David Kurniawan – Homework 3 – MongoDB

Link GitHub : https://github.com/davidkurniawan947/mongo_hw

1. Find all books authored by "Author 5" that have been borrowed by any user but not yet returned.
Query:
{
  "author": "Author 5",
  "borrowed_by.return_date": null
}

	_id ObjectId	title String	author String	genre String	published_year Int32	copies_available Int32	borrowed_by Array		
1	ObjectId('667ac717bc8689…	"Book Title 4"	"Author 5"	"Dystopian"	1954	71	[] 1 elements		
2	ObjectId('667ac717bc8689…	"Book Title 14"	"Author 5"	"Fantasy"	1964	71	[] 1 elements		
3	ObjectId('667ac717bc8689…	"Book Title 24"	"Author 5"	"Fantasy"	1974	51	[] 1 elements		
4	ObjectId('667ac717bc8689…	"Book Title 34"	"Author 5"	"Science Fiction"	1984	41	[] 1 elements		
5	ObjectId('667ac717bc8689…	"Book Title 44"	"Author 5"	"Dystopian"	1994	31	[] 1 elements		
6	ObjectId('667ac717bc8689…	"Book Title 54"	"Author 5"	"Dystopian"	2004	81	[] 1 elements		
7	ObjectId('667ac717bc8689…	"Book Title 64"	"Author 5"	"Adventure"	2014	91	[] 1 elements		
8	ObjectId('667ac717bc8689…	"Book Title 74"	"Author 5"	"Adventure"	1954	21	[] 1 elements		
9	ObjectId('667ac717bc8689…	"Book Title 84"	"Author 5"	"Science Fiction"	1964	61	[] 1 elements		
10	ObjectId('667ac717bc8689…	"Book Title 94"	"Author 5"	"Fantasy"	1974	81	[] 1 elements		

2. List all books published before the year 1980 and have more than 5 copies available.
Query:
{
  "published_year": { "$lt": 1980 },
  "copies_available": { "$gt": 5 }
}

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	_id ObjectId	title String	author String	genre String	published_year Int32	copies_available Int32	borrowed_by Array		
1	ObjectId('667ac717bc8689…	"Book Title 0"	"Author 1"	"Fiction"	1950	61	[] 1 elements		
2	ObjectId('667ac717bc8689…	"Book Title 1"	"Author 2"	"Fiction"	1951	41	[] 1 elements		
3	ObjectId('667ac717bc8689…	"Book Title 2"	"Author 3"	"Science Fiction"	1952	61	[] 1 elements		
4	ObjectId('667ac717bc8689…	"Book Title 3"	"Author 4"	"Fantasy"	1953	61	[] 1 elements		
5	ObjectId('667ac717bc8689…	"Book Title 4"	"Author 5"	"Dystopian"	1954	71	[] 1 elements		
6	ObjectId('667ac717bc8689…	"Book Title 5"	"Author 6"	"Science Fiction"	1955	31	[] 1 elements		
7	ObjectId('667ac717bc8689…	"Book Title 6"	"Author 7"	"Fiction"	1956	41	[] 1 elements		
8	ObjectId('667ac717bc8689…	"Book Title 7"	"Author 8"	"Adventure"	1957	31	[] 1 elements		
9	ObjectId('667ac717bc8689…	"Book Title 8"	"Author 9"	"Fiction"	1958	61	[] 1 elements		
10	ObjectId('667ac717bc8689…	"Book Title 9"	"Author 10"	"Fiction"	1959	41	[] 1 elements		
11	ObjectId('667ac717bc8689…	"Book Title 10"	"Author 1"	"Fiction"	1960	71	[] 1 elements		
12	ObjectId('667ac717bc8689…	"Book Title 11"	"Author 2"	"Fantasy"	1961	21	[] 1 elements		
13	ObjectId('667ac717bc8689…	"Book Title 12"	"Author 3"	"Adventure"	1962	91	[] 1 elements		
14	ObjectId('667ac717bc8689…	"Book Title 13"	"Author 4"	"Dystopian"	1963	91	[] 1 elements		
15	ObjectId('667ac717bc8689…	"Book Title 14"	"Author 5"	"Fantasy"	1964	71	[] 1 elements		
16	ObjectId('667ac717bc8689…	"Book Title 15"	"Author 6"	"Dystopian"	1965	21	[] 1 elements		
17	ObjectId('667ac717bc8689…	"Book Title 16"	"Author 7"	"Dystopian"	1966	61	[] 1 elements		
18	ObjectId('667ac717bc8689…	"Book Title 17"	"Author 8"	"Fiction"	1967	41	[] 1 elements		
19	ObjectId('667ac717bc8689…	"Book Title 18"	"Author 9"	"Dystopian"	1968	31	[] 1 elements		
20	ObjectId('667ac717bc8689…	"Book Title 19"	"Author 10"	"Adventure"	1969	11	[] 1 elements		

3. Find the top 5 most recently published books in the "Fantasy" genre.

Query :

```
{
  "genre": "Fantasy"
}
```

Sort :

```
{
  "published_year": -1
}
```

Limit : 5

🕐 ▼   {
            "genre": "Fantasy"
         }

Project   { field: 0 }

Sort   {
                   "published_year": -1
                 }

Collation   { locale: 'simple' }

Index Hint   { field: -1 }

🏠 books

	_id ObjectId	title String	author String	genre String	published_year Int32	copies_available Int32	borrowed_by Array
1	ObjectId('667ac717bc8689…	"Book Title 67"	"Author 8"	"Fantasy"	2017	71	[] 1 elements
2	ObjectId('667ac717bc8689…	"Book Title 50"	"Author 1"	"Fantasy"	2000	11	[] 1 elements
3	ObjectId('667ac717bc8689…	"Book Title 49"	"Author 10"	"Fantasy"	1999	11	[] 1 elements
4	ObjectId('667ac717bc8689…	"Book Title 45"	"Author 6"	"Fantasy"	1995	31	[] 1 elements
5	ObjectId('667ac717bc8689…	"Book Title 41"	"Author 2"	"Fantasy"	1991	81	[] 1 elements

4. Count the number of books available for each genre.
$group stage :
{
  "_id": "$genre",
  "count": { "$sum": 1 }
}

localhost:27017 > dskola > books

Documents 0   **Aggregations**   Schema   Indexes 1   Validation

■ ▼ $group   ✏ Edit

ALL RESULTS   OUTPUT OPTIONS ▼

```
_id: "Fiction"
count : 18
```

```
_id: "Science Fiction"
count : 21
```

```
_id: "Fantasy"
count : 19
```

```
_id: "Dystopian"
count : 24
```

```
_id: "Adventure"
count : 18
```

5. Find all books that have never been borrowed by any user.
Query:
{
  "$or": [
   { "borrowed_by": { "$exists": false } },
   { "borrowed_by": { "$size": 0 } }
  ]
}

No results
Try modifying your query to get results.

Tidak ada bukuk yang tidak dipinjam, keseluruhan buku kini sedang di pinjam oleh para user aktif.