

1.PROJECT {name:1,homepage_url:1,email_address:1,phone_number:1}

The screenshot shows the MongoDB Compass interface for the `sample_training.companies` collection. The top bar indicates 9.5k documents, 34.6MB total size, 3.7KB average size, and 1 index. The `Documents` tab is active. The filter bar contains the query `{name:1,homepage_url:1,email_address:1,phone_number:1}`. The results are displayed in a list view, showing three documents with their JSON structure.

```
{
  "_id": "ObjectId('52cdef7c4bab8bd675297d8a')",
  "name": "Wetpaint",
  "homepage_url": "http://wetpaint-inc.com",
  "email_address": "info@wetpaint.com",
  "phone_number": "206.859.6300"
}
```

```
{
  "_id": "ObjectId('52cdef7c4bab8bd675297d8e')",
  "name": "Facebook",
  "homepage_url": "http://facebook.com",
  "email_address": "",
  "phone_number": ""
}
```

```
{
  "_id": "ObjectId('52cdef7c4bab8bd675297d8f')",
  "name": "OmniDrive",
  "homepage_url": "http://www.omnidrive.com",
  "email_address": "info@omnidrive.com",
  "phone_number": "660-675-5052"
}
```

2. PROJECT {class_id:1}

The screenshot shows the MongoDB Compass interface for the `sample_training.grades` collection. The top bar indicates 100.0k documents, 22.2MB total size, 233B average size, and 1 index. The `Documents` tab is active. The filter bar contains the query `{class_id:1}`. The results are displayed in a list view, showing four documents with their JSON structure.

```
{
  "_id": "ObjectId('56d5f7eb04eb3980bd8db91')",
  "student_id": 70,
  "scores": Array,
  "class_id": 1
}
```

```
{
  "_id": "ObjectId('56d5f7eb04eb3980bd8ded4')",
  "student_id": 154,
  "scores": Array,
  "class_id": 1
}
```

```
{
  "_id": "ObjectId('56d5f7eb04eb3980bd8df44')",
  "student_id": 165,
  "scores": Array,
  "class_id": 1
}
```

```
{
  "_id": "ObjectId('56d5f7eb04eb3980bd8df9b')",
  "student_id": 174,
  "scores": Array,
  "class_id": 1
}
```

3.FILTER{founded_month:10} PROJECT{name:1,founded_month:1}

sample_training.companies

DOCUMENTS 9.5k TOTAL SIZE 34.8MB AVG. SIZE 3.7KB INDEXES 1 TOTAL SIZE 112.0KB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER {founded_month:10} **OPTIONS** **FIND** **RESET**

PROJECT {name:1, founded_month:1}

SORT

COLLATION

MAXTIMES 5000

SKIP 0 **LIMIT** 0

VIEW **JSON** **SQL** **TABLE**

Displaying documents 1 - 20 of 301

```

_id: ObjectId("52cdef7c4bab8bd675297da4")
name: "Wetpaint"
founded_month: 10

_id: ObjectId("52cdef7c4bab8bd675297da4")
name: "Powerset"
founded_month: 10

_id: ObjectId("52cdef7c4bab8bd675297dff")
name: "TheFind"
founded_month: 10

_id: ObjectId("52cdef7c4bab8bd675297e1e")
name: "TechnologyGuide"
founded_month: 10

```

4. FILTER {founded_year:2008} PROJECT {name:1, _id:0}

sample_training.companies

DOCUMENTS 9.5k TOTAL SIZE 34.8MB AVG. SIZE 3.7KB INDEXES 1 TOTAL SIZE 112.0KB AVG. SIZE 112.0KB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER {founded_year:2008} **OPTIONS** **FIND** **RESET** **...**

PROJECT {name:1, _id:0}

SORT

COLLATION

MAXTIMES 5000

SKIP 0 **LIMIT** 0

VIEW **JSON** **SQL** **TABLE**

Displaying documents 1 - 20 of 1224 **REFRESH**

```

name: "OpenX"

name: "WonderHowTo"

name: "First380days"

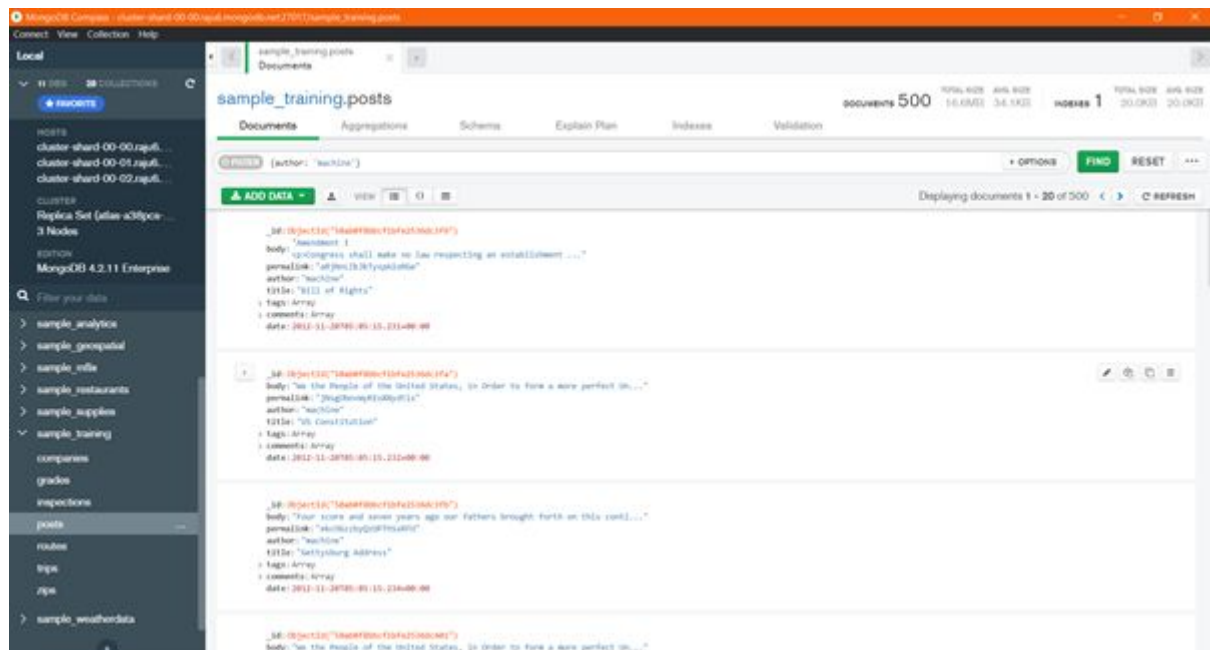
name: "Hibuna"

name: "Tvost"

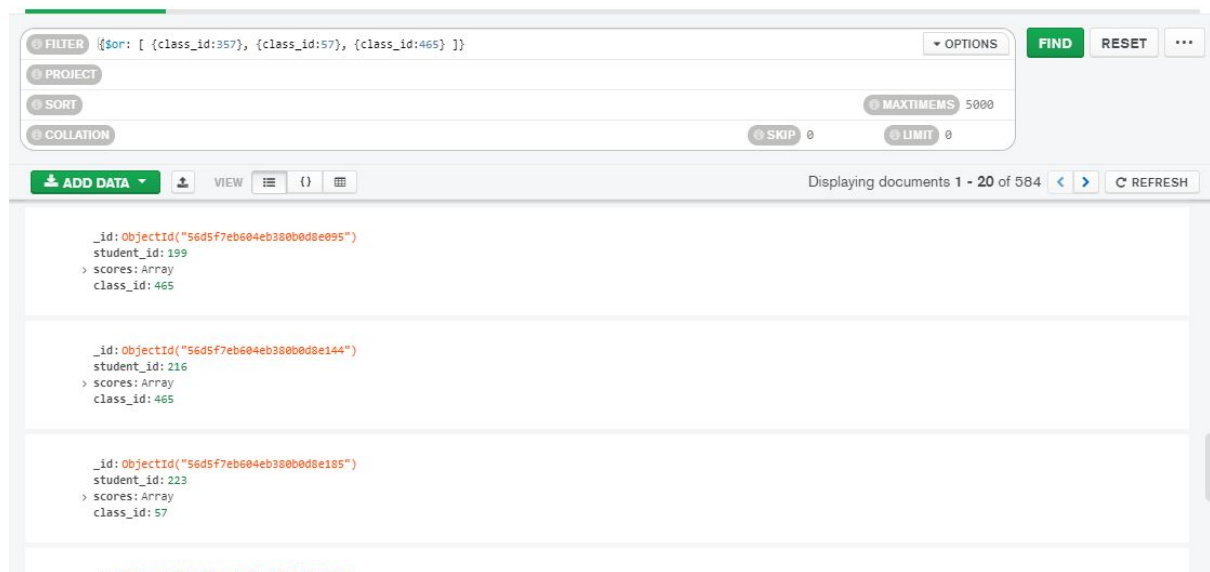
name: "Triptuber"

```

5. FILTER {author: "Machine"}



6. FILTER `{ $or: [{class_id:357}, {class_id:57}, {class_id:465}] }`



7.- filter `{ $and: [{founded_year:2008},{founded_month:10}] }`

sample_training.companies

DOCUMENTS 9.5k TOTAL SIZE 34.8MB AVG. SIZE 3.7KB INDEXES 1 TOTAL SIZE 100.0KB AVG. SIZE 100.0KB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER `{ $and: [{founded_year:2008},{founded_month:10}]}` **OPTIONS** **FIND** **RESET** **...**

PROJECT

SORT **MAXTIMES** 5000

COLLATION **SKIP** 0 **LIMIT** 0

ADD DATA **VIEW** **...**

Displaying documents 1 - 20 of 63 **REFRESH**

```
{
  "_id": ObjectId("52cdef7c4bab8bd6752985ca"),
  "name": "tunesBag",
  "permalink": "tunesBag",
  "crunchbase_url": "http://www.crunchbase.com/company/tunesbag",
  "homepage_url": "http://www.tunesBag.com",
  "blog_url": "http://tunesBag.blogspot.com/",
  "blog_feed_url": "http://blog.tunesbag.com/feeds/posts/default?alt=rss",
  "twitter_username": "",
  "category_code": "games_video",
  "number_of_employees": null,
  "founded_year": 2008,
  "founded_month": 10,
  "founded_day": 1,
  "deadpooled_year": null,
  "deadpooled_month": null,
  "deadpooled_day": null,
  "deadpooled_url": null,
  "tag_list": "music, cloud, locker, mp3, music-streaming, streaming",
  "alias_list": "",
  "email_address": "office@tunesBag.com",
  "phone_number": "+43 680 215 27 96",
  "description": "Social Music Player",
  "created_at": "Thu Mar 20 15:45:40 UTC 2008",
  "updated_at": "Thu Jan 19 00:37:48 UTC 2012",
  "overview": "<p>Austria based tunesBag is a music player with social features on th..."
}
```

SHOW 17 MORE FIELDS

8 filter

{number_of_employees: {\$gt: 50}}

sample_training.companies

DOCUMENTS 9.5k TOTAL SIZE 34.8MB AVG. SIZE 3.7KB INDEXES 1 TOTAL SIZE 112.0KB AVG. SIZE 112.0KB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER `{number_of_employees: {$gt: 50}}` **OPTIONS** **FIND** **RESET** **...**

PROJECT

SORT **MAXTIMES** 5000

COLLATION **SKIP** 0 **LIMIT** 0

ADD DATA **VIEW** **...**

Displaying documents 1 - 20 of 793 **REFRESH**

```
{
  "_id": ObjectId("52cdef7c4bab8bd675297d8e"),
  "name": "Facebook",
  "permalink": "facebook",
  "crunchbase_url": "http://www.crunchbase.com/company/facebook",
  "homepage_url": "http://facebook.com",
  "blog_url": "http://blog.facebook.com",
  "blog_feed_url": "http://blog.facebook.com/atom.php",
  "twitter_username": "facebook",
  "category_code": "social",
  "number_of_employees": 5299,
  "founded_year": 2004,
  "founded_month": 2,
  "founded_day": 1,
  "deadpooled_year": null,
  "deadpooled_month": null,
  "deadpooled_day": null,
  "deadpooled_url": "",
  "tag_list": "facebook, college, students, profiles, network, online-communities, so...",
  "alias_list": "",
  "email_address": "",
  "phone_number": "",
  "description": "Social network",
  "created_at": "Fri May 25 21:22:15 UTC 2007",
  "updated_at": "Thu Nov 21 19:40:55 UTC 2013",
  "overview": "<p>Facebook is the world's largest social network, with over a ..."
}
```

SHOW 17 MORE FIELDS

```
{
  "_id": ObjectId("52cdef7c4bab8bd675297d94"),
  "name": "Twitter",
  "permalink": "twitter",
  "crunchbase_url": "http://www.crunchbase.com/company/twitter",
  "homepage_url": "http://twitter.com",
  "blog_url": "http://twitter.com/blog",
  "blog_feed_url": "http://feeds.feedburner.com/TwitterBlog",
  "twitter_username": "twitter"
}
```

9.- FILTER {\$and: [{stops: {\$gte: 1}}, {stops: {\$lte: 5}}]}

sample_training.routes

DOCUMENTS 67.0k TOTAL SIZE 11.8MB AVG. SIZE 184B INDEXES 1 TOTAL SIZE 612.0KB AVG. SIZE 612.0KB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER `{ $and: [{ stops: { $gte: 1 } }, { stops: { $lte: 5 } }] }` OPTIONS FIND RESET ...

ADD DATA VIEW [] [] []

Displaying documents 1 - 11 of 11 REFRESH

```

{
  "_id": ObjectId("56e9b39b732b6122f8788243"),
  "airline": {
    "src_airport": "YRT",
    "dst_airport": "YEK",
    "codeshare": "",
    "stops": 1,
    "airplane": "ATR"
  }
}

{
  "_id": ObjectId("56e9b39b732b6122f87818b3"),
  "airline": {
    "src_airport": "ABJ",
    "dst_airport": "BRU",
    "codeshare": "",
    "stops": 1,
    "airplane": "333"
  }
}

{
  "_id": ObjectId("56e9b39b732b6122f8781a81"),
  "airline": {
    "src_airport": "YVR",
    "dst_airport": "YBL",
    "codeshare": "",
    "stops": 1,
    "airplane": "BEH"
  }
}

```

10.-

filter:{number_of_employees:{\$ne:null}}

sort:{number_of_employees:1}

limit:1

sample_training.routes

DOCUMENTS 67.0k TOTAL SIZE 11.8MB AVG. SIZE 184B INDEXES 1 TOTAL SIZE 612.0KB AVG. SIZE 612.0KB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER `{ number_of_employees: { $ne: null } }` OPTIONS FIND RESET ...

PROJECT

SORT `{ number_of_employees: 1 }` MAXTIMES 5000

COLLATION SKIP 0 LIMIT 1

ADD DATA VIEW [] [] []

Displaying documents 1 - 1 of 1 REFRESH

```

{
  "_id": ObjectId("52cdef7c4bab8bd675297ddd"),
  "name": "Mashery",
  "permalink": "mashery",
  "crunchbase_url": "http://www.crunchbase.com/company/mashery",
  "homepage_url": "http://www.mashery.com",
  "blog_url": "http://blog.mashery.com",
  "blog_feed_url": "http://blog.mashery.com/feed/",
  "twitter_username": "Mashery",
  "category_code": "enterprise",
  "number_of_employees": 0,
  "founded_year": 2006,
  "founded_month": 5,
  "founded_day": 1,
  "deadpooled_year": null,
  "deadpooled_month": null,
  "deadpooled_day": null,
  "deadpooled_url": null,
  "tag_list": "api, api-management, saas, enterprise, apis, platform, web-services, a...",
  "alias_list": "",
  "email_address": "support@mashery.com",
  "phone_number": "(415) 684-7200",
  "description": "API and developer services"
}

```

11.-

PROJECT({name: 1, number_of_employees: 1})

SORT({number_of_employees: -1})

LIMIT(1)

sample_training.companies

DOCUMENTS 9.5k TOTAL SIZE 34.8MB AVG. SIZE 3.7KB INDEXES 1

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER **OPTIONS** **FIND**

PROJECT {name: 1, number_of_employees: 1}

SORT {number_of_employees: -1} **MAXTIMES** 5000

COLLATION **SKIP** 0 **LIMIT** 1

VIEW **()**

Displaying documents 1 - 1 of 1

```

_id: ObjectId("52cdef7c4babb6d752985ea")
name: "IBM"
number_of_employees: 388000

```

12.-
 sort:{tripduration:-1}
 limit:1

FILTER **OPTIONS** **FIND** **RESET**

PROJECT

SORT {tripduration: -1} **MAXTIMES** 5000

COLLATION **SKIP** 0 **LIMIT** 1

ADD DATA **VIEW** **()**

Displaying documents 1 - 1 of 1

```

_id: ObjectId("572bb8222b288919b68ac07c")
tripduration: 326222
start station id: 391
start station name: "Clark St & Henry St"
end station id: 310
end station name: "State St & Smith St"
bikeid: 18591
usertype: "Subscriber"
birth year: 1979
gender: 1
> start station location: Object
> end station location: Object
start time: 2016-01-01T00:58:20.000+00:00
stop time: 2016-01-04T19:35:23.000+00:00

```

13.-
 sort:{tripduration:1}
 limit:1

Documents

Aggregations

Schema

Explain Plan

Indexes

Validation

FILTER

PROJECT

SORT

{tripduration:1}

COLLATION

OPTIONS

FIND

RESET

...

MAXTIMES

5000

SKIP

0

LIMIT

1

ADD DATA

VIEW

Displaying documents 1 - 1 of 1

REFRESH

```
_id: ObjectId("572bb8222b288919b66ac2d4")
tripduration: 61
start station id: 3150
start station name: "E 85 St & York Ave"
end station id: 3150
end station name: "E 85 St & York Ave"
bikeid: 22299
usertype: "Subscriber"
birth year: 1989
gender: 1
> start station location: Object
> end station location: Object
start time: 2016-01-01T02:43:19.000+00:00
stop time: 2016-01-01T02:44:21.000+00:00
```