LAB TASK 13

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LAB: Database System
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QUESTION 1

>db.cities.find({ "population" : { $lt:30 }, {$ne:0} }).limit(2).pretty()

```
ype tt for more
> db.cities.find( { "population" : { $lt:30 }, {$ne:0} } ).limit(2).pretty();
2021-06-13T17:03:00.985+0500 E QUERY    [thread1] SyntaxError: invalid property id @(shell):1:45
> db.cities.find( { "population" : {{ $lt:30 } , {$ne:0} }} ).limit(2).pretty();
2021-06-13T17:03:47.885+0500 E QUERY    [thread1] SyntaxError: invalid property id @(shell):1:34
> db.cities.find( { "population" : { $lt:30  , $ne:0 } } ).limit(2).pretty();
{
        "_id" : ObjectId("60c5ed30aad9a93edc4fc0d1"),
        "name" : "Tanggul",
        "country" : "ID",
        "timezone" : "Asia/Jakarta",
        "population" : 3,
        "location" : {
                "latitude" : -8.1645,
                "longitude" : 113.4525
        }
}
{
        "_id" : ObjectId("60c5ed30aad9a93edc4ffe70"),
        "name" : "Ereencav",
        "country" : "MN",
        "timezone" : "Asia/Choibalsan",
        "population" : 23,
```
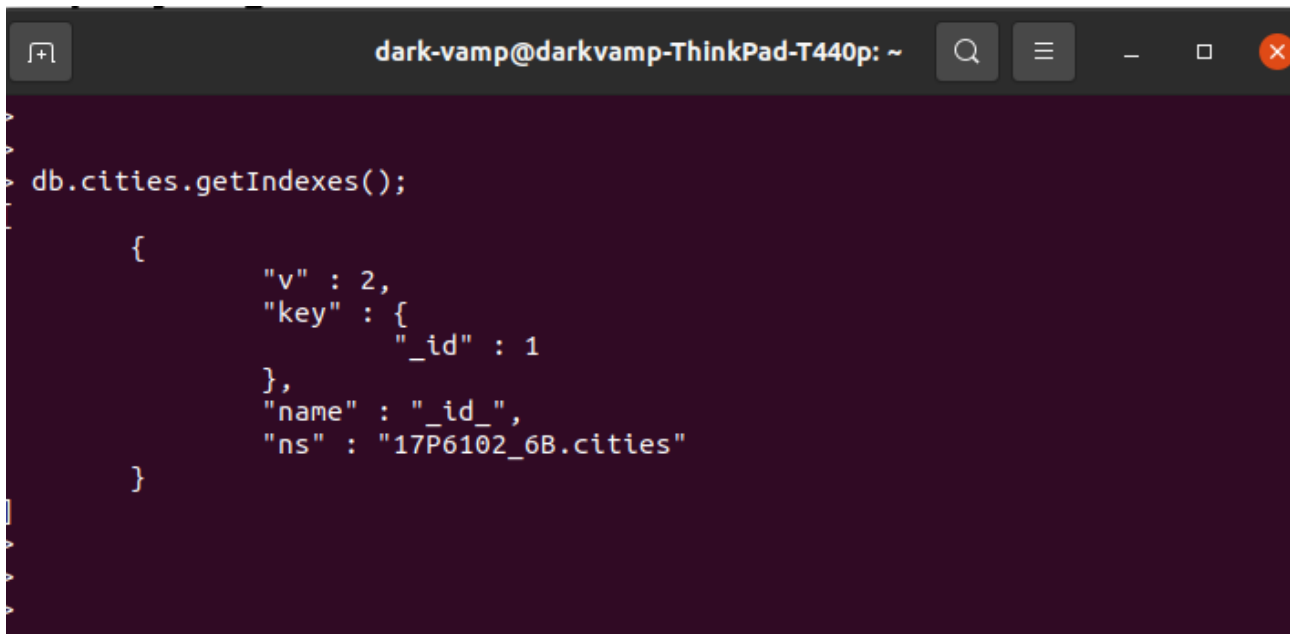
QUESTION 2

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

Window title: dark-vamp@darkvamp-ThinkPad-T440p: ~

QUESTION 3

```
"name" : "Rājo Khanāni",
"country" : "PK",
"timezone" : "Asia/Karachi",
"population" : 7683,
"location" : {
        "longitude" : 24.98333,
        "latitude" : 68.85
}

"_id" : ObjectId("60c5ed30aad9a93edc5022a0"),
"name" : "Alik Ghund",
"country" : "PK",
"timezone" : "Asia/Karachi",
"population" : 7630,
"location" : {
        "longitude" : 30.4893,
        "latitude" : 67.52174
}

"_id" : ObjectId("60c5ed30aad9a93edc5022a8"),
"name" : "Jām Sāhib",
"country" : "PK",
"timezone" : "Asia/Karachi",
"population" : 6869,
"location" : {
        "longitude" : 26.29583,
        "latitude" : 68.62917
}

"_id" : ObjectId("60c5ed30aad9a93edc5021f1"),
"name" : "Kandiāri",
"country" : "PK",
```

QUESTION 4

> **db.cities.getIndexes();**

```
db.cities.getIndexes();

        {
                "v" : 2,
                "key" : {
                        "_id" : 1
                },
                "name" : "_id_",
                "ns" : "17P6102_6B.cities"
        }
```

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

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

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

```
>
>
>
>
>
>
>
>
> db.cities.dropIndex( { "population":1 } );
{ "nIndexesWas" : 2, "ok" : 1 }
> db.cities.getIndexes();
[
        {
                "v" : 2,
                "key" : {
                        "_id" : 1
                },
                "name" : "_id_",
                "ns" : "17P6102_6B.cities"
        }
]
>
```
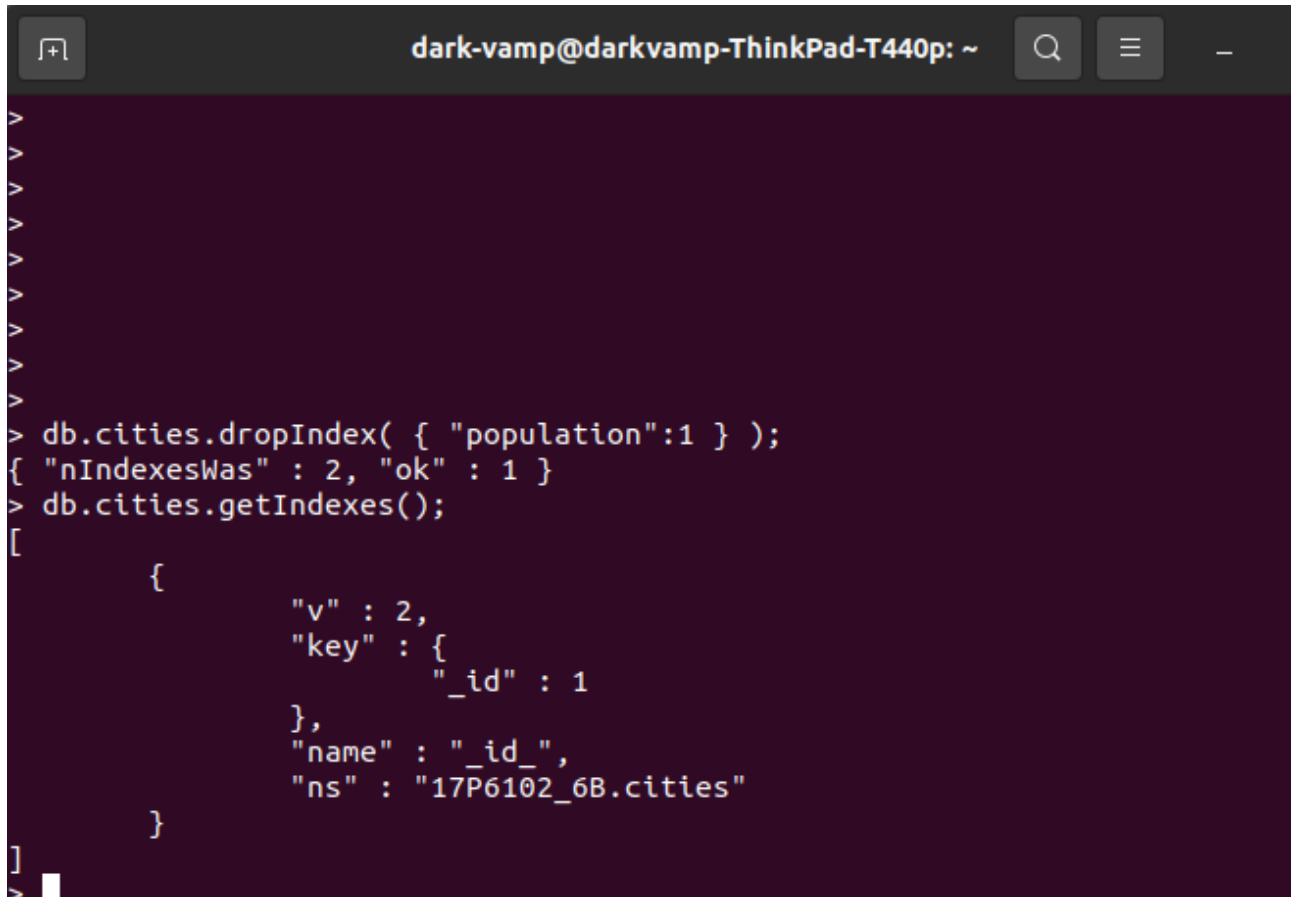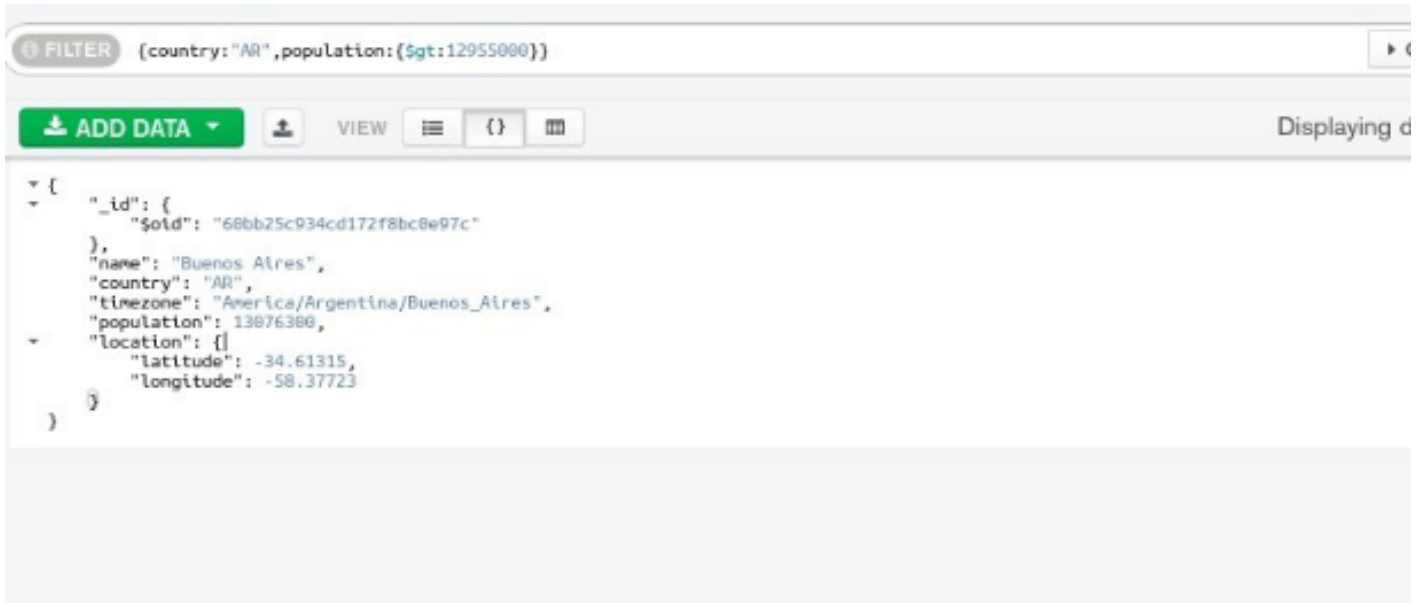
QUESTION 5

i. All those cities whose time zone is Europe/Andorra.

ii. All those cities whose population is greater than 12955000 and country is AR.


```
FILTER  {country:"AR",population:{$gt:12955000}}                                    ▸ (

ADD DATA ▾   ⬆   VIEW  ≡  {}  ⊞                                          Displaying d

▾ {
▾     "_id": {
          "$oid": "68bb25c934cd172f8bc8e97c"
      },
      "name": "Buenos Aires",
      "country": "AR",
      "timezone": "America/Argentina/Buenos_Aires",
      "population": 13076300,
▾     "location": {
          "latitude": -34.61315,
          "longitude": -58.37723
      }
  }
```

iii. A city whose longitude equals to 1.6. Your query should return location and population fields only. (hint: use project)


```
Connect  View  Collection  Help

Local                                    ◂ ‹   17P6102_6B.cities       ✕   +                                              ›
                                             Documents

∨ 5 DBS      4 COLLECTIONS    C       17P6102_6B.cities                          DOCUMENTS 99.4k  TOTAL SIZE  AVG. SIZE           TOTAL SIZE  AVG. SIZE
   ☆ FAVORITE                                                                                     14.7MB     155B    INDEXES 1   1.0MB      1.0MB

   HOST                                    Documents    Aggregations    Schema    Explain Plan    Indexes    Validation
   localhost:27017

   CLUSTER                                  FILTER  {"location.longitude":1.6}                    ▾ OPTIONS    FIND    RESET   ↺   ···
   Standalone
                                            PROJECT  {population:1,_id:0,location:1}
   EDITION
   MongoDB 3.6.8 Community                   SORT  { field: -1 }                            ⓘ MAX TIME MS  60000

Q  Filter your data                          COLLATION   { locale: 'simple' }              ⓘ SKIP  0       ⓘ LIMIT  0

∨ 17P6102_6B                               ⬆   VIEW  ≡  {}  ⊞                              Displaying documents 1 - 2 of 2  ‹  ›   C REFRESH

   cities                       ···           population: 73176
   moviepeople_1000                        ▾ location: Object
                                               longitude: 1.6
> admin                                        latitude: 103.65
> config
> hellomogo                                    population: 75350
> local                                    ▾ location: Object
                                               longitude: 1.6
                                               latitude: 103.81667
```