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Roll No:P200086

BSCS 4A

Q1:

```
P200086_4A> db.cities.find({population:{$lt:30, $ne:0}}).limit(2)
[
  {
    _id: ObjectId("62876f29b516aab75234427b"),
    name: 'Tanggul',
    country: 'ID',
    timezone: 'Asia/Jakarta',
    population: 3,
    location: { latitude: -8.1645, longitude: 113.4525 }
  },
  {
    _id: ObjectId("62876f2ab516aab752348014"),
    name: 'Ereencav',
    country: 'MN',
    timezone: 'Asia/Choibalsan',
    population: 23,
    location: { longitude: 49.8807, latitude: 115.72526 }
  }
]
P200086_4A> █
```

Q2:

```
P200086_4A> db.cities.find({timezone:"Asia/Jakarta"}).count()
1430
P200086_4A> █
```

Q3:

```
P200086_4A> db.cities.find({timezone:"Asia/Karachi",country:"PK"}).sort({population:-1})
[
  {
    _id: ObjectId("62876f2bb516aab75234a389"),
    name: 'Karachi',
    country: 'PK',
    timezone: 'Asia/Karachi',
    population: 11624219,
    location: { longitude: 24.9056, latitude: 67.0822 }
  },
  {
    _id: ObjectId("62876f2bb516aab75234a35d"),
    name: 'Lahore',
    country: 'PK',
    timezone: 'Asia/Karachi',
    population: 6310888,
    location: { longitude: 31.54972, latitude: 74.34361 }
  },
  {
    _id: ObjectId("62876f2bb516aab75234a3da"),
    name: 'Faisalabad',
    country: 'PK',
    timezone: 'Asia/Karachi',
    population: 2506595,
    location: { longitude: 31.41667, latitude: 73.08333 }
  },
  {
    _id: ObjectId("62876f2bb516aab75234a2fc"),
    name: 'Rawalpindi',
    country: 'PK',
    timezone: 'Asia/Karachi',
    population: 1743101,
    location: { longitude: 33.6007, latitude: 73.0679 }
  },
  {
    _id: ObjectId("62876f2bb516aab75234a333"),
    name: 'Multan',
    location: { longitude: 73.0679, latitude: 30.2994 }
  }
]
```

```

    location: { longitude: 27.55, latitude: 68.21667 }
  },
  {
    _id: ObjectId("62876f2bb516aab75234a2df"),
    name: 'Sheikhupura',
    country: 'PK',
    timezone: 'Asia/Karachi',
    population: 361303,
    location: { longitude: 31.71306, latitude: 73.97833 }
  },
  {
    _id: ObjectId("62876f2bb516aab75234a413"),
    name: 'Bhimbar',
    country: 'PK',
    timezone: 'Asia/Karachi',
    population: 342900,
    location: { longitude: 32.97568, latitude: 74.07926 }
  },
  {
    _id: ObjectId("62876f2bb516aab75234a3a5"),
    name: 'Jhang Sadr',
    country: 'PK',
    timezone: 'Asia/Karachi',
    population: 341210,
    location: { longitude: 31.27396, latitude: 72.31604 }
  },
  {
    _id: ObjectId("62876f2bb516aab75234a3c5"),
    name: 'Gujrat',
    country: 'PK',
    timezone: 'Asia/Karachi',
    population: 301506,
    location: { longitude: 32.57276, latitude: 74.08959 }
  }
]
Type "it" for more
P200086_4A>

```

Q4:

```

P200086_4A> db.cities.getIndexes()
[ { v: 2, key: { _id: 1 }, name: '_id_' } ]
P200086_4A> db.cities.createIndex({population:1})
population_1
P200086_4A> db.cities.dropIndex({population:1})
{ nIndexesWas: 2, ok: 1 }
P200086_4A>
P200086_4A>

```

Q5:

(1)

MongoDB Compass - localhost:27017/P200086\_4A.cities

Connect View Collection Help

localhost:27017

6 DBS 7 COLLECTIONS

☆ FAVORITE

HOST localhost:27017

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Databases

Filter your data

P200086\_4A

cities

moviepeople\_1000

admin

config

local

p200119\_4A

> \_MONGOSH

Documents P200086\_4A.cities

P200086\_4A.cities

DOCUMENTS 99.8k STORAGE SIZE 4.0MB AVG. SIZE 155B INDEXES 1 TOTAL SIZE 1.9MB AVG. SIZE 1.9MB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER {timezone:"Europe/Andorra"}

ADD DATA VIEW

Displaying documents 1 - 9 of 9

```
{
  "_id": ObjectId('62876f25b516aab752339afc'),
  "name": "Sant Julià de Lòria",
  "country": "AD",
  "timezone": "Europe/Andorra",
  "population": 8022,
  "location": Object
}
```

```
{
  "_id": ObjectId('62876f25b516aab752339afd'),
  "name": "Pas de la Casa",
  "country": "AD",
  "timezone": "Europe/Andorra",
  "population": 2363,
  "location": Object
}
```

```
{
  "_id": ObjectId('62876f25b516aab752339afe'),
  "name": "Ordino",
  "country": "AD",
  "timezone": "Europe/Andorra",
  "population": 3066,
  "location": Object
}
```

(2)

MongoDB Compass - localhost:27017/P200086\_4A.cities

Connect View Collection Help

localhost:27017

6 DBS 7 COLLECTIONS

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Filter your data

P200086\_4A

cities

moviepeople\_1000

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local

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Documents P200086\_4A.cities

P200086\_4A.cities

DOCUMENTS 99.8k STORAGE SIZE 4.0MB AVG. SIZE 155B INDEXES 1 TOTAL SIZE 1.9MB AVG. SIZE 1.9MB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER {population:{>: 12955000}, country: 'AR'}

ADD DATA VIEW

Displaying documents 1 - 1 of 1

```
{
  "_id": ObjectId('62876f25b516aab752339ddf'),
  "name": "Buenos Aires",
  "country": "AR",
  "timezone": "America/Argentina/Buenos_Aires",
  "population": 13076300,
  "location": Object
}
```

Object

(3)

MongoDB Compass - localhost:27017/P200086\_4A.cities

Connect View Collection Help

localhost:27017

6 DBS 7 COLLECTIONS

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localhost:27017

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My Queries

Databases

Filter your data

P200086\_4A

cities

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config

local

+

P200086\_4A.cities

DOCUMENTS 99.8k STORAGE SIZE 4.0MB AVG. SIZE 155B INDEXES 1 TOTAL SIZE 1.9MB AVG. SIZE 1.9MB

Documents Aggregations Schema Explain Plan Indexes Validation

**FILTER** [{"location.longitude":{"\$eq":1.6}}] **OPTIONS** **FIND** **RESET** **↺** **⋮**

**PROJECT** {location:1,population:1}

**SORT** { field: -1 } or [[ 'field', -1]] **MAX TIME MS** 60000

**COLLATION** { locale: 'simple' } **SKIP** 0 **LIMIT** 0

**VIEW** **{} {} {} {}** Displaying documents 1 - 2 of 2 **REFRESH**

**\_id:** ObjectId('62876f2ab516aab752348873') **population:** 73176 **location:** Object  
    **longitude:** 1.6  
    **latitude:** 103.65

**\_id:** ObjectId('62876f2ab516aab7523488e0') **population:** 75350 **location:** Object  
    **longitude:** 1.6  
    **latitude:** 103.81667

> \_MONGOSH