

# LAB TASK 13

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19P-0067      4A

## TASK 13.1

```
> db.cities.find({"population":{"$lt:30,$ne:0}}).limit(2).pretty()
{
  "_id" : ObjectId("60ba86943a40910a422f9ab3"),
  "name" : "Tanggul",
  "country" : "ID",
  "timezone" : "Asia/Jakarta",
  "population" : 3,
  "location" : {
    "latitude" : -8.1645,
    "longitude" : 113.4525
  }
}
{
  "_id" : ObjectId("60ba86953a40910a422fd84c"),
  "name" : "Ereencav",
  "country" : "MN",
  "timezone" : "Asia/Choibalsan",
  "population" : 23,
  "location" : {
    "longitude" : 49.8807,
    "latitude" : 115.72526
  }
}
}
```

## TASK 13.2

```
> db.cities.find({"timezone":"Asia/Jakarta"}).count()
1430
```

## TASK 13.3

```
> db.cities.find({"timezone":"Asia/Karachi","country":"PK"}).sort({"population":-1}).pretty()
{
  "_id" : ObjectId("60c30311466cfef5cccc26a3d"),
  "name" : "Karachi",
  "country" : "PK",
  "timezone" : "Asia/Karachi",
  "population" : 11624219,
  "location" : {
    "longitude" : 24.9056,
    "latitude" : 67.0822
  }
}
{
  "_id" : ObjectId("60c30311466cfef5cccc26a14"),
  "name" : "Lahore",
  "country" : "PK",
  "timezone" : "Asia/Karachi",
  "population" : 6310888,
  "location" : {
    "longitude" : 31.54972,
    "latitude" : 74.34361
  }
}
{
  "_id" : ObjectId("60c30311466cfef5cccc26a93"),
  "name" : "Faisalābād",
  "country" : "PK",
  "timezone" : "Asia/Karachi",
}
```

## TASK 13.4

```
> db.cities.getIndexes()
[ { "v" : 2, "key" : { "_id" : 1 }, "name" : "_id_" } ]
```

```
> db.cities.createIndex({population:1})
{
  "createdCollectionAutomatically" : false,
  "numIndexesBefore" : 1,
  "numIndexesAfter" : 2,
  "ok" : 1
}
```

```
> db.cities.getIndexes()
[
  {
    "v" : 2,
    "key" : {
      "_id" : 1
    },
    "name" : "_id_"
  },
  {
    "v" : 2,
    "key" : {
      "population" : 1
    },
    "name" : "population_1"
  }
]
```

```
> db.cities.dropIndex({population:1})
{ "nIndexesWas" : 2, "ok" : 1 }
```

```
> db.cities.getIndexes()
[ { "v" : 2, "key" : { "_id" : 1 }, "name" : "_id_" } ]
>
```

## TASK 13.5

1)

19P0067\_4A.cities

DOCUMENTS 100.4k TOTAL SIZE 17.9MB AVG. SIZE 187B INDEXES 1 TOTAL SIZE 1.2MB AVG. SIZE 1.2MB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER {timezone: "Europe/Andorra"} OPTIONS FIND RESET ...

ADD DATA VIEW { } ☐

Displaying documents 1 - 9 of 9 REFRESH

```
{ "_id": ObjectId("60ba86933a40910a422ef336"),  
  "name": "les Escaldes",  
  "country": "AD",  
  "timezone": "Europe/Andorra",  
  "population": 15853,  
  "location": Object }  
  
{ "_id": ObjectId("60ba86933a40910a422ef337"),  
  "name": "Sant Julià de Lòria",  
  "country": "AD",  
  "timezone": "Europe/Andorra",  
  "population": 8022,  
  "location": Object }  
  
{ "_id": ObjectId("60ba86933a40910a422ef338"),  
  "name": "Ordino",  
  "country": "AD",  
  "timezone": "Europe/Andorra",  
  "population": 3066,  
  "location": Object }
```

2)

19P0067\_4A.cities

DOCUMENTS 100.4k TOTAL SIZE 17.9MB AVG. SIZE 187B INDEXES 1 TOTAL SIZE 1.2MB AVG. SIZE 1.2MB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER {population: {>= 12955000}, country: "AR"} OPTIONS FIND RESET ...

ADD DATA VIEW { } ☐

Displaying documents 1 - 1 of 1 REFRESH

```
{ "_id": ObjectId("60ba86933a40910a422ef617"),  
  "name": "Buenos Aires",  
  "country": "AR",  
  "timezone": "America/Argentina/Buenos_Aires",  
  "population": 13076300,  
  "location": Object }
```

3)

## 19P0067\_4A.cities

DOCUMENTS 100.4k

TOTAL SIZE	AVG. SIZE
17.9MB	187B

INDEXES	1	TOTAL SIZE	AVG. SIZE
		1.2MB	1.2MB

## Documents

## Aggregations

### Schema

### Explain Plan

## Indexes

## Validation

1

FILTER

{ "location.longitude": { \$eq: 1.6 } }

▼ OPTIONS

2

PROJECT

{ location: 1, population: 1 }

3

SORT

{ field: -1 }

MAX TIME MS 60000

4

COLLATION

{ locale: 'simple' }

SKIP 0





LIMIT 0




FIND

RESET

↺

...


VIEW




Displaying documents 1 - 2 of 2
 

 REFRESH

```
_id: ObjectId("60ba86953a40910a422fe0ad")
population: 73176
location: Object
```

```
_id: ObjectId("60ba86953a40910a422fe119")
population: 75350
location: Object
```