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ECE- 464 PSET 2: Queries and their Outputs

**Webscraped Site:** <https://books.toscrape.com/>

**#Query 1:** Getting the total number of entries (books) in the dataset

`db.book_collection.find().count()`

```
> db.book_collection.find().count()
1000
```

**#Query 2:** Getting all the books with a rating higher than 3.0 and sorting the results based on their rating in descending order. In the case that the books have identical ratings, they'll be sorted based on their price (in Euros) in descending order. The first four results are shown.  
`db.book_collection.find({"Book Rating":{"$gt": 3.0}}).sort({"Book Rating":-1, "Book Price (in Euros):-1}).limit(4).pretty()`

```
db.book_collection.find({"Book Rating":{"$gt": 3.0}}).sort({"Book Rating":-1, "Book Price (in Euros):-1}).limit(4).pretty()
{
  "_id" : ObjectId("61a338c57939c3ff83e45913"),
  "Book Title" : "The Barefoot Contessa Cookbook",
  "Book Rating" : 5,
  "Book Price (in Euros)" : 59.92,
  "Book Availability" : "In stock",
  "Book Link" : "http://books.toscrape.com/catalogue/the-barefoot-contessa-cookbook_440/index.html"
}
{
  "_id" : ObjectId("61a338c87939c3ff83e45a0f"),
  "Book Title" : "Life Without a Recipe",
  "Book Rating" : 5,
  "Book Price (in Euros)" : 59.04,
  "Book Availability" : "In stock",
  "Book Link" : "http://books.toscrape.com/catalogue/life-without-a-recipe_188/index.html"
}
{
  "_id" : ObjectId("61a338c67939c3ff83e45960"),
  "Book Title" : "Approval Junkie: Adventures in Caring Too Much",
  "Book Rating" : 5,
  "Book Price (in Euros)" : 58.81,
  "Book Availability" : "In stock",
  "Book Link" : "http://books.toscrape.com/catalogue/approval-junkie-adventures-in-caring-too-much_363/index.html"
}
{
  "_id" : ObjectId("61a338c27939c3ff83e4585e"),
  "Book Title" : "How to Speak Golf: An Illustrated Guide to Links Lingo",
  "Book Rating" : 5,
  "Book Price (in Euros)" : 58.32,
  "Book Availability" : "In stock",
  "Book Link" : "http://books.toscrape.com/catalogue/how-to-speak-golf-an-illustrated-guide-to-links-lingo_621/index.html"
}
```

**#Query 3:** Getting the total number of entries (books) that satisfy having a rating greater than or equal to 2.0 and less than or equal to 4.0.

`db.book_collection.find({"Book Rating":{"$gte": 2.0, "$lte": 4.0}}).count()`

```
> db.book_collection.find({"Book Rating":{"$gte": 2.0, "$lte": 4.0}}).count()
578
```

**#Query 4:** Sorting the entries (books) based on their price (in Euros). In the case that the books have identical prices, they will be sorted based on their rating in descending order. Only the first four results are shown.

```
db.book_collection.find().sort({"Book Price (in Euros)":1, "Book Rating":1}).limit(4).pretty()
```

```
> db.book_collection.find().sort({"Book Price (in Euros)":1, "Book Rating":1}).limit(4).pretty()
{
  "_id" : ObjectId("61a338c67939c3ff83e45961"),
  "Book Title" : "An Abundance of Katherines",
  "Book Rating" : 5,
  "Book Price (in Euros)" : 10,
  "Book Availability" : "In stock",
  "Book Link" : "http://books.toscrape.com/catalogue/an-abundance-of-katherines_362/index.html"
}

{
  "_id" : ObjectId("61a338c47939c3ff83e458d8"),
  "Book Title" : "The Origin of Species",
  "Book Rating" : 4,
  "Book Price (in Euros)" : 10.01,
  "Book Availability" : "In stock",
  "Book Link" : "http://books.toscrape.com/catalogue/the-origin-of-species_499/index.html"
}

{
  "_id" : ObjectId("61a338c67939c3ff83e459af"),
  "Book Title" : "The Tipping Point: How Little Things Can Make a Big Difference",
  "Book Rating" : 2,
  "Book Price (in Euros)" : 10.02,
  "Book Availability" : "In stock",
  "Book Link" : "http://books.toscrape.com/catalogue/the-tipping-point-how-little-things-can-make-a-big-difference_284/index.html"
}

{
  "_id" : ObjectId("61a338bf7939c3ff83e45737"),
  "Book Title" : "Patience",
  "Book Rating" : 3,
  "Book Price (in Euros)" : 10.16,
  "Book Availability" : "In stock",
  "Book Link" : "http://books.toscrape.com/catalogue/patience_916/index.html"
}
```

**#Query 5:** Getting the entry (book) with the title "11/22/63" and then getting the availability information along with the web link of that book.

```
db.book_collection.find({"Book Title":"11/22/63"},{_id:0, "Book Availability":1, "Book Link": 1})
```

```
> db.book_collection.find({"Book Title":"11/22/63"},{_id:0, "Book Availability":1, "Book Link": 1})
{ "Book Availability" : "In stock", "Book Link" : "http://books.toscrape.com/catalogue/112263_583/index.html" }
```

**#Query 6:** Getting the entries (books) that have a price that is less than or equal to 15 Euros  
 #and then sorting the results based on their price (in Euros) in descending order. In the case  
 #that the books have identical prices, they'll be sorted based on their rating in descending order.  
 #Only the first four results are shown.

```
db.book_collection.find({"Book Price (in Euros)": {"$lte": 15.0}}).sort({"Book Price (in Euros)": -1,
"Book Rating": -1}).limit(4).pretty()
```

```
> db.book_collection.find({"Book Price (in Euros)": {"$lte": 15.0}}).sort({"Book Price (in Euros)": -1, "Book Rating": -1}).limit(4).pretty()
{
  "_id" : ObjectId("61a338bf7939c3ff83e4573c"),
  "Book Title" : "Obsidian (Lux #1)",
  "Book Rating" : 2,
  "Book Price (in Euros)" : 14.86,
  "Book Availability" : "In stock",
  "Book Link" : "http://books.toscrape.com/catalogue/obsidian-lux-1_911/index.html"
}

{
  "_id" : ObjectId("61a338c67939c3ff83e4596f"),
  "Book Title" : "The Hound of the Baskervilles (Sherlock Holmes #5)",
  "Book Rating" : 2,
  "Book Price (in Euros)" : 14.82,
  "Book Availability" : "In stock",
  "Book Link" : "http://books.toscrape.com/catalogue/the-hound-of-the-baskervilles-sherlock-holmes-5_348/index.html"
}

{
  "_id" : ObjectId("61a338c97939c3ff83e45a8e"),
  "Book Title" : "The Communist Manifesto",
  "Book Rating" : 3,
  "Book Price (in Euros)" : 14.76,
  "Book Availability" : "In stock",
  "Book Link" : "http://books.toscrape.com/catalogue/the-communist-manifesto_61/index.html"
}

{
  "_id" : ObjectId("61a338c37939c3ff83e45883"),
  "Book Title" : "A Gentleman's Position (Society of Gentlemen #3)",
  "Book Rating" : 5,
  "Book Price (in Euros)" : 14.75,
  "Book Availability" : "In stock",
  "Book Link" : "http://books.toscrape.com/catalogue/a-gentlemans-position-society-of-gentlemen-3_584/index.html"
}
```

**#Query 7:** Looking for any books that share the same book titles that may exist in the database  
 #and getting the name of that book along with the number of books that share that title. When I  
 #ran this initially, I was surprised to see that an entry got returned since I did not expect anything  
 #to be returned. However, after looking over the site from where I scraped the data from, I  
 #noticed that there was a second copy of the book: "The Star-Touched Queen". The two entries  
 #were still distinct since they have different prices and different links.

```
db.book_collection.aggregate([ {"$group" : { "_id" : "$Book Title", "count": { "$sum": 1 } } },
{"$match": { "_id" : { "$ne" : null } , "count" : { "$gt": 1 } } }, {"$project": { "name" : "$_id", "_id" : 0 } } ])
```

```
> db.book_collection.aggregate([ {"$group" : { "_id" : "$Book Title", "count": { "$sum": 1 } } }, {"$match": { "_id" : { "$ne" : null } , "count" : { "$gt": 1 } } }, {"$project": { "name" : "$_id", "_id" : 0 } } ] )
{ "name" : "The Star-Touched Queen" }
```

**#Query 8:** Getting all the books and sorts them based on the lengths of their book titles in  
 #descending order. Only the first four results are shown.

```
db.book_collection.aggregate( [ {$project: { "Book Title": 1, "field_length": { $strLenCP: "$Book Title" } } }, {$sort: { "field_length": -1 } }, {$project: { "field_length": 0 } }, {$limit : 4 } ] )
```

```
> db.book_collection.aggregate( [ {$project: { "Book Title": 1, "field_length": { $strLenCP: "$Book Title" } } }, {$sort: { "field_length": -1 } }, {$project: { "field_length": 0 } }, {$limit : 4 } ] )
{ "_id" : ObjectId("61a338c57939c3ff83e45900"), "Book Title" : "At The Existentialist Café: Freedom, Being, and apricot cocktails with: Jean-Paul Sartre, Simone de Beauvoir, Albert Camus, Martin Heidegger, Edmund Husserl, Karl Jaspers, Maurice Merleau-Ponty and others" }
{ "_id" : ObjectId("61a338bf7939c3ff83e456f9"), "Book Title" : "Foolproof Preserving: A Guide to Small Batch Jams, Jellies, Pickles, Condiments, and More: A Foolproof Guide to Making Small Batch Jams, Jellies, Pickles, Condiments, and More" }
{ "_id" : ObjectId("61a338bf7939c3ff83e45736"), "Book Title" : "Political Suicide: Missteps, Peccadilloes, Bad Calls, Backroom Hijinx, Sordid Past, Rotten Breaks, and Just Plain Dumb Mistakes in the Annals of American Politics" }
{ "_id" : ObjectId("61a338bf7939c3ff83e45722"), "Book Title" : "The Mindfulness and Acceptance Workbook for Anxiety: A Guide to Breaking Free from Anxiety, Phobias, and Worry Using Acceptance and Commitment Therapy" }
```