**Database Lab # 13**

**1:**

> db.cities.find( { $and:[ {"population":{ $lt:30 }}, {"population":{ $gt:0}} ]} ).limit(2).pretty();

{

"\_id" : ObjectId("628487be7a2ae8c4b48396ae"),

"name" : "Tanggul",

"country" : "ID",

"timezone" : "Asia/Jakarta",

"population" : 3,

"location" : {

"latitude" : -8.1645,

"longitude" : 113.4525

}

}

{

"\_id" : ObjectId("628487bf7a2ae8c4b483d447"),

"name" : "Ereencav",

"country" : "MN",

"timezone" : "Asia/Choibalsan",

"population" : 23,

"location" : {

"longitude" : 49.8807,

"latitude" : 115.72526

}

}

**2:**

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

1430

**3:**

> db.cities.find( { $and: [ { country:"PK" },{ timezone:"Asia/Karachi"} ] } ).sort({population:-1}).pretty()

{

"\_id" : ObjectId("628dc7074c6c8437cbb455a7"),

"name" : "Karachi",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 11624219,

"location" : {

"longitude" : 24.9056,

"latitude" : 67.0822

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb4557b"),

"name" : "Lahore",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 6310888,

"location" : {

"longitude" : 31.54972,

"latitude" : 74.34361

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb455f8"),

"name" : "Faisalābād",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 2506595,

"location" : {

"longitude" : 31.41667,

"latitude" : 73.08333

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb4551a"),

"name" : "Rāwalpindi",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 1743101,

"location" : {

"longitude" : 33.6007,

"latitude" : 73.0679

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb45551"),

"name" : "Multān",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 1437230,

"location" : {

"longitude" : 30.19556,

"latitude" : 71.47528

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb455d2"),

"name" : "Hyderābād",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 1386330,

"location" : {

"longitude" : 25.3823,

"latitude" : 68.3699

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb455e4"),

"name" : "Gujrānwāla",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 1384471,

"location" : {

"longitude" : 32.16167,

"latitude" : 74.18831

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb45531"),

"name" : "Peshāwar",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 1218773,

"location" : {

"longitude" : 34.00837,

"latitude" : 71.58018

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb45524"),

"name" : "Quetta",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 733675,

"location" : {

"longitude" : 30.18722,

"latitude" : 67.0125

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb45589"),

"name" : "Kotli",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 640000,

"location" : {

"longitude" : 33.51667,

"latitude" : 73.91667

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb455d1"),

"name" : "Islāmābād",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 601600,

"location" : {

"longitude" : 33.72148,

"latitude" : 73.04329

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb45643"),

"name" : "Bahāwalpur",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 552607,

"location" : {

"longitude" : 29.4,

"latitude" : 71.68333

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb45507"),

"name" : "Sargodha",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 542603,

"location" : {

"longitude" : 32.08361,

"latitude" : 72.67111

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb454f8"),

"name" : "Siālkot",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 477396,

"location" : {

"longitude" : 32.5101,

"latitude" : 74.54313

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb454ee"),

"name" : "Sukkur",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 417767,

"location" : {

"longitude" : 27.7,

"latitude" : 68.86667

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb45575"),

"name" : "Lārkāna",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 364033,

"location" : {

"longitude" : 27.55,

"latitude" : 68.21667

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb454fd"),

"name" : "Sheikhupura",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 361303,

"location" : {

"longitude" : 31.71306,

"latitude" : 73.97833

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb45631"),

"name" : "Bhimbar",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 342900,

"location" : {

"longitude" : 32.97568,

"latitude" : 74.07926

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb455c3"),

"name" : "Jhang Sadr",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 341210,

"location" : {

"longitude" : 31.27396,

"latitude" : 72.31604

}

}

{

"\_id" : ObjectId("628dc7074c6c8437cbb455e3"),

"name" : "Gujrāt",

"country" : "PK",

"timezone" : "Asia/Karachi",

"population" : 301506,

"location" : {

"longitude" : 32.57276,

"latitude" : 74.08959

}

}

Type "it" for more

**4:**

> db.cities.getIndexes()

[

{

"v" : 2,

"key" : {

"\_id" : 1

},

"name" : "\_id\_",

"ns" : "20p\_0117\_4A.cities"

}

]

> db.cities.createIndex({population:1})

{

"createdCollectionAutomatically" : false,

"numIndexesBefore" : 1,

"numIndexesAfter" : 2,

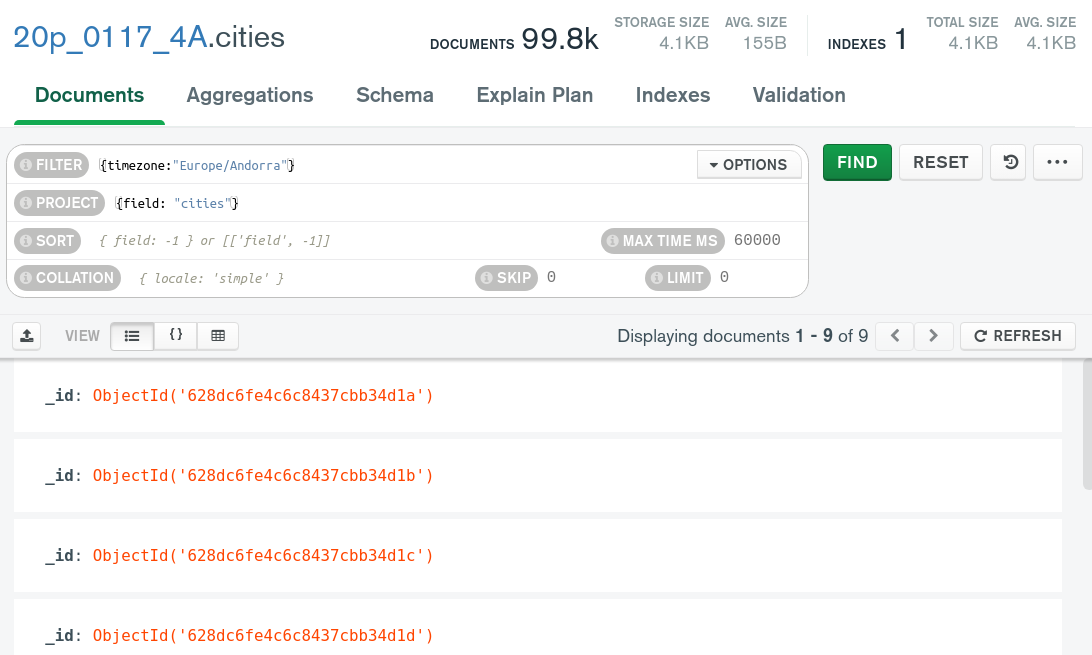
"ok" : 1

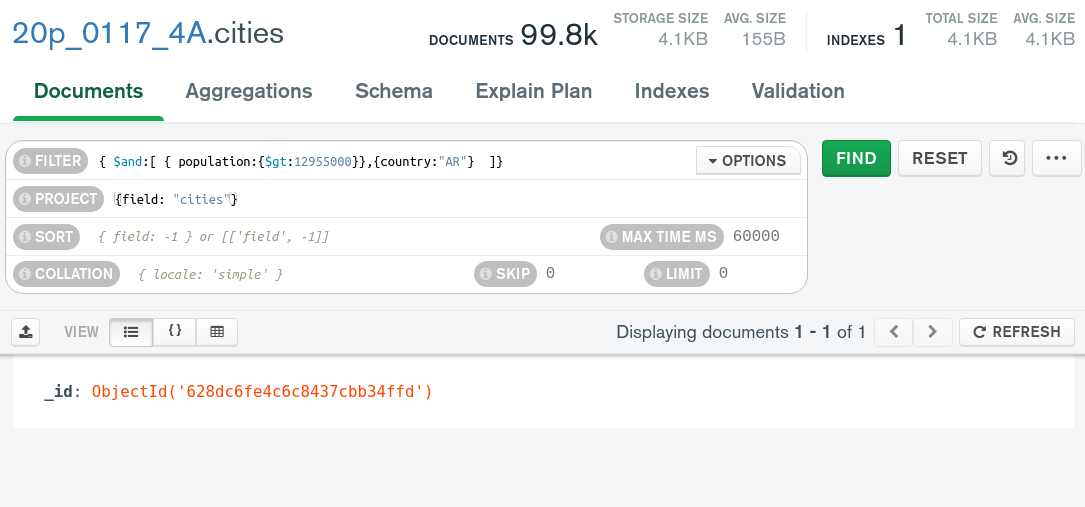
}

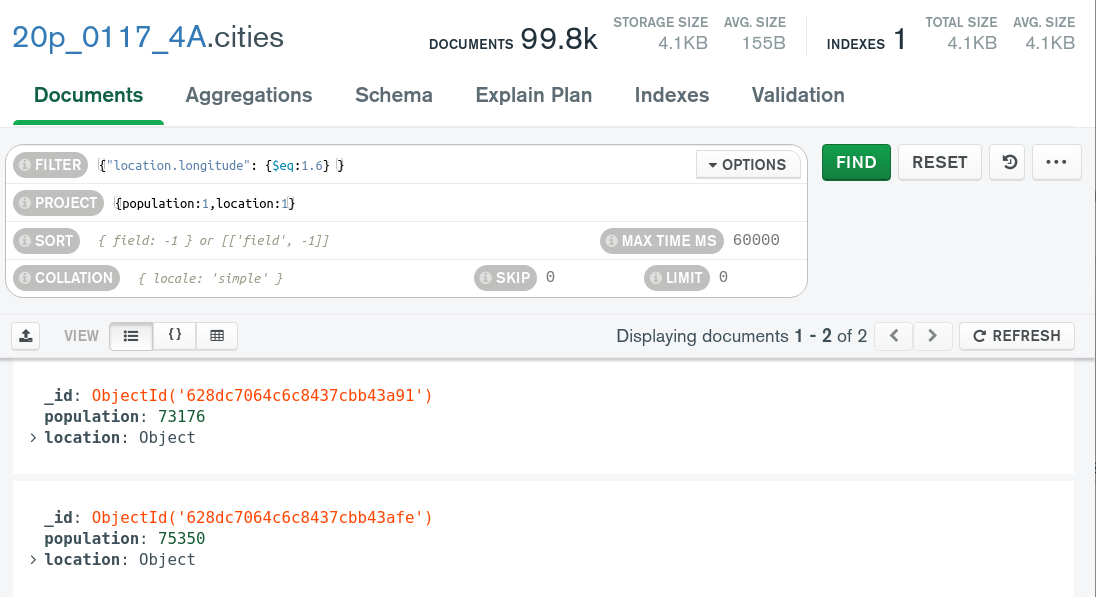
> db.cities.dropIndex({population:1})

{ "nIndexesWas" : 2, "ok" : 1 }

**5:**

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