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for developer

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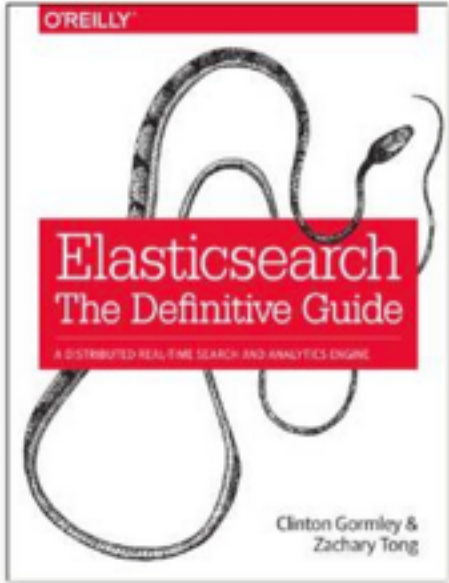
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The Definitive Guide

A DISTRIBUTED REAL-TIME SEARCH AND ANALYTICS ENGINE

Clinton Gormley & Zachary Tong

### Elasticsearch: The Definitive Guide


Paperback – February 7, 2015

by [Clinton Gormley](#) (Author), [Zachary Tong](#) (Author)

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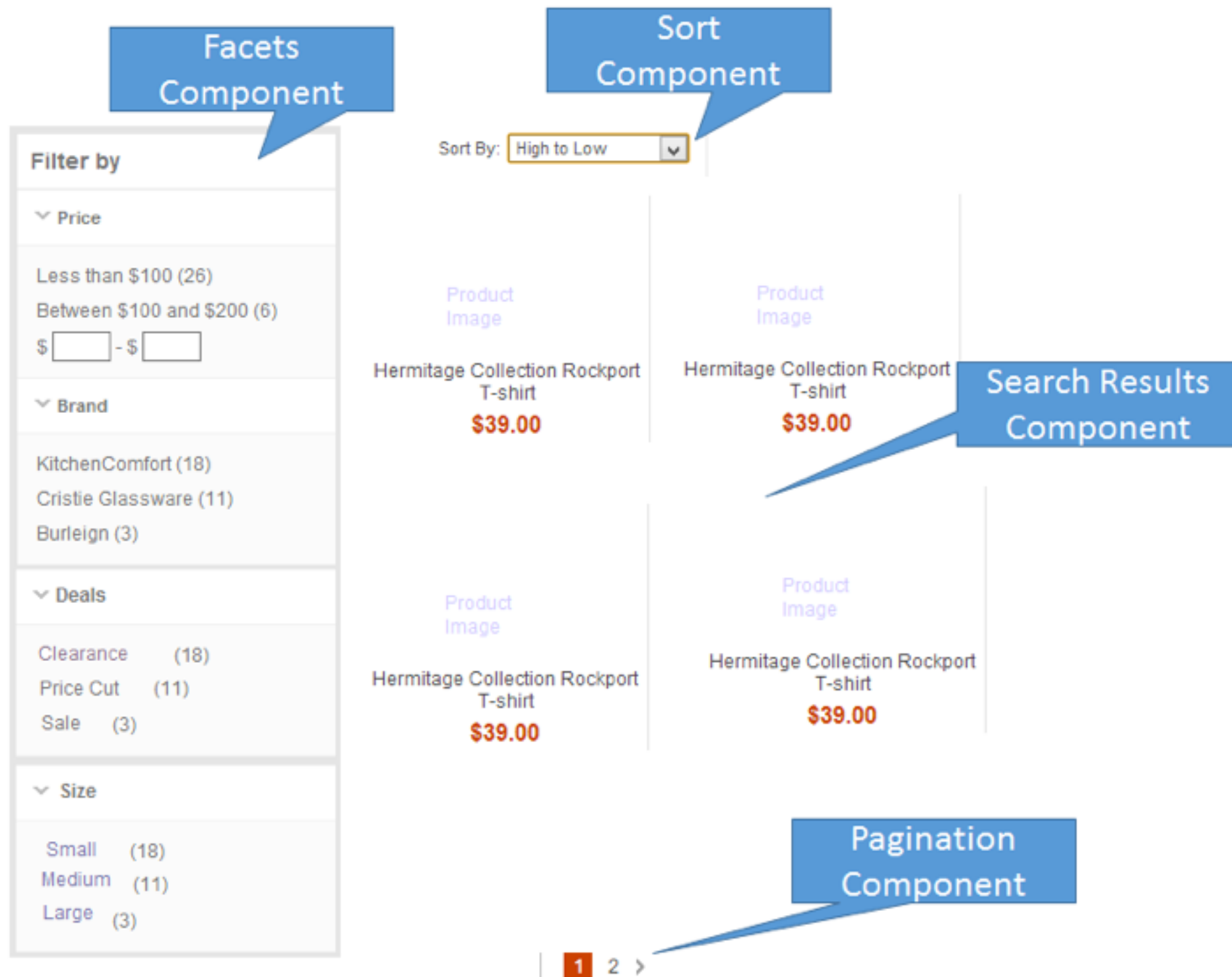
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# Analysis



# Let's Start !

# Preparing index

DELETE /store

PUT /store

# My Book

Name	Type	Value
Id	Number	1
Title	String	Elasticsearch
Author_Name	String	["A", "B"]
Category	String	["A", "B"]
Isbn	String	1449358543
Price	Double	44.30
Page	Number	724
Active	Number	Inactive = 0, Active = 1
Published_Date	Date	2015-01-15
Short_Description	String	
Long_Description	String	

# Preparing data

## Create documents

```
{
  "took": 1,
  "timed_out": false,
  "_shards": {
    "total": 5,
    "successful": 5,
    "failed": 0
  },
  "hits": {
    "total": 5,
    "max_score": 1,
    "hits": [
      {
```



# Query DSL

**GET** /\_search

{

  "query": YOUR QUERY

}

# Search data

```
GET /store/book/_search
{
  "query": {
    "match": {
      "title": "elasticsearch"
    }
  }
}
```

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/query-dsl-term-query.html>

# Search data

GET /store/book/\_search

```
{  
  "query": {  
    "multi_match": {  
      "query": "nosql",  
      "fields": [  
        "title",  
        "long_description"  
      ]  
    }  
  }  
}
```

# Search data (term)

GET /store/book/\_search

```
{  
  "query": {  
    "term": {  
      "title": {  
        "value": "elasticsearch"  
      }  
    }  
  }  
}
```

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/query-dsl-term-query.html>

# Search data :: Terms(in)

```
GET /store/book/_search
```

```
{  
  "query": {  
    "terms": {  
      "title": [  
        "search",  
        "the"  
      ]  
    }  
  }  
}
```

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/query-dsl-terms-query.html>

# Search data : Range

GET /store/book/\_search

```
{  
  "query": {  
    "range": {  
      "price": {  
        "gte": 10,  
        "lte": 21  
      }  
    }  
  }  
}
```

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/query-dsl-range-query.html>

# Multiple clauses :: boolean

```
{  
  "bool": {  
    "must":    { "match": { "tweet": "elasticsearch" }},  
    "must_not": { "match": { "name": "mary" }},  
    "should":  { "match": { "tweet": "full text" }}  
  }  
}
```

# Search data :: Filtered

```
GET /store/book/_search
{
  "query": {
    "filtered": {
      "filter": {
        "term": {
          "title": "elasticsearch"
        }
      },
      "query": {
        "term": {
          "published_date": "2015-01-16"
        }
      }
    }
  }
}
```

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/query-dsl-filtered-query.html>

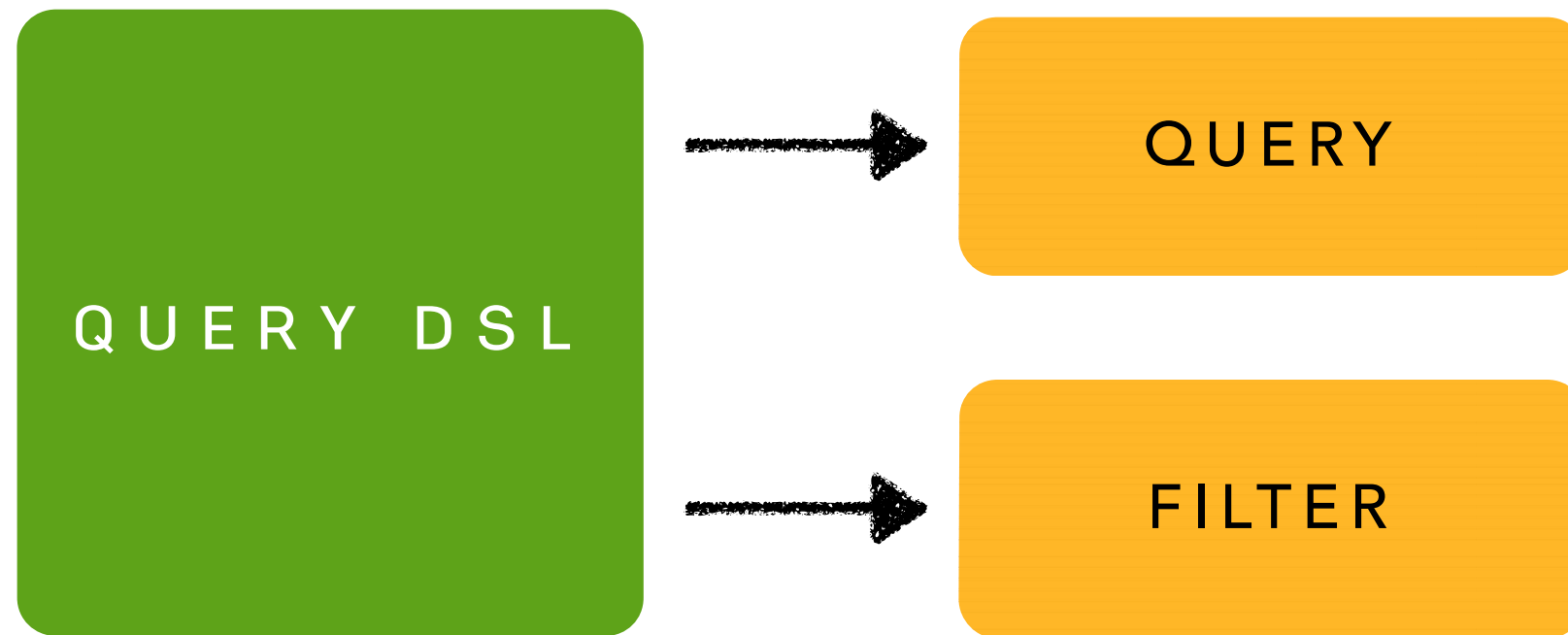


# Search data :: Filtered

GET /store/book/\_search

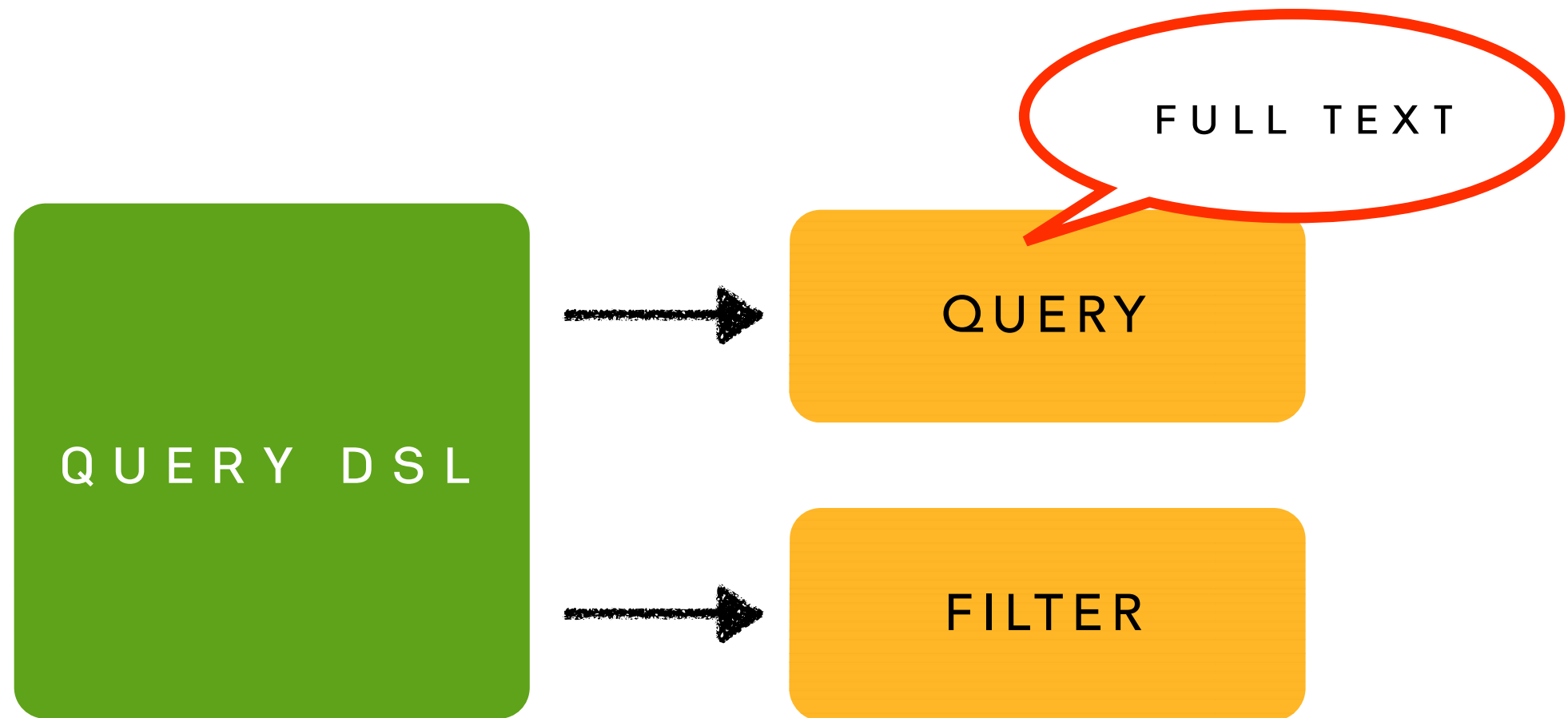
```
{  
  "query": {  
    "filtered": {  
      "filter": {  
        "term": {  
          "title": "elasticsearch"  
        }  
      },  
      "query": {  
        "term": {  
          "published_date": "2015-01-16"  
        }  
      }  
    }  
  }  
}
```

# Query vs. Filter



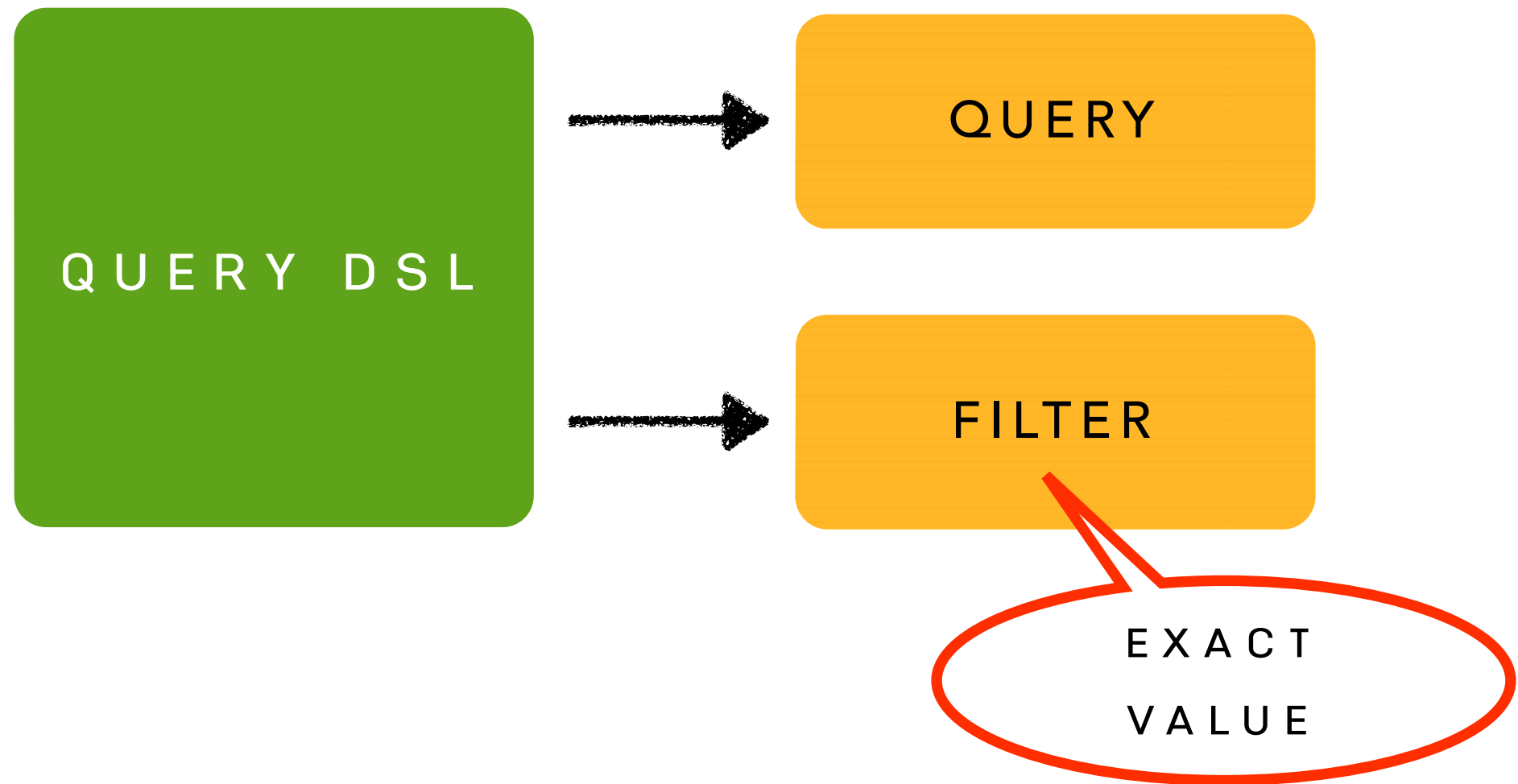
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# Query vs. Filter



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# Query vs. Filter

## QUERY

- Can't caching
- Relevant
- Required memory !!

## FILTER

- Easy to caching
- Quick to calculate
- Reusable

[http://www.elasticsearch.org/guide/en/elasticsearch/guide/current/\\_queries\\_and\\_filters.html](http://www.elasticsearch.org/guide/en/elasticsearch/guide/current/_queries_and_filters.html)

# Pagination

```
GET /store/book/_search
```

```
{  
  "from": 0,  
  "size": 2  
}
```

# Sorting

```
GET /store/book/_search
{
  "sort": [
    {
      "published_date": {
        "order": "desc"
      }
    }
  ]
}
```

# Multiple Sorting

```
GET /store/book/_search
{
  "sort": [
    {
      "published_date": {
        "order": "desc"
      }
    }
  ]
}
```

[http://www.elasticsearch.org/guide/en/elasticsearch/guide/current/\\_sorting.html](http://www.elasticsearch.org/guide/en/elasticsearch/guide/current/_sorting.html)



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