



Learning Elasticsearch 5.0

Ethan Anthony

Video 3.3

Using Bulk API



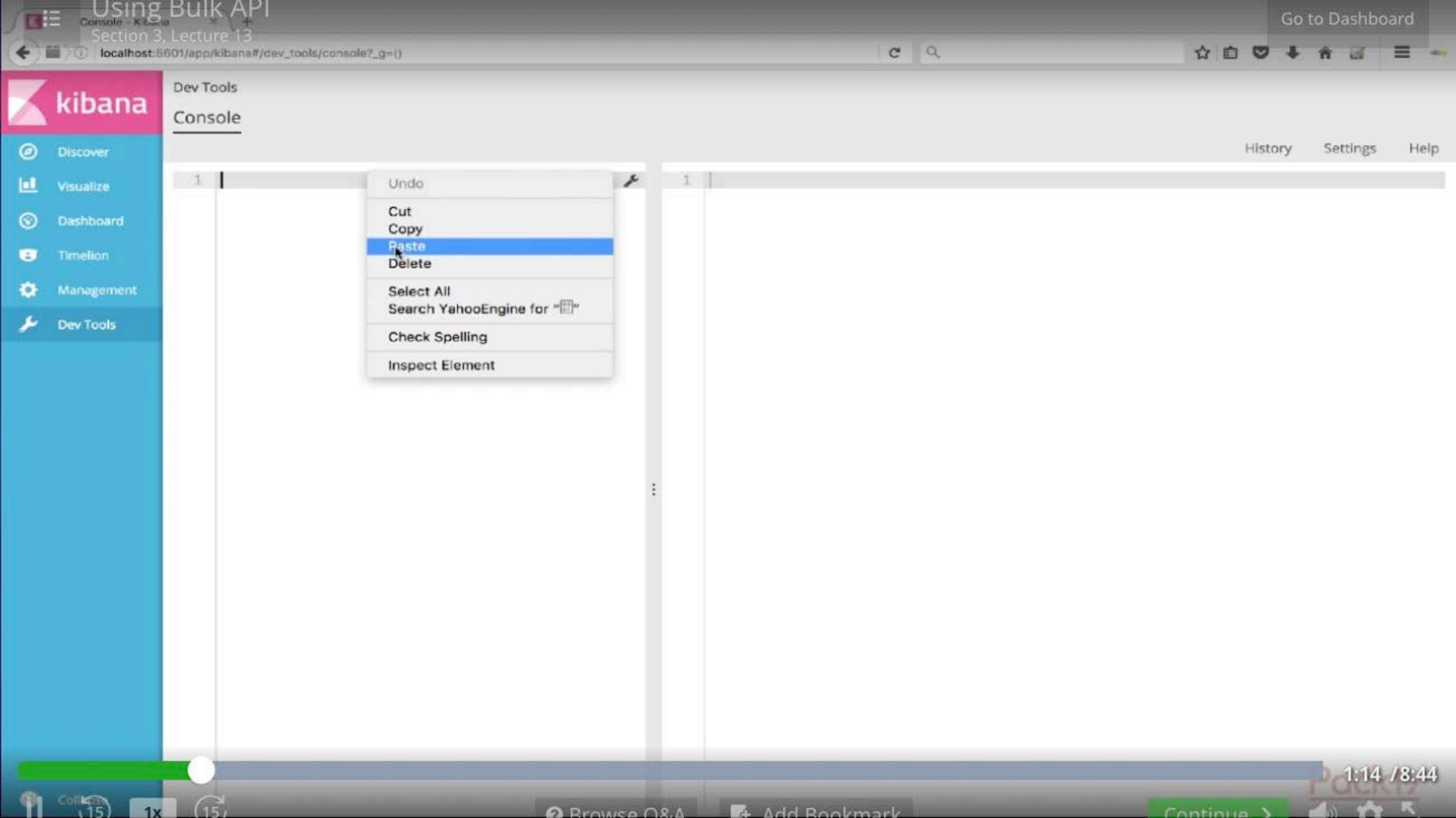
In this Video, we are going to take a look at...

- Adding multiple documents in query body
- Adding multiple documents from external file

Bulk API

- Allows you to index multiple documents at one time
- Example:

```
curl -XPOST http://localhost:9200/_bulk -d '{
  "index": { "_index": "books", "_type": "author", "_id": "1" },
  { "name": "Johnny", "isbn": 23553 },
  "index": { "_index": "books", "_type": "author", "_id": "2" },
  { "name": "Michael", "isbn": 24689 }
}'
```



Using Bulk API

Section 3, Lecture 13

localhost:5601/app/kibana#/dev_tools/console?_g=()

Go to Dashboard

kibana

Discover

Visualize

Dashboard

Timeline

Management

Dev Tools

Dev Tools

Console

History

Settings

Help

1

2

3

4

5

6

7

POST /books/_bulk

{ "index": { "_index": "books", "_type": "author", "_id": "70" } }

{ "name": "MS", "book_count": 1 }

{ "index": { "_index": "books", "_type": "author", "_id": "71" } }

{ "name": "M Smith", "book_count": 3 }

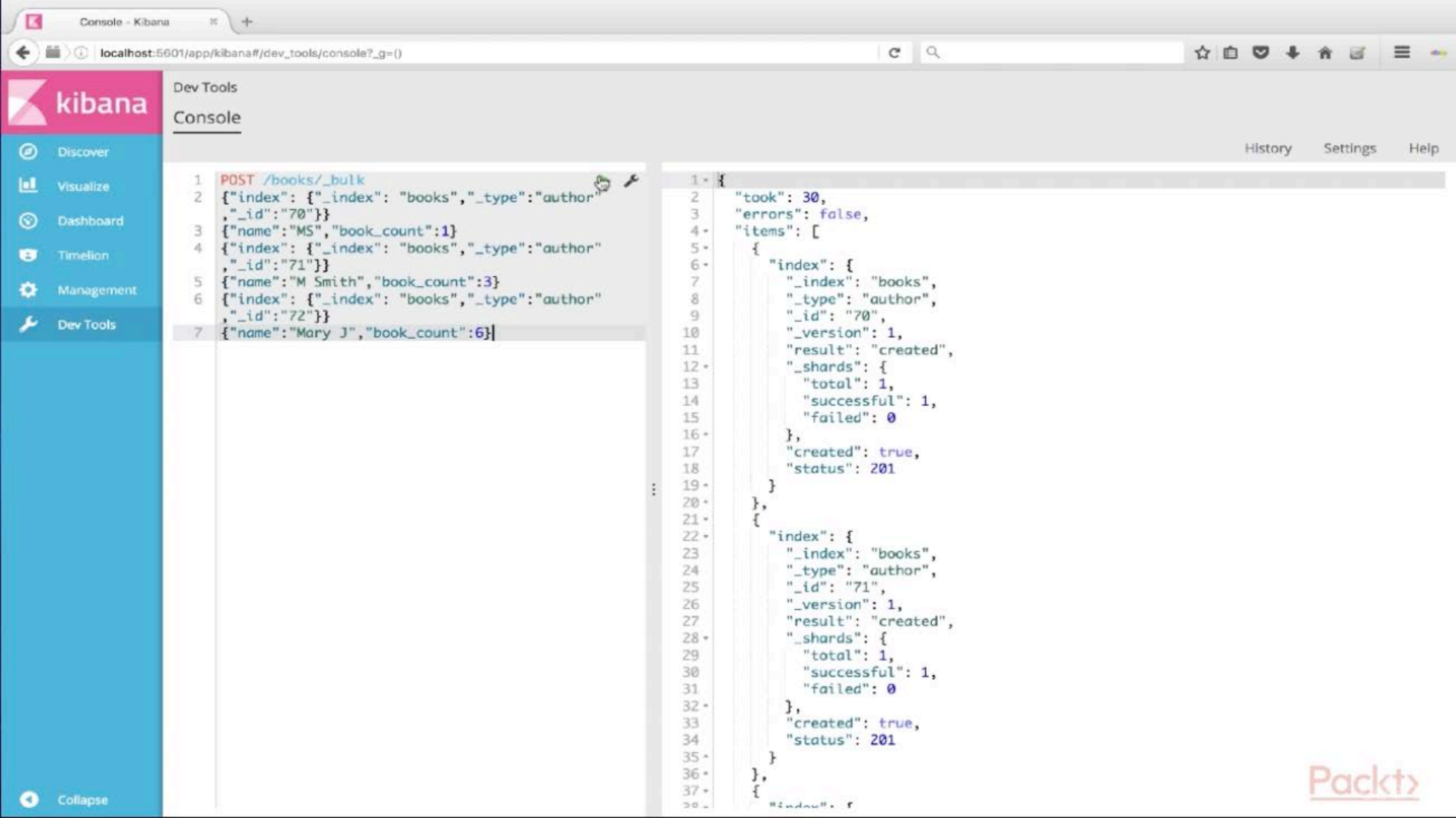
{ "index": { "_index": "books", "_type": "author", "_id": "72" } }

{ "name": "Mary J", "book_count": 6 }

1

1:16 / 8:44

Continue



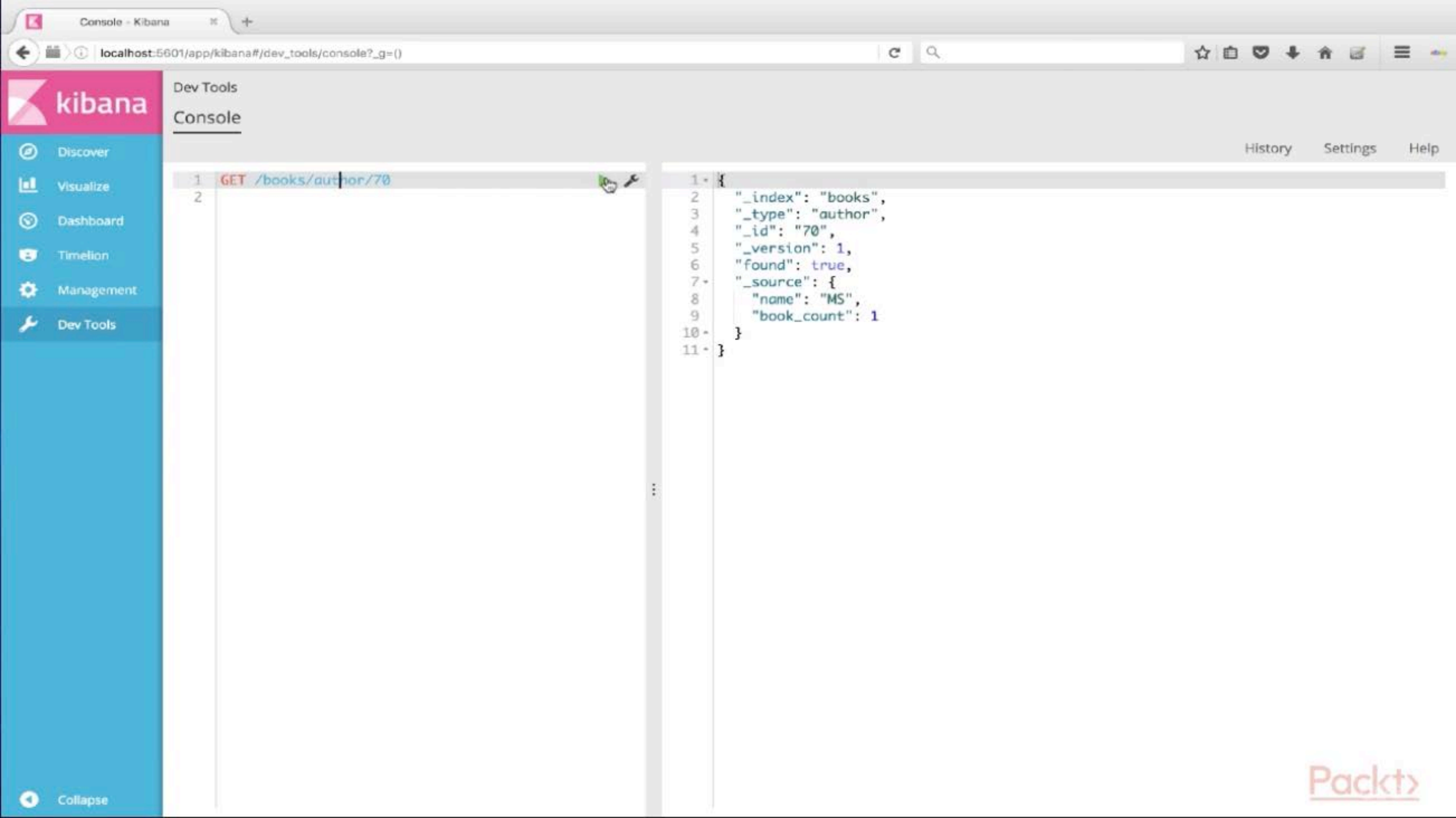
Dev Tools

Console

History Settings Help

```
1 POST /books/_bulk
2 {"index": {"_index": "books", "_type": "author",
3   "_id": "70"}}
4 {"name": "MS", "book_count": 1}
5 {"index": {"_index": "books", "_type": "author",
6   "_id": "71"}}
7 {"name": "M Smith", "book_count": 3}
8 {"index": {"_index": "books", "_type": "author",
9   "_id": "72"}}
10 {"name": "Mary J", "book_count": 6}
```

```
1 {
2   "took": 30,
3   "errors": false,
4   "items": [
5     {
6       "index": {
7         "_index": "books",
8         "_type": "author",
9         "_id": "70",
10        "_version": 1,
11        "result": "created",
12        "_shards": {
13          "total": 1,
14          "successful": 1,
15          "failed": 0
16        },
17        "created": true,
18        "status": 201
19      }
20    },
21    {
22      "index": {
23        "_index": "books",
24        "_type": "author",
25        "_id": "71",
26        "_version": 1,
27        "result": "created",
28        "_shards": {
29          "total": 1,
30          "successful": 1,
31          "failed": 0
32        },
33        "created": true,
34        "status": 201
35      }
36    },
37    {
38      "index": {
```



1990


```
        "type": "date",
        "format": "yyyy-MM-dd"
    },
    "isbn": {
        "type": "keyword"
    }
}
},
"store": {
    "properties": {
        "name": {
            "type": "keyword"
        },
        "pin": {
            "properties": {
                "location": {
                    "type": "geo_point"
                }
            }
        }
    }
}
```

```
1 PUT /books
2 {
3   "settings": {
4     "number_of_shards": 1,
5     "number_of_replicas": 0
6   },
7   "mappings": {
8     "book" : {
9       "properties": {
10        "title": {
11          "type": "text"
12        },
13        "description": {
14          "type": "text"
15        },
16        "author": {
17          "type": "text"
18        },
19        "tags": {
20          "type": "text"
21        },
22        "price": {
23          "type": "scaled_float",
24          "scaling_factor": 100
```



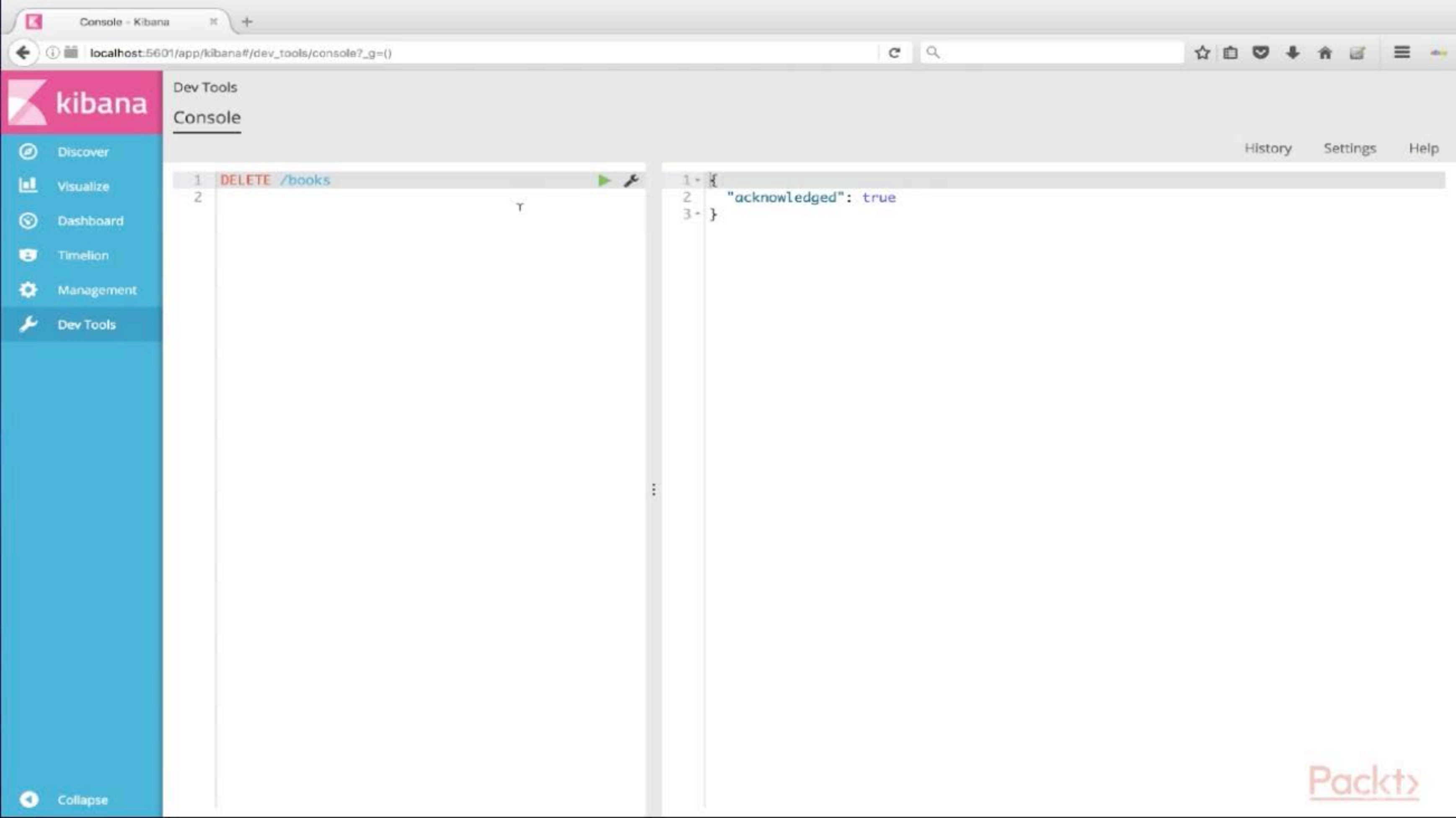
```
mappings.json  books.json  store.json
1 {"index": {"_index": "books", "_type": "book", "_id": "1"}}
2 {"title": "Innovator's High", "description": "Robert Gerlach is a global expert on business creativity who provides new insights on creative thinking, such as >> the #1 reason why
3 {"index": {"_index": "books", "_type": "book", "_id": "2"}}
4 {"title": "Big Data: A Revolution That Will Transform How We Live, Work, and Think", "description": "Big Data is the first major book about this earthshaking subject, with two lead
5 {"index": {"_index": "books", "_type": "book", "_id": "3"}}
6 {"title": "Big Data: Principles and best practices of scalable realtime data systems", "description": "Big Data teaches you to build big data systems using an architecture that tak
7 {"index": {"_index": "books", "_type": "book", "_id": "4"}}
8 {"title": "Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking", "description": "Based on an MBA course Provost has taught at New York Uni
9 {"index": {"_index": "books", "_type": "book", "_id": "5"}}
10 {"title": "Data Analytics Made Accessible Kindle Edition", "description": "This book fills the need for a concise and conversational book on the growing field of Data Analytics and
11 {"index": {"_index": "books", "_type": "book", "_id": "6"}}
12 {"title": "Big Data: Using SMART Big Data, Analytics and Metrics To Make Better Decisions and Improve Performance", "description": "There is so much buzz around big data. We all ne
13 {"index": {"_index": "books", "_type": "book", "_id": "7"}}
14 {"title": "The Catcher in the Rye", "description": "Anyone who has read J.D. Salinger's New Yorker stories ? particularly A Perfect Day for Bananafish, Uncle Wiggily in Connecticut
15 {"index": {"_index": "books", "_type": "book", "_id": "8"}}
16 {"title": "Under the Lilacs", "description": "This anthology is a thorough introduction to classic literature for those who have not yet experienced these literary masterworks. For
17 {"index": {"_index": "books", "_type": "book", "_id": "9"}}
18 {"title": "Flowers for Algernon", "description": "Oscar-winning film Charly starring Cliff Robertson and Claire Bloom—a mentally challenged man receives an operation that turns him
19 {"index": {"_index": "books", "_type": "book", "_id": "10"}}
20 {"title": "The Suicide Club (Wisehouse Classics Edition)", "description": "THE SUICIDE CLUB is a collection of three 19th century detective fiction short stories by Robert Louis St
21 {"index": {"_index": "books", "_type": "book", "_id": "11"}}
22 {"title": "Adventures of Huckleberry Finn", "description": "Referring to Adventures of Huckleberry Finn, H. L. Mencken noted that his discovery of this classic American novel was ‘
23 {"index": {"_index": "books", "_type": "book", "_id": "12"}}
24 {"title": "Car: The Definitive Visual History of the Automobile", "description": "Tracing the history of the automobile, from the first prototypes to the super cars of today, Car c
25 {"index": {"_index": "books", "_type": "book", "_id": "13"}}
26 {"title": "How Cars Work", "description": "How Cars Work is a completely illustrated primer describing the 250 most important car parts and how they work. This mini test book includ
27 {"index": {"_index": "books", "_type": "book", "_id": "14"}}
28 {"title": "The Life of the Automobile: The Complete History of the Motor Car", "description": "The automobile has arguably shaped the modern era more profoundly than any other human
29 {"index": {"_index": "books", "_type": "book", "_id": "15"}}
30 {"title": "The Art of the Automobile: The 100 Greatest Cars", "description": "Award-winning automotive historian, author, and photographer Dennis Adler takes you on a whirlwind tou
31 {"index": {"_index": "books", "_type": "book", "_id": "16"}}
32 {"title": "Reinventing the Automobile: Personal Urban Mobility for the 21st Century (MIT Press)", "description": "This book provides a long-overdue vision for a new automobile era.
33 {"index": {"_index": "books", "_type": "book", "_id": "17"}}
34 {"title": "Food, Health, and Happiness: 115 On-Point Recipes for Great Meals and a Better Life", "description": "Oprah Winfrey will be the first to tell you, she has had a complic
35 {"index": {"_index": "books", "_type": "book", "_id": "18"}}
36 {"title": "Food Rules: An Eater's Manual", "description": "Eating doesn't have to be so complicated. In this age of ever-more elaborate diets and conflicting health advice, Food Ru
37 {"index": {"_index": "books", "_type": "book", "_id": "19"}}
38 {"title": "Real Food/Fake Food: Why You Don't Know What You're Eating and What You Can Do about It", "description": "Olmsted brings readers into the unregulated food industry, reve
39 {"index": {"_index": "books", "_type": "book", "_id": "20"}}
40 {"title": "In Defense of Food: An Eater's Manifesto", "description": "Because in the so-called Western diet, food has been replaced by nutrients, and common sense by confusion—mos
41 {"index": {"_index": "books", "_type": "book", "_id": "21"}}
42 {"title": "Food Freedom Forever: Letting Go of Bad Habits, Guilt, and Anxiety Around Food by the Co-Creator of the Whole30", "description": "Millions of people have successfully co
43
```

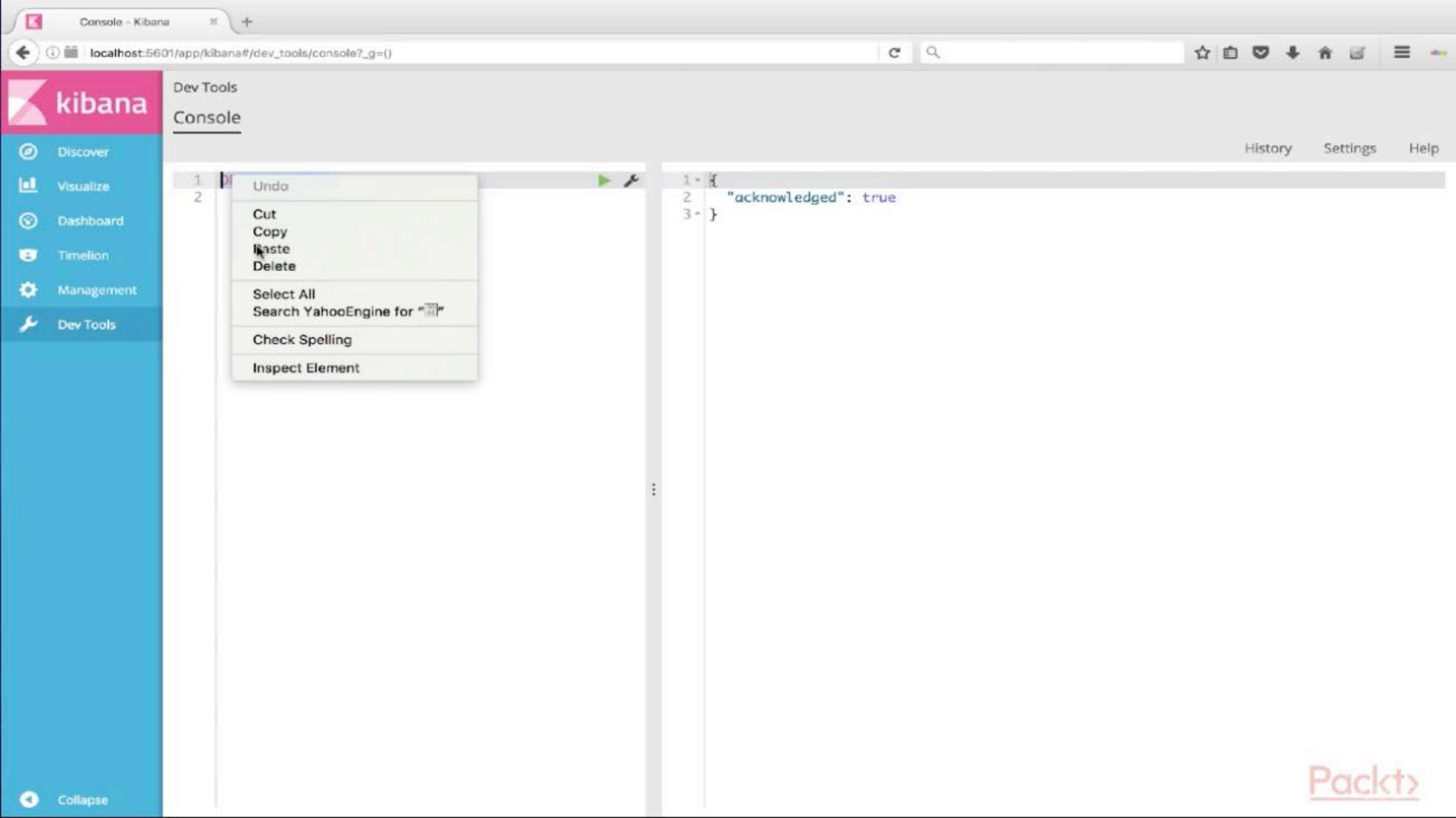


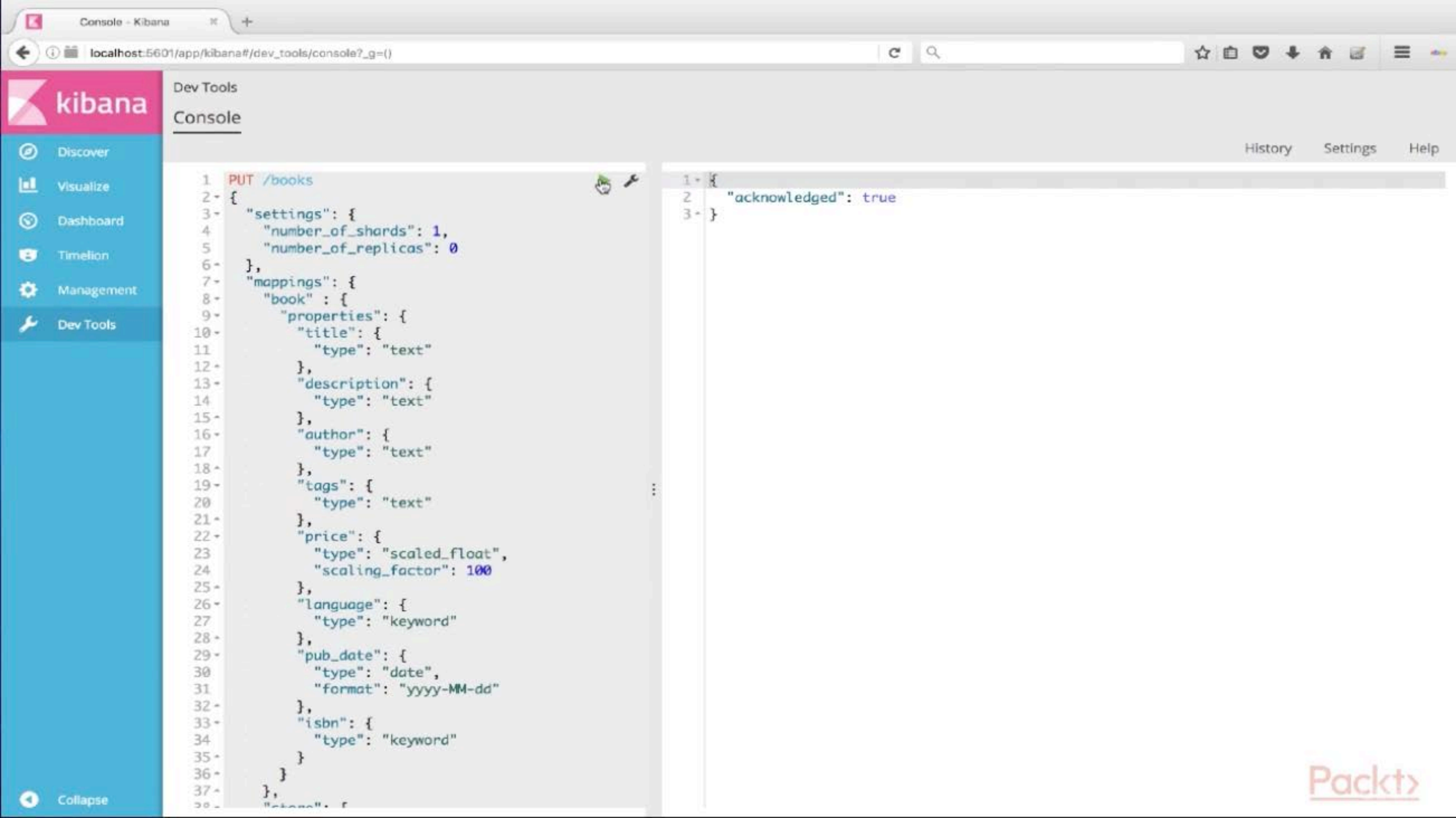
```
1 {"index": {"_index": "books", "_type": "book", "_id": "1"}}
2 {"title": "Innovator's High", "description": "Robert Gerlach is a global expert on business creativity"}
3 {"index": {"_index": "books", "_type": "book", "_id": "2"}}
4 {"title": "Big Data: A Revolution That Will Transform How We Live, Work, and Think", "description": ""}
5 {"index": {"_index": "books", "_type": "book", "_id": "3"}}
6 {"title": "Big Data: Principles and best practices of scalable realtime data systems", "description": ""}
7 {"index": {"_index": "books", "_type": "book", "_id": "4"}}
8 {"title": "Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Th"}
9 {"index": {"_index": "books", "_type": "book", "_id": "5"}}
10 {"title": "Data Analytics Made Accessible Kindle Edition", "description": "This book fills the need"}
11 {"index": {"_index": "books", "_type": "book", "_id": "6"}}
12 {"title": "Big Data: Using SMART Big Data, Analytics and Metrics To Make Better Decisions and Impro"}
13 {"index": {"_index": "books", "_type": "book", "_id": "7"}}
14 {"title": "The Catcher in the Rye", "description": "Anyone who has read J.D. Salinger's New Yorker st"}
15 {"index": {"_index": "books", "_type": "book", "_id": "8"}}
16 {"title": "Under the Lilacs", "description": "This anthology is a thorough introduction to classic l"}
17 {"index": {"_index": "books", "_type": "book", "_id": "9"}}
18 {"title": "Flowers for Algernon", "description": "Oscar-winning film Charly starring Cliff Robertson"}
19 {"index": {"_index": "books", "_type": "book", "_id": "10"}}
20 {"title": "The Suicide Club (Wisehouse Classics Edition)", "description": "THE SUICIDE CLUB is a col"}
21 {"index": {"_index": "books", "_type": "book", "_id": "11"}}
22 {"title": "Adventures of Huckleberry Finn", "description": "Referring to Adventures of Huckleberry F"}
23 {"index": {"_index": "books", "_type": "book", "_id": "12"}}
24 {"title": "Car: The Definitive Visual History of the Automobile", "description": "Tracing the history"}
25 {"index": {"_index": "books", "_type": "book", "_id": "13"}}
26 {"title": "How Cars Work", "description": "How Cars Work is a completely illustrated primer describ"}
27 {"index": {"_index": "books", "_type": "book", "_id": "14"}}
28 {"title": "The Life of the Automobile: The Complete History of the Motor Car", "description": "The a"}
```

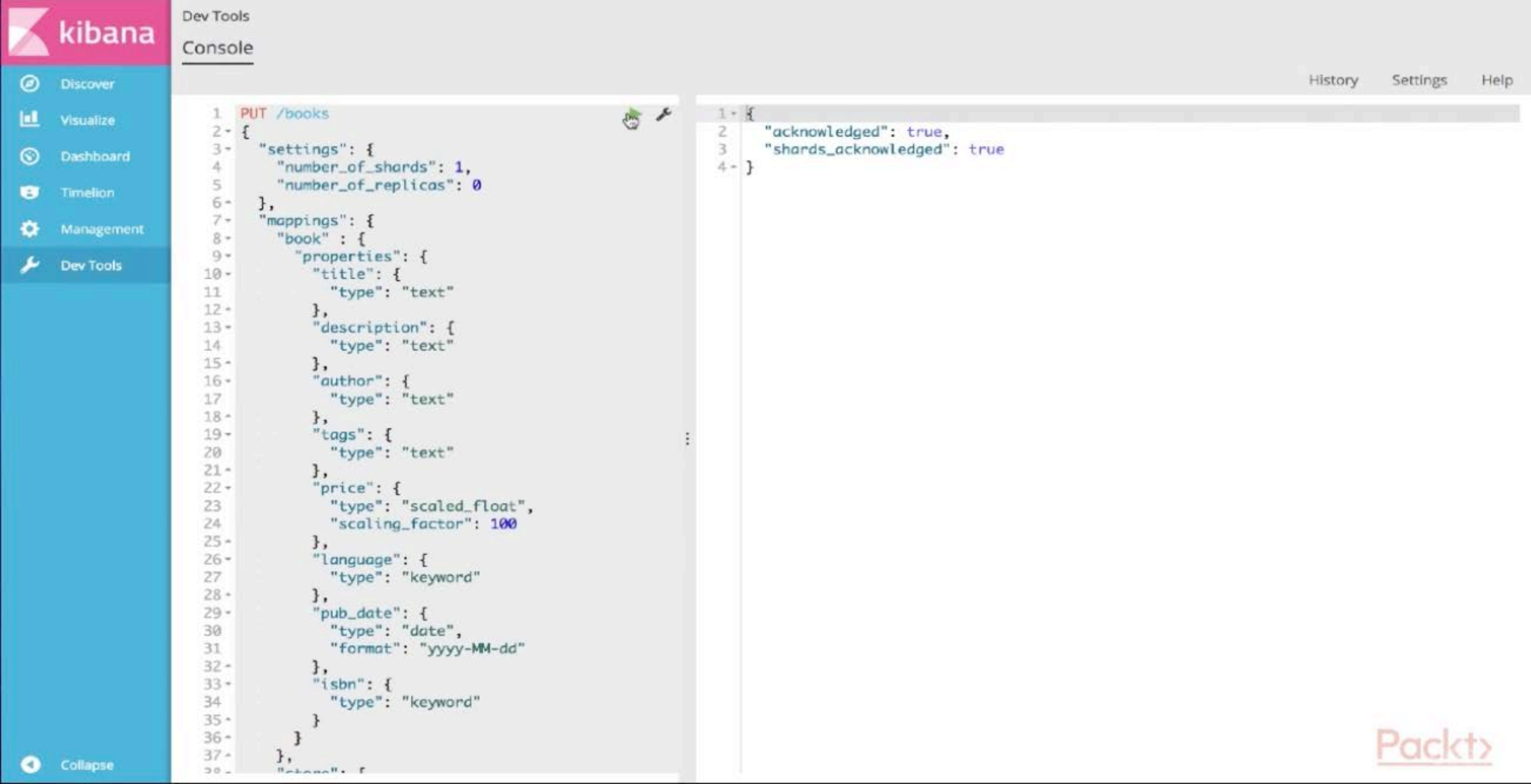
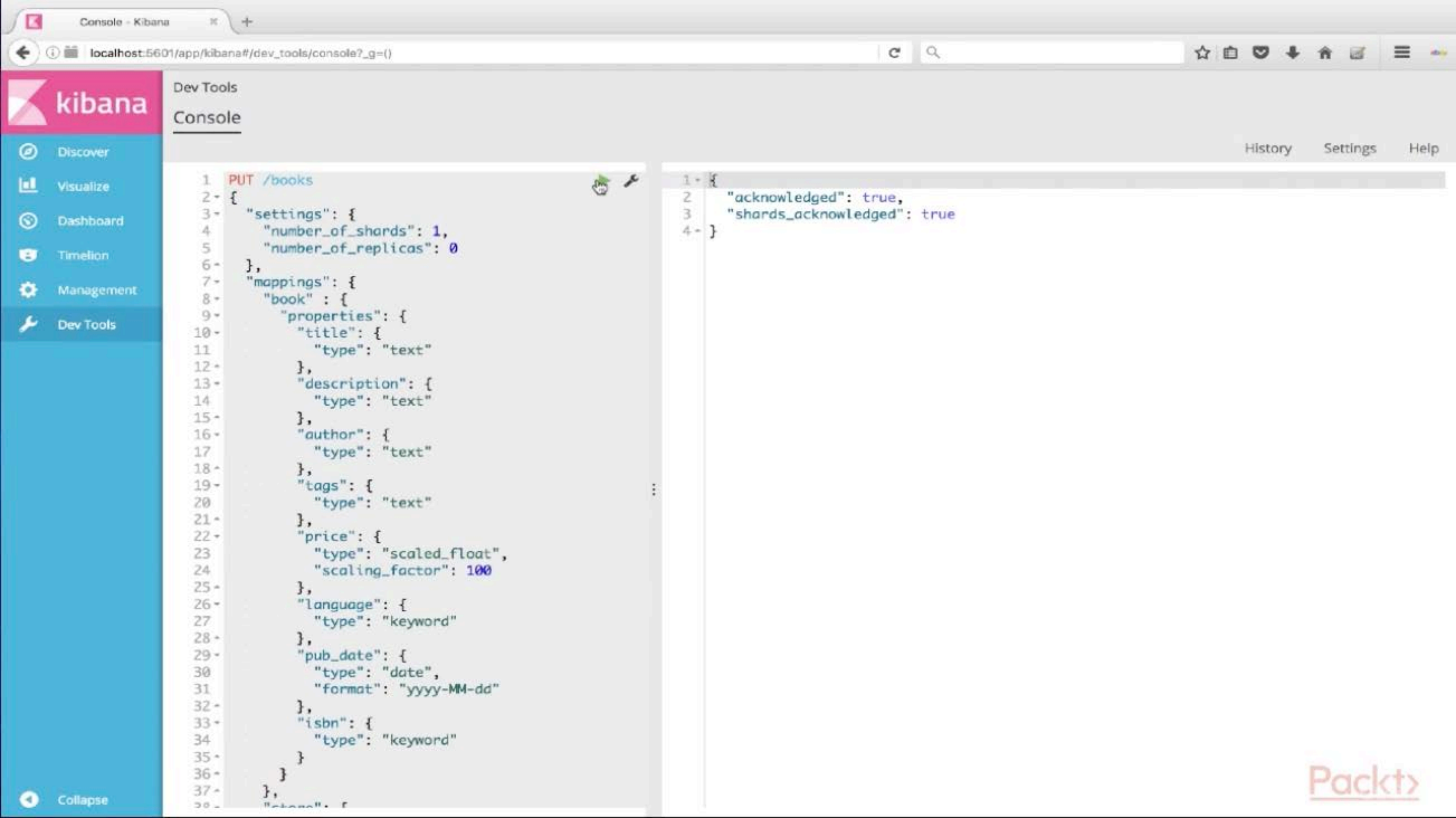


```
1 {"index": {"_index": "books", "_type": "store", "_id": "1"}}
2 {"name": "Books and Books", "location": {"lat": 25.750212, "lon": -80.260589}}
3 {"index": {"_index": "books", "_type": "store", "_id": "2"}}
4 {"name": "Bookshop Santa Cruz", "location": {"lat": 36.975488, "lon": -122.026382}}
5 {"index": {"_index": "books", "_type": "store", "_id": "3"}}
6 {"name": "Northshire Bookstore", "location": {"lat": 43.176820, "lon": -73.057215}}
7 {"index": {"_index": "books", "_type": "store", "_id": "4"}}
8 {"name": "Powell's City of Books", "location": {"lat": 45.523097, "lon": -122.681325}}
9 {"index": {"_index": "books", "_type": "store", "_id": "5"}}
0 {"name": "The Tattered Cover Bookstore", "location": {"lat": 39.718454, "lon": -104.952568}}
1
```







kibana

Dev Tools

Console

History

Settings

Help



Discover



Visualize



Dashboard



Timelion



Management



Dev Tools

```
1 PUT /books
2 {
3   "settings": {
4     "number_of_shards": 1,
5     "number_of_replicas": 0
6   },
7   "mappings": {
8     "book": {
9       "properties": {
10        "title": {
11          "type": "text"
12        },
13        "description": {
14          "type": "text"
15        },
16        "author": {
17          "type": "text"
18        },
19        "tags": {
20          "type": "text"
21        },
22        "price": {
23          "type": "scaled_float",
24          "scaling_factor": 100
25        },
26        "language": {
27          "type": "keyword"
28        },
29        "pub_date": {
30          "type": "date",
31          "format": "yyyy-MM-dd"
32        },
33        "isbn": {
34          "type": "keyword"
35        }
36      }
37    },
38    "books": {
```

```
1 {
2   "acknowledged": true,
3   "shards_acknowledged": true
4 }
```



```
Ethans-MacBook-Pro-2:~ eaofxr$ cd /Users/eaofxr/Desktop/es
```

```
Ethans-MacBook-Pro-2:es eaofxr$ curl -XPOST http://localhost:9200/books/_bulk --data-binary @books.json
```

```
{
  "took": 117,
  "errors": true,
  "items": [
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "1",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "2",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "3",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "4",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "5",
        "status": 400,
        "error": {
          "type": "mapper_parsing_exception",
          "reason": "failed to parse",
          "caused_by": {
            "type": "json_parse_exception",
            "reason": "Unexpected character ('}' (code 125)): expected a value\\n at [Source: org.elasticsearch.common.bytes.BytesReference$MarkSupportingStreamInputWrapper@479b85d5; line: 1, column: 893]"
          }
        }
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "6",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "7",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "8",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "9",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "10",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "11",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "12",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "13",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "14",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "15",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "16",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "17",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "18",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "19",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "20",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    },
    {
      "index": {
        "_index": "books",
        "_type": "book",
        "_id": "21",
        "_version": 1,
        "result": "created",
        "_shards": {
          "total": 1,
          "successful": 1,
          "failed": 0
        },
        "created": true,
        "status": 201
      }
    }
  ]
}
```

```
Ethans-MacBook-Pro-2:es eaofxr$
```



```
1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"3", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"4", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"5", "status":400,"error":{"type":"mapper_parsing_exception","reason":"failed to parse","caused_by":{"type":"json_parse_exception","reason":"Unexpected character ('}' (code 125)): expected a value\\n at [Source: org.elasticsearch.common.bytes.BytesReference$MarkSupportingStreamInputWrapper@479b85d5; line: 1, column: 893]"}}, {"index":{"_index":"books", "_type":"book", "_id":"6", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"7", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"8", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"9", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"10", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"11", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"12", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"13", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"14", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"15", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"16", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"17", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"18", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"19", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"20", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}, {"index":{"_index":"books", "_type":"book", "_id":"21", "_version":1,"result":"created", "_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}]}Ethans-MacBook-Pro-2:es eaofxr$ curl -XGET http://localhost:9200/books/book/18
```

{"_index":"books", "_type":"book", "_id":"18", "_version":1,"found":true, "_source":{"title":"Food Rules: An Eater's Manual", "description":"Eating doesn't have to be so complicated. In this age of ever-more elaborate diets and conflicting health advice, Food Rules brings welcome simplicity to our daily decisions about food. Written with clarity, concision, and wit that has become bestselling author Michael Pollan's trademark, this indispensable handbook lays out a set of straightforward, memorable rules for eating wisely, one per page, accompanied by a concise explanation. It's an easy-to-use guide that draws from a variety of traditions, suggesting how different cultures through the ages have arrived at the same enduring wisdom about food. Whether at the supermarket or an all-you-can-eat buffet, this is the perfect guide for anyone who ever wondered, 'What should I eat?',"author":"Michael Pollan", "tags":"food", "price":8.90, "language":"en", "pub_date":"2009-12-29", "isbn":"014311638"}}Ethans-MacBook-Pro-2:es eaofxr\$


```

d":{"_index":"books","_type":"book","_id":"21","_version":1,"result":"created","_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}},"index":{"_index":"books","_type":"book","_id":"21","_version":1,"result":"created","_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}]]}Ethans-MacBook-Pro-2:es eaofxr$ curl -XGET http://localhost:9200/books/book/18
{"_index":"books","_type":"book","_id":"18","_version":1,"found":true,"_source":{"title":"Food Rules: An Eater's Manual","description":"Eating doesn't have to be so complicated. In this age of ever-more elaborate diets and conflicting health advice, Food Rules brings welcome simplicity to our daily decisions about food. Written with clarity, concision, and wit that has become bestselling author Michael Pollan's trademark, this indispensable handbook lays out a set of straightforward, memorable rules for eating wisely, one per page, accompanied by a concise explanation. It's an easy-to-use guide that draws from a variety of traditions, suggesting how different cultures through the ages have arrived at the same enduring wisdom about food. Whether at the supermarket or an all-you-can-eat buffet, this is the perfect guide for anyone who ever wondered, 'What should I eat?',"author":"Michael Pollan","tags":"food","price":8.9,"language":"en","pub_date":"2009-12-29","isbn":"014311638"}}Ethans-MacBook-Pro-2:es eaofxr$
Ethans-MacBook-Pro-2:es eaofxr$ curl -XGET http://localhost:9200/books/book/18?pretty
{
  "_index" : "books",
  "_type" : "book",
  "_id" : "18",
  "_version" : 1,
  "found" : true,
  "_source" : {
    "title" : "Food Rules: An Eater's Manual",
    "description" : "Eating doesn't have to be so complicated. In this age of ever-more elaborate diets and conflicting health advice, Food Rules brings welcome simplicity to our daily decisions about food. Written with clarity, concision, and wit that has become bestselling author Michael Pollan's trademark, this indispensable handbook lays out a set of straightforward, memorable rules for eating wisely, one per page, accompanied by a concise explanation. It's an easy-to-use guide that draws from a variety of traditions, suggesting how different cultures through the ages have arrived at the same enduring wisdom about food. Whether at the supermarket or an all-you-can-eat buffet, this is the perfect guide for anyone who ever wondered, 'What should I eat?',"
    "author" : "Michael Pollan",
    "tags" : "food",
    "price" : 8.9,
    "language" : "en",
    "pub_date" : "2009-12-29",
    "isbn" : "014311638"
  }
}
Ethans-MacBook-Pro-2:es eaofxr$ █

```



```

ing how different cultures through the ages have arrived at the same enduring wisdom about food. Whether at the supermarket or an
all-you-can-eat buffet, this is the perfect guide for anyone who ever wondered, 'What should I eat?',"author":"Michael Pollan","t
ags":"food","price":8.90,"language":"en","pub_date":"2009-12-29","isbn":"014311638"}}Ethans-MacBook-Pro-2:es eaofxr$
Ethans-MacBook-Pro-2:es eaofxr$ curl -XGET http://localhost:9200/books/book/18?pretty
{
  "_index" : "books",
  "_type" : "book",
  "_id" : "18",
  "_version" : 1,
  "found" : true,
  "_source" : {
    "title" : "Food Rules: An Eater's Manual",
    "description" : "Eating doesn't have to be so complicated. In this age of ever-more elaborate diets and conflicting health adv
ice, Food Rules brings welcome simplicity to our daily decisions about food. Written with clarity, concision, and wit that has bec
ome bestselling author Michael Pollan's trademark, this indispensable handbook lays out a set of straightforward, memorable rules
for eating wisely, one per page, accompanied by a concise explanation. It's an easy-to-use guide that draws from a variety of trad
itions, suggesting how different cultures through the ages have arrived at the same enduring wisdom about food. Whether at the sup
ermarket or an all-you-can-eat buffet, this is the perfect guide for anyone who ever wondered, 'What should I eat?',"
    "author" : "Michael Pollan",
    "tags" : "food",
    "price" : 8.9,
    "language" : "en",
    "pub_date" : "2009-12-29",
    "isbn" : "014311638"
  }
}
Ethans-MacBook-Pro-2:es eaofxr$ curl -XPOST http://localhost:9200/books/_bulk --data-binary @store.json
{"took":22,"errors":false,"items":[{"index":{"_index":"books","_type":"store","_id":"1","_version":1,"result":"created","_shards":1},
{"total":1,"successful":1,"failed":0},"created":true,"status":201}},{index":{"_index":"books","_type":"store","_id":"2","_version":
1,"result":"created","_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}},{index":{"_index":"books","_
type":"store","_id":"3","_version":1,"result":"created","_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":20
1}},{index":{"_index":"books","_type":"store","_id":"4","_version":1,"result":"created","_shards":{"total":1,"successful":1,"fail
ed":0},"created":true,"status":201}},{index":{"_index":"books","_type":"store","_id":"5","_version":1,"result":"created","_shards
":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}]}Ethans-MacBook-Pro-2:es eaofxr$
Ethans-MacBook-Pro-2:es eaofxr$

```


for eating wisely, one per page, accompanied by a concise explanation. It's an easy-to-use guide that draws from a variety of traditions, suggesting how different cultures through the ages have arrived at the same enduring wisdom about food. Whether at the supermarket or an all-you-can-eat buffet, this is the perfect guide for anyone who ever wondered, 'What should I eat?',"

```
"author" : "Michael Pollan",
"tags" : "food",
"price" : 8.9,
"language" : "en",
"pub_date" : "2009-12-29",
"isbn" : "014311638"
}
```

```
}
[Ethans-MacBook-Pro-2:es eaofxr$ curl -XPOST http://localhost:9200/books/_bulk --data-binary @store.json
{"took":22,"errors":false,"items":[{"index":{"_index":"books","_type":"store","_id":"1","_version":1,"result":"created","_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}},{index":{"_index":"books","_type":"store","_id":"2","_version":1,"result":"created","_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}},{index":{"_index":"books","_type":"store","_id":"3","_version":1,"result":"created","_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}},{index":{"_index":"books","_type":"store","_id":"4","_version":1,"result":"created","_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}},{index":{"_index":"books","_type":"store","_id":"5","_version":1,"result":"created","_shards":{"total":1,"successful":1,"failed":0},"created":true,"status":201}}]}Ethans-MacBook-Pro-2:es eaofxr$
```

```
[Ethans-MacBook-Pro-2:es eaofxr$ curl -XGET http://localhost:9200/books/store/1?pretty
```

```
{
  "_index" : "books",
  "_type" : "store",
  "_id" : "1",
  "_version" : 1,
  "found" : true,
  "_source" : {
    "name" : "Books and Books",
    "location" : {
      "lat" : 25.750212,
      "lon" : -80.260589
    }
  }
}
```

```
}
Ethans-MacBook-Pro-2:es eaofxr$ █
```

Final Notes: Elasticsearch 5.0 Changes

- Types: string is NOW text and keyword
- Scaled_float parameter with scale_factor of 100
 - 10.45 is stored as 1045

Summary

- Added documents with and without id
- Deleted documents
- Used the Bulk API

Next Section

Querying with RESTful API