

Santhosh Andavar

2818372

CIS 492

LAB 3

This lab focuses on utilizing MongoDB to process semi-structured data. The objective is to use MongoDB Compass for data analysis, execute aggregation pipeline queries, and import business and review data from the Yelp dataset into a MongoDB server.

Installed the MongoDB and setup the database

```
==> Installing watchman
==> Pouring watchman/2025.03.10.00.arm64.sequoia.bottle.1.tar.gz
🍺 /opt/homebrew/Cellar/watchman/2025.03.10.00: 26 files, 14MB
==> Running 'brew cleanup watchman'...
Removing: /opt/homebrew/Cellar/watchman/2024.12.02.00_2... (24 files, 23.6KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/watchman_bottle_manifest--2024.12.02.00_2... (28.8KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/watchman--2024.12.02.00_2... (3MB)
==> Checking for dependents of upgraded formulae...
==> No broken dependents found!
==> 'brew cleanup' has not been run in the last 30 days, running now...
Disable this behavior by setting HOMEBREW_NO_INSTALL_CLEANUP.
HOMEBREW_NO_INSTALL_CLEANUP=1 brew cleanup # (either in your shell or via command-line)
Removing: /opt/homebrew/Cellar/boost/1.87.0... (16,155 files, 345.2MB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/boost_bottle_manifest--1.87.0... (27.6KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/boost--1.87.0... (59MB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/brotli--1.1.0... (373.3KB)
Removing: /opt/homebrew/Cellar/certifi/2024.12.02.00_2... (1 file, 1.9KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/ci-certificates_bottle_manifest--2024.12-31... (1.9KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/ci-certificates--2024.12-31... (130.5KB)
Removing: /opt/homebrew/Cellar/cryptography/3.3.0... (27 files, 263.2KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/double-conversion_bottle_manifest--3.3.0... (10.1KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/double-conversion--3.3.0... (78.5KB)
Removing: /opt/homebrew/Cellar/fmt/1.1.3... (3 files, 1.1KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/fmt_bottle_manifest--1.1.3... (7.0KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/fmt--1.1.3... (275.1KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/iuc4c076_bottle_manifest--76.1.1... (29.6MB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/iuc4c076--76.1.1... (9.4KB)
Removing: /opt/homebrew/Cellar/libbodium/1.64.0... (1 file, 793.7KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/libbodium_bottle_manifest--1.64.0... (7KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/libbodium--1.64.0... (221.2KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/mongodb-community@0.0-5.0.29.tgz... (67.5MB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/mongodb-database-tools@100.9.5.zip... (59.7MB)
Removing: /opt/homebrew/Cellar/mongodb/2.3.8... (12,343 files, 70MB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/mongodb_bottle_manifest--2.3.8... (50.7KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/mongodb--2.3.8... (16.4MB)
Removing: /opt/homebrew/Cellar/node/23.6.1... (2,692 files, 70.9MB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/node_bottle_manifest--23.6.1... (15.7KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/node--23.6.1... (18.5MB)
Removing: /opt/homebrew/Cellar/python@3.13/3.13.0-... (7,236 files, 33.4MB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/python@3.13.0_bottle_manifest--3.13.0... (8.9KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/python@3.13.0--3.13.0... (9.7MB)
Removing: /opt/homebrew/Cellar/pcre2/10.44... (238 files, 6.3MB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/pcre2_bottle_manifest--10.44... (11.4KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/pcre2--10.44... (2MB)
Removing: /opt/homebrew/Cellar/python@3.13/3.13.1-... (3,272 files, 65.3MB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/python@3.13.1_bottle_manifest--3.13.1... (20.3KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/python@3.13-3.13.1... (15.5MB)
Removing: /opt/homebrew/Cellar/sqlite/3.48.0... (12 files, 4.9MB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/sqlite_bottle_manifest--3.48.0... (8.3KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/sqlite--3.48.0... (3.3MB)
Removing: /opt/homebrew/Cellar/std@1.5.6/1.5.6... (3 files, 1.1KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/std_bottle_manifest--1.5.6... (11.9KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/std--1.5.6... (753.9KB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/iuc4c075--75.1... (29MB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/portable-ruby-3.3.5.arm64_big_sur.bottle.tar.gz... (11.2MB)
Removing: /Users/santhoshandavar/Library/Caches/Homebrew/iuc4c075_bottle_manifest--75.1-1... (9.4KB)
Removing: /Users/santhoshandavar/Library/Logs/Homebrew/python@3.13... (2 files, 2KB)
Removing: /Users/santhoshandavar/Library/Logs/Homebrew/openssl@1.1.1... (46B)
Removing: /Users/santhoshandavar/Library/Logs/Homebrew/msodbcsql17... (3 files, 541B)
Pruned 2 symbolic links and 1 directories from /opt/homebrew
==> Cleanups
==> mongodb-community@7.0
To start mongodb/brew/mongodb-community@7.0 now and restart at login:
  brew services start mongodb/brew/mongodb-community@7.0
(base) santhoshandavar@wlan-172-20-108-85 ~ % brew services start mongodb-community@7.0
==> Successfully started `mongodb-community@7.0` (label: homebrew.mxcl.mongodb-community@7.0)
(base) santhoshandavar@wlan-172-20-108-85 ~ %
```

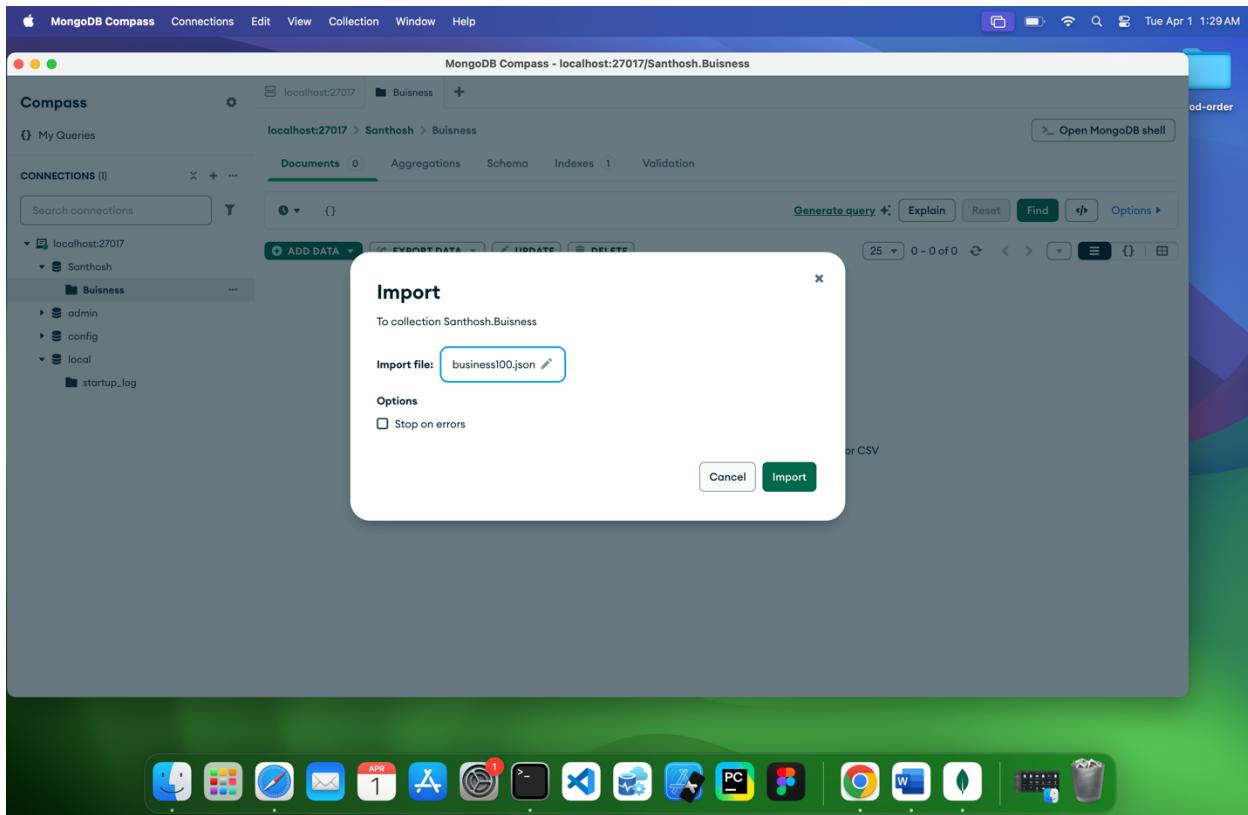
Background Items Added
"watchman" is an item that can run in the background. You can manage this in Login Items & Extensions.

```

==> Caveats
==> mongodb-community@7.0
To start mongodb/brew/mongodb-community@7.0 now and restart at login:
  brew services start mongodb/brew/mongodb-community@7.0
[(base) santhoshandavar@lan-172-20-108-85 ~ % brew services start mongodb-community@7.0
==> Santhosh's Macbook Pro (Santhosh's MacBook Pro) [1/1]
[(base) santhoshandavar@lan-172-20-108-85 ~ % brew install mongodb-atlas
==> Downloading https://gher.io/v2/homebrew/core/mongodb-atlas@cli/manifests/1.41.1
#####
==> Fetching mongodb-atlas@cli
#####
==> Downloading https://gher.io/v2/homebrew/core/mongodb-atlas@cli/blobs/sha256:76b571beb63ddbcd344de55cb33504278231b6573a1e6ee622ad1b6cc6d5947d
#####
#####
==> Pouring mongodb-atlas@cli-1.41.1.arm64_sequioa.bottle.tar.gz
==> Caveats
zsh completions have been installed to:
  /opt/homebrew/share/zsh/site-functions
==> Santhosh's Macbook Pro (Santhosh's MacBook Pro) [1/1]
[(base) santhoshandavar@lan-172-20-108-85 ~ % brew cleanup mongodb-atlas@cli...
  Running 'brew cleanup mongodb-atlas@cli'...
Disable this behaviour by setting HOMEBREW_NO_INSTALL_CLEANUP.
Hide these hints with HOMEBREW_NO_ENV_HINTS (see `man brew`).
(base) santhoshandavar@lan-172-20-108-85 ~ %

```

Established the database, connected to the server, and imported the JSON files.



```

_id: ObjectId('67eb79e5a0ff36057556a032')
votes: Object
user_id: "PUFPaY9KxDacGqfsorJp3Q"
review_id: "Ya85v4eqdd6k90d8hBQjyA"
stars: 4
date: "2012-08-01"
text: "Hoagie is an institution. Walking in, it does seem like a throwback..."
type: "review"
business_id: "SUMKHjUEUNDYWqAnhGckJw"

_id: ObjectId('67eb79e5a0ff36057556a033')
votes: Object
user_id: "Ju6AxzBYGR4A0wspR9BYHA"
review_id: "PvLNJ2l_4wbVNctrDwDQ"
stars: 5
date: "2014-02-13"
text: "Excellent food. Superb customer service. I miss the mario machines the.."
type: "review"
business_id: "SUMKHjUEUNDYWqAnhGckJw"

_id: ObjectId('67eb79e5a0ff36057556a034')
votes: Object
user_id: "auSFwwW42h6a1XgFxAX0"
review_id: "fFSOGV46Yxuwbr3fHuZig"
stars: 5
date: "2015-10-31"
text: "Yes this place is a little out dated and not opened on the weekend. Bu.."
type: "review"
business_id: "SUMKHjUEUNDYWqAnhGckJw"

_id: ObjectId('67eb79e5a0ff36057556a035')
votes: Object
_id: "uK8ttraOp4M5u3uYrqIBxg"
_id: "b3exauCFNv14kSNwSpgA"
stars: 5
date: "2013-11-08"
text: "All the food is great here. But the best thing they have is their wine!!"

```

Import completed.
1353 documents imported.

Query Q2_1 — Businesses by City (Fast Food or Restaurants)

This search determines the number of establishments in each city that are classified as "fast food" or "restaurants."

Compass

localhost:27017 > Santhosh > Buisness

Documents 100 Aggregations Schema Indexes Validation

Untitled - modified SAVE + CREATE NEW EXPORT TO LANGUAGE

Stage 1 \$match

```

1
2   {
3     categories: { $in: ["Fast Food", "R
4   }

```

Output after \$match stage (Sample of 10 documents)

```

_id: ObjectId('67eb79b8a0ff360575569fdcc')
business_id: "5UmHjUEUNdYwqANhgckJw"
full_address: "4734 Lebanon Church Rd
Dravosburg, PA 15034"
hours: Object
open: true
categories: Array (2)
city: "Dravosburg"
review_count: 4

```

```

_id: ObjectId('67eb79b8a0ff360575569fd1')
business_id: "mHrayjG3Uz_RlHkLj-AMg"
full_address: "414 Hawkins Ave
rankin, PA 15104"
hours: Object
open: true
categories: Array (5)
city: "rankin"
review_count: 20

```

Stage 2 \$group

```

1   {
2     _id: "$city",
3     count: { $sum: 1 }
4   }

```

Output after \$group stage (Sample of 10 documents)

```

_id: "Mc Kees Rocks"
count: 1

```

```

_id: "Bellevue"
count: 1

```

Stage 3 \$sort

```

1   {
2     business_count: -1
3   }

```

Output after \$sort stage (Sample of 10 documents)

```

_id: "West Mifflin"
count: 4

```

```

_id: "Dravosburg"
count: 1

```

+ Add Stage

Compass

localhost:27017 > Santhosh > Buisness

Documents 100 Aggregations Schema Indexes Validation

Untitled - modified SAVE + CREATE NEW EXPORT TO LANGUAGE

Stage 2 \$group

```

1   {
2     _id: "$city",
3     count: { $sum: 1 }
4   }

```

Output after \$group stage (Sample of 10 documents)

```

_id: "Mc Kees Rocks"
count: 1

```

```

_id: "Bellevue"
count: 1

```

Stage 3 \$sort

```

1   {
2     business_count: -1
3   }

```

Output after \$sort stage (Sample of 10 documents)

```

_id: "West Mifflin"
count: 4

```

```

_id: "Dravosburg"
count: 1

```

+ Add Stage

The screenshot shows the Compass MongoDB interface. The left sidebar displays connections, with 'localhost:27017' selected, showing databases like 'Santhosh', 'Buisness', 'Review', 'admin', 'config', and 'local'. The main area shows the 'Buisness' database selected. The top navigation bar includes tabs for 'localhost:27017', 'Buisness', 'Santhosh', 'Review', and a '+' button. The current tab is 'Aggregations'. Below the tabs are buttons for '\$match', '\$group', '\$sort', and '\$edit'. To the right are buttons for 'INSIGHT', 'Explain', 'Export', 'Run', and 'Options'. The results section is titled 'ALL RESULTS' and shows 13 documents. Each document contains an '_id' field and a 'count' field. The results are:

_id	count
'Mc Kees Rocks'	1
'Bellevue'	1
'Carnegie'	9
'Munhall'	3
'Homestead'	9
'West Mifflin'	4
'McKees Rocks'	3
'West Homestead'	3
'Bellvue'	1
'Dravosburg'	

Query Q2_2 — Businesses by City and Stars (review_count \geq 10)

Businesses with ten or more reviews are filtered by this query, which also groups them by city and star rating to determine how many are in each group.

Compass

localhost:27017 > Santhosh > Buisness

Documents 100 Aggregations Schema Indexes Validation

Untitled - modified SAVE + CREATE NEW EXPORT TO LANGUAGE

Stage 1 (\$match)

```
1 /**
2  * query: The query in MQL.
3  */
4 {
5   review_count: { $gte: 10 }
6 }
```

Output after \$match stage (Sample of 10 documents)

```
_id: ObjectId('67eb79b8a0ff360575569fd1')
business_id: "mHrayjG3uZ_RLHkJ-AMg"
full_address: "414 Hawkins Avenue
rankin, PA 15104"
hours: Object
open: true
categories: Array (5)
city: "rankin"
review_count: 20
```

```
_id: ObjectId('67eb79b8a0ff360575569fd1')
business_id: "KAYYBhCt-RkbGcPdG0ThNg"
full_address: "141 Hawthorne Street
Greentree
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (4)
city: "Carnegie"
```

Stage 2 (\$group)

```
1 {
2   _id: { city: "$city", stars: "$star" }
3   count: { $sum: 1 }
4 }
```

Output after \$group stage (Sample of 10 documents)

```
_id: Object
count: 1
```

```
_id: Object
count: 2
```

Stage 3 (\$sort)

```
1 { business_count: -1 }
```

Compass

localhost:27017 > Santhosh > Buisness

Documents 100 Aggregations Schema Indexes Validation

Untitled - modified SAVE + CREATE NEW EXPORT TO LANGUAGE

Stage 2 (\$group)

```
1 {
2   _id: { city: "$city", stars: "$star" }
3   count: { $sum: 1 }
4 }
```

Output after \$group stage (Sample of 10 documents)

```
_id: Object
count: 1
```

```
_id: Object
count: 2
```

Stage 3 (\$sort)

```
1 { business_count: -1 }
```

Output after \$sort stage (Sample of 10 documents)

```
_id: Object
count: 1
```

```
_id: Object
count: 1
```

Add Stage

The screenshot shows the Compass MongoDB interface. The left sidebar displays connections: localhost:27017, Buisness, Santhosh, Review, and Buisness. The main area shows the 'localhost:27017 > Santhosh > Buisness' database. The 'Aggregations' tab is selected. The results pane shows the following aggregation results:

- _id: Object count : 2
- _id: Object count : 1
- _id: Object count : 2
- _id: Object count : 1
- _id: Object count : 1
- _id: Object count : 4
- _id: Object count : 1
- _id: Object count : 7
- _id: Object count : 1

At the bottom, there is a footer with links to 'MongoDB Documentation', 'MongoDB Tutorials', 'MongoDB Resources', and 'MongoDB Support'.

Query Q2_3 — Top 10 Businesses by Review Count (Stars \geq 4)

If a company has at least 10 reviews and a star rating of four or above, this query returns the top ten companies with the most reviews.

Compass

localhost:27017 > Santhosh > Buisness

Documents 100 Aggregations Schema Indexes 1 Validation

Untitled - modified SAVE + CREATE NEW EXPORT TO LANGUAGE PREVIEW STAGES TEXT WIZARD

Stage 2 (\$sort)

```
1 { review_count: -1 }
```

Output after \$sort stage (Sample of 10 documents)

```
_id: ObjectId('67eb79b8a0ff360575569fdf')
business_id: "b0WZjpsL1R2r4F1nxcl0oQ"
full_address: "1073 Washington Ave
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (3)
city: "Carnegie"
review_count: 58
```

```
_id: ObjectId('67eb79b8a0ff36057556a023')
business_id: "LiMXTPwanf3LkkKHkI7Cjw"
full_address: "342 Island Ave
Mc Kees Rocks, PA 15136"
hours: Object
open: true
categories: Array (2)
city: "Mc Kees Rocks"
review_count: 33
```

Stage 3 (\$limit)

```
1 10
```

Output after \$limit stage (Sample of 10 documents)

```
_id: ObjectId('67eb79b8a0ff360575569fdf')
business_id: "b0WZjpsL1R2r4F1nxcl0oQ"
full_address: "1073 Washington Ave
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (3)
city: "Carnegie"
review_count: 58
```

```
_id: ObjectId('67eb79b8a0ff36057556a023')
business_id: "LiMXTPwanf3LkkKHkI7Cjw"
full_address: "342 Island Ave
Mc Kees Rocks, PA 15136"
hours: Object
open: true
categories: Array (2)
city: "Mc Kees Rocks"
review_count: 33
```

+ Add Stage

Compass

localhost:27017 > Santhosh > Buisness

Documents 100 Aggregations Schema Indexes 1 Validation

Untitled - modified SAVE + CREATE NEW EXPORT TO LANGUAGE PREVIEW STAGES TEXT WIZARD

Stage 1 (\$match)

```
1 { review_count: { $gte: 10 },
2   stars: { $gte: 4 }
3 }
```

Output after \$match stage (Sample of 10 documents)

```
_id: ObjectId('67eb79b8a0ff360575569fd1')
business_id: "mVHrayjG3uZ_RLHKLj-AMg"
full_address: "414 Hawkins Ave
Rankin, PA 15104"
hours: Object
open: true
categories: Array (5)
city: "Rankin"
review_count: 20
```

```
_id: ObjectId('67eb79b8a0ff360575569fd3')
business_id: "KayYbhCt-RkbGcPdGOThNg"
full_address: "141 Hawthorne St
Greentree
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (4)
city: "Carnegie"
```

Stage 2 (\$sort)

```
1 { review_count: -1 }
```

Output after \$sort stage (Sample of 10 documents)

```
_id: ObjectId('67eb79b8a0ff360575569fdf')
business_id: "b0WZjpsL1R2r4F1nxcl0oQ"
full_address: "1073 Washington Ave
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (3)
city: "Carnegie"
review_count: 58
```

```
_id: ObjectId('67eb79b8a0ff36057556a023')
business_id: "LiMXTPwanf3LkkKHkI7Cjw"
full_address: "342 Island Ave
Mc Kees Rocks, PA 15136"
hours: Object
open: true
categories: Array (2)
city: "Mc Kees Rocks"
review_count: 33
```

Stage 3 (\$limit)

```
1 10
```

+ Add Stage

The screenshot shows the Compass MongoDB interface. The left sidebar displays connections, with 'localhost:27017' and 'Santhosh' selected. Under 'Santhosh', the 'Business' collection is expanded, showing documents for 'Review', 'admin', 'config', and 'local'. The 'local' folder contains a file named 'startup_log'. The main panel shows the results of an aggregation query on the 'Business' collection. The top navigation bar includes tabs for 'localhost:27017', 'Business', 'Santhosh', 'Review', 'Business', 'Business', and a '+' button. Below the tabs are buttons for 'Documents 100', 'Aggregations', 'Schema', 'Indexes 1', and 'Validation'. The 'Aggregations' tab is active. Below these are buttons for '\$match', '\$sort', '\$limit', 'Edit', 'Explain', 'Export', 'Run', and 'Options'. The results pane is titled 'ALL RESULTS' and shows two documents. Both documents have the same structure:

```

_id: ObjectId('67eb79b8a0ff360575569fdf')
business_id: "b9WZ3pSLR2r4F1nxcl0oQ"
full_address: "1073 Washington Ave
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (3)
city: "Carnegie"
review_count: 58
name: "Cab & Eat"
neighborhoods: Array (empty)
longitude: -80.0833859
state: "PA"
stars: 4.5
latitude: 40.3980741
attributes: Object
type: "business"

```

The second document is identical to the first, except for its ID and business ID.

Extra credit:

Join Business and Review Collections

To link the top 10 companies with their corresponding reviews from the review collection, this query does a \$lookup. The review ID, business ID, stars, and review content are all included in each result. A CSV file is the export of the outcome.

Compass

localhost:27017 > Santhosh > Buisness

Documents 100 Aggregations Schema Indexes Validation

\$match \$sort \$limit \$lookup Generate aggregation Explain Export Run Options

Untitled - modified SAVE + CREATE NEW EXPORT TO LANGUAGE PREVIEW STAGES TEXT WIZARD

Stage 1 \$match

```
1 { review_count: { $gte: 10 },
  stars: { $gte: 4 }
}
```

Output after \$match stage (Sample of 10 documents)

```
_id: ObjectId('67eb79b8a0ff360575569fd1')
business_id: "mVHrayiG3uZ_RLHKLj-AMg"
full_address: "114 Hawkins Ave
rankin, PA 15104"
hours: Object
open: true
categories: Array (5)
city: "rankin"
review_count: 20
```

```
_id: ObjectId('67eb79b8a0ff360575569fd3')
business_id: "KayVhCt-RkbGcPdGOThNg"
full_address: "141 Hawthorne St
Greentree
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (4)
city: "Carnegie"
```

Stage 2 \$sort

```
1 { review_count: -1 }
```

Output after \$sort stage (Sample of 10 documents)

```
_id: ObjectId('67eb79b8a0ff360575569fdf')
business_id: "b9WZjpsLIRzr4fInxcloQ"
full_address: "1073 Washington Ave
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (3)
city: "Carnegie"
review_count: 58
```

```
_id: ObjectId('67eb79b8a0ff36057556a023')
business_id: "L1MXTPwanF3lkKHKlFcjw"
full_address: "342 Island Ave
Mc Kees Rocks, PA 15136"
hours: Object
open: true
categories: Array (2)
city: "Mc Kees Rocks"
review_count: 33
```

Stage 3 \$limit

Compass

localhost:27017 > Santhosh > Buisness

Documents 100 Aggregations Schema Indexes Validation

\$match \$sort \$limit \$lookup Generate aggregation Explain Export Run Options

Untitled - modified SAVE + CREATE NEW EXPORT TO LANGUAGE PREVIEW STAGES TEXT WIZARD

Stage 2 \$sort

```
1 { review_count: -1 }
```

Output after \$sort stage (Sample of 10 documents)

```
_id: ObjectId('67eb79b8a0ff360575569fdf')
business_id: "b9WZjpsLIRzr4fInxcloQ"
full_address: "1073 Washington Ave
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (3)
city: "Carnegie"
review_count: 58
```

```
_id: ObjectId('67eb79b8a0ff36057556a023')
business_id: "L1MXTPwanF3lkKHKlFcjw"
full_address: "342 Island Ave
Mc Kees Rocks, PA 15136"
hours: Object
open: true
categories: Array (2)
city: "Mc Kees Rocks"
review_count: 33
```

Stage 3 \$limit

```
1 /**
 * Provide the number of documents to limit
 */
10
```

Output after \$limit stage (Sample of 10 documents)

```
_id: ObjectId('67eb79b8a0ff360575569fdf')
business_id: "b9WZjpsLIRzr4fInxcloQ"
full_address: "1073 Washington Ave
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (3)
city: "Carnegie"
review_count: 58
```

```
_id: ObjectId('67eb79b8a0ff36057556a023')
business_id: "L1MXTPwanF3lkKHKlFcjw"
full_address: "342 Island Ave
Mc Kees Rocks, PA 15136"
hours: Object
open: true
categories: Array (2)
city: "Mc Kees Rocks"
review_count: 33
```

Stage 4 \$lookup

Compass

localhost:27017 > Santhosh > Buisness

Documents 100 Aggregations Schema Indexes 1 Validation

\$match \$sort \$limit \$lookup

Untitled - modified SAVE + CREATE NEW EXPORT TO LANGUAGE PREVIEW STAGES TEXT WIZARD

Stage 3 \$limit

```
1 //**
2 * Provide the number of documents to limit
3 */
4 10
```

Output after \$limit stage (Sample of 10 documents)

```
_id: ObjectId('67eb79b8a0ff360575569fdf')
business_id: "b9WZJpSLRzr4Flnxcl0oQ"
full_address: "1073 Washington Ave
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (3)
city: "Carnegie"
review_count: 58
```

```
_id: ObjectId('67eb79b8a0ff36057556a023')
business_id: "L1MXTPwanF3LkkKHKlFCjw"
full_address: "342 Island Ave
Mc Kees Rocks, PA 15136"
hours: Object
open: true
categories: Array (2)
city: "Mc Kees Rocks"
review_count: 33
```

Stage 4 \$lookup

```
1 {
2   from: "review",
3   localField: "business_id",
4   foreignField: "buisness_id",
5   as: "reviews"
6 }
```

Output after \$lookup stage (Sample of 10 documents)

```
_id: ObjectId('67eb79b8a0ff360575569fdf')
business_id: "b9WZJpSLRzr4Flnxcl0oQ"
full_address: "1073 Washington Ave
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (3)
city: "Carnegie"
review_count: 58
```

```
_id: ObjectId('67eb79b8a0ff36057556a023')
business_id: "L1MXTPwanF3LkkKHKlFCjw"
full_address: "342 Island Ave
Mc Kees Rocks, PA 15136"
hours: Object
open: true
categories: Array (2)
city: "Mc Kees Rocks"
review_count: 33
```

Compass

localhost:27017 > Santhosh > Buisness

Documents 100 Aggregations Schema Indexes 1 Validation

Untitled - modified SAVE + CREATE NEW EXPORT TO LANGUAGE PREVIEW STAGES TEXT WIZARD

Stage 3 \$limit

```
1 /**
2 * Provide the number of documents to limit
3 */
4 10
```

Output after \$limit stage (Sample of 10 documents)

```
_id: ObjectId('67eb79b8a0ff360575569fdf')
business_id: "b9WZJpSLR2r4FlncxLoQ"
full_address: "1073 Washington Ave
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (3)
city: "Carnegie"
review_count: 58
```

```
_id: ObjectId('67eb79b8a0ff36057556a023')
business_id: "L1MXTPwanF3LkkKHKlFCjw"
full_address: "342 Island Ave
Mc Kees Rocks, PA 15136"
hours: Object
open: true
categories: Array (2)
city: "Mc Kees Rocks"
review_count: 33
```

Stage 4 \$lookup

```
1 {
2   from: "review",
3   localField: "business_id",
4   foreignField: "business_id",
5   as: "reviews"
6 }
```

Output after \$lookup stage (Sample of 10 documents)

```
_id: ObjectId('67eb79b8a0ff360575569fdf')
business_id: "b9WZJpSLR2r4FlncxLoQ"
full_address: "1073 Washington Ave
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (3)
city: "Carnegie"
review_count: 58
```

```
_id: ObjectId('67eb79b8a0ff36057556a023')
business_id: "L1MXTPwanF3LkkKHKlFCjw"
full_address: "342 Island Ave
Mc Kees Rocks, PA 15136"
hours: Object
open: true
categories: Array (2)
city: "Mc Kees Rocks"
review_count: 33
```

Compass

localhost:27017 > Santhosh > Buisness

Documents 100 Aggregations Schema Indexes 1 Validation

Untitled - modified SAVE + CREATE NEW EXPORT TO LANGUAGE PREVIEW STAGES TEXT WIZARD

Stage 5 \$unwind

```
1 "$reviews"
```

Output after \$unwind stage (Sample of 0 documents)

No Preview Documents

Stage 6 {\$project

```
1 {
2   _id: 0,
3   review_id: "$reviews.review_id",
4   business_id: "$business_id",
5   stars: "$reviews.stars",
6   review_text: "$reviews.text"
7 }
```

Output after \$project stage (Sample of 0 documents)

No Preview Documents

Unexpected token, expected "" (6:2)

Compass

localhost:27017 > Santhosh > Buisness

Documents 100 Aggregations Schema Indexes 1 Validation

\$match \$sort \$limit \$lookup Edit Explain Export Run Options ▾

Showing 1~10 count results

ALL RESULTS

```
_id: ObjectId('67eb79b8a0ff360575569fdf')
business_id: "b9WZ3p5L1R2r4FlinxloQ"
full_address: "1073 Washington Ave
Carnegie, PA 15106"
hours: Object
open: true
categories: Array (3)
city: "Carnegie"
review_count: 58
name: "Gab & Eat"
neighborhoods: Array (empty)
longitude: -80.0833859
state: "PA"
stars: 4.5
latitude: 40.3980741
attributes: Object
type: "business"
reviews: Array (empty)

_id: ObjectId('67eb79b8a0ff36057556a023')
business_id: "18MXTPwanF3LhkKhKlFCjw"
full_address: "342 Island Ave
Mc Kees Rocks, PA 15136"
hours: Object
open: true
categories: Array (2)
city: "Mc Kees Rocks"
review_count: 33
name: "Pierogies Plus"
neighborhoods: Array (empty)
longitude: -80.0599791
state: "PA"
stars: 4.5
latitude: 40.468873
attributes: Object
type: "business"
reviews: Array (empty)
```

Compass

localhost:27017 > Santhosh > Buisness

My Queries

CONNECTIONS (1)

localhost:27017

Santhosh

Buisness

Review

config

local

startup_log

Documents 100 Aggregations Schema Indexes 1 Validation

Export

localhost:27017 > Santhosh > Buisness

Aggregation on Santhosh.Buisness

Export results from the aggregation below

```
db.getCollection('Buisness').aggregate([
  {
    $match: {
      review_count: { $gte: 10 },
      stars: { $gte: 4 }
    }
  },
  { $sort: { review_count: -1 } },
  { $limit: 10 },
  {
    $lookup: {
      from: 'review',
      localField: 'business_id',
      foreignField: '_id',
      as: 'reviews'
    }
  }
])
```

Export File Type

JSON CSV

Exporting with CSV may lose type information and is not suitable for backing up your data. [Learn more](#)

Cancel Export...

Showing 1 - 10 count results

Explain Export Run Options