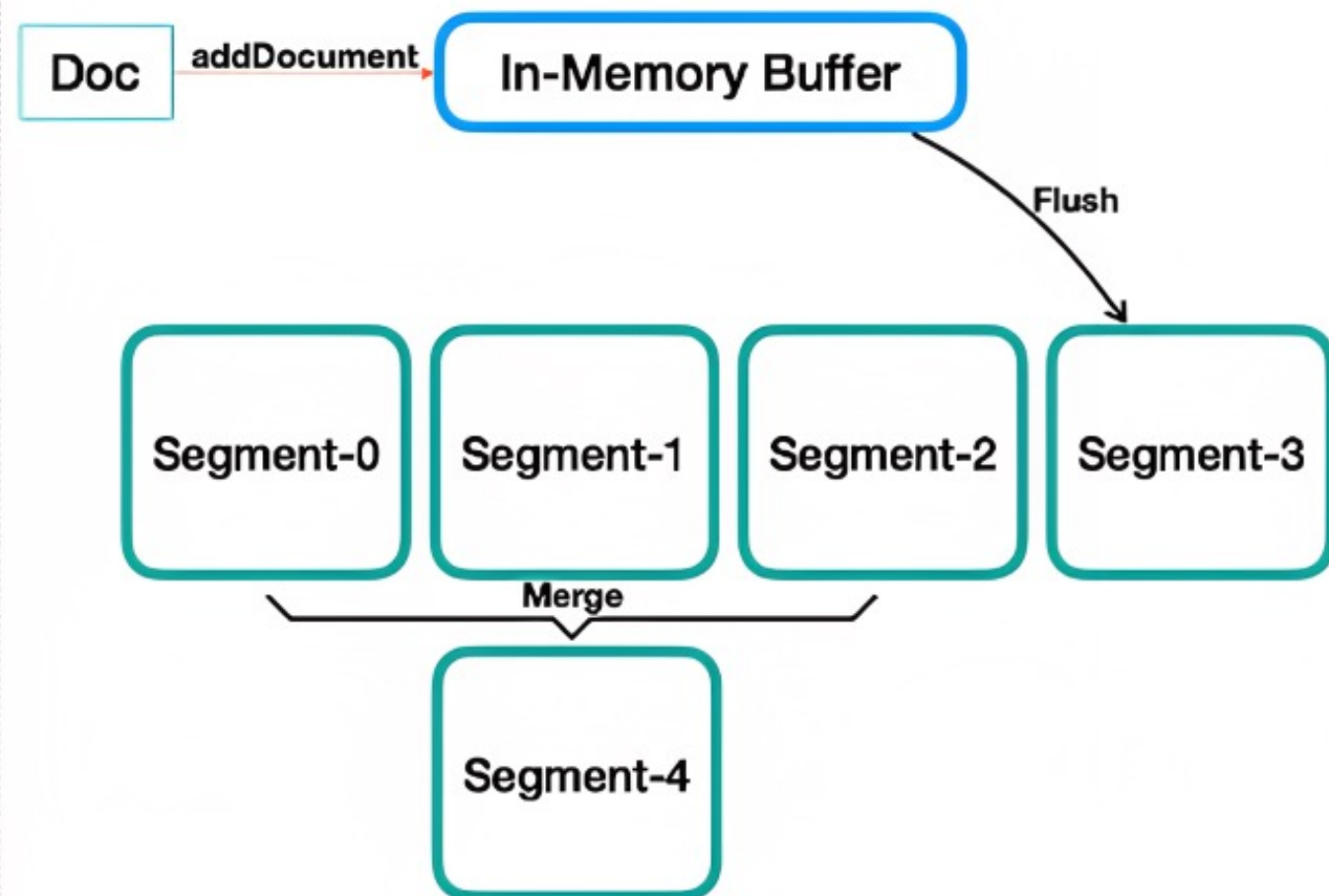
In multiple nodes



Elasticsearch shard = Lucene index



Index



Segment

Doc ID	Doc
0	Doc-0
1	Doc-1
2	Doc-2
3	Doc-3
4	Doc-4

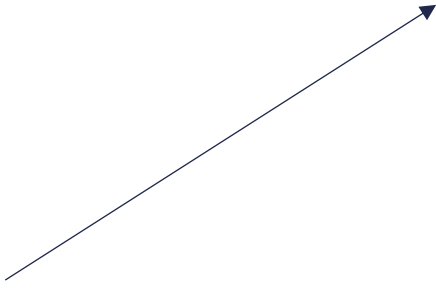
Doc-4

Field	Value
URL	StringField
Content	TextField
Author	StringField

A document could be like this...

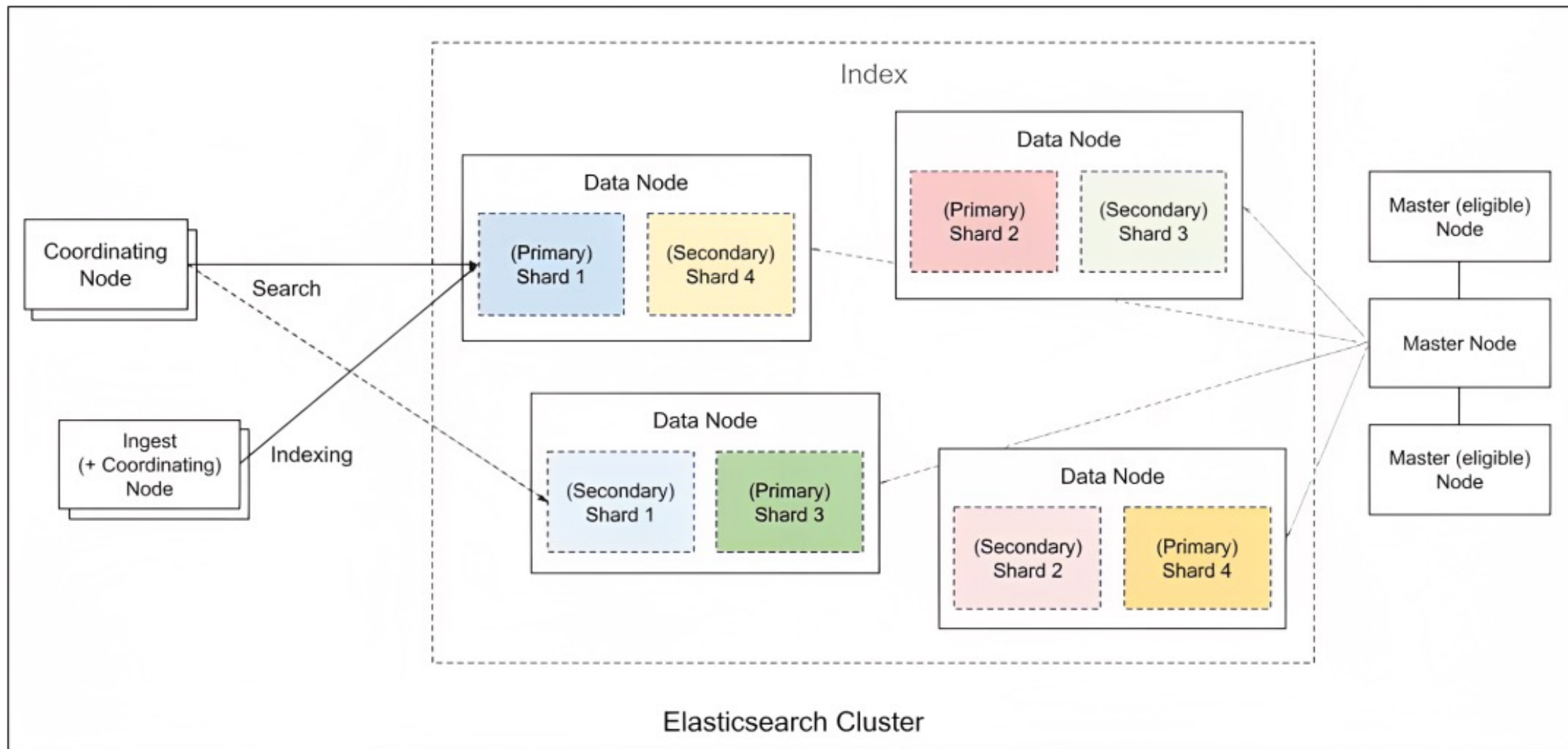
```
{  
  "first_name" : "Jane",  
  "last_name" : "Smith",  
  "age" : 32,  
  "about" : "I like to collect rock albums",  
  "interests": [ "music" ]  
}
```

Inverted index

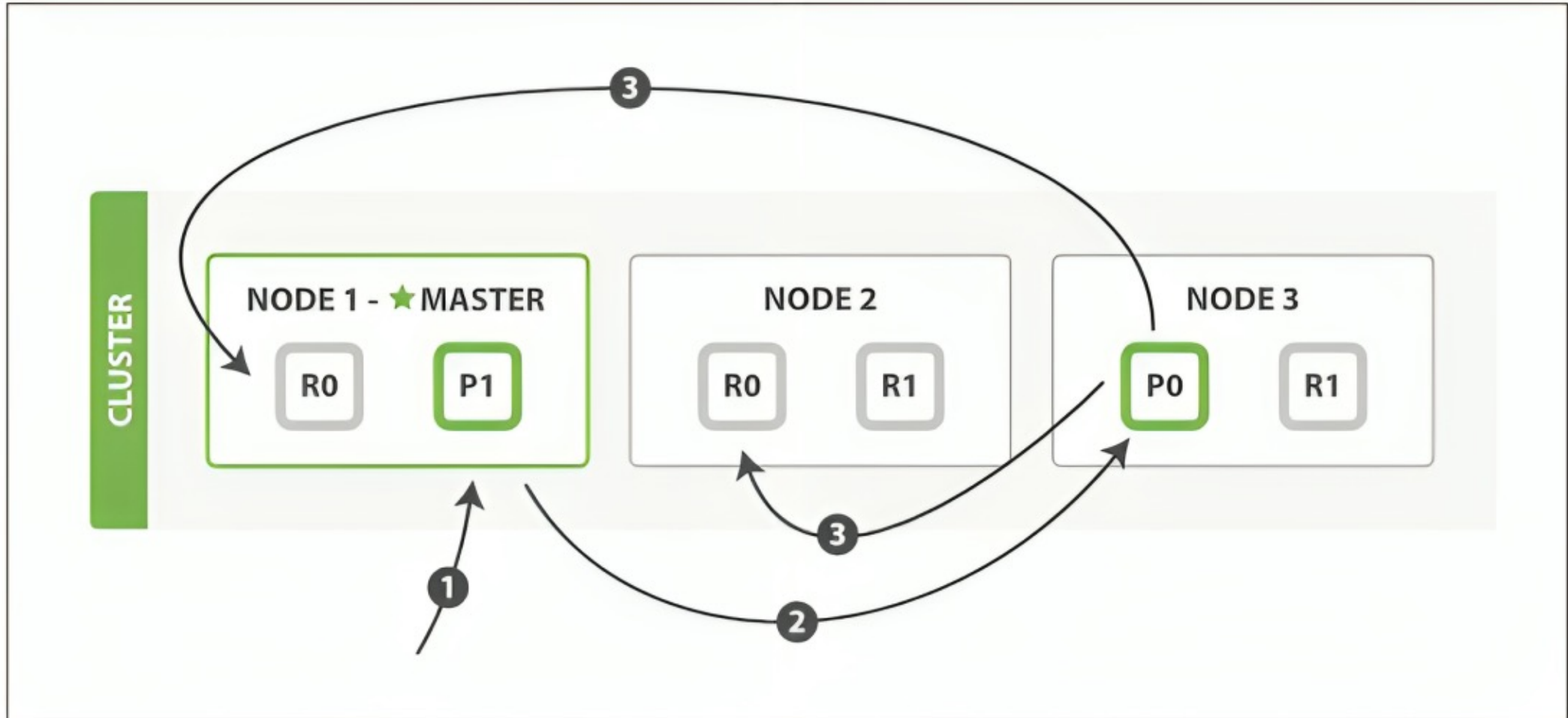


Terms	Doc_1	Doc_2	...
music	x	x	
rock	x		
collect	x		x
...	...	...	...

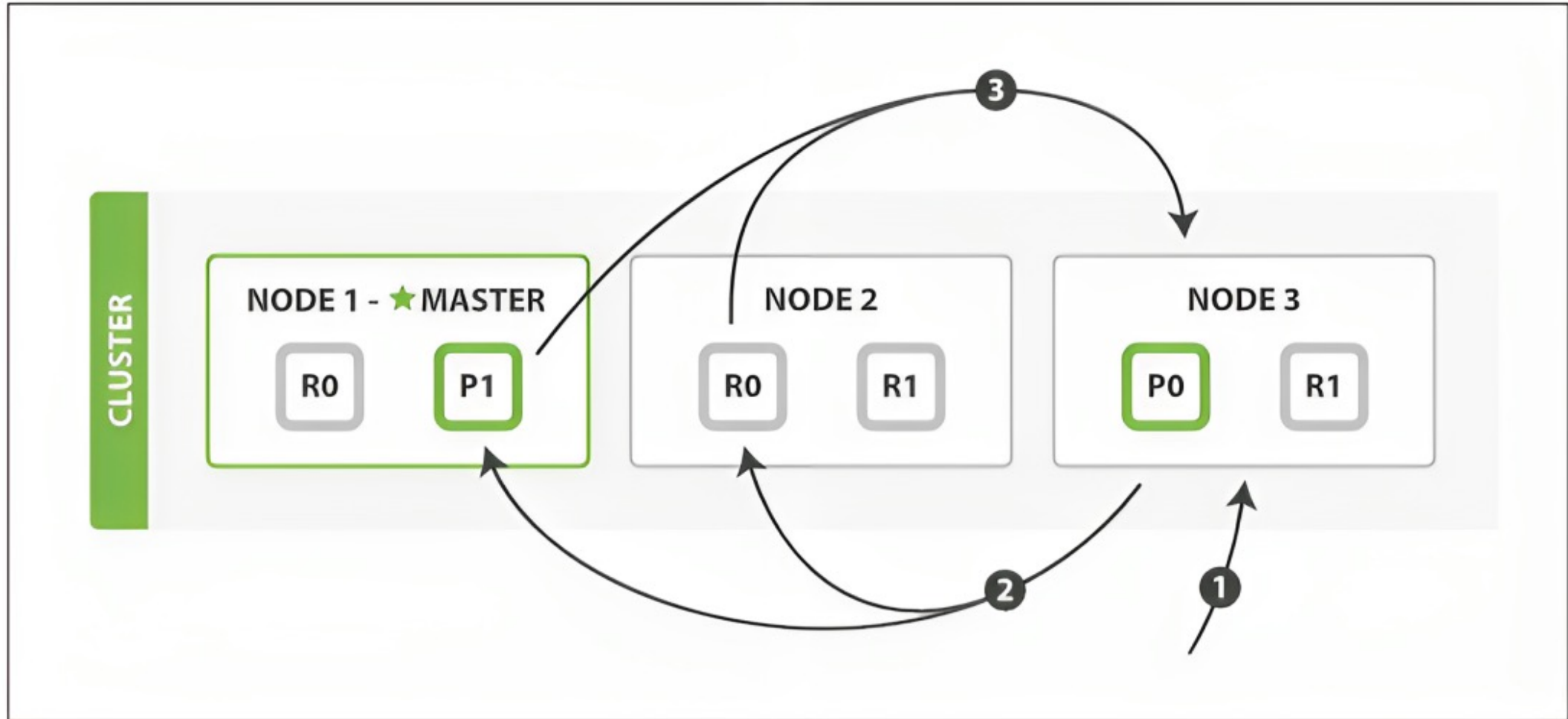
Cluster



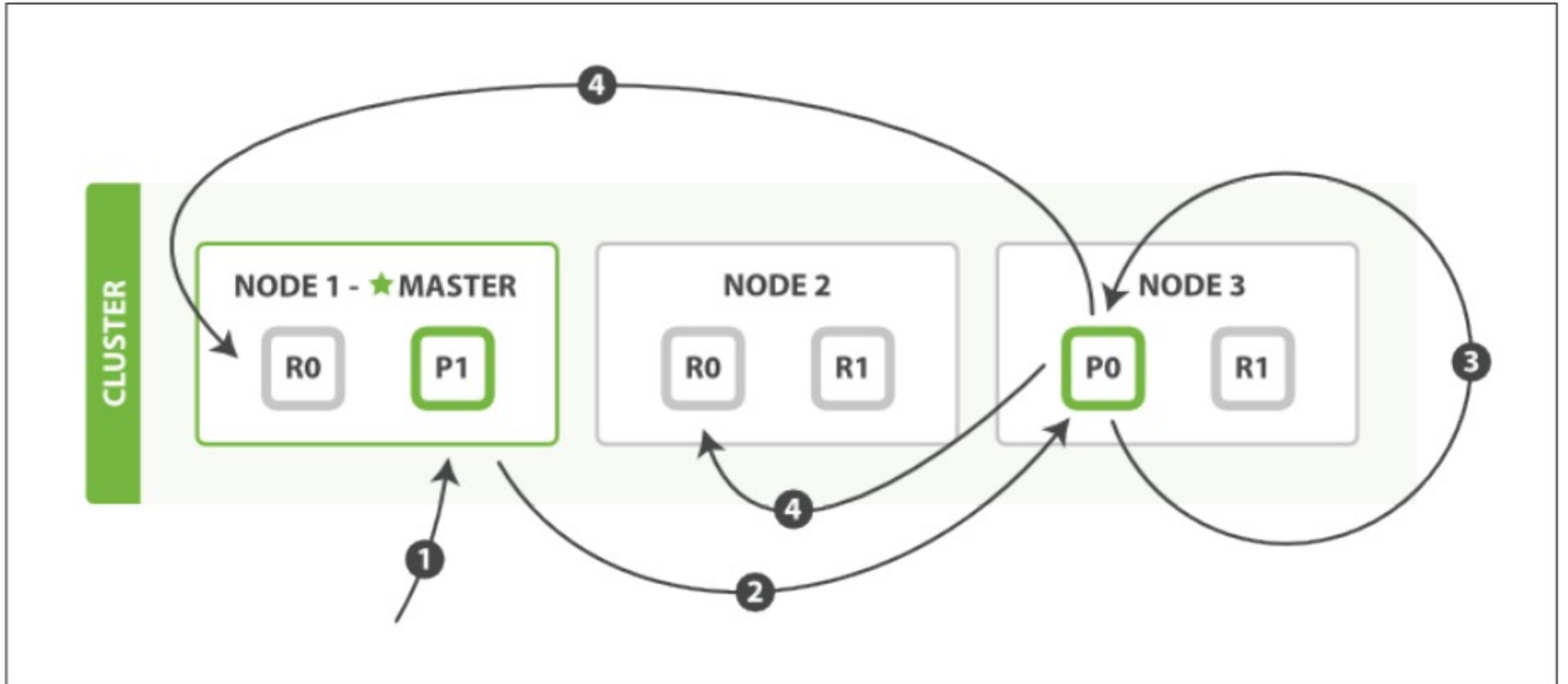
Create, index or delete a document



Search a document

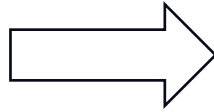


Change a document



Optimistic locking

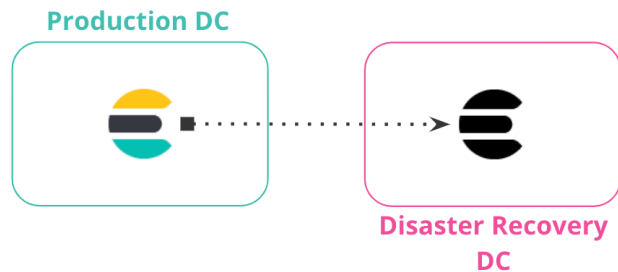
```
{
  "_index": "website",
  "_type": "blog",
  "_id": "123",
  "_version": 1,
  "_source": {
    "title": "My first blog entry",
    "text": "Just trying this out..."
  }
}
```



```
{
  "_index": "website",
  "_type": "blog",
  "_id": "123",
  "_version": 2,
  "_source": {
    "title": "My first blog entry",
    "text": "I am starting to get
the hang of this..."
  }
}
```

What if somethings fails?

- Cluster design
- Snapshot
- Cross-cluster replication



How to search something?

Structured query

GET megacorp/_search

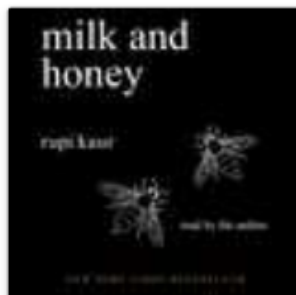
```
{
  "query": {
    "bool": {
      "must": [
        {"match": { "last_name": "Smith" }},
        {"match": { "about": "rock albums"}}
      ]
    }
  }
}
```

Textual query

GET megacorp/_search

```
{
  "query": {
    "multi_match": {
      "query": "rock",
      "fields": [ "*" ]
    }
  }
}
```

Poetry on Goodreads

[Search](#)

Milk and Honey

Description:

From Rupri Kaur, the top ten Sunday Times-bestselling author, comes the beautiful audio edition of milk and honey, her debut poetry collection. Read to you by the author, milk and honey is a book about survival, love, loss and femininity. milk and honey takes you on a journey of of hurting, loving, breaking and healing. Listen to Rupri Kaur's incredible poetry, in her own words. this is the journey of surviving through poetry this is the blood sweat tears of twenty-one years this is my heart in your hands this is the hurting the loving the breaking the healing - rupi kaur Praise for Sunday Times bestseller milk and honey: 'Kaur is at the forefront of a poetry renaissance' Observer 'Kaur made her name with poems about love, life and grief. They resonate hugely' Sunday Times 'Poems tackling feminism, love, trauma and healing in short lines as smooth as pop music' New York Times 'Caught the imagination of a large, atypical poetry audience...Kaur knows the good her poetry does: it saves lives' Evening Standard 'Breathing new life into poetry...It has people reading, and listening' The Pool

Average rating:

4.23

[Go to Goodreads](#)

Milk and Honey

Description:

Average rating:

4.23

[Go to Goodreads](#)

Why choose Elasticsearch

- Advanced full-text search capabilities
- Scalability, speed and performance
- Multilanguage support
- Offers additional services like cluster monitoring, data monitoring and analytics

Why not choose Elasticsearch

- It is not a database
- Only supports JSON format
- Resource-heavy and expensive
- When data changes often

Thank you
for your attention