

2.

```
PS G:\WebDev2\lab14b> npm install express

added 64 packages, and audited 65 packages in 2s

12 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
PS G:\WebDev2\lab14b> npm install sqlite3
npm WARN deprecated @npmcli/move-file@1.1.2: This functionality has been moved to @npmcli/fs

added 125 packages, and audited 190 packages in 5s

23 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
PS G:\WebDev2\lab14b> 
```

3.

```
PS G:\WebDev2\lab14b> node db-tester.js
Cubism
Romanticism
Realism
Impressionism
Post-Impressionism
Fauvism
Surrealism
Expressionism
Symbolism
Neoclassicism
Northern Renaissance
Renaissance
High Renaissance
Mannerism
International Gothic
Rococo
Baroque
Dutch Golden Age
Academic Art
Biedermeier
Henri Matisse
Jacques-Louis David
Jean-Auguste-Dominique Ingres
Eugene Delacroix
Gustave Courbet
Edouard Manet
Pierre Auguste Renoir
Edgar Degas
Claude Monet
Paul Gauguin
Georges Seurat
Paul Cezanne
Henri Toulouse-Lautrec
Andre Derain
Henri Rousseau
Francois Boucher
Jean-Baptiste-Simeon Chardin
Elisabeth Louise Lebrun
Nicolas Poussin
William Bouguereau
**** The Grand Canal in Venice from Palazzo Flangini to Campo San Marcuola
```

4.

```
1 {
2   "id": 290,
3   "title": "Balcony",
4   "artist": {
5     "id": 12,
6     "first": "Edouard",
7     "last": "Manet",
8     "nationality": "France",
9     "yearBirth": 1832,
10    "yearDeath": 1883,
11    "link": "http://en.wikipedia.org/wiki/Manet",
12    "details": "Edouard Manet was a French painter. One of the first 19th-century
13    artists to approach modern-life subjects, he was a pivotal figure in the transition from
14    Realism to Impressionism."
15  },
16  "gallery": {
17    "id": 19,
18    "name": "Musée d'Orsay",
19    "city": "Paris",
20    "address": "1 Rue de la Légion d'Honneur",
21    "country": "France",
22    "latitude": 48.86,
23    "longitude": 2.327,
24    "link": "http://www.musee-orsay.fr/"
25  },
26  "year": 1868,
27  "width": 170,
28  "height": 124,
29  "excerpt": "The painting tells no story or anecdote; the protagonists are frozen, as
30  if isolated in an interior dream, evidence that Manet was freeing himself from academic
31  constraints, despite the obvious reference to Goya's Majas at the Balcony.",
32  "filename": "012030",
33  "medium": "Oil on canvas",
34  "accession": "RF 2772",
35  "description": "When Manet painted this piece, scenes of bourgeois life were in
36  vogue. Yet The Balcony went against the conventions of the day. All the subjects were
37  close acquaintances of the artist, especially Berthe Morisot who here, pictured sitting
38  in the foreground, makes her first appearance in Manet's work, and who went on to become
39  one of his favourite models. The painting tells no story or anecdote; the protagonists
40  are frozen, as if isolated in an interior dream, evidence that Manet was freeing himself
41  from academic constraints, despite the obvious reference to Goya's Majas at the Balcony.",
42  "links": {
43    "gallery": "http://www.musee-orsay.fr/en/collections/works-in-
44    focus/search/commentaire/commentaire_id/le-balcon-7121.html",
45    "google": "https://www.google.com/culturalinstitute/beta/asset/the-
46    balcony/ggFK0UgXAd70CA",
47    "wikipedia": "https://commons.wikimedia.org/wiki/File:Edouard_Manet_-
48    _The_Balcony_-_Google_Art_Project.jpg"
49  },
50  "annotations": {
51    "safeSearchAnnotation": {
```

```
1 [
2   {
3     "id": 5,
4     "title": "Self-portrait (Yo)",
5     "artist": {
6       "id": 1,
7       "first": "Pablo",
8       "last": "Picasso",
9       "nationality": "Spain",
10      "yearBirth": 1881,
11      "yearDeath": 1973,
12      "link": "http://en.wikipedia.org/wiki/Picasso",
13      "details": "Pablo Ruiz Picasso was a Spanish painter, draughtsman, and
sculptor who lived most of his life in France. He is widely known for co-founding the
Cubist movement and for the wide variety of styles that he helped develop and explore.
Among his most famous works are the proto-Cubist Les Femmes d'Alger (O.J. 1907) and
Guernica (1937), a portrayal of the German bombing of Guernica during the Spanish Civil
War."
14    },
15    "gallery": {
16      "id": 20,
17      "name": "Museum of Modern Art",
18      "city": "New York",
19      "address": "11 W 53rd St",
20      "country": "USA",
21      "latitude": 40.761484,
22      "longitude": -73.977664,
23      "link": "http://www.moma.org/"
24    },
25    "year": 1901,
26    "width": 54,
27    "height": 32,
28    "excerpt": null,
29    "filename": "001050",
30    "medium": "Oil on cardboard on panel",
31    "accession": "587.1998",
32    "description": null,
33    "links": {
34      "gallery": "http://www.moma.org/collection/works/80026?locale=en",
35      "google": null,
36      "wikipedia": "https://en.wikipedia.org/wiki/Yo,_Picasso"
37    },
38    "annotations": {
39      "safeSearchAnnotation": {
40        "violence": 1,
41        "racy": 1
42      },
43      "dominantColors": [
```

5.

MongoDB Compass - cluster0.thlosoj.mongodb.net/funWebDev.books

Connect Edit View Collection Help

cluster0.thlosoj....

My Queries Performance Databases

Search

admin config funWebDev Images Movies Travel Users books local sample_mflix

funWebDev.books

215 1 DOCUMENTS INDEXES

Documents Aggregations Schema Indexes Validation

Filter Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE

1 - 20 of 215

Import completed.

```
{ "_id": ObjectId('65f5d56b0af7b8c0b3767452'),  
  "id": 484,  
  "isbn10": "032179477X",  
  "isbn13": "9780321794772",  
  "title": "A First Course in Probability",  
  "year": 2014,  
  "publisher": "Pearson",  
  "production": Object,  
  "category": Object }  
  
{ "_id": ObjectId('65f5d56b0af7b8c0b3767453'),  
  "id": 566,  
  "isbn10": "0321865828",  
  "isbn13": "9780321865823",  
  "title": "Academic Reading",  
  "year": 2014,  
  "publisher": "Longman",  
  "production": Object,  
  "category": Object }  
  
{ "_id": ObjectId('65f5d56b0af7b8c0b3767454'),  
  "id": 953,  
  "isbn10": "0132991322",  
  "isbn13": "9780132991322",  
  "title": "Accounting Information Systems: The Crossroads of Accounting and IT 2e",  
  "year": 2014,  
  "publisher": "Undecided",  
  "production": Object,  
  "category": Object }  
  
{ "_id": ObjectId('65f5d56b0af7b8c0b3767455'),  
  "id": 701,  
  "isbn10": "013267145X",  
  "isbn13": "9780132671453",  
  "title": "Adaptive Filter Theory",  
  "year": 2014,  
  "publisher": "Wiley",  
  "production": Object,  
  "category": Object }
```

6.

MongoDB Compass - cluster0.thlosoj.mongodb.net/funWebDev.books

Connect Edit View Collection Help

cluster0.thlosoj....

My Queries Performance Databases

Search

admin config funWebDev Images Movies Travel Users books local sample_mflix

funWebDev.books

215 1 DOCUMENTS INDEXES

Documents Aggregations Schema Indexes Validation

Filter Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

Project { title:1, isbn10:1 }

Sort { field: -1 } or [['field', -1]]

Collation { locale: 'simple' }

MaxTimeMS 60000

Skip Limit

EXPORT DATA

1 - 20 of 215

```
{ "_id": ObjectId('65f5d56b0af7b8c0b3767452'),  
  "id": 484,  
  "isbn10": "032179477X",  
  "title": "A First Course in Probability",  
  "year": 2014,  
  "publisher": "Pearson",  
  "production": Object,  
  "category": Object }  
  
{ "_id": ObjectId('65f5d56b0af7b8c0b3767453'),  
  "id": 566,  
  "isbn10": "0321865828",  
  "title": "Academic Reading",  
  "year": 2014,  
  "publisher": "Longman",  
  "production": Object,  
  "category": Object }  
  
{ "_id": ObjectId('65f5d56b0af7b8c0b3767454'),  
  "id": 953,  
  "isbn10": "0132991322",  
  "title": "Accounting Information Systems: The Crossroads of Accounting and IT 2e",  
  "year": 2014,  
  "publisher": "Undecided",  
  "production": Object,  
  "category": Object }  
  
{ "_id": ObjectId('65f5d56b0af7b8c0b3767455'),  
  "id": 701,  
  "isbn10": "013267145X",  
  "title": "Adaptive Filter Theory",  
  "year": 2014,  
  "publisher": "Wiley",  
  "production": Object,  
  "category": Object }  
  
{ "_id": ObjectId('65f5d56b0af7b8c0b3767456'),  
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  "isbn10": "013267146X",  
  "title": "Adaptive Filter Theory",  
  "year": 2014,  
  "publisher": "Wiley",  
  "production": Object,  
  "category": Object }
```

9.

```
starting to connect to mongo ...
(node:16352) [MONGODB DRIVER] Warning: useUrlParser is a deprecated option: useUrlParser has no effect since Node.js Driver version 4.0.0 and will be removed in the next major version
(Use 'node --trace-warnings ...' to show where the warning was created)
(node:16352) [MONGODB DRIVER] Warning: useUnifiedTopology is a deprecated option: useUnifiedTopology has no effect since Node.js Driver version 4.0.0 and will be removed in the next major version
connected to mongo
```

10.

```
PS G:\WebDev2\lab14b> node book-server.js
starting to connect to mongo ...
(node:12836) [MONGODB DRIVER] Warning: useUrlParser is a deprecated option: useUrlParser has no effect since Node.js Driver version 4.0.0 and will be removed in the next major version
(Use 'node --trace-warnings ...' to show where the warning was created)
(node:12836) [MONGODB DRIVER] Warning: useUnifiedTopology is a deprecated option: useUnifiedTopology has no effect since Node.js Driver version 4.0.0 and will be removed in the next major version
Server running at port= 8080
connected to mongo
```

11.

```
models > JS Book.js > ...
1  const mongoose = require('mongoose');
2  // define a schema that maps to the structure of the data in MongoDB
3  const bookSchema = new mongoose.Schema({
4    id: Number,
5    isbn10: String,
6    isbn13: String,
7    title: String,
8    year: Number,
9    publisher: String,
10   production: {
11     status: String,
12     binding: String,
13     size: String,
14     pages: Number,
15     instock: Date
16   },
17   category: {
18     main: String,
19     secondary: String
20   }
21 });
22 module.exports = mongoose.model('Book', bookSchema, 'books');
```

12.

```
1  [
2      {
3          "id": "65f5d56b0af7b8c0b376746e",
4          "isbn10": "0132481197",
5          "title": "Career Adventure: Your Guide to Personal Assessment, Career Exploration,
and Decision Making"
6      },
7      {
8          "id": "65f5d56b0af7b8c0b376747b",
9          "isbn10": "0133056252",
10         "title": "Customer Service: Career Success through Customer Loyalty"
11     },
12     {
13         "id": "65f5d56b0af7b8c0b37674a8",
14         "isbn10": "013297133X",
15         "title": "Guide to Managerial Communication"
16     },
17     {
18         "id": "65f5d56b0af7b8c0b37674aa",
19         "isbn10": "013610827X",
20         "title": "Hands-On Database"
21     },
22     {
23         "id": "65f5d56b0af7b8c0b37674db",
24         "isbn10": "0133078353",
25         "title": "Marketing Plan Handbook"
26     },
27     {
28         "id": "65f5d56b0af7b8c0b37674ec",
29         "isbn10": "013295351X",
30         "title": "Opportunities and Challenges of Workplace Diversity"
31     },
32     {
33         "id": "65f5d56b0af7b8c0b376750a",
34         "isbn10": "0205874126",
35         "title": "Sterling Stories"
36     },
37     {
38         "id": "65f5d56b0af7b8c0b376750d",
39         "isbn10": "0321898680",
40         "title": "Style: Lessons in Clarity and Grace 11E"
41     },
42     {
43         "id": "65f5d56b0af7b8c0b3767518",
44         "isbn10": "0132991284",
45         "title": "The Economics of Macro Issues"
46     },
47     {
48         "id": "65f5d56b0af7b8c0b3767519",
49         "isbn10": "0133022935",
50         "title": "The Economics of Public Issues"
51     }
52 ]
```

TK.

```
1  [
2      {
3          "location": {
4              "iso": "CA",
5              "country": "Canada",
6              "city": "Calgary",
7              "cityCode": 5913490,
8              "continent": "NA",
9              "latitude": 51.061249,
10             "longitude": -114.158077
11         },
12         "user": {
13             "userid": 1,
14             "firstname": "Luis",
15             "lastname": "Goncalves"
16         },
17         "id": "65f5d5be0af7b8c0b37675a5",
18         "id": 1,
19         "title": "Edworthy Park",
20         "description": "Calgary Children's Hospital from Edworthy Park",
21         "filename": "6592902825.jpg"
22     },
23     {
24         "location": {
25             "iso": "CA",
26             "country": "Canada",
27             "city": "Calgary",
28             "cityCode": 5913490,
29             "continent": "NA",
30             "latitude": 51.061249,
31             "longitude": -114.158077
32         },
33         "user": {
34             "userid": 1,
35             "firstname": "Luis",
36             "lastname": "Goncalves"
37         },
38         "id": "65f5d5be0af7b8c0b37675a6",
39         "id": 2,
40         "title": "Calgary Downtown",
41         "description": "Calgary Downtown from Edworthy Park",
42         "filename": "6592914823.jpg"
43     },
44     {
45         "location": {
46             "iso": "CA",
47             "country": "Canada",
48             "city": "Toronto",
49             "cityCode": 6167865,
50             "continent": "NA",
51             "latitude": 43.668451,
52             "longitude": -79.394653
53         },
54         "user": {
55             "userid": 1,
56             "firstname": "Luis",
57             "lastname": "Goncalves"
58         },
59         "id": "65f5d5be0af7b8c0b37675a7",
60         "id": 108,
61         "title": "Royal Ontario Museum",
62         "description": "Michael Lee-Chin Crystal facade was created by architect Daniel
Libeskind",
63         "filename": "20010830173.jpg"
64     },
65     {
66         "location": {
67             "iso": "CA",
68             "country": "Canada",
69             "city": "Toronto",
70             "cityCode": 6167865,
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73             "longitude": -79.394653
74         },
75         "user": {
76             "userid": 1,
77             "firstname": "Luis",
78             "lastname": "Goncalves"
79         },
80         "id": "65f5d5be0af7b8c0b37675a8",
81         "id": 109,
82         "title": "CN Tower",
83         "description": "CN Tower from CN Tower",
84         "filename": "20010830174.jpg"
85     },
86     {
87         "location": {
88             "iso": "CA",
89             "country": "Canada",
90             "city": "Toronto",
91             "cityCode": 6167865,
92             "continent": "NA",
93             "latitude": 43.668451,
94             "longitude": -79.394653
95         },
96         "user": {
97             "userid": 1,
98             "firstname": "Luis",
99             "lastname": "Goncalves"
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101        "id": "65f5d5be0af7b8c0b37675a9",
102        "id": 110,
103        "title": "CN Tower",
104        "description": "CN Tower from CN Tower",
105        "filename": "20010830175.jpg"
106    },
107    {
108        "location": {
109            "iso": "CA",
110            "country": "Canada",
111            "city": "Toronto",
112            "cityCode": 6167865,
113            "continent": "NA",
114            "latitude": 43.668451,
115            "longitude": -79.394653
116        },
117        "user": {
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119            "firstname": "Luis",
120            "lastname": "Goncalves"
121        },
122        "id": "65f5d5be0af7b8c0b37675aa",
123        "id": 111,
124        "title": "CN Tower",
125        "description": "CN Tower from CN Tower",
126        "filename": "20010830176.jpg"
127    },
128    {
129        "location": {
130            "iso": "CA",
131            "country": "Canada",
132            "city": "Toronto",
133            "cityCode": 6167865,
134            "continent": "NA",
135            "latitude": 43.668451,
136            "longitude": -79.394653
137        },
138        "user": {
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140            "firstname": "Luis",
141            "lastname": "Goncalves"
142        },
143        "id": "65f5d5be0af7b8c0b37675ab",
144        "id": 112,
145        "title": "CN Tower",
146        "description": "CN Tower from CN Tower",
147        "filename": "20010830177.jpg"
148    },
149    {
150        "location": {
151            "iso": "CA",
152            "country": "Canada",
153            "city": "Toronto",
154            "cityCode": 6167865,
155            "continent": "NA",
156            "latitude": 43.668451,
157            "longitude": -79.394653
158        },
159        "user": {
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162            "lastname": "Goncalves"
163        },
164        "id": "65f5d5be0af7b8c0b37675ac",
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166        "title": "CN Tower",
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173            "country": "Canada",
174            "city": "Toronto",
175            "cityCode": 6167865,
176            "continent": "NA",
177            "latitude": 43.668451,
178            "longitude": -79.394653
179        },
180        "user": {
181            "userid": 1,
182            "firstname": "Luis",
183            "lastname": "Goncalves"
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194            "country": "Canada",
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202            "userid": 1,
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205        },
206        "id": "65f5d5be0af7b8c0b37675ae",
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209        "description": "CN Tower from CN Tower",
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211    },
212    {
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214            "iso": "CA",
215            "country": "Canada",
216            "city": "Toronto",
217            "cityCode": 6167865,
218            "continent": "NA",
219            "latitude": 43.668451,
220            "longitude": -79.394653
221        },
222        "user": {
223            "userid": 1,
224            "firstname": "Luis",
225            "lastname": "Goncalves"
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227        "id": "65f5d5be0af7b8c0b37675af",
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230        "description": "CN Tower from CN Tower",
231        "filename": "20010830181.jpg"
232    },
233    {
234        "location": {
235            "iso": "CA",
236            "country": "Canada",
237            "city": "Toronto",
238            "cityCode": 6167865,
239            "continent": "NA",
240            "latitude": 43.668451,
241            "longitude": -79.394653
242        },
243        "user": {
244            "userid": 1,
245            "firstname": "Luis",
246            "lastname": "Goncalves"
247        },
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249        "id": 117,
250        "title": "CN Tower",
251        "description": "CN Tower from CN Tower",
252        "filename": "20010830182.jpg"
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254    {
255        "location": {
256            "iso": "CA",
257            "country": "Canada",
258            "city": "Toronto",
259            "cityCode": 6167865,
260            "continent": "NA",
261            "latitude": 43.668451,
262            "longitude": -79.394653
263        },
264        "user": {
265            "userid": 1,
266            "firstname": "Luis",
267            "lastname": "Goncalves"
268        },
269        "id": "65f5d5be0af7b8c0b37675b1",
270        "id": 118,
271        "title": "CN Tower",
272        "description": "CN Tower from CN Tower",
273        "filename": "20010830183.jpg"
274    },
275    {
276        "location": {
277            "iso": "CA",
278            "country": "Canada",
279            "city": "Toronto",
280            "cityCode": 6167865,
281            "continent": "NA",
282            "latitude": 43.668451,
283            "longitude": -79.394653
284        },
285        "user": {
286            "userid": 1,
287            "firstname": "Luis",
288            "lastname": "Goncalves"
289        },
290        "id": "65f5d5be0af7b8c0b37675b2",
291        "id": 119,
292        "title": "CN Tower",
293        "description": "CN Tower from CN Tower",
294        "filename": "20010830184.jpg"
295    },
296    {
297        "location": {
298            "iso": "CA",
299            "country": "Canada",
300            "city": "Toronto",
301            "cityCode": 6167865,
302            "continent": "NA",
303            "latitude": 43.668451,
304            "longitude": -79.394653
305        },
306        "user": {
307            "userid": 1,
308            "firstname": "Luis",
309            "lastname": "Goncalves"
310        },
311        "id": "65f5d5be0af7b8c0b37675b3",
312        "id": 120,
313        "title": "CN Tower",
314        "description": "CN Tower from CN Tower",
315        "filename": "20010830185.jpg"
316    },
317    {
318        "location": {
319            "iso": "CA",
320            "country": "Canada",
321            "city": "Toronto",
322            "cityCode": 6167865,
323            "continent": "NA",
324            "latitude": 43.668451,
325            "longitude": -79.394653
326        },
327        "user": {
328            "userid": 1,
329            "firstname": "Luis",
330            "lastname": "Goncalves"
331        },
332        "id": "65f5d5be0af7b8c0b37675b4",
333        "id": 121,
334        "title": "CN Tower",
335        "description": "CN Tower from CN Tower",
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341            "country": "Canada",
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343            "cityCode": 6167865,
344            "continent": "NA",
345            "latitude": 43.668451,
346            "longitude": -79.394653
347        },
348        "user": {
349            "userid": 1,
350            "firstname": "Luis",
351            "lastname": "Goncalves"
352        },
353        "id": "65f5d5be0af7b8c0b37675b5",
354        "id": 122,
355        "title": "CN Tower",
356        "description": "CN Tower from CN Tower",
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362            "country": "Canada",
363            "city": "Toronto",
364            "cityCode": 6167865,
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367            "longitude": -79.394653
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372            "lastname": "Goncalves"
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377        "description": "CN Tower from CN Tower",
378        "filename": "20010830188.jpg"
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386            "continent": "NA",
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388            "longitude": -79.394653
389        },
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393            "lastname": "Goncalves"
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395        "id": "65f5d5be0af7b8c0b37675b7",
396        "id": 124,
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398        "description": "CN Tower from CN Tower",
399        "filename": "20010830189.jpg"
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409            "longitude": -79.394653
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414            "lastname": "Goncalves"
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416        "id": "65f5d5be0af7b8c0b37675b8",
417        "id": 125,
418        "title": "CN Tower",
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420        "filename": "20010830190.jpg"
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425            "country": "Canada",
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427            "cityCode": 6167865,
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430            "longitude": -79.394653
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441        "filename": "20010830191.jpg"
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446            "country": "Canada",
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450            "latitude": 43.668451,
451            "longitude": -79.394653
452        },
453        "user": {
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455            "firstname": "Luis",
456            "lastname": "Goncalves"
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458        "id": "65f5d5be0af7b8c0b37675ba",
459        "id": 127,
460        "title": "CN Tower",
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462        "filename": "20010830192.jpg"
463    },
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465        "location": {
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467            "country": "Canada",
468            "city": "Toronto",
469            "cityCode": 6167865,
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471            "latitude": 43.668451,
472            "longitude": -79.394653
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483        "filename": "20010830193.jpg"
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492            "latitude": 43.668451,
493            "longitude": -79.394653
494        },
495        "user": {
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497            "firstname": "Luis",
498            "lastname": "Goncalves"
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500        "id": "65f5d5be0af7b8c0b37675bc",
501        "id": 129,
502        "title": "CN Tower",
503        "description": "CN Tower from CN Tower",
504        "filename": "20010830194.jpg"
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511            "cityCode": 6167865,
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514            "longitude": -79.394653
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516        "user": {
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518            "firstname": "Luis",
519            "lastname": "Goncalves"
520        },
521        "id": "65f5d5be0af7b8c0b37675bd",
522        "id": 130,
523        "title": "CN Tower",
524        "description": "CN Tower from CN Tower",
525        "filename": "20010830195.jpg"
526    },
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528        "location": {
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530            "country": "Canada",
531            "city": "Toronto",
532            "cityCode": 6167865,
533            "continent": "NA",
534            "latitude": 43.668451,
535            "longitude": -79.394653
536        },
537        "user": {
538            "userid": 1,
539            "firstname": "Luis",
540            "lastname": "Goncalves"
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544        "title": "CN Tower",
545        "description": "CN Tower from CN Tower",
546        "filename": "20010830196.jpg"
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551            "country": "Canada",
552            "city": "Toronto",
553            "cityCode": 6167865,
554            "continent": "NA",
555            "latitude": 43.668451,
556            "longitude": -79.394653
557        },
558        "user": {
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560            "firstname": "Luis",
561            "lastname": "Goncalves"
562        },
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566        "description": "CN Tower from CN Tower",
567        "filename": "20010830197.jpg"
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575            "continent": "NA",
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577            "longitude": -79.394653
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640            "longitude": -79.394653
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671        "description": "CN Tower from CN Tower",
672        "filename": "20010830202.jpg"
673    },
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682            "longitude": -79.394653
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687            "lastname": "Goncalves"
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702            "latitude": 43.668451,
703            "longitude": -79.394653
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708            "lastname": "Goncalves"
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714        "filename": "20010830204.jpg"
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724            "longitude": -79.394653
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729            "lastname": "Goncalves"
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742            "cityCode": 6167865,
743            "continent": "NA",
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745            "longitude": -79.394653
746        },
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749            "firstname": "Luis",
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755        "description": "CN Tower from CN Tower",
756        "filename": "20010830206.jpg"
757    },
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763            "cityCode": 6167865,
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766            "longitude": -79.394653
767        },
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771            "lastname": "Goncalves"
772        },
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776        "description": "CN Tower from CN Tower",
777        "filename": "20010830207.jpg"
778    },
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780        "location": {
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783            "city": "Toronto",
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785            "continent": "NA",
786            "latitude": 43.668451,
787            "longitude": -79.394653
788        },
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792            "lastname": "Goncalves"
793        },
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797        "description": "CN Tower from CN Tower",
798        "filename": "20010830208.jpg"
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806            "continent": "NA",
807            "latitude": 43.668451,
808            "longitude": -79.394653
809        },
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818        "description": "CN Tower from CN Tower",
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827            "continent": "NA",
828            "latitude": 43.668451,
829            "longitude": -79.394653
830        },
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839        "description": "CN Tower from CN Tower",
840        "filename": "20010830210.jpg"
841    },
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843        "location": {
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845            "country": "Canada",
846            "city": "Toronto",
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848            "continent": "NA",
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850            "longitude": -79.394653
851        },
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855            "lastname": "Goncalves"
856        },
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860        "description": "CN Tower from CN Tower",
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871            "longitude": -79.394653
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876            "lastname": "Goncalves"
877        },
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882        "filename": "20010830212.jpg"
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892            "longitude": -79.394653
893        },
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902        "description": "CN Tower from CN Tower",
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920        "id": "65f5d5be0af7b8c0b37675d0",
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923        "description": "CN Tower from CN Tower",
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934            "longitude": -79.394653
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940        },
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955            "longitude": -79.394653
956        },
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959            "firstname": "Luis",
960            "lastname": "Goncalves"
961        },
962        "id": "65f5d5
```

13.

Add Book

Title

ISBN10

ISBN13

Number of Pages

Year

Publisher

Pearson

Submit

14.

```
1 {  
2   "message": "New Book was saved\n          isbn= 1234567890"  
3 }
```

So this shows that it was created but then when i click the link to the book I have set to create a message if it can't find that book and it does produce that

```
1 {  
2   "error": "Book not found"  
3 }
```

15.

Authentication

Users User Settings Authentication Providers		
App Services provides several authentication providers that you can integrate into a client application to allow users to log in to your app. Learn more about how to configure authentication for any of our authentication providers		
Provider	Enabled	Edit
Allow users to log in anonymously	On	<button>EDIT</button>
Email/Password	Off	<button>EDIT</button>
Facebook	Off	<button>EDIT</button>
Google	Off	<button>EDIT</button>
Apple	Off	<button>EDIT</button>
API Keys	Off	<button>EDIT</button>
Custom JWT Authentication	Off	<button>EDIT</button>
Custom Function Authentication	Off	<button>EDIT</button>

16.

Add Dependency

```
1 exports = async function(arg){
2   const collection = context.services
3   get('mongodb-elastic').db('funwebdev').collection("books");
4   return collection.findOne({isbn10: arg});
5 };
```

Ln 5 Col 3

Testing Console Result System User Change User Run Clear Result

```
{
  "isbn10": "0205990962",
  "isbn13": {
    "NumberLong": "9780205990965"
  },
  "title": "Mosaics: Reading and Writing Essays 6e",
  "year": {
    "NumberInt": "2014"
  },
  "publisher": "Longman",
  "production": {
    "status": "Complete",
    "binding": "Paperback",
    "size": "7-3/8\" x 9-1/8\"",
    "pages": {
      "NumberInt": "816"
    },
    "instock": "1/2/2013"
  },
  "category": {
    "main": "Student Success",
    "secondary": "Developmental Writing"
  }
}
```

> result (JavaScript):
EJSON.parse('{"_id":{"_id":"6sf5d56b0af7b8c0b37674e8"},"id":{"\$numberInt":"556"},"isbn10":"0205990962","isbn13":{"\$numberLong":"9780205990965"},"title":"Mosaics: Reading and Writing Essays 6e","year":{"\$numberInt":2014}}')

17.

MongoDB Realms Tester

hamlet

macbeth

MongoDB Realms Tester

A First Course in Probability
 Academic Reading
 Accounting Information Systems: The Crossroads of Accounting and IT 2e
 Adaptive Filter Theory
 Aerodynamics for Engineers
 Algebra and Trigonometry
 Algebra and Trigonometry with Modeling & Visualization
 An Introduction to Programming Using Visual Basic 2012(w/Visual Studio 2012 Express Edition DVD)
 Analysis with an Introduction to Proof
 Auditing and Assurance Services
 Basic College Mathematics
 Basic College Vocabulary Strategies
 Basic Technical Mathematics
 Basic Technical Mathematics with Calculus
 Basics of Web Design: HTML5 & CSS3
 Better Business
 Bridging the Gap
 Brief Calculus & Its Applications
 Building College Vocabulary Strategies
 Building Java Programs
 Business Communication
 Business Communication Essentials
 Business Intelligence
 Business Math
 Business Math Brief
 Business Statistics: A First Course
 C++ How to Program (Early Objects Version)
 Calculus and Its Applications Expanded Version
 Career Adventure: Your Guide to Personal Assessment, Career Exploration, and Decision Making
 Career Tool Kit, The: Skills for Success
 College Algebra