

Requêtes MongoDB

Hugo Lignères

UE L315 - Semaine 3



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1 Exercice 1

1.1 La liste des noms officiels des pays stockés de la 10ème à la 22ème position (en affichant seulement le champ "name.official")

```
1 db.pays.find({}, { "name.official": 1, _id: 0 })
2 .skip(9)
3 .limit(13);
```

```
1 {
2   "name": {
3     "official": "Republic of Armenia"
4   }
5 },
6 {
7   "name": {
8     "official": "American Samoa"
9   }
10 },
11 {
12   "name": {
13     "official": "Antarctica"
14   }
15 },
16 {
17   "name": {
18     "official": "Territory of the French Southern and Antarctic Lands"
19   }
20 },
21 {
22   "name": {
23     "official": "Antigua and Barbuda"
24   }
25 },
26 {
27   "name": {
28     "official": "Commonwealth of Australia"
29   }
30 },
31 {
32   "name": {
33     "official": "Republic of Austria"
34   }
35 },
36 {
37   "name": {
38     "official": "Republic of Azerbaijan"
39   }
40 },
41 {
42   "name": {
43     "official": "Republic of Burundi"
44   }
45 },
46 }
```

1.2 Les noms officiels de la 10ème à la 22ème position de la liste triée par superficie croissante (utiliser le champ "area")

```
1 db.pays.find({}, { "name.official": 1, _id: 0 })
2 .sort({area: 1})
3 .skip(9)
4 .limit(13);
```

```
1 {
2   "name": {
3     "official": "Macao Special Administrative Region of the People's Republic
4   }
5 },
6 {
7   "name": {
8     "official": "Sint Maarten"
9   }
10 },
11 {
12   "name": {
13     "official": "United States Minor Outlying Islands"
14   }
15 },
16 {
17   "name": {
18     "official": "Territory of Norfolk Island"
19   }
20 },
21 {
22   "name": {
23     "official": "Pitcairn Group of Islands"
24   }
25 },
26 {
27   "name": {
28     "official": "Bouvet Island"
29   }
30 },
31 {
32   "name": {
33     "official": "Saint Martin"
34   }
35 },
36 {
37   "name": {
38     "official": "Bermuda"
39   }
40 },
41 {
42   "name": {
43     "official": "British Indian Ocean Territory"
44   }
45 },
46 }
```

1.3 Toutes les infos à propos de votre pays préféré (par exemple le Canada)

```
Connected to cvtic-1.mjx2p.mongodb.net
1 db.pays.find({"name.common": "Antarctica"});

Edit Document
1
2
3 {
4   "_id": {
5     "$oid": "67912888dc3592c16458d1ae"
6   },
7   "name": {
8     "common": "Antarctica",
9     "official": "Antarctica",
10    "native": {}
11  },
12  "tld": [
13    ".aq"
14  ],
15  "cca2": "AQ",
16  "ccn3": "010",
17  "cca3": "ATA",
18  "cioc": "",
19  "independent": false,
20  "status": "officially-assigned",
21  "unMember": false,
22  "currencies": {},
23  "idd": {
24    "root": "",
25    "suffixes": []
26  },
27  "capital": [],
28  "altSpellings": [
29    "AQ"
30  ],
31  "region": "Antarctic",
32  "subregion": "",
33  "languages": {},
34  "translations": {
35    "ar": {
36      "name": "القطب الجنوبي",
37      "native": "القطب الجنوبي",
38      "official": "القطب الجنوبي",
39      "native": {}
40    },
41    "az": {
42      "name": "Antarktida",
43      "native": "Antarktida",
44      "official": "Antarktida",
45      "native": {}
46    },
47    "bg": {
48      "name": "Антарктика",
49      "native": "Антарктика",
50      "official": "Антарктика",
51      "native": {}
52    },
48    "bn": {
49      "name": "আন্টার্কটিকা",
50      "native": "আন্টার্কটিকা",
51      "official": "আন্টার্কটিকা",
52      "native": {}
53    },
54    "bs": {
55      "name": "Antarktika",
56      "native": "Antarktika",
57      "official": "Antarktika",
58      "native": {}
59    },
60    "ca": {
61      "name": "Antàrtida",
62      "native": "Antàrtida",
63      "official": "Antàrtida",
64      "native": {}
65    },
66    "cs": {
67      "name": "Antarktida",
68      "native": "Antarktida",
69      "official": "Antarktida",
70      "native": {}
71    },
68    "da": {
69      "name": "Antarktis",
70      "native": "Antarktis",
71      "official": "Antarktis",
72      "native": {}
73    },
74    "de": {
75      "name": "Antarktika",
76      "native": "Antarktika",
77      "official": "Antarktika",
78      "native": {}
79    },
79    "el": {
80      "name": "Ανταρκτική",
81      "native": "Ανταρκτική",
82      "official": "Ανταρκτική",
83      "native": {}
84    },
85    "en": {
86      "name": "Antarctica",
87      "native": "Antarctica",
88      "official": "Antarctica",
89      "native": {}
90    },
87    "es": {
88      "name": "Antártida",
89      "native": "Antártida",
90      "official": "Antártida",
91      "native": {}
92    },
93    "et": {
94      "name": "Antarktika",
95      "native": "Antarktika",
96      "official": "Antarktika",
97      "native": {}
98    },
99    "eu": {
100     "name": "Antartika",
101     "native": "Antartika",
102     "official": "Antartika",
103     "native": {}
104   },
105   "fa": {
106     "name": "آنتارک티کا",
107     "native": "آنتارکتيکا",
108     "official": "آنتارکتيکا",
109     "native": {}
110   },
111   "fi": {
112     "name": "Antarktis",
113     "native": "Antarktis",
114     "official": "Antarktis",
115     "native": {}
116   },
117   "fr": {
118     "name": "Antarctique",
119     "native": "Antarctique",
120     "official": "Antarctique",
121     "native": {}
122   },
123   "gl": {
124     "name": "Antártida",
125     "native": "Antártida",
126     "official": "Antártida",
127     "native": {}
128   },
129   "gu": {
130     "name": "અન્ટારક્ટિકા",
131     "native": "અન્ટારક્ટિકા",
132     "official": "અન્ટારક્ટિકા",
133     "native": {}
134   },
135   "he": {
136     "name": "אנטארקטיקה",
137     "native": "אנטארקטיקה",
138     "official": "אנטארקטיקה",
139     "native": {}
140   },
141   "hi": {
142     "name": "अंटार्कटिका",
143     "native": "अंटार्कटिका",
144     "official": "अंटार्कटिका",
145     "native": {}
146   },
147   "hr": {
148     "name": "Antarktika",
149     "native": "Antarktika",
150     "official": "Antarktika",
151     "native": {}
152   },
153   "hu": {
154     "name": "Antarktika",
155     "native": "Antarktika",
156     "official": "Antarktika",
157     "native": {}
158   },
159   "id": {
160     "name": "Antarktika",
161     "native": "Antarktika",
162     "official": "Antarktika",
163     "native": {}
164   },
165   "is": {
166     "name": "Antarktika",
167     "native": "Antarktika",
168     "official": "Antarktika",
169     "native": {}
170   },
171   "it": {
172     "name": "Antartide",
173     "native": "Antartide",
174     "official": "Antartide",
175     "native": {}
176   },
177   "ja": {
178     "name": "南極大陸",
179     "native": "南極大陸",
180     "official": "南極大陸",
181     "native": {}
182   },
183   "ka": {
184     "name": "ანტარქტიკა",
185     "native": "ანტარქტიკა",
186     "official": "ანტარქტიკა",
187     "native": {}
188   },
189   "kk": {
190     "name": "Антарктика",
191     "native": "Антарктика",
192     "official": "Антарктика",
193     "native": {}
194   },
195   "km": {
196     "name": "អង់តារក្សិកា",
197     "native": "អង់តារក្សិកា",
198     "official": "អង់តារក្សិកា",
199     "native": {}
200   },
201   "kn": {
202     "name": "ಆನ್ಟಾರ್ಕ್ಟಿಕಾ",
203     "native": "ಆನ್ಟಾರ್ಕ್ಟಿಕಾ",
204     "official": "ಆನ್ಟಾರ್ಕ್ಟಿಕಾ",
205     "native": {}
206   },
207   "ko": {
208     "name": "남극대륙",
209     "native": "남극대륙",
210     "official": "남극대륙",
211     "native": {}
212   },
213   "ky": {
214     "name": "Антарктика",
215     "native": "Антарктика",
216     "official": "Антарктика",
217     "native": {}
218   },
219   "la": {
220     "name": "Antarktika",
221     "native": "Antarktika",
222     "official": "Antarktika",
223     "native": {}
224   },
225   "lb": {
226     "name": "Antarktika",
227     "native": "Antarktika",
228     "official": "Antarktika",
229     "native": {}
230   },
231   "lt": {
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233     "native": "Antarktida",
234     "official": "Antarktida",
235     "native": {}
236   },
237   "lv": {
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239     "native": "Antarktika",
240     "official": "Antarktika",
241     "native": {}
242   },
243   "mk": {
244     "name": "Антарктика",
245     "native": "Антарктика",
246     "official": "Антарктика",
247     "native": {}
248   },
249   "ml": {
250     "name": "ആന്റാർട്ടിക്ക",
251     "native": "ആന്റാർട്ടിക്ക",
252     "official": "ആന്റാർട്ടിക്ക",
253     "native": {}
254   },
255   "mn": {
256     "name": "Антарктик",
257     "native": "Антарктик",
258     "official": "Антарктик",
259     "native": {}
260   },
261   "mr": {
262     "name": "अन्टार्क्टिका",
263     "native": "अन्टार्क्टिका",
264     "official": "अन्टार्क्टिका",
265     "native": {}
266   },
267   "ms": {
268     "name": "Antarktika",
269     "native": "Antarktika",
270     "official": "Antarktika",
271     "native": {}
272   },
273   "my": {
274     "name": "အာന്တာရ်ကတိကာ",
275     "native": "အာന്တာရ်ကတိကာ",
276     "official": "အာന്တာရ်ကတိကာ",
277     "native": {}
278   },
279   "na": {
280     "name": "Antarktika",
281     "native": "Antarktika",
282     "official": "Antarktika",
283     "native": {}
284   },
285   "nb": {
286     "name": "Antarktis",
287     "native": "Antarktis",
288     "official": "Antarktis",
289     "native": {}
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291   "nd": {
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293     "native": "Antarktika",
294     "official": "Antarktika",
295     "native": {}
296   },
297   "ne": {
298     "name": "अन्तार्कटिका",
299     "native": "अन्तार्कटिका",
300     "official": "अन्तार्कटिका",
301     "native": {}
302   },
303   "nl": {
304     "name": "Antarktis",
305     "native": "Antarktis",
306     "official": "Antarktis",
307     "native": {}
308   },
309   "nn": {
310     "name": "Antarktis",
311     "native": "Antarktis",
312     "official": "Antarktis",
313     "native": {}
314   },
315   "no": {
316     "name": "Antarktis",
317     "native": "Antarktis",
318     "official": "Antarktis",
319     "native": {}
320   },
321   "nr": {
322     "name": "Antarktika",
323     "native": "Antarktika",
324     "official": "Antarktika",
325     "native": {}
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329     "native": "Antarktika",
330     "official": "Antarktika",
331     "native": {}
332   },
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335     "native": "Antarktika",
336     "official": "Antarktika",
337     "native": {}
338   },
339   "oc": {
340     "name": "Antarctida",
341     "native": "Antarctida",
342     "official": "Antarctida",
343     "native": {}
344   },
345   "oj": {
346     "name": "Antarktika",
347     "native": "Antarktika",
348     "official": "Antarktika",
349     "native": {}
350   },
351   "om": {
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353     "native": "Antarktika",
354     "official": "Antarktika",
355     "native": {}
356   },
357   "or": {
358     "name": "ଆନ୍ଟାର୍କଟିକା",
359     "native": "ଆନ୍ଟାର୍କଟିକା",
360     "official": "ଆନ୍ଟାର୍କଟିକା",
361     "native": {}
362   },
363   "os": {
364     "name": "Антарктика",
365     "native": "Антарктика",
366     "official": "Антарктика",
367     "native": {}
368   },
369   "pa": {
370     "name": "ਅਨਟਾਰਕਟਿਕਾ",
371     "native": "ਅਨਟਾਰਕਟਿਕਾ",
372     "official": "ਅਨਟਾਰਕਟਿਕਾ",
373     "native": {}
374   },
375   "pi": {
376     "name": "Antarktika",
377     "native": "Antarktika",
378     "official": "Antarktika",
379     "native": {}
380   },
381   "pl": {
382     "name": "Antarktyda",
383     "native": "Antarktyda",
384     "official": "Antarktyda",
385     "native": {}
386   },
387   "pt": {
388     "name": "Antárctida",
389     "native": "Antárctida",
390     "official": "Antárctida",
391     "native": {}
392   },
393   "ps": {
394     "name": "آنټارکټيکا",
395     "native": "آنټارکټيکا",
396     "official": "آنټارکټيکا",
397     "native": {}
398   },
399   "ro": {
400     "name": "Antarctica",
401     "native": "Antarctica",
402     "official": "Antarctica",
403     "native": {}
404   },
405   "ru": {
406     "name": "Антарктика",
407     "native": "Антарктика",
408     "official": "Антарктика",
409     "native": {}
410   },
411   "rw": {
412     "name": "Antarktika",
413     "native": "Antarktika",
414     "official": "Antarktika",
415     "native": {}
416   },
417   "sa": {
418     "name": "अन्तार्कटिका",
419     "native": "अन्तार्कटिका",
420     "official": "अन्तार्कटिका",
421     "native": {}
422   },
423   "sc": {
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425     "native": "Antarktida",
426     "official": "Antarktida",
427     "native": {}
428   },
429   "sd": {
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431     "native": "آنٽارڪٽيڪا",
432     "official": "آنٽارڪٽيڪا",
433     "native": {}
434   },
435   "se": {
436     "name": "Antarktis",
437     "native": "Antarktis",
438     "official": "Antarktis",
439     "native": {}
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445     "native": {}
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463     "native": {}
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465   "sm": {
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467     "native": "Antarktika",
468     "official": "Antarktika",
469     "native": {}
470   },
471   "sn": {
472     "name": "Antarktika",
473     "native": "Antarktika",
474     "official": "Antarktika",
475     "native": {}
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477   "sq": {
478     "name": "Antarktika",
479     "native": "Antarktika",
480     "official": "Antarktika",
481     "native": {}
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486     "official": "Antarktika",
487     "native": {}
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489   "ss": {
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498     "official": "Antarktika",
499     "native": {}
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501   "sv": {
502     "name": "Antarktis",
503     "native": "Antarktis",
504     "official": "Antarktis",
505     "native": {}
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507   "sw": {
508     "name": "Antarktika",
509     "native": "Antarktika",
510     "official": "Antarktika",
511     "native": {}
512   },
513   "ta": {
514     "name": "அந்தார்டிகா",
515     "native": "அந்தார்டிகா",
516     "official": "அந்தார்டிகா",
517     "native": {}
518   },
519   "te": {
520     "name": "ఆన్టార్క్టికా",
521     "native": "ఆన్టార్క్టికా",
522     "official": "ఆన్టార్క్టికా",
523     "native": {}
524   },
525   "tg": {
526     "name": "Антарктика",
527     "native": "Антарктика",
528     "official": "Антарктика",
529     "native": {}
530   },
531   "th": {
532     "name": "แอนตาร์กติกา",
533     "native": "แอนตาร์กติกา",
534     "official": "แอนตาร์กติกา",
535     "native": {}
536   },
537   "ti": {
538     "name": "Antarktika",
539     "native": "Antarktika",
540     "official": "Antarktika",
541     "native": {}
542   },
543   "tk": {
544     "name": "Antarktika",
545     "native": "Antarktika",
546     "official": "Antarktika",
547     "native": {}
548   },
549   "tl": {
550     "name": "Antarktika",
551     "native": "Antarktika",
552     "official": "Antarktika",
553     "native": {}
554   },
555   "tn": {
556     "name": "Antarktika",
557     "native": "Antarktika",
558     "official": "Antarktika",
559     "native": {}
560   },
561   "to": {
562     "name": "Antarktika",
563     "native": "Antarktika",
564     "official": "Antarktika",
565     "native": {}
566   },
567   "tr": {
568     "name": "Antarktika",
569     "native": "Antarktika",
570     "official": "Antarktika",
571     "native": {}
572   },
573   "ts": {
574     "name": "Antarktika",
575     "native": "Antarktika",
576     "official": "Antarktika",
577     "native": {}
578   },
579   "tt": {
580     "name": "Antarktika",
581     "native": "Antarktika",
582     "official": "Antarktika",
583     "native": {}
584   },
585   "tv": {
586     "name": "Antarktika",
587     "native": "Antarktika",
588     "official": "Antarktika",
589     "native": {}
590   },
591   "tw": {
592     "name": "南極洲",
593     "native": "南極洲",
594     "official": "南極洲",
595     "native": {}
596   },
597   "tz": {
598     "name": "Antarktika",
599     "native": "Antarktika",
600     "official": "Antarktika",
601     "native": {}
602   },
603   "ud": {
604     "name": "Antarktika",
605     "native": "Antarktika",
606     "official": "Antarktika",
607     "native": {}
608   },
609   "uk": {
610     "name": "Антарктика",
611     "native": "Антарктика",
612     "official": "Антарктика",
613     "native": {}
614   },
615   "ur": {
616     "name": "آنٽارڪٽيڪا",
617     "native": "آنٽارڪٽيڪا",
618     "official": "آنٽارڪٽيڪا",
619     "native": {}
620   },
621   "uz": {
622     "name": "Антарктика",
623     "native": "Антарктика",
624     "official": "Антарктика",
625     "native": {}
626   },
627   "vi": {
628     "name": "Châu Nam Cực",
629     "native": "Châu Nam Cực",
630     "official": "Châu Nam Cực",
631     "native": {}
632   },
633   "vo": {
634     "name": "Antarktis",
635     "native": "Antarktis",
636     "official": "Antarktis",
637     "native": {}
638   },
639   "vot": {
640     "name": "Antarktis",
641     "native": "Antarktis",
642     "official": "Antarktis",
643     "native": {}
644   },
645   "vu": {
646     "name": "Antarktika",
647     "native": "Antarktika",
648     "official": "Antarktika",
649     "native": {}
650   },
651   "wa": {
652     "name": "Antarktika",
653     "native": "Antarktika",
654     "official": "Antarktika",
655     "native": {}
656   },
657   "wo": {
658     "name": "Antarktika",
659     "native": "Antarktika",
660     "official": "Antarktika",
661     "native": {}
662   },
663   "xh": {
664     "name": "Antarktika",
665     "native": "Antarktika",
666     "official": "Antarktika",
667     "native": {}
668   },
669   "yi": {
670     "name": "אַנטאַרקטיקע",
671     "native": "אַנטאַרקטיקע",
672     "official": "אַנטאַרקטיקע",
673     "native": {}
674   },
675   "yo": {
676     "name": "Antarktika",
677     "native": "Antarktika",
678     "official": "Antarktika",
679     "native": {}
680   },
681   "yue": {
682     "name": "南極洲",
683     "native": "南極洲",
684     "official": "南極洲",
685     "native": {}
686   },
687   "zaz": {
688     "name": "Antarktika",
689     "native": "Antarktika",
690     "official": "Antarktika",
691     "native": {}
692   },
693   "zh": {
694     "name": "南极洲",
695     "native": "南极洲",
696     "official": "南极洲",
697     "native": {}
698   },
699   "zu": {
700     "name": "Antarktika",
701     "native": "Antarktika",
702     "official": "Antarktika",
703     "native": {}
704   }
705 }
```

1.4 Les noms officiels des pays dont l'une des langues est le néerlandais (à vous de trouver le champ à tester)

```
Connected to cvtic-1.mjx2p.mongodb.net
1 db.pays.find({"languages.nld":{$exists:true}}, {"name.official": 1, _id: 0})

1
2
3 {
4   "name": {
5     "official": "Aruba"
6   }
7 },
8 {
9   "name": {
10    "official": "Kingdom of Belgium"
11  }
12 },
13 {
14   "name": {
15     "official": "Bonaire, Sint Eustatius and Saba"
16   }
17 },
18 {
19   "name": {
20     "official": "Country of Curaçao"
21   }
22 },
23 {
24   "name": {
25     "official": "Kingdom of the Netherlands"
26   }
27 },
28 {
29   "name": {
30     "official": "Republic of Suriname"
31   }
32 },
33 {
34   "name": {
35     "official": "Sint Maarten"
36   }
37 }
```

1.5 Les noms officiels des pays commençant par l'initiale de votre nom (par exemple la lettre C)

```
1 db.pays.find({"name.official": {"$regex": "/H/"}}, {"name.official": 1, _id: 0})

1
2
3 {
4   "name": {
5     "official": "Hellenic Republic"
6   }
7 },
8 {
9   "name": {
10    "official": "Hong Kong Special Administrative Region of the People's"
11  }
12 },
13 {
14   "name": {
15     "official": "Heard Island and McDonald Islands"
16   }
17 },
18 {
19   "name": {
20     "official": "Hungary"
21   }
22 },
23 {
24   "name": {
25     "official": "Hashemite Kingdom of Jordan"
26   }
27 }
```

1.6 Les noms officiels des pays dont la superficie est comprise entre 400000 et 500000 km²

```
1 db.pays.find({"area":{"$gte": 400000, "$lte": 500000}}, {"name.official": 1, _id: 0})

1
2 {
3   "name": {
4     "official": "Republic of Cameroon"
5   }
6 },
7 {
8   "name": {
9     "official": "Republic of Iraq"
10  }
11 },
12 {
13   "name": {
14     "official": "Kingdom of Morocco"
15   }
16 },
17 {
18   "name": {
19     "official": "Independent State of Papua New Guinea"
20   }
21 },
22 {
23   "name": {
24     "official": "Republic of Paraguay"
25   }
26 },
27 {
28   "name": {
29     "official": "Kingdom of Sweden"
30   }
31 },
32 {
33   "name": {
34     "official": "Turkmenistan"
35   }
36 },
37 {
38   "name": {
39     "official": "Republic of Uzbekistan"
40   }
41 }
42 }
```

2 Exercice 2

2.1 Tous les titres

```
1 db.documents.find({}, {"fields.titre_avec_lien_vers_le_catalogue": 1, _id: 0})

1
2
3 {
4   "fields": {
5     "titre_avec_lien_vers_le_catalogue": "Cinquante nuances plus sombres :
6   },
7 },
8 {
9   "fields": {
10    "titre_avec_lien_vers_le_catalogue": "Dans la maison"
11  },
12 },
13 {
14   "fields": {
15     "titre_avec_lien_vers_le_catalogue": "La nostalgie heureuse"
16   },
17 },
18 {
19   "fields": {
20     "titre_avec_lien_vers_le_catalogue": "Au revoir là-haut : roman"
21   },
22 },
23 {
24   "fields": {
25     "titre_avec_lien_vers_le_catalogue": "Les lisières"
26   },
27 },
28 {
29   "fields": {
30     "titre_avec_lien_vers_le_catalogue": "Quai d'Orsay : chroniques diploma
31   },
32 },
33 {
34   "fields": {
35     "titre_avec_lien_vers_le_catalogue": "Etranges rivages"
36   },
37 },
38 {
39   "fields": {
40     "titre_avec_lien_vers_le_catalogue": "L'hiver du monde : roman"
41   },
42 },
43 {
44   "fields": {
45     "titre_avec_lien_vers_le_catalogue": "La révolte"
46   },
47 },
48 }
```

2.2 Les titres des documents ayant les rangs 1 à 10

```
1 db.documents.find({"fields.rang": { $gte: 1, $lte: 10 }}, {"fields.titre_avec_lien_vers_le_catalogue": 1, _id: 0})

1
2
3 {
4   "fields": {
5     "titre_avec_lien_vers_le_catalogue": "Cinquante nuances plus sombres : roman"
6   },
7 },
8 {
9   "fields": {
10    "titre_avec_lien_vers_le_catalogue": "Au revoir là-haut : roman"
11  },
12 },
13 {
14   "fields": {
15     "titre_avec_lien_vers_le_catalogue": "Immortelle randonnée : Compostelle malgré moi"
16   },
17 },
18 {
19   "fields": {
20     "titre_avec_lien_vers_le_catalogue": "1084. 3. Octobre-décembre"
21   },
22 },
23 {
24   "fields": {
25     "titre_avec_lien_vers_le_catalogue": "L'embrasement"
26   },
27 },
28 {
29   "fields": {
30     "titre_avec_lien_vers_le_catalogue": "Le sermon sur la chute de Rome"
31   },
32 },
33 {
34   "fields": {
35     "titre_avec_lien_vers_le_catalogue": "La vérité sur l'affaire Harry Quebert : roman"
36   },
37 },
38 {
39   "fields": {
40     "titre_avec_lien_vers_le_catalogue": "Le bleu est une couleur chaude"
41   },
42 },
43 {
44   "fields": {
45     "titre_avec_lien_vers_le_catalogue": "La liste de mes envies"
46   },
47 },
48 {
49   "fields": {
50     "titre_avec_lien_vers_le_catalogue": "Cinquante nuances de Grey : roman"
51   },
52 },
53 }
```

2.3 Les auteurs de tous les documents dont le titre commence par la lettre N

```
1 db.documents.find()
2 {"fields.titre_avec_lien_vers_le_catalogue": {"$regex": "/^N/, $options: "i" }},
3 {"fields.auteur": 1, _id: 0}]

1
2 {"fields": {
3   "auteur": "Gloaguen, Philippe"
4 }
5
6
7
8 {"fields": {
9   "auteur": "Mukasonga, Scholastique"
10 }
11
12
13 {"fields": {
14   "auteur": "Moix, Yann"
15 }
16
17
18 {"fields": {
19   "auteur": "Coatalem, Jean-Luc"
20 }
21
22
23 {"fields": {
24   "auteur": ""
25 }
26
27
28 {"fields": {
29   "auteur": "Hunter, Erin"
30 }
31
32
33 {"fields": {
34   "auteur": "Bonetto, Cristian"
35 }
36
37
38 {"fields": {
39   "auteur": "Toussaint, Jean-Philippe"
40 }
41
42
43 {"fields": {
44   "auteur": ""
45 }
46
47
48 {"fields": {
49   "auteur": "Roth, Philip"
50 }
51
52
53 {"fields": {
54   "auteur": ""
55 }
56
```

2.4 Toutes les informations vers les documents n'ayant pas de champ "type de document"

```
1 1 db.documents.find( ["fields.type_de_document": ""])
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
```

2.5 Les différents types de documents qui apparaissent dans cette base

```
1 db.documents.distinct(
2   "fields.type_de_document");

1 [
2   "",
3   "2016-08-27T18:20:35+02:00",
4   "Bande dessinée jeunesse",
5   "Bande dessinée jeunesse >12 ans",
6   "Bande dessinée pour adulte",
7   "DVD en audio-description",
8   "DVD jeunesse",
9   "DVD- vidéo > 12 ans",
10  "DVD-vidéo > 16 ans",
11  "DVD-vidéo tous publics",
12  "Disque compact",
13  "Enregistrement musical pour la jeunesse",
14  "Livres de Fonds spécialisés",
15  "Livres de section jeunesse > 12 ans",
16  "Livres jeunesse",
17  "Livres pour adulte",
18  "Nouveauté",
19  "Nouveauté disque compact",
20  "Revue pour adulte"
21 ]
```

2.6 Les titres des 5 documents avec le plus grand nombre de réservations

```
1 db.documents.find(
2   {
3     "fields.titre_avec_lien_vers_le_catalogue":1,
4     "fields.nombre_de_reservations":1, _id:0})
5   .sort({"fields.nombre_de_reservations":1})
6   .limit(5);

1 [
2   {
3     "fields": {
4       "nombre_de_reservations": 38,
5       "titre_avec_lien_vers_le_catalogue": "Marie-Lune."
6     }
7   },
8   {
9     "fields": {
10      "nombre_de_reservations": 38,
11      "titre_avec_lien_vers_le_catalogue": "World war Z
12    }
13  },
14  {
15    "fields": {
16      "nombre_de_reservations": 38,
17      "titre_avec_lien_vers_le_catalogue": "Sueurs froides
18    }
19  },
20  {
21    "fields": {
22      "nombre_de_reservations": 38,
23      "titre_avec_lien_vers_le_catalogue": "Absolument c
24    }
25  },
26  {
27    "fields": {
28      "nombre_de_reservations": 38,
29      "titre_avec_lien_vers_le_catalogue": "A nos amours
30    }
31  }
32 ]
```


2.7 Les documents avec un nombre de réservations supérieur à 200

```
JS db.documents.find({ "fields.nombre_de_re /var/www/html/rust/rust-algorithms/playground-1.mongodb.js
1 db.documents.find({ "fields.nombre_de_reservations": { $gt: 200 }});

Playground Result
1 [
2   {
3     "_id": {
4       "$oid": "679160e259d09994d4208c74"
5     },
6     "datasetid": "les 1000 titres les plus reserves en 2013"
7     "recordid": "6675cbb0cf9e894d3c4a543e50bf5808189f37b4",
8     "fields": {
9       "nombre_de_reservations": 420,
10      "rang": 7,
11      "titre_avec_lien_vers_le_catalogue": "Cinquante nuances",
12      "auteur": "James, E.L.",
13      "type_de_document": ""
14    },
15    "record_timestamp": "2016-08-27T18:20:35+02:00",
16    "FIELD9": ""
17  },
18  {
19    "_id": {
20      "$oid": "679160e259d09994d4208c75"
21    },
22    "datasetid": "les 1000 titres les plus reserves en 2013"
23    "recordid": "472a07556c2555d76c92ddc34f748165118288e6",
24    "fields": {
25      "nombre_de_reservations": 236,
26      "rang": 44,
27      "titre_avec_lien_vers_le_catalogue": "Dans la maison",
28      "auteur": "",
29      "type_de_document": "DVD en audio-description"
30    },
31    "record_timestamp": "2016-08-27T18:20:35+02:00",
32    "FIELD9": ""
33  },
34  {
35    "_id": {
36      "$oid": "679160e259d09994d4208c76"
37    },
38    "datasetid": "les 1000 titres les plus reserves en 2013"
39    "recordid": "16eff9e470f09bb115a433e39ff74c3d6dda13a8",
40    "fields": {
```

2.8 Le nombre total de réservations pour chaque type de document

```
JS db.documents.aggregate([ /var/www/html/rust/rust-algorithms/playground-1.mongodb.js
1 db.documents.aggregate([
2   {
3     $group: {
4       _id: "$fields.type_de_document",
5       total_reservations: { $sum: "$fields.nombre_de_reservations" }
6     }
7   }
8 ]);

Playground Result
1 [
2   {
3     "_id": "DVD-vidéo tous publics",
4     "total_reservations": 22398
5   },
6   {
7     "_id": "DVD en audio-description",
8     "total_reservations": 343
9   },
10  {
11    "_id": "DVD-vidéo > 16 ans",
12    "total_reservations": 160
13  },
14  {
15    "_id": "Bande dessinée jeunesse >12 ans",
16    "total_reservations": 1903
17  },
18  {
19    "_id": "Bande dessinée pour adulte",
20    "total_reservations": 4357
21  },
22  {
23    "_id": "Livres de section jeunesse > 12 ans",
24    "total_reservations": 2064
25  },
26  {
27    "_id": "Disque compact",
28    "total_reservations": 1230
29  },
30  {
31    "_id": "Nouveauté disque compact",
32    "total_reservations": 2940
33  },
34  {
35    "_id": "Bande dessinée jeunesse",
36    "total_reservations": 3620
37  },
38  {
39    "_id": "DVD jeunesse",
40    "total_reservations": 872
41  },
42  {
43    "_id": "DVD- vidéo > 12 ans",
44    "total_reservations": 2406
45  },
46  {
47    "_id": "",
48    "total_reservations": 10474
49  }
50 ]
```

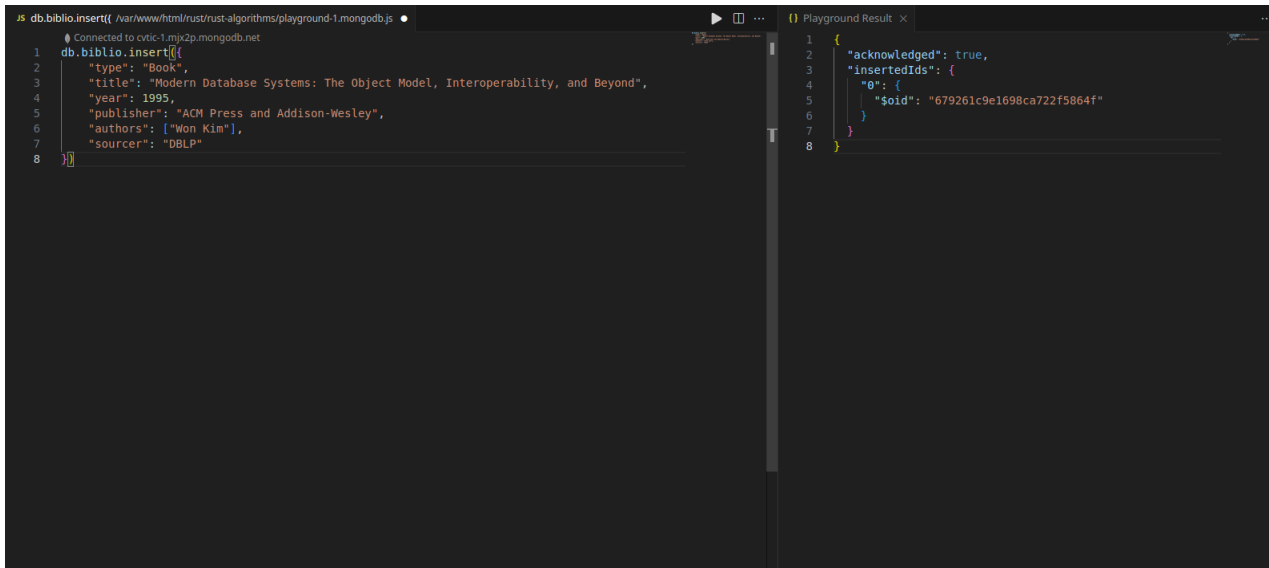
2.9 Les auteurs qui ont le plus grand nombre de documents dans la base

```
db.documents.aggregate([
  $match: { "fields.auteur": { $ne: "" } }
],
{
  $group: {
    _id: "$fields.auteur",
    total_documents: { $sum: 1 }
  }
},
{
  $sort: { total_documents: -1 }
}
]);
```

```
[
  {
    "_id": "Gloaguen, Philippe",
    "total_documents": 32
  },
  {
    "_id": "Mashima, Hiro",
    "total_documents": 21
  },
  {
    "_id": "Kirkman, Robert",
    "total_documents": 18
  },
  {
    "_id": "Sobral, Patrick",
    "total_documents": 17
  },
  {
    "_id": "Muchamore, Robert",
    "total_documents": 14
  },
  {
    "_id": "Riordan, Rick",
    "total_documents": 9
  },
  {
    "_id": "Oda, Eiichiro",
    "total_documents": 9
  },
  {
    "_id": "Hunter, Erin",
    "total_documents": 9
  },
  {
    "_id": "L  ckberg, Camilla",
    "total_documents": 8
  },
  {
    "_id": "Lyfoung, Patricia",
    "total_documents": 8
  },
  {
    "_id": "Kinney, Jeff",
    "total_documents": 6
  },
  {
    "_id": "Neel, Julien",
    "total_documents": 6
  }
]
```

3 Exercice 3

3.1 Insérer dans votre collection un nouvel enregistrement

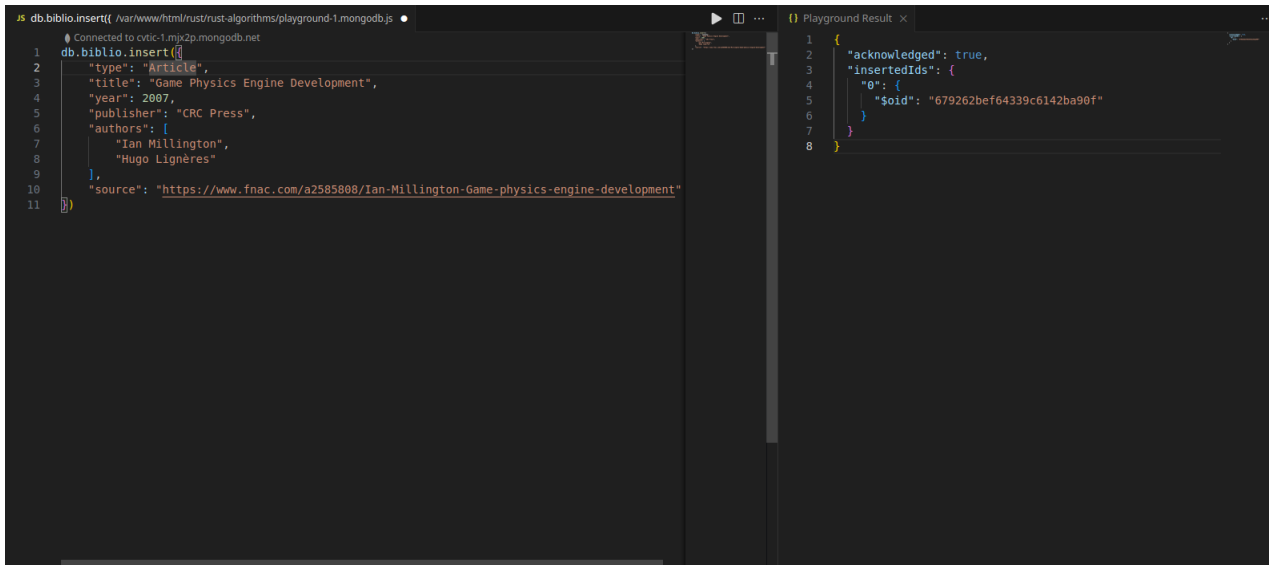


The screenshot shows a MongoDB Playground interface. On the left, the code editor contains a JavaScript snippet that connects to a MongoDB instance and inserts a document into the 'biblio' collection. The document is a book with the title 'Modern Database Systems: The Object Model, Interoperability, and Beyond', published in 1995 by 'ACM Press and Addison-Wesley', authored by 'Won Kim', and sourced from 'DBLP'. On the right, the 'Playground Result' pane shows the response from the database, indicating that the document was successfully inserted with an 'acknowledged' status of true and a specific '_id' value.

```
1 db.biblio.insert({
2   "type": "Book",
3   "title": "Modern Database Systems: The Object Model, Interoperability, and Beyond",
4   "year": 1995,
5   "publisher": "ACM Press and Addison-Wesley",
6   "authors": ["Won Kim"],
7   "sourcer": "DBLP"
8 })
```

```
1 {
2   "acknowledged": true,
3   "insertedIds": {
4     "0": {
5       "_id": "679261c9e1698ca722f5864f"
6     }
7   }
8 }
```

3.2 Insérer ensuite une autre publication de type "article"

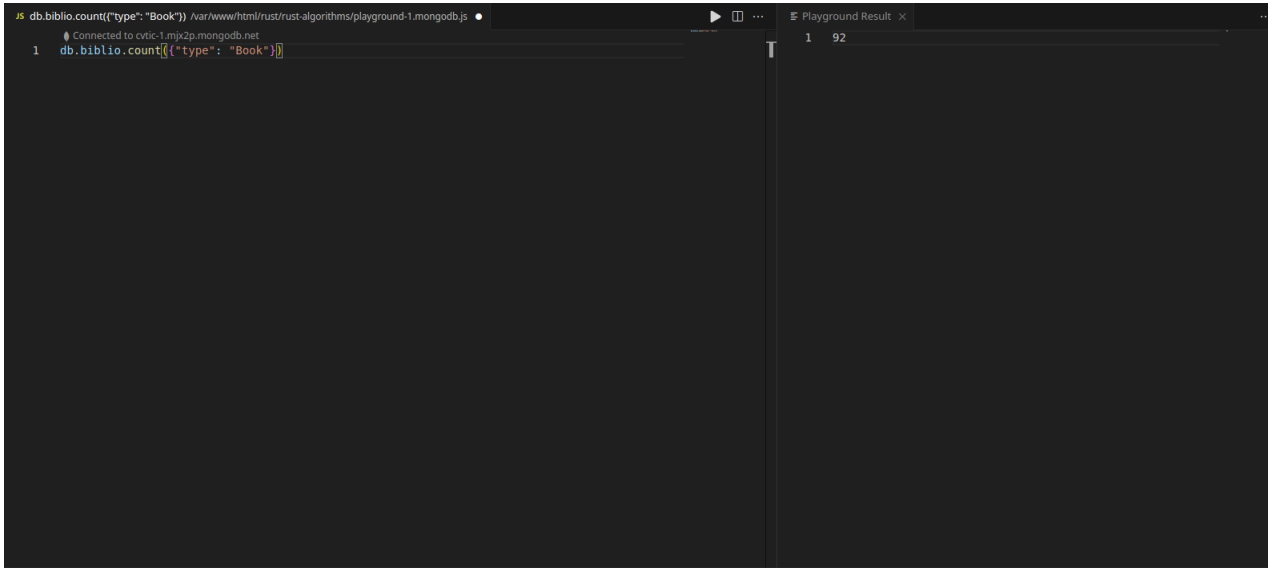


The screenshot shows the same MongoDB Playground interface. The code editor now contains a JavaScript snippet that inserts a document of type 'Article' into the 'biblio' collection. The document is titled 'Game Physics Engine Development', published in 2007 by 'CRC Press', authored by 'Ian Millington' and 'Hugo Lignères', and sourced from a URL. The 'Playground Result' pane shows the successful insertion response, with the document acknowledged and assigned a new '_id'.

```
1 db.biblio.insert({
2   "type": "Article",
3   "title": "Game Physics Engine Development",
4   "year": 2007,
5   "publisher": "CRC Press",
6   "authors": [
7     "Ian Millington",
8     "Hugo Lignères"
9   ],
10  "source": "https://www.fnac.com/a2585808/Ian-Millington-Game-physics-engine-development"
11 })
```

```
1 {
2   "acknowledged": true,
3   "insertedIds": {
4     "0": {
5       "_id": "679262bef64339c6142ba90f"
6     }
7   }
8 }
```

3.3 Afficher le nombre de publications de type « Book »

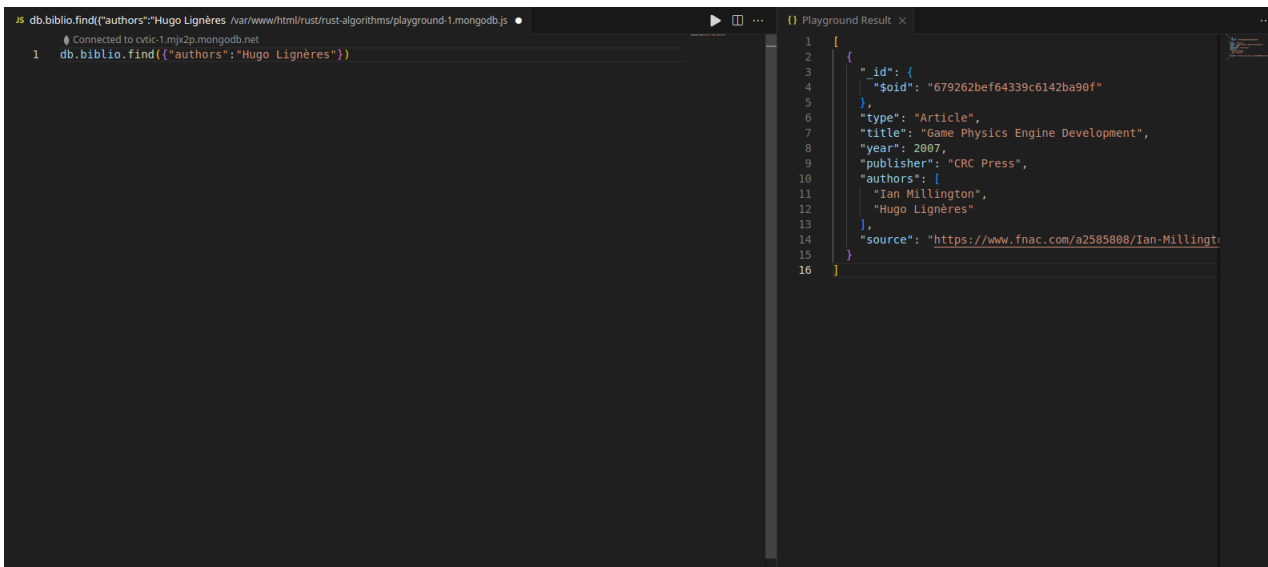


The screenshot shows a MongoDB Playground window. The left pane contains a JavaScript snippet with a MongoDB query: `db.biblio.count({"type": "Book"})`. The right pane, titled "Playground Result", shows the result of the query: a single document with the value `92`.

```
1 db.biblio.count({"type": "Book"})
```

```
1 92
```

3.4 Afficher toutes les publications dont vous êtes l'auteur



The screenshot shows a MongoDB Playground window. The left pane contains a JavaScript snippet with a MongoDB query: `db.biblio.find({"authors": "Hugo Lignères"})`. The right pane, titled "Playground Result", shows the result of the query: a single document representing a publication.

```
1 db.biblio.find({"authors": "Hugo Lignères"})
```

```
1 {
2   "_id": {
3     "oid": "679262bef64339c6142ba90f"
4   },
5   "type": "Article",
6   "title": "Game Physics Engine Development",
7   "year": 2007,
8   "publisher": "CRC Press",
9   "authors": [
10    "Ian Millington",
11    "Hugo Lignères"
12  ],
13   "source": "https://www.fnac.com/a2585808/Ian-Millington"
14 }
15
16
```

3.5 Afficher les titres de toutes les publications depuis 2012 inclus

```
1 db.biblio.find(year:{$gte: 2012}), (" /var/www/html/rust/rust-algorithms/playground-1.mongodb.js
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
```

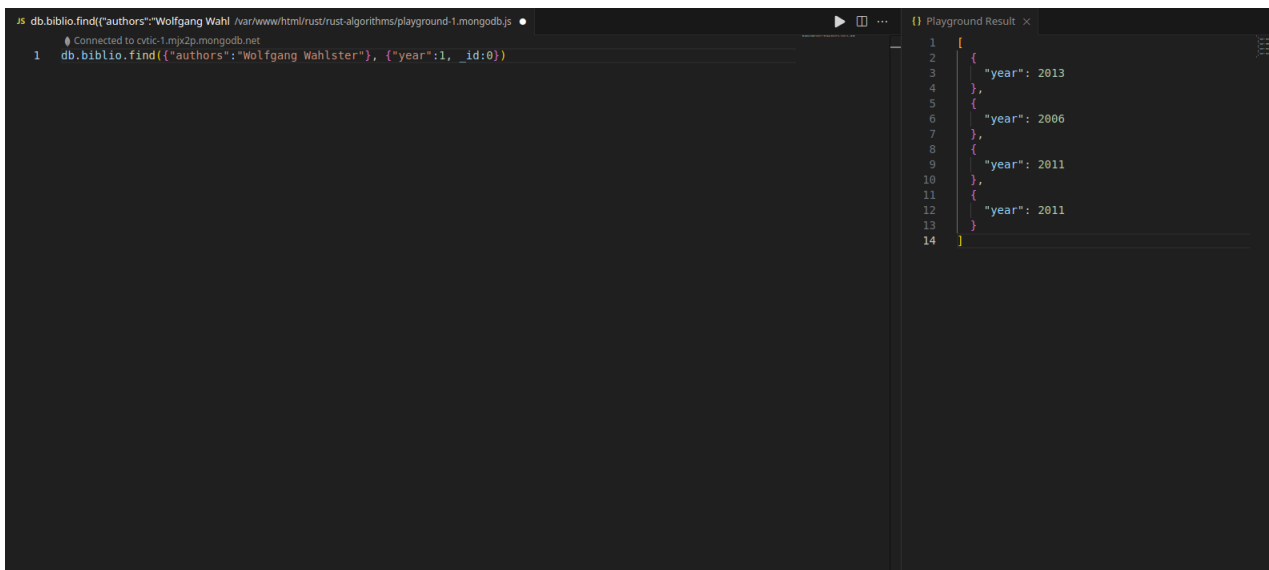
```
1 {
2   "title": "Shared Interfaces for Co-located Interaction."
3 },
4 {
5   "title": "The Semantic Product Memory: An Interactive Black Box for Smart Products."
6 },
7 {
8   "title": "Perspectives on Reasoning About Time."
9 },
10 {
11   "title": "A SemProM Use Case: Maintenance of Factory and Automotive Components."
12 },
13 {
14   "title": "A SemProM Use Case: Health Care and Compliance."
15 },
16 {
17   "title": "Controlling Interaction with Digital Product Memories."
18 },
19 {
20   "title": "Foundations of Rule Learning"
21 },
22 {
23   "title": "Ubiquitous Display Environments"
24 },
25 {
26   "title": "Considering the Aesthetics of Ubiquitous Displays."
27 },
28 {
29   "title": "Language Processing with Perl and Prolog - Theories, Implementations and Applications."
30 },
31 {
32   "title": "SemProM - Foundations of Semantic Product Memories for the Internet of Things."
33 },
34 {
35
```

3.6 Afficher le nombre de publications de type « Article » depuis 2012

```
1 db.biblio.count(year:{$gte: 2012}), (" /var/www/html/rust/rust-algorithms/playground-1.mongodb.js
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
```

```
1 271
```

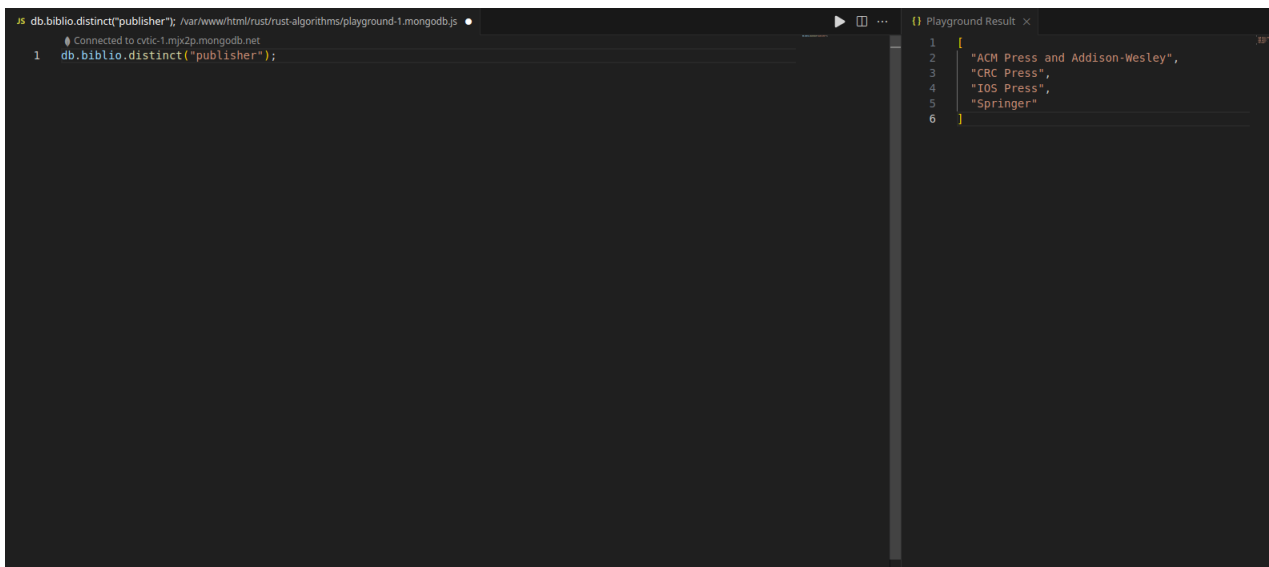
3.7 Afficher les années des publications de l'auteur « Wolfgang Wahlster »



The screenshot shows a MongoDB Playground interface. The left pane contains a JavaScript query: `db.biblio.find({"authors":"Wolfgang Wahlster"}, {"year":1, _id:0})`. The right pane, titled "Playground Result", displays the results as a JSON array. The array contains four objects, each with a "year" field. The years are 2013, 2006, 2011, and 2011.

```
1 db.biblio.find({"authors":"Wolfgang Wahlster"}, {"year":1, _id:0})
2
3 [{"year": 2013}
4 ],
5 [{"year": 2006}
6 ],
7 [{"year": 2011}
8 ],
9 [{"year": 2011}
10 ],
11 [{"year": 2011}
12 ],
13 [{"year": 2011}
14 ]
```

3.8 Afficher la liste de tous les éditeurs (champ « publisher ») distincts



The screenshot shows a MongoDB Playground interface. The left pane contains a JavaScript query: `db.biblio.distinct("publisher");`. The right pane, titled "Playground Result", displays the results as a JSON array. The array contains four strings representing distinct publishers: "ACM Press and Addison-Wesley", "CRC Press", "IOS Press", and "Springer".

```
1 db.biblio.distinct("publisher");
2
3 ["ACM Press and Addison-Wesley",
4 "CRC Press",
5 "IOS Press",
6 "Springer"]
```

3.9 Afficher la liste des publications de « Wolfgang Wahlster » triée par année croissante

```
db.biblio.find({"authors":"Wolfgang Wahlster"})
1 db.biblio.find({"authors":"Wolfgang Wahlster"})
2 .sort({"year":1})

1 [
2 {
3   "_id": "series/cogtech/Wahlster06",
4   "type": "Article",
5   "title": "Dialogue Systems Go Multimodal: The SmartKom Experience.",
6   "pages": {
7     "start": 3,
8     "end": 27
9   },
10  "year": 2006,
11  "booktitle": "SmartKom",
12  "url": "db/series/cogtech/54023732.html#Wahlster06",
13  "authors": [
14    "Wolfgang Wahlster"
15  ]
16 },
17 {
18   "_id": "series/cogtech/SchwartzSBW11",
19   "type": "Article",
20   "title": "Seamless Resource-Adaptive Navigation.",
21   "pages": {
22     "start": 239,
23     "end": 265
24   },
25   "year": 2011,
26   "booktitle": "Resource-Adaptive Cognitive Processes",
27   "url": "db/series/cogtech/354089408.html#SchwartzSBW11",
28   "authors": [
29     "Tim Schwartz",
30     "Christoph Stahl",
31     "Jörg Baus",
32     "Wolfgang Wahlster"
33   ]
34 }
```

3.10 Supprimer le champ « type » de toutes les publications

```
db.biblio.updateMany({}, {$unset:{type:''}});
1 db.biblio.updateMany({}, {$unset:{type:''}});
2
3 {
4   "acknowledged": true,
5   "insertedId": null,
6   "matchedCount": 801,
7   "modifiedCount": 0,
8   "upsertedCount": 0
9 }
```

test.biblio

STORAGE SIZE	LOGICAL DATA SIZE	TOTAL DOCUMENTS	INDEXES
258.57KB		801	72KB

Find Indexes Schema Anti-Patterns Aggregation

Generate queries from natural language in Compass

Filter Type a query: { field: Reset Apply

```
{
  "_id": "series/cogtech/BertonKH506"
  title: "Speech Recognition."
  pages: Object
  year: 2006
  booktitle: "SmartKom"
  url: "db/series/cogtech/54023732.html#BertonKH506"
  authors: Array (4)

  "_id": "series/cogtech/Wahlster06"
  title: "Dialogue Systems Go Multimodal: The SmartKom Experience."
  pages: Object
  year: 2006
  booktitle: "SmartKom"
  url: "db/series/cogtech/54023732.html#Wahlster06"
  authors: Array (1)
}
```

PREVIOUS 1-20 of many results