

Řešení úloh

03 - CRUD

```
POST subscription_list/_doc
{
  "name": "First customer",
  "e-mail": "first-customer@icloud.com",
  "age": 31
}

POST subscription_list/_doc
{
  "name": "Second customer",
  "e-mail": "second-customer@gmail.com",
  "age": 47
}

GET subscription_list/_search

POST subscription_list/_update/hjihwX4BIC3Q38hFeGOa
{
  "doc": {
    "e-mail": "first@outlook.com"
  }
}

GET subscription_list/_search

DELETE subscription_list/_doc/hzihwX4BIC3Q38hFhmOI

GET subscription_list/_search
```

04 - Kibana

Discover

Options New Open Share Inspect Save

Search KQL Refresh

population: 0 to 100,000,000 isEuMember: true + Add filter

europa_countries 3 hits

country	subregion	area	population	isEuMember	euAccessionDate
> France	Western Europe	551,695	65,273,511	true	Jan 1, 1958
> Spain	Southern Europe	498,511	46,754,778	true	Jan 1, 1986
> Italy	Southern Europe	301,338	60,461,826	true	Jan 1, 1958

Search field names

Filter by type 0

Selected fields 6

- country
- subregion
- area
- population
- isEuMember
- euAccessionDate

Available fields 4

- _id
- _index
- _score
- _type

elastic Search Elastic

Stack Management Index patterns europe_countries

Edit field 'euAccessionDate'

Index pattern: europe_countries

Name: euAccessionDate Type: Date

☐ Set custom label

Create a label to display in place of the field name in Discover, Maps, and Visualize. Useful for shortening a long field name. Queries and filters use the original field name.

☒ Set format

Set your preferred format for displaying the value. Changing the format can affect the value and prevent highlighting in Discover.

Format (Default: Date)

Date

Moment.js format pattern (Default: MMM D, YYYY @ HH:mm:ss.SSS)

MMM D, YYYY

[Documentation](#)

Cancel Save

Preview

From: europe_countries

Document ID: nDg-234BIC3Q38hF12Pg

Filter fields

euAccessionDate	Jan 1, 1958
area	357386
country	Germany
euAccessionDate	1958-01-01
isEuMember	true
population	145934462
subregion	Western Europe

05 - Indexy, aliasy, reindexace

```
PUT manufacturer/_doc/1
{
  "name": "Apple",
  "revenue": 274515,
  "country": "United States"
}

POST manufacturer/_doc
{
  "name": "Toyota Group",
  "revenue": 256721,
  "country": "Japan"
}

PUT manufacturer-2
{
  "settings": {
    "number_of_shards": 5,
    "number_of_replicas": 1
  }
}

POST _reindex
{
  "source": {
    "index": "manufacturer"
  },
  "dest": {
    "index": "manufacturer-2"
  }
}

DELETE manufacturer

POST _aliases
{
  "actions": [
    {
      "add": {
        "index": "manufacturer-2",
        "alias": "manufacturer"
      }
    }
  ]
}

GET manufacturer/_search
```

06 - Mapping

PUT comments

```
{
  "mappings": {
    "properties": {
      "title": {
        "type": "text"
      },
      "text": {
        "type": "text"
      },
      "author": {
        "type": "text",
        "fields": {
          "keyword": {
            "type": "keyword"
          }
        }
      },
      "email": {
        "type": "text"
      },
      "visible": {
        "type": "boolean"
      },
      "score": {
        "type": "float"
      },
      "created": {
        "type": "date",
        "format": "yyyy-MM-dd"
      }
    }
  }
}
```

POST comments/_doc

```
{
  "title": "Test comment",
  "text": "Hello world!",
  "author": "Hicham Sharp",
  "email": "hicham@sharp-family.zzz",
  "visible": true,
  "score": 12.7,
  "created": "2022-02-18"
}
```

07 - Vyhledávání v Kibaně

POST reviews/_doc

```
{
  "customer_id": 12932123,
  "email": "tom.k@gmail.com",
  "title": "8 Ball Pool",
  "comment": "It is a fun game but sometimes hard to control the cue.",
  "rating": 4,
  "date": "2022-02-21T15:29:50+02:00"
}
```

POST reviews/_doc

```
{
  "customer_id": 13937931,
  "email": "jane.f@gmail.com",
  "title": "8 Ball Pool",
  "comment": "Cannot download even though it says I purchased.",
  "rating": 1,
  "date": "2022-02-18T12:22:40+02:00"
}
```

POST reviews/_doc

```
{
  "customer_id": 13937931,
  "email": "jane.f@gmail.com",
  "title": "Yes Chef!",
  "comment": "Love it!",
  "rating": 5,
  "date": "2022-02-18T11:13:34+02:00"
}
```

POST reviews/_doc

```
{
  "customer_id": 13937931,
  "email": "emanuel.s@yahoo.com",
  "title": "Barcode Scanner",
  "comment": "Works as expected.",
  "rating": 3,
  "date": "2022-02-12T08:12:32+02:00"
}
```

POST reviews/_doc

```
{
  "customer_id": 12932123,
  "email": "tom.r@gmail.com",
  "title": "Catch the Ball",
}
```

```
"comment": "This is fun too play. I absolutely love it!",
"date": "2022-02-10T19:19:51+02:00"
}
```

1. `title: Ball`
2. `customer_id >= 12932200 AND email:*gmail.com`
3. `date<2022-02-15 AND NOT title:"Barcode Scanner"`
4. `title: "8 Ball Pool" (OR title.keyword:8 Ball Pool)`
5. `NOT rating:*`
6. `comment:sometimXes~` (needs to be switched to Lucene query)

08 - Term-level a compound queries

```
GET reviews/_search
{
  "query": {
    "term": {
      "email.keyword": "emanuel.s@yahoo.com"
    }
  }
}
```

```
GET reviews/_search
{
  "query": {
    "range": {
      "rating": {
        "gt": 2
      }
    }
  }
}
```

```
GET reviews/_search
{
  "query": {
    "prefix": {
      "email.keyword": "tom"
    }
  }
}
```

```
GET reviews/_search
{
  "query": {
    "terms": {
      "title.keyword": [
        "8 Ball Pool",
        "Yes Chef!"
      ]
    }
  }
}
```

```
GET reviews/_search
{
  "query": {
    "bool": {
      "minimum_should_match": 1,
      "should": [
        {
          "range": {
            "rating": {
              "lt": 5
            }
          }
        },
        {
          "terms": {
            "email": [
              "tom.k@gmail.com",
              "jane.f@gmail.com"
            ]
          }
        }
      ]
    }
  }
}
```

08 - Full textové vyhledávání

```
GET reviews/_search
{
  "query": {
    "match": {
      "email": "gmail.com"
    }
  }
}
```

```
GET reviews/_search
{
  "query": {
    "multi_match": {
      "query": "fun ball game",
      "fields": ["title", "comment"]
    }
  }
}
```

```
GET reviews/_search
{
  "query": {
    "bool": {
      "must": [
        {
          "match": {
            "title": "ball game"
          }
        },
        {
          "range": {
            "rating": {
              "gt": 3
            }
          }
        }
      ]
    }
  }
}
```

09 - Textová analýza

```
PUT my_em_analyzer
{
```



```
"settings": {
  "analysis": {
    "filter": {
      "my_synonym": {
        "type": "synonym",
        "synonyms": [
          "failure=>error"
        ]
      },
      "english_stop": {
        "type": "stop",
        "stopwords": "_english_"
      },
      "english_keywords": {
        "type": "keyword_marker",
        "keywords": ["example"]
      },
      "english_stemmer": {
        "type": "stemmer",
        "language": "english"
      },
      "english_possessive_stemmer": {
        "type": "stemmer",
        "language": "possessive_english"
      }
    },
    "analyzer": {
      "rebuilt_english": {
        "char_filter": [
          "html_strip"
        ],
        "tokenizer": "standard",
        "filter": [
          "english_possessive_stemmer",
          "lowercase",
          "english_stop",
          "english_keywords",
          "english_stemmer",
          "my_synonym"
        ]
      }
    }
  },
  "mappings": {
    "properties": {
      "message": {
        "type": "text",
        "analyzer": "rebuilt_english"
      }
    }
  }
}
```

```

    }
  }
}

POST my_em_analyzer/_doc
{
  "message": "An error occured"
}

POST my_em_analyzer/_doc
{
  "message": "There was a failure during processing request"
}

GET my_em_analyzer/_search
{
  "query": {
    "match": {
      "message": "error"
    }
  }
}

```

10 - Řazení, stránkování

```

POST book/_doc
{
  "title": "The Forever Dog",
  "publish": "2020-01-20"
}

POST book/_doc
{
  "title": "The Book Your Dog Wishes",
  "publish": "2018-01-01"
}

POST book/_doc
{
  "title": "The Complete Dog Breed Book",
  "publish": "2018-01-01"
}

GET book/_search
{
  "query": {

```

```

    "match": {
      "title": "Dog"
    }
  },
  "sort": [
    {
      "publish": "asc"
    },
    {
      "title.keyword": "asc"
    }
  ],
  "highlight": {
    "fields": {
      "title": {
        "pre_tags": "<b>",
        "post_tags": "</b>"
      }
    }
  }
}

```

11 - Agregace

GET kibana_sample_data_ecommerce/_search

```

{
  "size": 0,
  "aggs": {
    "email_addresses": {
      "terms": {
        "field": "email"
      }
    }
  }
}

```

GET kibana_sample_data_ecommerce/_search

```

{
  "size": 0,
  "aggs": {
    "days": {
      "terms": {
        "field": "day_of_week"
      },
      "aggs": {
        "avg_price": {
          "avg": {

```

```
        "field": "taxful_total_price"
      }
    }
  }
}
}
```

GET kibana_sample_data_ecommerce/_search

```
{
  "query": {
    "term": {
      "geoip.continent_name": {
        "value": "North America"
      }
    }
  },
  "size": 0,
  "aggs": {
    "gender": {
      "terms": {
        "field": "customer_gender"
      },
      "aggs": {
        "avg_products_count": {
          "avg": {
            "field": "total_unique_products"
          }
        }
      }
    }
  }
}
```