

mongoDB - Assignment 1

Microsoft Windows [Version 10.0.19041.1110]

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C:\Users\Shubhangi>mongod

```
{"t":{"$date":"2021-08-01T20:33:48.317+05:30"},"s":"I",          "c":"CONTROL",          "id":23285,
"ctx":"main","msg":"Automatically disabling TLS 1.0, to force-enable TLS 1.0 specify --sslDisabledProtocols 'none'"}
```

```
{"t":{"$date":"2021-08-01T20:33:48.320+05:30"},"s":"W",          "c":"ASIO",              "id":22601,
"ctx":"main","msg":"No TransportLayer configured during NetworkInterface startup"}
```

```
{"t":{"$date":"2021-08-01T20:33:48.321+05:30"},"s":"I",          "c":"NETWORK",          "id":4648602,
"ctx":"main","msg":"Implicit TCP FastOpen in use."}
```

```
{"t":{"$date":"2021-08-01T20:33:48.323+05:30"},"s":"I",          "c":"STORAGE",          "id":4615611,
"ctx":"initandlisten","msg":"MongoDB
starting","attr":{"pid":10928,"port":27017,"dbPath":"C:/data/db/","architecture":"64-
bit","host":"DESKTOP-CRLD5UE"}}
```

```
{"t":{"$date":"2021-08-01T20:33:48.323+05:30"},"s":"I",          "c":"CONTROL",          "id":23398,
"ctx":"initandlisten","msg":"Target operating system minimum version","attr":{"targetMinOS":"Windows
7/Windows Server 2008 R2"}}
```

```
{"t":{"$date":"2021-08-01T20:33:48.323+05:30"},"s":"I",          "c":"CONTROL",          "id":23403,
"ctx":"initandlisten","msg":"Build
Info","attr":{"buildInfo":{"version":"4.4.7","gitVersion":"abb6b9c2bf675e9e2aeaecba05f0f8359d99e203
","modules":[],"allocator":"tcmalloc","environment":{"distmod":"windows","distarch":"x86_64","target
_arch":"x86_64"}}}}
```

```
{"t":{"$date":"2021-08-01T20:33:48.323+05:30"},"s":"I",          "c":"CONTROL",          "id":51765,
"ctx":"initandlisten","msg":"Operating System","attr":{"os":{"name":"Microsoft Windows
10","version":"10.0 (build 19041)"}}}
```

```
{"t":{"$date":"2021-08-01T20:33:48.323+05:30"},"s":"I",          "c":"CONTROL",          "id":21951,
"ctx":"initandlisten","msg":"Options set by command line","attr":{"options":{}}}
```

```
{"t":{"$date":"2021-08-01T20:33:48.324+05:30"},"s":"E",          "c":"STORAGE",          "id":20557,
"ctx":"initandlisten","msg":"DBException in initAndListen, terminating","attr":{"error":"NonExistentPath:
Data directory C:\\data\\db\\ not found. Create the missing directory or specify another path using (1)
the --dbpath command line option, or (2) by adding the 'storage.dbPath' option in the configuration file."}}
```

```
{"t":{"$date":"2021-08-01T20:33:48.325+05:30"},"s":"I",          "c":"REPL",              "id":4784900,
"ctx":"initandlisten","msg":"Stepping down the ReplicationCoordinator for
shutdown","attr":{"waitTimeMillis":10000}}
```

```

{"t":{"$date":"2021-08-01T20:33:48.325+05:30"},"s":"I",      "c":"COMMAND",      "id":4784901,
"ctx":"initandlisten","msg":"Shutting down the MirrorMaestro"}

{"t":{"$date":"2021-08-01T20:33:48.326+05:30"},"s":"I",      "c":"SHARDING",      "id":4784902,
"ctx":"initandlisten","msg":"Shutting down the WaitForMajorityService"}

{"t":{"$date":"2021-08-01T20:33:48.327+05:30"},"s":"I",      "c":"NETWORK",      "id":20562,
"ctx":"initandlisten","msg":"Shutdown: going to close listening sockets"}

{"t":{"$date":"2021-08-01T20:33:48.330+05:30"},"s":"I",      "c":"NETWORK",      "id":4784905,
"ctx":"initandlisten","msg":"Shutting down the global connection pool"}

{"t":{"$date":"2021-08-01T20:33:48.331+05:30"},"s":"I",      "c":"STORAGE",      "id":4784906,
"ctx":"initandlisten","msg":"Shutting down the FlowControlTicketholder"}

{"t":{"$date":"2021-08-01T20:33:48.332+05:30"},"s":"I",      "c":"-",      "id":20520,
"ctx":"initandlisten","msg":"Stopping further Flow Control ticket acquisitions."}

{"t":{"$date":"2021-08-01T20:33:48.332+05:30"},"s":"I",      "c":"NETWORK",      "id":4784918,
"ctx":"initandlisten","msg":"Shutting down the ReplicaSetMonitor"}

{"t":{"$date":"2021-08-01T20:33:48.333+05:30"},"s":"I",      "c":"SHARDING",      "id":4784921,
"ctx":"initandlisten","msg":"Shutting down the MigrationUtilExecutor"}

{"t":{"$date":"2021-08-01T20:33:48.334+05:30"},"s":"I",      "c":"CONTROL",      "id":4784925,
"ctx":"initandlisten","msg":"Shutting down free monitoring"}

{"t":{"$date":"2021-08-01T20:33:48.334+05:30"},"s":"I",      "c":"STORAGE",      "id":4784927,
"ctx":"initandlisten","msg":"Shutting down the HealthLog"}

{"t":{"$date":"2021-08-01T20:33:48.335+05:30"},"s":"I",      "c":"STORAGE",      "id":4784929,
"ctx":"initandlisten","msg":"Acquiring the global lock for shutdown"}

{"t":{"$date":"2021-08-01T20:33:48.335+05:30"},"s":"I",      "c":"-",      "id":4784931,
"ctx":"initandlisten","msg":"Dropping the scope cache for shutdown"}

{"t":{"$date":"2021-08-01T20:33:48.336+05:30"},"s":"I",      "c":"FTDC",      "id":4784926,
"ctx":"initandlisten","msg":"Shutting down full-time data capture"}

{"t":{"$date":"2021-08-01T20:33:48.337+05:30"},"s":"I",      "c":"CONTROL",      "id":20565,
"ctx":"initandlisten","msg":"Now exiting"}

{"t":{"$date":"2021-08-01T20:33:48.337+05:30"},"s":"I",      "c":"CONTROL",      "id":23138,
"ctx":"initandlisten","msg":"Shutting down","attr":{"exitCode":100}}

```

C:\Users\Shubhangi>mongo

MongoDB shell version v4.4.7

connecting to: mongoddb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongoddb

Implicit session: session { "id" : UUID("e9fa7174-15d5-4f5b-9daa-3f1e35d28282") }

MongoDB server version: 4.4.7

The server generated these startup warnings when booting:

2021-07-31T22:04:39.916+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted

Enable MongoDB's free cloud-based monitoring service, which will then receive and display metrics about your deployment (disk utilization, CPU, operation statistics, etc).

The monitoring data will be available on a MongoDB website with a unique URL accessible to you and anyone you share the URL with. MongoDB may use this information to make product improvements and to suggest MongoDB products and deployment options to you.

To enable free monitoring, run the following command: `db.enableFreeMonitoring()`

To permanently disable this reminder, run the following command: `db.disableFreeMonitoring()`

Insert Documents

```
> show dbs
```

```
admin 0.000GB
```

```
config 0.000GB
```

```
local 0.000GB
```

```
> use mongo_practice
```

```
switched to db mongo_practice
```

```
> db.movies.insert({title:"Fight Club",writer:"Chuck Palahniuko",year:1999,actors:["Brad Pitt","Edward Norton"]})
```

```
WriteResult({ "nInserted" : 1 })
```

```
> show dbs
```

```
admin      0.000GB
```

```
config     0.000GB
```

```
local      0.000GB
```

```
mongo_practice 0.000GB
```

```
> db.movies.insert({title:"Pulp Fiction",writer:"Quentin Tarantino",year:1994,actors:["John Travolta","Uma Thurman"]})
```

```
WriteResult({ "nInserted" : 1 })
```

```
> db.movies.find().pretty()
```

```
{
  "_id" : ObjectId("6106cb951fb2405a3e0ef842"),
  "title" : "Fight Club",
  "writer" : "Chuck Palahniuko",
  "year" : 1999,
  "actors" : [
    "Brad Pitt",
    "Edward Norton"
  ]
}
{
  "_id" : ObjectId("6106cd991fb2405a3e0ef843"),
  "title" : "Pulp Fiction",
  "writer" : "Quentin Tarantino",
  "year" : 1994,
  "actors" : [
    "John Travolta",
    "Uma Thurman"
  ]
}
```

```

> db.movies.insert({title:"Inglorious Basterds",writer:"Quentin Tarantino",year:2009,actors:["Brad Pitt","Diane Kruger","Eli Roth"]})

WriteResult({ "nInserted" : 1 })

> db.movies.insert({title:"The Hobbit:An Unexpected Journey",writer:"J.R.R. Tolkein",year:2012,franchise:"The Hobbit"})

WriteResult({ "nInserted" : 1 })

> db.movies.insert({title:"The Hobbit:The Desolation of Smaug",writer:"J.R.R. Tolkein",year:2013,franchise:"The Hobbit"})

WriteResult({ "nInserted" : 1 })

> db.movies.insert({title:"The Hobbit:The Battle of the Five Armies",writer:"J.R.R. Tolkein",year:2012,franchise:"The Hobbit",synopsis:"Bilbo and Company are forced to enagage in a war against an array of combatants and keep the Lonely Mounatin from falling into the hands of the rising darkness"})

WriteResult({ "nInserted" : 1 })

> db.movies.insert({title:"Pee Wee Herman's Big Adventure"})

WriteResult({ "nInserted" : 1 })

> db.movies.insert({title:"Avatar"})

WriteResult({ "nInserted" : 1 })

```

Query/find documents

1. Get all documents

```

> db.movies.find().pretty()

{
  "_id" : ObjectId("6106cb951fb2405a3e0ef842"),
  "title" : "Fight Club",
  "writer" : "Chuck Palahniuko",
  "year" : 1999,
  "actors" : [
    "Brad Pitt",
    "Edward Norton"
  ]
}

```

```
]
}
{
  "_id" : ObjectId("6106cd991fb2405a3e0ef843"),
  "title" : "Pulp Fiction",
  "writer" : "Quentin Tarantino",
  "year" : 1994,
  "actors" : [
    "John Travolta",
    "Uma Thurman"
  ]
}
{
  "_id" : ObjectId("6106ce621fb2405a3e0ef844"),
  "title" : "Inglorious Basterds",
  "writer" : "Quentin Tarantino",
  "year" : 2009,
  "actors" : [
    "Brad Pitt",
    "Diane Kruger",
    "Eli Roth"
  ]
}
{
  "_id" : ObjectId("6106cee21fb2405a3e0ef845"),
  "title" : "The Hobbit:An Unexpected Journey",
  "writer" : "J.R.R. Tolkein",
  "year" : 2012,
  "franchise" : "The Hobbit"
```

```

}
{
  "_id" : ObjectId("6106cf181fb2405a3e0ef846"),
  "title" : "The Hobbit:The Desolation of Smaug",
  "writer" : "J.R.R. Tolkein",
  "year" : 2013,
  "franchise" : "The Hobbit"
}
{
  "_id" : ObjectId("6106d12d1fb2405a3e0ef848"),
  "title" : "The Hobbit:The Battle of the Five Armies",
  "writer" : "J.R.R. Tolkein",
  "year" : 2012,
  "franchise" : "The Hobbit",
  "synopsis" : "Bilbo and Company are forced to enagage in a war against an array of combatants and
keep the Lonely Mounatin from falling into the hands of the rising darkness"
}
{
  "_id" : ObjectId("6106d8d21fb2405a3e0ef84f"),
  "title" : "Pee Wee Herman's Big Adventure"
}
{ "_id" : ObjectId("6106d8e81fb2405a3e0ef850"), "title" : "Avatar" }
>

```

2. get all documents with writer set to Quentin Tarantino

```

> db.movies.find({writer:"Quentin Tarantino"}).pretty()
{
  "_id" : ObjectId("6106cd991fb2405a3e0ef843"),
  "title" : "Pulp Fiction",
  "writer" : "Quentin Tarantino",

```

```

    "year" : 1994,
    "actors" : [
        "John Travolta",
        "Uma Thurman"
    ]
}
{
    "_id" : ObjectId("6106ce621fb2405a3e0ef844"),
    "title" : "Inglorious Basterds",
    "writer" : "Quentin Tarantino",
    "year" : 2009,
    "actors" : [
        "Brad Pitt",
        "Diane Kruger",
        "Eli Roth"
    ]
}

```

3. get all documents where actors include Brad Pitt

```

> db.movies.find({actors:"Brad Pitt"}).pretty()
{
    "_id" : ObjectId("6106cb951fb2405a3e0ef842"),
    "title" : "Fight Club",
    "writer" : "Chuck Palahniuko",
    "year" : 1999,
    "actors" : [
        "Brad Pitt",
        "Edward Norton"
    ]
}

```



```
{
  "_id" : ObjectId("6106ce621fb2405a3e0ef844"),
  "title" : "Inglorious Basterds",
  "writer" : "Quentin Tarantino",
  "year" : 2009,
  "actors" : [
    "Brad Pitt",
    "Diane Kruger",
    "Eli Roth"
  ]
}
```

4. get all documents with franchise set to The Hobbit

```
> db.movies.find({franchise:"The Hobbit"}).pretty()
```

```
{
  "_id" : ObjectId("6106cee21fb2405a3e0ef845"),
  "title" : "The Hobbit:An Unexpected Journey",
  "writer" : "J.R.R. Tolkein",
  "year" : 2012,
  "franchise" : "The Hobbit"
}
{
  "_id" : ObjectId("6106cf181fb2405a3e0ef846"),
  "title" : "The Hobbit:The Desolation of Smaug",
  "writer" : "J.R.R. Tolkein",
  "year" : 2013,
  "franchise" : "The Hobbit"
}
{
  "_id" : ObjectId("6106d12d1fb2405a3e0ef848"),
```

```
"title" : "The Hobbit:The Battle of the Five Armies",
"writer" : "J.R.R. Tolkein",
"year" : 2012,
"franchise" : "The Hobbit",
"synopsis" : "Bilbo and Company are forced to enagage in a war against an array of combatants and
keep the Lonely Mounatin from falling into the hands of the rising darkness"
}
```

5. get all movies released in the 90s

```
> db.movies.find({year:{$gte:1990,$lte:1999}}).pretty()
```

```
{
  "_id" : ObjectId("6106cb951fb2405a3e0ef842"),
  "title" : "Fight Club",
  "writer" : "Chuck Palahniuko",
  "year" : 1999,
  "actors" : [
    "Brad Pitt",
    "Edward Norton"
  ]
}
{
  "_id" : ObjectId("6106cd991fb2405a3e0ef843"),
  "title" : "Pulp Fiction",
  "writer" : "Quentin Tarantino",
  "year" : 1994,
  "actors" : [
    "John Travolta",
    "Uma Thurman"
  ]
}
```

6. get all movies released before the year 2000 or after 2010

```
> db.movies.find({$or:[{year:{$gt:2010}},{year:{$lt:2000}}]}).pretty()
```

```
{
  "_id" : ObjectId("6106cb951fb2405a3e0ef842"),
  "title" : "Fight Club",
  "writer" : "Chuck Palahniuko",
  "year" : 1999,
  "actors" : [
    "Brad Pitt",
    "Edward Norton"
  ]
}
{
  "_id" : ObjectId("6106cd991fb2405a3e0ef843"),
  "title" : "Pulp Fiction",
  "writer" : "Quentin Tarantino",
  "year" : 1994,
  "actors" : [
    "John Travolta",
    "Uma Thurman"
  ]
}
{
  "_id" : ObjectId("6106cee21fb2405a3e0ef845"),
  "title" : "The Hobbit:An Unexpected Journey",
  "writer" : "J.R.R. Tolkein",
  "year" : 2012,
```

```

    "franchise" : "The Hobbit"
  }
  {
    "_id" : ObjectId("6106cf181fb2405a3e0ef846"),
    "title" : "The Hobbit:The Desolation of Smaug",
    "writer" : "J.R.R. Tolkein",
    "year" : 2013,
    "franchise" : "The Hobbit"
  }
  {
    "_id" : ObjectId("6106d12d1fb2405a3e0ef848"),
    "title" : "The Hobbit:The Battle of the Five Armies",
    "writer" : "J.R.R. Tolkein",
    "year" : 2012,
    "franchise" : "The Hobbit",
    "synopsis" : "Bilbo and Company are forced to enagage in a war against an array of combatants and
keep the Lonely Mounatin from falling into the hands of the rising darkness"
  }

```

Update Documents

1,2,3.-->

```

> db.movies.update({title:"The Hobbit:An Unexpected Journey"},{$set:{synopsis:"A reluctant hobbit,
Bilbo Baggins, sets out to the Lonely Mountain with a spirited group of dwarves to reclaim their mountain
home- and the gold within it- from the dragon Smaug."}})

```

```

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

```

```

>

```

```

> db.movies.update({title:"The Hobbit:The Desolation of Smaug"},{$set:{synopsis:"The dwarves, along
with the Bilbo Baggins and Gandalg Grey, continue theor quest to reclaim Erebor, their homeland, from
Smaug. Bilbo baggins is in possession of a mysterious and magical ring."}})

```

```

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

```

```

>
> db.movies.update({title:"Pulp Fiction"},{$set:{actors:["Samuel L. Jackson","John Travolta","Uma
Thurman"]}})

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.movies.find().pretty()
{
  "_id" : ObjectId("6106cb951fb2405a3e0ef842"),
  "title" : "Fight Club",
  "writer" : "Chuck Palahniuko",
  "year" : 1999,
  "actors" : [
    "Brad Pitt",
    "Edward Norton"
  ]
}
{
  "_id" : ObjectId("6106cd991fb2405a3e0ef843"),
  "title" : "Pulp Fiction",
  "writer" : "Quentin Tarantino",
  "year" : 1994,
  "actors" : [
    "Samuel L. Jackson",
    "John Travolta",
    "Uma Thurman"
  ]
}
{
  "_id" : ObjectId("6106ce621fb2405a3e0ef844"),
  "title" : "Inglorious Basterds",

```

```

    "writer" : "Quentin Tarantino",
    "year" : 2009,
    "actors" : [
        "Brad Pitt",
        "Diane Kruger",
        "Eli Roth"
    ]
}
{
    "_id" : ObjectId("6106cee21fb2405a3e0ef845"),
    "title" : "The Hobbit:An Unexpected Journey",
    "writer" : "J.R.R. Tolkein",
    "year" : 2012,
    "franchise" : "The Hobbit",
    "synopsis" : "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a spirited group
of dwarves to reclaim their mountain home- and the gold within it- from the dragon Smaug."
}
{
    "_id" : ObjectId("6106cf181fb2405a3e0ef846"),
    "title" : "The Hobbit:The Desolation of Smaug",
    "writer" : "J.R.R. Tolkein",
    "year" : 2013,
    "franchise" : "The Hobbit",
    "synopsis" : "The dwarves, along with the Bilbo Baggins and Gandalf Grey, continue their quest to
reclaim Erebor, their homeland, from Smaug. Bilbo Baggins is in possession of a mysterious and magical
ring."
}
{
    "_id" : ObjectId("6106d12d1fb2405a3e0ef848"),
    "title" : "The Hobbit:The Battle of the Five Armies",

```

```

    "writer" : "J.R.R. Tolkein",
    "year" : 2012,
    "franchise" : "The Hobbit",
    "synopsis" : "Bilbo and Company are forced to engage in a war against an array of combatants and keep the Lonely Mountain from falling into the hands of the rising darkness"
  }
  {
    "_id" : ObjectId("6106d8d21fb2405a3e0ef84f"),
    "title" : "Pee Wee Herman's Big Adventure"
  }
  { "_id" : ObjectId("6106d8e81fb2405a3e0ef850"), "title" : "Avatar" }
>

```

Text Search

1.

```

> db.movies.createIndex({synopsis:"text"})
{
  "createdCollectionAutomatically" : false,
  "numIndexesBefore" : 1,
  "numIndexesAfter" : 2,
  "ok" : 1
}
> db.movies.find({$text:{$search:"Bilbo"}}).pretty()
{
  "_id" : ObjectId("6106cf181fb2405a3e0ef846"),
  "title" : "The Hobbit:The Desolation of Smaug",
  "writer" : "J.R.R. Tolkein",
  "year" : 2013,
  "franchise" : "The Hobbit",

```

"synopsis" : "The dwarves, along with the Bilbo Baggins and Gandalf Grey, continue their quest to reclaim Erebor, their homeland, from Smaug. Bilbo Baggins is in possession of a mysterious and magical ring."

}

{

"_id" : ObjectId("6106d12d1fb2405a3e0ef848"),

"title" : "The Hobbit:The Battle of the Five Armies",

"writer" : "J.R.R. Tolkein",

"year" : 2012,

"franchise" : "The Hobbit",

"synopsis" : "Bilbo and Company are forced to engage in a war against an array of combatants and keep the Lonely Mountain from falling into the hands of the rising darkness"

}

{

"_id" : ObjectId("6106cee21fb2405a3e0ef845"),

"title" : "The Hobbit:An Unexpected Journey",

"writer" : "J.R.R. Tolkein",

"year" : 2012,

"franchise" : "The Hobbit",

"synopsis" : "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a spirited group of dwarves to reclaim their mountain home- and the gold within it- from the dragon Smaug."

}

2.

```
> db.movies.find({$text:{$search:"Gandalf"}}).pretty()
```

{

"_id" : ObjectId("6106cf181fb2405a3e0ef846"),

"title" : "The Hobbit:The Desolation of Smaug",

"writer" : "J.R.R. Tolkein",

"year" : 2013,

"franchise" : "The Hobbit",

"synopsis" : "The dwarves, along with the Bilbo Baggins and Gandalf Grey, continue their quest to reclaim Erebor, their homeland, from Smaug. Bilbo Baggins is in possession of a mysterious and magical ring."

}

3.

```
> db.movies.find({$text:{$search:"Bilbo -Gandalf"}}).pretty()
```

```
{
```

```
  "_id" : ObjectId("6106d12d1fb2405a3e0ef848"),
```

```
  "title" : "The Hobbit:The Battle of the Five Armies",
```

```
  "writer" : "J.R.R. Tolkein",
```

```
  "year" : 2012,
```

```
  "franchise" : "The Hobbit",
```

```
  "synopsis" : "Bilbo and Company are forced to engage in a war against an array of combatants and keep the Lonely Mountain from falling into the hands of the rising darkness"
```

```
}
```

```
{
```

```
  "_id" : ObjectId("6106cee21fb2405a3e0ef845"),
```

```
  "title" : "The Hobbit:An Unexpected Journey",
```

```
  "writer" : "J.R.R. Tolkein",
```

```
  "year" : 2012,
```

```
  "franchise" : "The Hobbit",
```

```
  "synopsis" : "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a spirited group of dwarves to reclaim their mountain home- and the gold within it- from the dragon Smaug."
```

```
}
```

4.

```
> db.movies.find({$text:{$search:"dwarves hobbit"}}).pretty()
```

```
{
```

```
  "_id" : ObjectId("6106cee21fb2405a3e0ef845"),
```

```
  "title" : "The Hobbit:An Unexpected Journey",
```

```
  "writer" : "J.R.R. Tolkein",
```

```

    "year" : 2012,
    "franchise" : "The Hobbit",
    "synopsis" : "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a spirited group
of dwarves to reclaim their mountain home- and the gold within it- from the dragon Smaug."
}
{
    "_id" : ObjectId("6106cf181fb2405a3e0ef846"),
    "title" : "The Hobbit:The Desolation of Smaug",
    "writer" : "J.R.R. Tolkein",
    "year" : 2013,
    "franchise" : "The Hobbit",
    "synopsis" : "The dwarves, along with the Bilbo Baggins and Gandalf Grey, continue their quest to
reclaim Erebor, their homeland, from Smaug. Bilbo baggins is in possession of a mysterious and magical
ring."
}

```

5.

```

> db.movies.find({$text:{$search:"gold dragon"}}).pretty()
{
    "_id" : ObjectId("6106cee21fb2405a3e0ef845"),
    "title" : "The Hobbit:An Unexpected Journey",
    "writer" : "J.R.R. Tolkein",
    "year" : 2012,
    "franchise" : "The Hobbit",
    "synopsis" : "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a spirited group
of dwarves to reclaim their mountain home- and the gold within it- from the dragon Smaug."
}

```

Delete Documents

```

> db.movies.remove({title:"Pee Wee Herman's Big Adventure"})
WriteResult({ "nRemoved" : 1 })

```

```
> db.movies.remove({title:"Avatar"})
WriteResult({ "nRemoved" : 1 })
>
> db.movies.find().pretty()
{
  "_id" : ObjectId("6106cb951fb2405a3e0ef842"),
  "title" : "Fight Club",
  "writer" : "Chuck Palahniuko",
  "year" : 1999,
  "actors" : [
    "Brad Pitt",
    "Edward Norton"
  ]
}
{
  "_id" : ObjectId("6106cd991fb2405a3e0ef843"),
  "title" : "Pulp Fiction",
  "writer" : "Quentin Tarantino",
  "year" : 1994,
  "actors" : [
    "Samuel L. Jackson",
    "John Travolta",
    "Uma Thurman"
  ]
}
{
  "_id" : ObjectId("6106ce621fb2405a3e0ef844"),
```

```

    "title" : "Inglorious Basterds",
    "writer" : "Quentin Tarantino",
    "year" : 2009,
    "actors" : [
        "Brad Pitt",
        "Diane Kruger",
        "Eli Roth"
    ]
}
{
    "_id" : ObjectId("6106cee21fb2405a3e0ef845"),
    "title" : "The Hobbit:An Unexpected Journey",
    "writer" : "J.R.R. Tolkein",
    "year" : 2012,
    "franchise" : "The Hobbit",
    "synopsis" : "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a spirited group of dwarves to reclaim their mountain home- and the gold within it- from the dragon Smaug."
}
{
    "_id" : ObjectId("6106cf181fb2405a3e0ef846"),
    "title" : "The Hobbit:The Desolation of Smaug",
    "writer" : "J.R.R. Tolkein",
    "year" : 2013,
    "franchise" : "The Hobbit",
    "synopsis" : "The dwarves, along with the Bilbo Baggins and Gandalf Grey, continue their quest to reclaim Erebor, their homeland, from Smaug. Bilbo baggins is in possession of a mysterious and magical ring."
}

```

```

}
{
  "_id" : ObjectId("6106d12d1fb2405a3e0ef848"),
  "title" : "The Hobbit:The Battle of the Five Armies",
  "writer" : "J.R.R. Tolkein",
  "year" : 2012,
  "franchise" : "The Hobbit",
  "synopsis" : "Bilbo and Company are forced to enagage in a war against an array of
combatants and keep the Lonely Mounatin from falling into the hands of the rising darkness"
}

```

Relationships

Insert users collection

```

> db.users.insert({username:"GoodGuyGreg",first_name:"Good Guy",last_name:"Greg"})
WriteResult({ "nInserted" : 1 })
> db.users.insert({username:"ScumbagSteve",full_name:{first:"Scumbag",last:"steve"}})
WriteResult({ "nInserted" : 1 })

```

Insert posts collection

```

> db.posts.insert([{username:"GoodGuyGreg",title:"Passes out at party",body:"wakes up early
and cleans house"},{username:"GoodGuyGreg",title:"Steals your identity",body:"Raises your
credit score"},{username:"GoodGuyGreg",title:"Reports a bug in your code",body:"Sends you a
pull Request"},{username:"ScumbagSteve",title:"Borrows something",body:"Sells
it"},{username:"ScumbagSteve",title:"Borrows everything",body:"The
end"},{username:"ScumbagSteve",title:"forks your repo on github",body:"Sets to private"}])
BulkWriteResult({
  "writeErrors" : [ ],
  "writeConcernErrors" : [ ],
  "nInserted" : 6,

```

```
"nUpserted" : 0,
"nMatched" : 0,
"nModified" : 0,
"nRemoved" : 0,
"upserted" : [ ]
})
```

Insert comments collection

```
> db.comments.insert({username:"GoodGuyGreg",comment:"Hope you got a good
deal!",post:ObjectId("6107bc725afbeb8c8e05725e")})
```

```
WriteResult({ "nInserted" : 1 })
```

```
> db.comments.insert({username:"GoodGuyGreg",comment:"What's mine is
yours!",post:ObjectId("6107bc725afbeb8c8e05725f")})
```

```
WriteResult({ "nInserted" : 1 })
```

```
> db.comments.insert({username:"GoodGuyGreg",comment:"Don't violate the
licensing agreement!",post:ObjectId("6107bc725afbeb8c8e057260")})
```

```
WriteResult({ "nInserted" : 1 })
```

```
> db.comments.insert({username:"ScumbagSteve",comment:"It still isn't
clean",post:ObjectId("6107bc725afbeb8c8e05725b")})
```

```
WriteResult({ "nInserted" : 1 })
```

```
> db.comments.insert({username:"ScumbagSteve",comment:"Denied your PR
cause I found a hack",post:ObjectId("6107bc725afbeb8c8e05725d")})
```

```
WriteResult({ "nInserted" : 1 })
```

Querying related collections

1.

```
> db.users.find().pretty()
```

```
{
```

```

    "_id" : ObjectId("6107b70c5afbeb8c8e057257"),
    "username" : "GoodGuyGreg",
    "first_name" : "Good Guy",
    "last_name" : "Greg"
  }
{
  "_id" : ObjectId("6107b7355afbeb8c8e057258"),
  "username" : "ScumBagSteve",
  "full_name" : {
    "first" : "Scumbag",
    "last" : "steve"
  }
}

```

2.

```

> db.posts.find().pretty()
{
  "_id" : ObjectId("6107bc725afbeb8c8e05725b"),
  "username" : "GoodGuyGreg",
  "title" : "Passes out at party",
  "body" : "wakes up early and cleans house"
}
{
  "_id" : ObjectId("6107bc725afbeb8c8e05725c"),
  "username" : "GoodGuyGreg",
  "title" : "Steals your identity",
  "body" : "Raises your credit score"
}

```

```
{
  "_id" : ObjectId("6107bc725afbeb8c8e05725d"),
  "username" : "GoodGuyGreg",
  "title" : "Reports a bug in your code",
  "body" : "Sends you a pull Request"
}
```

```
{
  "_id" : ObjectId("6107bc725afbeb8c8e05725e"),
  "username" : "ScumbagSteve",
  "title" : "Borrows something",
  "body" : "Sells it"
}
```

```
{
  "_id" : ObjectId("6107bc725afbeb8c8e05725f"),
  "username" : "ScumbagSteve",
  "title" : "Borrows everything",
  "body" : "The end"
}
```

```
{
  "_id" : ObjectId("6107bc725afbeb8c8e057260"),
  "username" : "ScumbagSteve",
  "title" : "forks your repo on github",
  "body" : "Sets to private"
}
```

3.

```
> db.posts.find({username:"GoodGuyGreg"})
```



```
{ "_id" : ObjectId("6107bc725afbeb8c8e05725b"), "username" : "GoodGuyGreg", "title" : "Passes out at party", "body" : "wakes up early and cleans house" }
```

```
{ "_id" : ObjectId("6107bc725afbeb8c8e05725c"), "username" : "GoodGuyGreg", "title" : "Steals your identity", "body" : "Raises your credit score" }
```

```
{ "_id" : ObjectId("6107bc725afbeb8c8e05725d"), "username" : "GoodGuyGreg", "title" : "Reports a bug in your code", "body" : "Sends you a pull Request" }
```

4.

```
> db.posts.find({username:"ScumbagSteve"})
```

```
{ "_id" : ObjectId("6107bc725afbeb8c8e05725e"), "username" : "ScumbagSteve", "title" : "Borrows something", "body" : "Sells it" }
```

```
{ "_id" : ObjectId("6107bc725afbeb8c8e05725f"), "username" : "ScumbagSteve", "title" : "Borrows everything", "body" : "The end" }
```

```
{ "_id" : ObjectId("6107bc725afbeb8c8e057260"), "username" : "ScumbagSteve", "title" : "forks your repo on github", "body" : "Sets to private" }
```

```
>
```

5.

```
> db.comments.find().pretty()
```

```
{
  "_id" : ObjectId("6107c0f75afbeb8c8e05726d"),
  "username" : "GoodGuyGreg",
  "comment" : "Hope you got a good deal!",
  "post" : ObjectId("6107bc725afbeb8c8e05725e")
}
```

```
{
  "_id" : ObjectId("6107c1cc5afbeb8c8e05726e"),
  "username" : "GoodGuyGreg",
  "comment" : "What's mine is yours!",
  "post" : ObjectId("6107bc725afbeb8c8e05725f")
}
```

```
{
  "_id" : ObjectId("6107c2425afbeb8c8e05726f"),
  "username" : "GoodGuyGreg",
  "comment" : "Don't violate the licensing agreement!",
  "post" : ObjectId("6107bc725afbeb8c8e057260")
}
```

```
{
  "_id" : ObjectId("6107c2ab5afbeb8c8e057270"),
  "username" : "ScumbagSteve",
  "comment" : "It still isn't clean",
  "post" : ObjectId("6107bc725afbeb8c8e05725b")
}
```

```
{
  "_id" : ObjectId("6107c3255afbeb8c8e057271"),
  "username" : "ScumbagSteve",
  "comment" : "Denied your PR cause I found a hack",
  "post" : ObjectId("6107bc725afbeb8c8e05725d")
}
```

6.

```
> db.comments.find({username:"GoodGuyGreg"})
```

```
{ "_id" : ObjectId("6107c0f75afbeb8c8e05726d"), "username" : "GoodGuyGreg", "comment" : "Hope you
got a good deal!", "post" : ObjectId("6107bc725afbeb8c8e05725e") }
```

```
{ "_id" : ObjectId("6107c1cc5afbeb8c8e05726e"), "username" : "GoodGuyGreg", "comment" : "What's
mine is yours!", "post" : ObjectId("6107bc725afbeb8c8e05725f") }
```

```
{ "_id" : ObjectId("6107c2425afbeb8c8e05726f"), "username" : "GoodGuyGreg", "comment" : "Don't
violate the licensing agreement!", "post" : ObjectId("6107bc725afbeb8c8e057260") }
```

```
>
```

7.

```
> db.comments.find({username:"ScumbagSteve"}).pretty()
{
  "_id" : ObjectId("6107c2ab5afbeb8c8e057270"),
  "username" : "ScumbagSteve",
  "comment" : "It still isn't clean",
  "post" : ObjectId("6107bc725afbeb8c8e05725b")
}
{
  "_id" : ObjectId("6107c3255afbeb8c8e057271"),
  "username" : "ScumbagSteve",
  "comment" : "Denied your PR cause I found a hack",
  "post" : ObjectId("6107bc725afbeb8c8e05725d")
}
```

8.

```
> db.posts.find({title:"Reports a bug in your code"}).pretty()
{
  "_id" : ObjectId("6107bc725afbeb8c8e05725d"),
  "username" : "GoodGuyGreg",
  "title" : "Reports a bug in your code",
  "body" : "Sends you a pull Request"
}
```

Assignment 2

Atlanta Population:

Q.1

```
Command Prompt - mongo
> db.population
db.zipcodes.find((city:"ATLANTA",state:"GA"))
{"_id": "30303", "city": "ATLANTA", "loc": [ -84.388846, 33.752504 ], "pop": 1845, "state": "GA" }
{"_id": "30305", "city": "ATLANTA", "loc": [ -84.385145, 33.831963 ], "pop": 19122, "state": "GA" }
{"_id": "30306", "city": "ATLANTA", "loc": [ -84.351418, 33.786027 ], "pop": 20081, "state": "GA" }
{"_id": "30307", "city": "ATLANTA", "loc": [ -84.335957, 33.769138 ], "pop": 16330, "state": "GA" }
{"_id": "30308", "city": "ATLANTA", "loc": [ -84.375744, 33.771839 ], "pop": 8549, "state": "GA" }
{"_id": "30309", "city": "ATLANTA", "loc": [ -84.388338, 33.798407 ], "pop": 14766, "state": "GA" }
{"_id": "30310", "city": "ATLANTA", "loc": [ -84.423173, 33.727849 ], "pop": 34017, "state": "GA" }
{"_id": "30311", "city": "ATLANTA", "loc": [ -84.470219, 33.722957 ], "pop": 34880, "state": "GA" }
{"_id": "30312", "city": "ATLANTA", "loc": [ -84.378125, 33.746749 ], "pop": 17683, "state": "GA" }
{"_id": "30313", "city": "ATLANTA", "loc": [ -84.39352, 33.76825 ], "pop": 8038, "state": "GA" }
{"_id": "30314", "city": "ATLANTA", "loc": [ -84.425546, 33.756103 ], "pop": 26649, "state": "GA" }
{"_id": "30315", "city": "ATLANTA", "loc": [ -84.380771, 33.705062 ], "pop": 41061, "state": "GA" }
{"_id": "30316", "city": "ATLANTA", "loc": [ -84.333913, 33.721686 ], "pop": 34668, "state": "GA" }
{"_id": "30317", "city": "ATLANTA", "loc": [ -84.31685, 33.749788 ], "pop": 16395, "state": "GA" }
{"_id": "30318", "city": "ATLANTA", "loc": [ -84.445432, 33.786454 ], "pop": 53894, "state": "GA" }
{"_id": "30319", "city": "ATLANTA", "loc": [ -84.335091, 33.868728 ], "pop": 32138, "state": "GA" }
{"_id": "30320", "city": "ATLANTA", "loc": [ -84.354867, 33.820609 ], "pop": 15044, "state": "GA" }
{"_id": "30326", "city": "ATLANTA", "loc": [ -84.358232, 33.848168 ], "pop": 125, "state": "GA" }
{"_id": "30327", "city": "ATLANTA", "loc": [ -84.419966, 33.862723 ], "pop": 18467, "state": "GA" }
{"_id": "30329", "city": "ATLANTA", "loc": [ -84.321402, 33.823555 ], "pop": 17013, "state": "GA" }
Type "it" for more
> it
{"_id": "30330", "city": "ATLANTA", "loc": [ -84.434735, 33.70645 ], "pop": 643, "state": "GA" }
{"_id": "30331", "city": "ATLANTA", "loc": [ -84.520468, 33.72241 ], "pop": 38185, "state": "GA" }
{"_id": "30334", "city": "ATLANTA", "loc": [ -84.388188, 33.74715 ], "pop": 0, "state": "GA" }
{"_id": "30336", "city": "ATLANTA", "loc": [ -84.510028, 33.78534 ], "pop": 1228, "state": "GA" }
{"_id": "30339", "city": "ATLANTA", "loc": [ -84.462879, 33.87125 ], "pop": 11158, "state": "GA" }
{"_id": "30342", "city": "ATLANTA", "loc": [ -84.376091, 33.884245 ], "pop": 19057, "state": "GA" }
{"_id": "30345", "city": "ATLANTA", "loc": [ -84.286961, 33.851347 ], "pop": 19825, "state": "GA" }
{"_id": "30346", "city": "ATLANTA", "loc": [ -84.333354, 33.926717 ], "pop": 18, "state": "GA" }
{"_id": "30349", "city": "ATLANTA", "loc": [ -84.481258, 33.605331 ], "pop": 48116, "state": "GA" }
{"_id": "30350", "city": "ATLANTA", "loc": [ -84.341146, 33.979471 ], "pop": 24573, "state": "GA" }
{"_id": "30360", "city": "ATLANTA", "loc": [ -84.271645, 33.937772 ], "pop": 16023, "state": "GA" }
```

Q.2

```
Command Prompt - mongo
> db.zipcodes.aggregate([{$match:{city:"ATLANTA",state:"GA"}}])
{"_id": "30303", "city": "ATLANTA", "loc": [ -84.388846, 33.752504 ], "pop": 1845, "state": "GA" }
{"_id": "30305", "city": "ATLANTA", "loc": [ -84.385145, 33.831963 ], "pop": 19122, "state": "GA" }
{"_id": "30306", "city": "ATLANTA", "loc": [ -84.351418, 33.786027 ], "pop": 20081, "state": "GA" }
{"_id": "30307", "city": "ATLANTA", "loc": [ -84.335957, 33.769138 ], "pop": 16330, "state": "GA" }
{"_id": "30308", "city": "ATLANTA", "loc": [ -84.375744, 33.771839 ], "pop": 8549, "state": "GA" }
{"_id": "30309", "city": "ATLANTA", "loc": [ -84.388338, 33.798407 ], "pop": 14766, "state": "GA" }
{"_id": "30310", "city": "ATLANTA", "loc": [ -84.423173, 33.727849 ], "pop": 34017, "state": "GA" }
{"_id": "30311", "city": "ATLANTA", "loc": [ -84.470219, 33.722957 ], "pop": 34880, "state": "GA" }
{"_id": "30312", "city": "ATLANTA", "loc": [ -84.378125, 33.746749 ], "pop": 17683, "state": "GA" }
{"_id": "30313", "city": "ATLANTA", "loc": [ -84.39352, 33.76825 ], "pop": 8038, "state": "GA" }
{"_id": "30314", "city": "ATLANTA", "loc": [ -84.425546, 33.756103 ], "pop": 26649, "state": "GA" }
{"_id": "30315", "city": "ATLANTA", "loc": [ -84.380771, 33.705062 ], "pop": 41061, "state": "GA" }
{"_id": "30316", "city": "ATLANTA", "loc": [ -84.333913, 33.721686 ], "pop": 34668, "state": "GA" }
{"_id": "30317", "city": "ATLANTA", "loc": [ -84.31685, 33.749788 ], "pop": 16395, "state": "GA" }
{"_id": "30318", "city": "ATLANTA", "loc": [ -84.445432, 33.786454 ], "pop": 53894, "state": "GA" }
{"_id": "30319", "city": "ATLANTA", "loc": [ -84.335091, 33.868728 ], "pop": 32138, "state": "GA" }
{"_id": "30320", "city": "ATLANTA", "loc": [ -84.354867, 33.820609 ], "pop": 15044, "state": "GA" }
{"_id": "30326", "city": "ATLANTA", "loc": [ -84.358232, 33.848168 ], "pop": 125, "state": "GA" }
{"_id": "30327", "city": "ATLANTA", "loc": [ -84.419966, 33.862723 ], "pop": 18467, "state": "GA" }
{"_id": "30329", "city": "ATLANTA", "loc": [ -84.321402, 33.823555 ], "pop": 17013, "state": "GA" }
Type "it" for more
> it
{"_id": "30330", "city": "ATLANTA", "loc": [ -84.434735, 33.70645 ], "pop": 643, "state": "GA" }
{"_id": "30331", "city": "ATLANTA", "loc": [ -84.520468, 33.72241 ], "pop": 38185, "state": "GA" }
{"_id": "30334", "city": "ATLANTA", "loc": [ -84.388188, 33.74715 ], "pop": 0, "state": "GA" }
{"_id": "30336", "city": "ATLANTA", "loc": [ -84.510028, 33.78534 ], "pop": 1228, "state": "GA" }
{"_id": "30339", "city": "ATLANTA", "loc": [ -84.462879, 33.87125 ], "pop": 11158, "state": "GA" }
{"_id": "30342", "city": "ATLANTA", "loc": [ -84.376091, 33.884245 ], "pop": 19057, "state": "GA" }
{"_id": "30345", "city": "ATLANTA", "loc": [ -84.286961, 33.851347 ], "pop": 19825, "state": "GA" }
{"_id": "30346", "city": "ATLANTA", "loc": [ -84.333354, 33.926717 ], "pop": 18, "state": "GA" }
{"_id": "30349", "city": "ATLANTA", "loc": [ -84.481258, 33.605331 ], "pop": 48116, "state": "GA" }
{"_id": "30350", "city": "ATLANTA", "loc": [ -84.341146, 33.979471 ], "pop": 24573, "state": "GA" }
{"_id": "30360", "city": "ATLANTA", "loc": [ -84.271645, 33.937772 ], "pop": 16023, "state": "GA" }
> it
no cursor
>
```

Q.3 & Q.4

```
Command Prompt - mongo
> db
population
>
> db.zipcodes.aggregate([{$match:{city:"ATLANTA"}},{ $group:{_id:{city:"$city",zipcode:"$ _id"}},{ $count:"zipcode"}}])
{ "zipcode" : 41 }
>
> db.zipcodes.aggregate([{$match:{city:"ATLANTA"}},{ $group:{_id:{city:"$city",pop:{ $sum:"$pop"}}}}])
{ "_id" : { "city" : "ATLANTA" }, "pop" : 630046 }
>
```

Populations by State:

Q.1

```
Select Command Prompt - mongo
> db
population
> db.zipcodes.aggregate([{$group:{_id:"$state",population:{ $sum:"$pop"}}}])
{ "_id" : "KS", "population" : 2475285 }
{ "_id" : "MS", "population" : 2573216 }
{ "_id" : "NE", "population" : 1578139 }
{ "_id" : "VA", "population" : 6181479 }
{ "_id" : "LA", "population" : 4217595 }
{ "_id" : "SD", "population" : 695397 }
{ "_id" : "AR", "population" : 2350725 }
{ "_id" : "TX", "population" : 16984601 }
{ "_id" : "DE", "population" : 666168 }
{ "_id" : "ID", "population" : 1006749 }
{ "_id" : "UT", "population" : 1722850 }
{ "_id" : "NM", "population" : 1515069 }
{ "_id" : "OR", "population" : 2842321 }
{ "_id" : "WA", "population" : 6816428 }
{ "_id" : "WY", "population" : 1793146 }
{ "_id" : "TN", "population" : 4876457 }
{ "_id" : "AK", "population" : 544698 }
{ "_id" : "DC", "population" : 606900 }
{ "_id" : "CA", "population" : 29754890 }
{ "_id" : "HI", "population" : 9295297 }
type "it" for more
> it
{ "_id" : "OK", "population" : 3145585 }
{ "_id" : "NV", "population" : 1201833 }
{ "_id" : "CO", "population" : 3293755 }
{ "_id" : "KY", "population" : 3675484 }
{ "_id" : "AZ", "population" : 3665228 }
{ "_id" : "MO", "population" : 5110648 }
{ "_id" : "IA", "population" : 4866692 }
{ "_id" : "WY", "population" : 453528 }
{ "_id" : "HI", "population" : 1108229 }
{ "_id" : "AL", "population" : 4040587 }
{ "_id" : "NJ", "population" : 7730188 }
{ "_id" : "MD", "population" : 4781379 }
{ "_id" : "IN", "population" : 5544136 }
{ "_id" : "ME", "population" : 1226649 }
{ "_id" : "NY", "population" : 17990402 }
{ "_id" : "CT", "population" : 3287116 }
{ "_id" : "MA", "population" : 4372982 }
{ "_id" : "NH", "population" : 1109252 }
{ "_id" : "MT", "population" : 798948 }
{ "_id" : "IL", "population" : 11427576 }
type "it" for more
> it
```

```
{ "_id" : "WI", "population" : 4891769 }
{ "_id" : "VT", "population" : 562758 }
{ "_id" : "SC", "population" : 3486703 }
{ "_id" : "PA", "population" : 11801643 }
{ "_id" : "OH", "population" : 10846517 }
{ "_id" : "ND", "population" : 638272 }
{ "_id" : "IA", "population" : 2776420 }
{ "_id" : "NC", "population" : 6628637 }
{ "_id" : "GA", "population" : 6478216 }
{ "_id" : "RI", "population" : 1003218 }
{ "_id" : "FL", "population" : 12686644 }
> it
no cursor
>
```

Q.2

```
Command Prompt - mongo
> db
population
> db.zipcodes.aggregate([{$group:{_id:{state:"$state"},pop:{$sum:"$pop"}},{ $sort:{pop:-1}}}]
{"_id":{"state":"CA"},"pop":29754890}
{"_id":{"state":"TX"},"pop":16984601}
{"_id":{"state":"FL"},"pop":12686644}
{"_id":{"state":"PA"},"pop":11881643}
{"_id":{"state":"IL"},"pop":11427576}
{"_id":{"state":"OH"},"pop":10846517}
{"_id":{"state":"MI"},"pop":9295297}
{"_id":{"state":"ND"},"pop":7730188}
{"_id":{"state":"NC"},"pop":6626837}
{"_id":{"state":"GA"},"pop":6478216}
{"_id":{"state":"VA"},"pop":6181479}
{"_id":{"state":"MA"},"pop":6016425}
{"_id":{"state":"IN"},"pop":5544136}
{"_id":{"state":"MO"},"pop":5110648}
{"_id":{"state":"WI"},"pop":4891769}
{"_id":{"state":"TN"},"pop":4876457}
{"_id":{"state":"WA"},"pop":4866692}
{"_id":{"state":"MD"},"pop":4781379}
{"_id":{"state":"NY"},"pop":4372982}
Type "it" for more
> it
{"_id":{"state":"LA"},"pop":4217595}
{"_id":{"state":"AL"},"pop":4040887}
{"_id":{"state":"KY"},"pop":3675484}
{"_id":{"state":"AZ"},"pop":3665228}
{"_id":{"state":"SC"},"pop":3486703}
{"_id":{"state":"CO"},"pop":3293755}
{"_id":{"state":"CT"},"pop":3287116}
{"_id":{"state":"OK"},"pop":3145505}
{"_id":{"state":"OR"},"pop":2842321}
{"_id":{"state":"IA"},"pop":2776420}
{"_id":{"state":"MS"},"pop":2573216}
{"_id":{"state":"KS"},"pop":2475285}
{"_id":{"state":"AR"},"pop":2350725}
{"_id":{"state":"WV"},"pop":1793146}
{"_id":{"state":"UT"},"pop":1722850}
{"_id":{"state":"NE"},"pop":1578139}
{"_id":{"state":"NM"},"pop":1515069}
{"_id":{"state":"ME"},"pop":1226648}
{"_id":{"state":"NV"},"pop":1201833}
{"_id":{"state":"NH"},"pop":1109252}
Type "it" for more
> it
{"_id":{"state":"HI"},"pop":1108329}
{"_id":{"state":"ID"},"pop":1006749}
{"_id":{"state":"RI"},"pop":1003218}
{"_id":{"state":"MT"},"pop":798948}
{"_id":{"state":"SD"},"pop":695397}
{"_id":{"state":"DE"},"pop":666168}
{"_id":{"state":"ND"},"pop":638272}
{"_id":{"state":"DC"},"pop":606900}
{"_id":{"state":"VT"},"pop":562758}
{"_id":{"state":"AK"},"pop":544698}
{"_id":{"state":"WY"},"pop":453528}
> it
no cursor
>
```

Q.3

```
Command Prompt - mongo
> db
population
> db.zipcodes.aggregate([{$group:{_id:{state:"$state"},pop:{$sum:"$pop"}},{ $sort:{pop:-1}},{$limit:3}]]
{"_id":{"state":"CA"},"pop":29754890}
{"_id":{"state":"TX"},"pop":16984601}
{"_id":{"state":"FL"},"pop":12686644}
```

Populations by city:

Q.1

```
Command Prompt - mongo
> db
population
> db.zipcodes.aggregate([{$group:{_id:{$id,"city":"$city","state":"$state"},"pop":{"$sum":"$pop"}}},{ $sort:{_id:1}}])
uncaught exception: SyntaxError: missing ] after element list :
@($hell)1:89
> db.zipcodes.aggregate([{$group:{_id:{$id,"city":"$city","state":"$state"},"pop":{"$sum":"$pop"}}},{ $sort:{_id:1}}])
{"_id":{"city":"AARON","state":"KY"},"pop":270}
{"_id":{"city":"AARONSBURG","state":"PA"},"pop":100}
{"_id":{"city":"ABAC","state":"GA"},"pop":27906}
{"_id":{"city":"ABBEVILLE","state":"AL"},"pop":5416}
{"_id":{"city":"ABBEVILLE","state":"GA"},"pop":1991}
{"_id":{"city":"ABBEVILLE","state":"MS"},"pop":4649}
{"_id":{"city":"ABBEVILLE","state":"SC"},"pop":11344}
{"_id":{"city":"ABBOT VILLAGE","state":"ME"},"pop":1193}
{"_id":{"city":"ABBOTSFORD","state":"WI"},"pop":2480}
{"_id":{"city":"ABBOTT","state":"TX"},"pop":577}
{"_id":{"city":"ABBOTT PARK","state":"IL"},"pop":26542}
{"_id":{"city":"ABBOTTSTOWN","state":"PA"},"pop":1777}
{"_id":{"city":"ABBEVILLE","state":"KS"},"pop":267}
{"_id":{"city":"ABELL","state":"MD"},"pop":601}
{"_id":{"city":"ABERDEEN","state":"MD"},"pop":19229}
{"_id":{"city":"ABERDEEN","state":"MS"},"pop":15769}
{"_id":{"city":"ABERDEEN","state":"NC"},"pop":7767}
{"_id":{"city":"ABERDEEN","state":"OH"},"pop":2176}
{"_id":{"city":"ABERDEEN","state":"SD"},"pop":28786}
{"_id":{"city":"ABERDEEN","state":"WA"},"pop":22346}
type "it" for more
> it
{"_id":{"city":"ABERDEEN PROVING","state":"MD"},"pop":5294}
{"_id":{"city":"ABERNATHY","state":"TX"},"pop":3482}
{"_id":{"city":"ABIE","state":"NE"},"pop":282}
{"_id":{"city":"ABILENE","state":"KS"},"pop":8249}
{"_id":{"city":"ABILENE","state":"TX"},"pop":104462}
{"_id":{"city":"ABINGDON","state":"IL"},"pop":4241}
{"_id":{"city":"ABINGDON","state":"MD"},"pop":12664}
{"_id":{"city":"ABINGDON","state":"VA"},"pop":25429}
{"_id":{"city":"ABINGTON","state":"MA"},"pop":13849}
{"_id":{"city":"ABITQUIU","state":"MN"},"pop":1538}
{"_id":{"city":"ABITA SPRINGS","state":"LA"},"pop":2659}
{"_id":{"city":"ABRAHAM","state":"MA"},"pop":2548}
{"_id":{"city":"ABRAMS","state":"WI"},"pop":1712}
{"_id":{"city":"ABSARAKA","state":"ND"},"pop":124}
{"_id":{"city":"ABSAROKEE","state":"MT"},"pop":1330}
{"_id":{"city":"ACADEMY","state":"SD"},"pop":2425}
{"_id":{"city":"ACAMPO","state":"CA"},"pop":7734}
{"_id":{"city":"ACCIDENT","state":"MD"},"pop":1968}
{"_id":{"city":"ACCOKEEK","state":"MD"},"pop":4043}
```

Q.2

```
Command Prompt - mongo
> db
population
> db.zipcodes.aggregate([{$group:{_id:{$id,"city":"$city","state":"$state"},"pop":{"$sum":"$pop"}}},{ $sort:{pop:-1}}])
{"_id":{"city":"CHICAGO","state":"IL"},"pop":2452177}
{"_id":{"city":"BROOKLYN","state":"NY"},"pop":2300504}
{"_id":{"city":"LOS ANGELES","state":"CA"},"pop":2102295}
{"_id":{"city":"HOUSTON","state":"TX"},"pop":2095010}
{"_id":{"city":"PHILADELPHIA","state":"PA"},"pop":1610956}
{"_id":{"city":"NEW YORK","state":"NY"},"pop":1476790}
{"_id":{"city":"BRONX","state":"NY"},"pop":1209548}
{"_id":{"city":"SAN DIEGO","state":"CA"},"pop":1049298}
{"_id":{"city":"DETROIT","state":"MI"},"pop":963243}
{"_id":{"city":"DALLAS","state":"TX"},"pop":940191}
{"_id":{"city":"PHOENIX","state":"AZ"},"pop":890853}
{"_id":{"city":"MIAMI","state":"FL"},"pop":825232}
{"_id":{"city":"SAN JOSE","state":"CA"},"pop":816653}
{"_id":{"city":"SAN ANTONIO","state":"TX"},"pop":811792}
{"_id":{"city":"BALTIMORE","state":"MD"},"pop":733081}
{"_id":{"city":"SAN FRANCISCO","state":"CA"},"pop":723993}
{"_id":{"city":"MEMPHIS","state":"TN"},"pop":632837}
{"_id":{"city":"SACRAMENTO","state":"CA"},"pop":628279}
{"_id":{"city":"JACKSONVILLE","state":"FL"},"pop":610160}
{"_id":{"city":"ATLANTA","state":"GA"},"pop":609591}
type "it" for more
> it
{"_id":{"city":"WASHINGTON","state":"DC"},"pop":606879}
{"_id":{"city":"LAS VEGAS","state":"NV"},"pop":597557}
{"_id":{"city":"MILWAUKEE","state":"WI"},"pop":597324}
{"_id":{"city":"TUCSON","state":"AZ"},"pop":586451}
{"_id":{"city":"CLEVELAND","state":"OH"},"pop":536759}
{"_id":{"city":"AUSTIN","state":"TX"},"pop":530049}
{"_id":{"city":"SEATTLE","state":"WA"},"pop":520096}
{"_id":{"city":"COLUMBUS","state":"OH"},"pop":520096}
{"_id":{"city":"PORTLAND","state":"OR"},"pop":518543}
{"_id":{"city":"EL PASO","state":"TX"},"pop":511351}
{"_id":{"city":"TAMPA","state":"FL"},"pop":498997}
{"_id":{"city":"NEW ORLEANS","state":"LA"},"pop":496937}
{"_id":{"city":"CHARLOTTE","state":"NC"},"pop":465833}
{"_id":{"city":"FORT WORTH","state":"TX"},"pop":451415}
{"_id":{"city":"DENVER","state":"CO"},"pop":451182}
{"_id":{"city":"ALBUQUERQUE","state":"NM"},"pop":449584}
{"_id":{"city":"SAINT LOUIS","state":"MO"},"pop":397802}
{"_id":{"city":"HONOLULU","state":"HI"},"pop":396643}
{"_id":{"city":"ROCHESTER","state":"NY"},"pop":396013}
{"_id":{"city":"TULSA","state":"OK"},"pop":389072}
type "it" for more
> it
```

Q.3

```
Command Prompt - mongo
> db
population
> db.zipcodes.aggregate([{$group:{_id:{_id:"$id",city:"$city",state:"$state"},pop:{$sum:"$pop"}},{ $sort:{pop:-1}},{$limit:3}}]
{ "_id" : { "city" : "CHICAGO", "state" : "IL", "pop" : 2452177 } }
{ "_id" : { "city" : "BROOKLYN", "state" : "NY", "pop" : 2300584 } }
{ "_id" : { "city" : "LOS ANGELES", "state" : "CA", "pop" : 2102295 } }
>
```

Q.4

```
Command Prompt - mongo
> use population
switched to db population
> show collection
Error: don't know how to show [collection] :
shellHelper.show@src/mongo/shell/utils.js:1191:11
shellHelper@src/mongo/shell/utils.js:819:15
@(shellhelp2):1:1
> show collections
zipcodes
> db
population
>
> db.zipcodes.aggregate([{$group:{city:"TEXAS",pop:"$pop"}},{ $sort:{ "_id.pop":-1}},{$limit:3}}]
SyntaxError: missing ] after element list :
@(shell):1:29
> db.zipcodes.aggregate([{$group:{city:"TEXAS",pop:"$pop"}},{ $sort:{ "_id.pop":-1}},{$limit:3}}]
SyntaxError: missing ] after element list :
@(shell):1:57
> db.zipcodes.aggregate([{$group:{_id:{city:"TEXAS",pop:"$pop"}},{ $sort:{ "_id.pop":-1}},{$limit:3}}]
{ "_id" : { "city" : "TEXAS", "pop" : 112047 } }
{ "_id" : { "city" : "TEXAS", "pop" : 111396 } }
{ "_id" : { "city" : "TEXAS", "pop" : 106564 } }
>
```

Bonus:

Q.1

```
Command Prompt - mongo
> db
population
> db.zipcodes.aggregate([{$group:{_id:{state:"$state",city:"$city"},AvgPop:{$avg:"$pop"}}}]
{ "_id" : { "state" : "PA", "city" : "LIVERPOOL", "AvgPop" : 3951 } }
{ "_id" : { "state" : "NV", "city" : "REDFORD", "AvgPop" : 495 } }
{ "_id" : { "state" : "ME", "city" : "FORT KENT", "AvgPop" : 6076 } }
{ "_id" : { "state" : "PA", "city" : "TIMBLIN", "AvgPop" : 178 } }
{ "_id" : { "state" : "PA", "city" : "HARLEYSVILLE", "AvgPop" : 16027 } }
{ "_id" : { "state" : "VA", "city" : "BASVE", "AvgPop" : 43 } }
{ "_id" : { "state" : "NC", "city" : "GREENVILLE", "AvgPop" : 33311.5 } }
{ "_id" : { "state" : "PA", "city" : "SPRINGVILLE", "AvgPop" : 2003 } }
{ "_id" : { "state" : "AL", "city" : "ATMORE", "AvgPop" : 15948 } }
{ "_id" : { "state" : "OH", "city" : "PLYMOUTH", "AvgPop" : 4122 } }
{ "_id" : { "state" : "MI", "city" : "MONTGOMERY", "AvgPop" : 2260 } }
{ "_id" : { "state" : "MI", "city" : "SHELBY", "AvgPop" : 4420 } }
{ "_id" : { "state" : "NV", "city" : "PURDYS", "AvgPop" : 2534 } }
{ "_id" : { "state" : "NV", "city" : "OCEANSIDE", "AvgPop" : 31406 } }
{ "_id" : { "state" : "MO", "city" : "SOUTH WEST CITY", "AvgPop" : 1201 } }
{ "_id" : { "state" : "IN", "city" : "NEW CARLISLE", "AvgPop" : 3574 } }
{ "_id" : { "state" : "KS", "city" : "FORD", "AvgPop" : 403 } }
{ "_id" : { "state" : "AR", "city" : "CLINTON", "AvgPop" : 4098 } }
{ "_id" : { "state" : "AR", "city" : "OSCEOLA", "AvgPop" : 10119 } }
{ "_id" : { "state" : "KS", "city" : "BENDENA", "AvgPop" : 334 } }
type "it" for more
> it
{ "_id" : { "state" : "MA", "city" : "DENNIS", "AvgPop" : 3216 } }
{ "_id" : { "state" : "GA", "city" : "ELLIJAY", "AvgPop" : 9672 } }
{ "_id" : { "state" : "TX", "city" : "BLUFF DALE", "AvgPop" : 1751 } }
{ "_id" : { "state" : "TX", "city" : "VALLEY SPRING", "AvgPop" : 270 } }
{ "_id" : { "state" : "CO", "city" : "IDAHO SPRINGS", "AvgPop" : 5113 } }
{ "_id" : { "state" : "GA", "city" : "YOUNG HARRIS", "AvgPop" : 1687 } }
{ "_id" : { "state" : "FL", "city" : "PINELLAS PARK", "AvgPop" : 22149.5 } }
{ "_id" : { "state" : "ND", "city" : "BATHGATE", "AvgPop" : 169 } }
{ "_id" : { "state" : "IL", "city" : "ELGIN", "AvgPop" : 43341.5 } }
{ "_id" : { "state" : "IL", "city" : "ELSLIE", "AvgPop" : 24934 } }
{ "_id" : { "state" : "ME", "city" : "PROSSER", "AvgPop" : 297 } }
{ "_id" : { "state" : "NV", "city" : "SPARKILL", "AvgPop" : 894 } }
{ "_id" : { "state" : "TX", "city" : "MOULTON", "AvgPop" : 2459 } }
{ "_id" : { "state" : "VT", "city" : "SAXTONS RIVER", "AvgPop" : 681 } }
{ "_id" : { "state" : "NJ", "city" : "FORDS", "AvgPop" : 13568 } }
{ "_id" : { "state" : "NV", "city" : "SHADY", "AvgPop" : 960 } }
{ "_id" : { "state" : "NY", "city" : "ELLICOTTVILLE", "AvgPop" : 1767 } }
{ "_id" : { "state" : "ME", "city" : "GARDEN", "AvgPop" : 934 } }
{ "_id" : { "state" : "FL", "city" : "TIERRA VERDE", "AvgPop" : 3877 } }
{ "_id" : { "state" : "OK", "city" : "TRIPLEV", "AvgPop" : 839 } }
type "it" for more
>
```


Q.2

```

> db
population
> db.zipcodes.aggregate([{$group: {_id: {state: "$state", city: "$city"}, AvgPop: {$avg: "$pop"}}, $sort: db.zipcodes.aggregate([{$group: {_id: {state: "$state", city: "$city"}, AvgPop: {$avg: "$pop"}}, $sort: {AvgPop: -1}], $limit: 3)}}]
{ "_id" : { "state" : "CA", "city" : "BELL GARDENS" }, "AvgPop" : 99568 }
{ "_id" : { "state" : "CA", "city" : "NORWALK" }, "AvgPop" : 94188 }
{ "_id" : { "state" : "CA", "city" : "ARLETA" }, "AvgPop" : 88114 }

```

Assignment 3

Q.1

```
> select Command Prompt - mongo
> show dbs
admin            0.000GB
config           0.000GB
local            0.000GB
mongo_practice   0.000GB
population        0.003GB
restaurants       0.001GB

> use restaurants
switched to db restaurants
> show collections
addresses
db
restaurants
> db.addresses.find()
{ "_id" : ObjectId("610789f4d723a7b75462bedb"), "address" : { "building" : "1007", "coord" : [ -73.856077, 40.848447 ], "street" : "Morris Park Bake Shop", "cuisine" : "Bakery", "grades" : [ { "date" : ISODate("2014-03-03T00:00:00Z"), "grade" : "A", "score" : 2 }, { "date" : ISODate("2013-01-24T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-11-23T00:00:00Z"), "grade" : "A", "score" : 14 } ], "name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }
{ "_id" : ObjectId("610789f4d723a7b75462bedc"), "address" : { "building" : "469", "coord" : [ -73.961704, 40.662942 ], "street" : "Flatiron", "cuisine" : "Hamburgers", "grades" : [ { "date" : ISODate("2014-12-30T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2013-04-30T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-05-08T00:00:00Z"), "grade" : "A", "score" : 112340 } ]
{ "_id" : ObjectId("610789f4d723a7b75462bedd"), "address" : { "building" : "351", "coord" : [ -73.98513559999999, 40.7676919 ], "street" : "Manhattan", "cuisine" : "Irish", "grades" : [ { "date" : ISODate("2014-09-06T00:00:00Z"), "grade" : "A", "score" : 2 }, { "date" : ISODate("2012-07-31T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-12-29T00:00:00Z"), "grade" : "A", "score" : 1841 } ]
{ "_id" : ObjectId("610789f4d723a7b75462bede"), "address" : { "building" : "2780", "coord" : [ -73.98241999999999, 40.579505 ], "street" : "Brooklyn", "cuisine" : "American", "grades" : [ { "date" : ISODate("2014-06-10T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2012-04-13T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-10-12T00:00:00Z"), "grade" : "A", "score" : 40356018 } ]
{ "_id" : ObjectId("610789f4d723a7b75462bedf"), "address" : { "building" : "97-22", "coord" : [ -73.8601152, 40.7311739 ], "street" : "Jewish/Kosher", "grades" : [ { "date" : ISODate("2014-11-24T00:00:00Z"), "grade" : "Z", "score" : 20 }, { "date" : ISODate("2011-10-12T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-10-12T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-10-12T00:00:00Z"), "grade" : "A", "score" : 12 }
```

Q.2

```
Command Prompt - mongo
@:(shell):1:17
> db.addresses.find({},{"restaurant_id":1,"name":1,"borough":1,"cuisine":1})
{ "_id" : ObjectId("610789f4d723a7b75462bedb"), "borough" : "Bronx", "cuisine" : "Bakery", "name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }
{ "_id" : ObjectId("610789f4d723a7b75462bedc"), "borough" : "Brooklyn", "cuisine" : "Hamburgers", "name" : "Wendy'S", "restaurant_id" : "30112340" }
{ "_id" : ObjectId("610789f4d723a7b75462bedd"), "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Dj Reynolds Pub And Restaurant", "restaurant_id" : "30191841" }
{ "_id" : ObjectId("610789f4d723a7b75462bede"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Riviera Caterer", "restaurant_id" : "40356018" }
{ "_id" : ObjectId("610789f4d723a7b75462bedf"), "borough" : "Queens", "cuisine" : "Jewish/Kosher", "name" : "Tov Kosher Kitchen", "restaurant_id" : "40356068" }
{ "_id" : ObjectId("610789f4d723a7b75462bee0"), "borough" : "Queens", "cuisine" : "American ", "name" : "Brunos On The Boulevard", "restaurant_id" : "40356151" }
{ "_id" : ObjectId("610789f4d723a7b75462bee1"), "borough" : "Staten Island", "cuisine" : "Jewish/Kosher", "name" : "Kosher Island", "restaurant_id" : "40356442" }
{ "_id" : ObjectId("610789f4d723a7b75462bee2"), "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Wilken'S Fine Food", "restaurant_id" : "40356483" }
{ "_id" : ObjectId("610789f4d723a7b75462bee3"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Regina Caterers", "restaurant_id" : "40356649" }
{ "_id" : ObjectId("610789f4d723a7b75462bee4"), "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Taste The Tropics Ice Cream", "restaurant_id" : "40356731" }
{ "_id" : ObjectId("610789f4d723a7b75462bee5"), "borough" : "Bronx", "cuisine" : "American ", "name" : "Wild Asia", "restaurant_id" : "40357217" }
{ "_id" : ObjectId("610789f4d723a7b75462bee6"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "C & C Catering Service", "restaurant_id" : "40357437" }
{ "_id" : ObjectId("610789f4d723a7b75462bee7"), "borough" : "Brooklyn", "cuisine" : "Chinese", "name" : "May May Kitchen", "restaurant_id" : "40358429" }
{ "_id" : ObjectId("610789f4d723a7b75462bee8"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "1 East 66Th Street Kitchen", "restaurant_id" : "40359480" }
{ "_id" : ObjectId("610789f4d723a7b75462bee9"), "borough" : "Brooklyn", "cuisine" : "Jewish/Kosher", "name" : "Seuda Foods", "restaurant_id" : "40360045" }
```

Q.3

```
Command Prompt - mongo
> db.addresses.find({},{"restaurant_id" : 1,"name":1,"borough":1,"cuisine" :1,"_id":0});
{ "borough" : "Bronx", "cuisine" : "Bakery", "name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }
{ "borough" : "Brooklyn", "cuisine" : "Hamburgers", "name" : "Wendy'S", "restaurant_id" : "30112340" }
{ "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Dj Reynolds Pub And Restaurant", "restaurant_id" : "30191841" }
{ "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Riviera Caterer", "restaurant_id" : "40356018" }
{ "borough" : "Queens", "cuisine" : "Jewish/Kosher", "name" : "Tov Kosher Kitchen", "restaurant_id" : "40356068" }
{ "borough" : "Queens", "cuisine" : "American ", "name" : "Brunos On The Boulevard", "restaurant_id" : "40356151" }
{ "borough" : "Staten Island", "cuisine" : "Jewish/Kosher", "name" : "Kosher Island", "restaurant_id" : "40356442" }
{ "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Wilken'S Fine Food", "restaurant_id" : "40356483" }
{ "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Regina Caterers", "restaurant_id" : "40356649" }
{ "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Taste The Tropics Ice Cream", "restaurant_id" : "40356731" }
{ "borough" : "Bronx", "cuisine" : "American ", "name" : "Wild Asia", "restaurant_id" : "40357217" }
{ "borough" : "Brooklyn", "cuisine" : "American ", "name" : "C & C Catering Service", "restaurant_id" : "40357437" }
{ "borough" : "Brooklyn", "cuisine" : "Chinese", "name" : "May May Kitchen", "restaurant_id" : "40358429" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "1 East 66Th Street Kitchen", "restaurant_id" : "40359480" }
{ "borough" : "Brooklyn", "cuisine" : "Jewish/Kosher", "name" : "Seuda Foods", "restaurant_id" : "40360045" }
{ "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Carvel Ice Cream", "restaurant_id" : "40360076" }
{ "borough" : "Queens", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Carvel Ice Cream", "restaurant_id" : "40361322" }
{ "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Nordic Delicacies", "restaurant_id" : "40361390" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "Glorious Food", "restaurant_id" : "40361521" }
{ "borough" : "Brooklyn", "cuisine" : "American ", "name" : "The Movable Feast", "restaurant_id" : "40361606" }
Type "it" for more
> it
{ "borough" : "Queens", "cuisine" : "Delicatessen", "name" : "Sal'S Deli", "restaurant_id" : "40361618" }
{ "borough" : "Manhattan", "cuisine" : "Delicatessen", "name" : "Bully'S Deli", "restaurant_id" : "40361708" }
{ "borough" : "Queens", "cuisine" : "Delicatessen", "name" : "Steve Chu'S Deli & Grocery", "restaurant_id" : "40361998" }
{ "borough" : "Manhattan", "cuisine" : "Chicken", "name" : "Harriet'S Kitchen", "restaurant_id" : "40362098" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "P & S Deli Grocery", "restaurant_id" : "40362264" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "Angelika Film Center", "restaurant_id" : "40362274" }
{ "borough" : "Brooklyn", "cuisine" : "Hamburgers", "name" : "White Castle", "restaurant_id" : "40362344" }
{ "borough" : "Queens", "cuisine" : "Chinese", "name" : "Ho Mei Restaurant", "restaurant_id" : "40362432" }
```

Q.4

```
Command Prompt - mongo
> db.addresses.find({}, {"restaurant_id" : 1, "name": 1, "borough": 1, "address.zipcode" : 1, "_id": 0});
{ "address" : { "zipcode" : "10462" }, "borough" : "Bronx", "name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }
{ "address" : { "zipcode" : "11225" }, "borough" : "Brooklyn", "name" : "Wendy'S", "restaurant_id" : "30112340" }
{ "address" : { "zipcode" : "10019" }, "borough" : "Manhattan", "name" : "Dj Reynolds Pub And Restaurant", "restaurant_id" : "30191841" }
{ "address" : { "zipcode" : "11224" }, "borough" : "Brooklyn", "name" : "Riviera Caterer", "restaurant_id" : "40356018" }
{ "address" : { "zipcode" : "11374" }, "borough" : "Queens", "name" : "Tov Kosher Kitchen", "restaurant_id" : "40356068" }
{ "address" : { "zipcode" : "11369" }, "borough" : "Queens", "name" : "Brunos On The Boulevard", "restaurant_id" : "40356151" }
{ "address" : { "zipcode" : "10314" }, "borough" : "Staten Island", "name" : "Kosher Island", "restaurant_id" : "40356442" }
{ "address" : { "zipcode" : "11234" }, "borough" : "Brooklyn", "name" : "Wilken'S Fine Food", "restaurant_id" : "40356483" }
{ "address" : { "zipcode" : "11219" }, "borough" : "Brooklyn", "name" : "Regina Caterers", "restaurant_id" : "40356649" }
{ "address" : { "zipcode" : "11226" }, "borough" : "Brooklyn", "name" : "Taste The Tropics Ice Cream", "restaurant_id" : "40356731" }
{ "address" : { "zipcode" : "10460" }, "borough" : "Bronx", "name" : "Wild Asia", "restaurant_id" : "40357217" }
{ "address" : { "zipcode" : "11214" }, "borough" : "Brooklyn", "name" : "C & C Catering Service", "restaurant_id" : "40357437" }
{ "address" : { "zipcode" : "11208" }, "borough" : "Brooklyn", "name" : "May May Kitchen", "restaurant_id" : "40358429" }
{ "address" : { "zipcode" : "10065" }, "borough" : "Manhattan", "name" : "1 East 66Th Street Kitchen", "restaurant_id" : "40359480" }
{ "address" : { "zipcode" : "11223" }, "borough" : "Brooklyn", "name" : "Seuda Foods", "restaurant_id" : "40360045" }
{ "address" : { "zipcode" : "11218" }, "borough" : "Brooklyn", "name" : "Carvel Ice Cream", "restaurant_id" : "40360076" }
{ "address" : { "zipcode" : "11004" }, "borough" : "Queens", "name" : "Carvel Ice Cream", "restaurant_id" : "40361322" }
{ "address" : { "zipcode" : "11209" }, "borough" : "Brooklyn", "name" : "Nordic Delicacies", "restaurant_id" : "40361390" }
{ "address" : { "zipcode" : "10021" }, "borough" : "Manhattan", "name" : "Glorious Food", "restaurant_id" : "40361521" }
{ "address" : { "zipcode" : "11215" }, "borough" : "Brooklyn", "name" : "The Movable Feast", "restaurant_id" : "40361606" }
Type "it" for more
> it
{ "address" : { "zipcode" : "11356" }, "borough" : "Queens", "name" : "Sal'S Deli", "restaurant_id" : "40361618" }
{ "address" : { "zipcode" : "10003" }, "borough" : "Manhattan", "name" : "Bully'S Deli", "restaurant_id" : "40361708" }
{ "address" : { "zipcode" : "11106" }, "borough" : "Queens", "name" : "Steve Chu'S Deli & Grocery", "restaurant_id" : "40361998" }
{ "address" : { "zipcode" : "10024" }, "borough" : "Manhattan", "name" : "Harriet'S Kitchen", "restaurant_id" : "40362098" }
{ "address" : { "zipcode" : "10025" }, "borough" : "Manhattan", "name" : "P & S Deli Grocery", "restaurant_id" : "40362264" }
{ "address" : { "zipcode" : "10012" }, "borough" : "Manhattan", "name" : "Angelika Film Center", "restaurant_id" : "40362274" }
{ "address" : { "zipcode" : "11205" }, "borough" : "Brooklyn", "name" : "White Castle", "restaurant_id" : "40362344" }
{ "address" : { "zipcode" : "11368" }, "borough" : "Queens", "name" : "Ho Mei Restaurant", "restaurant_id" : "40362432" }
```

Q.5

```
Command Prompt - mongo
> db.addresses.find({"borough": "Bronx"}).limit(5);
{ "_id" : ObjectId("610789f4d723a7b75462bedb"), "address" : { "building" : "1007", "coord" : [ -73.856077, 40.848447 ], "street" : "Morris Park Ave", "zipcode" : "10462" }, "borough" : "Bronx", "cuisine" : "Bakery", "grades" : [ { "date" : ISODate("2014-03-03T00:00:00Z"), "grade" : "A", "score" : 2 }, { "date" : ISODate("2013-09-11T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("2013-01-24T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-11-23T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2011-03-10T00:00:00Z"), "grade" : "B", "score" : 14 } ], "name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }
{ "_id" : ObjectId("610789f4d723a7b75462bee5"), "address" : { "building" : "2300", "coord" : [ -73.8786113, 40.8502883 ], "street" : "Southern Boulevard", "zipcode" : "10460" }, "borough" : "Bronx", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-05-28T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2013-06-19T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" : ISODate("2012-06-15T00:00:00Z"), "grade" : "A", "score" : 3 } ], "name" : "Wild Asia", "restaurant_id" : "40357217" }
{ "_id" : ObjectId("610789f4d723a7b75462befa"), "address" : { "building" : "1006", "coord" : [ -73.84856870000002, 40.8903781 ], "street" : "East 233 Street", "zipcode" : "10466" }, "borough" : "Bronx", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "grades" : [ { "date" : ISODate("2014-04-24T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-09-05T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-02-21T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-07-03T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-07-11T00:00:00Z"), "grade" : "A", "score" : 5 } ], "name" : "Carvel Ice Cream", "restaurant_id" : "40363093" }
{ "_id" : ObjectId("610789f4d723a7b75462befb"), "address" : { "building" : "1236", "coord" : [ -73.8893654, 40.81376179999999 ], "street" : "238 Spofford Ave", "zipcode" : "10474" }, "borough" : "Bronx", "cuisine" : "Chinese", "grades" : [ { "date" : ISODate("2013-12-30T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2013-01-08T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-06-12T00:00:00Z"), "grade" : "B", "score" : 15 } ], "name" : "Happy Garden", "restaurant_id" : "40363289" }
{ "_id" : ObjectId("610789f4d723a7b75462bf10"), "address" : { "building" : "277", "coord" : [ -73.8941893, 40.8634684 ], "street" : "East Kingsbridge Road", "zipcode" : "10458" }, "borough" : "Bronx", "cuisine" : "Chinese", "grades" : [ { "date" : ISODate("2014-03-03T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-09-26T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-03-19T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-08-29T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-08-17T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Happy Garden", "restaurant_id" : "40364296" }
>
```

Q.6

```
Command Prompt - mongo
> db.addresses.find({"borough": "Bronx"})
{ "_id" : ObjectId("610789f4d723a7b75462bedb"), "address" : { "building" : "1007", "coord" : [ -73.856077, 40.848447 ], "street" : "Morris Park Ave", "zipcode" : "10462" }, "borough" : "Bronx", "cuisine" : "Bakery", "grades" : [ { "date" : ISODate("2014-03-03T00:00:00Z"), "grade" : "A", "score" : 2 }, { "date" : ISODate("2013-09-11T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("2013-01-24T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-11-23T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2011-03-10T00:00:00Z"), "grade" : "B", "score" : 14 } ], "name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }
{ "_id" : ObjectId("610789f4d723a7b75462bee5"), "address" : { "building" : "2300", "coord" : [ -73.8786113, 40.8502883 ], "street" : "Southern Boulevard", "zipcode" : "10460" }, "borough" : "Bronx", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-05-28T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2013-06-19T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" : ISODate("2012-06-15T00:00:00Z"), "grade" : "A", "score" : 3 } ], "name" : "Wild Asia", "restaurant_id" : "40357217" }
{ "_id" : ObjectId("610789f4d723a7b75462befa"), "address" : { "building" : "1006", "coord" : [ -73.84356870000002, 40.8903781 ], "street" : "East 233 Street", "zipcode" : "10466" }, "borough" : "Bronx", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "grades" : [ { "date" : ISODate("2014-04-24T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-09-05T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-02-21T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-07-03T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-07-11T00:00:00Z"), "grade" : "A", "score" : 5 } ], "name" : "Carvel Ice Cream", "restaurant_id" : "40363093" }
{ "_id" : ObjectId("610789f4d723a7b75462befe"), "address" : { "building" : "1236", "coord" : [ -73.8893654, 40.81376179999999 ], "street" : "238 Spofford Ave", "zipcode" : "10474" }, "borough" : "Bronx", "cuisine" : "Chinese", "grades" : [ { "date" : ISODate("2013-12-30T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2013-01-08T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-06-12T00:00:00Z"), "grade" : "B", "score" : 15 } ], "name" : "Happy Garden", "restaurant_id" : "40363289" }
{ "_id" : ObjectId("610789f4d723a7b75462bf10"), "address" : { "building" : "277", "coord" : [ -73.8941893, 40.8634684 ], "street" : "East Kingsbridge Road", "zipcode" : "10458" }, "borough" : "Bronx", "cuisine" : "Chinese", "grades" : [ { "date" : ISODate("2014-03-03T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-09-26T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-03-19T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-08-29T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-08-17T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Happy Garden", "restaurant_id" : "40364296" }
{ "_id" : ObjectId("610789f4d723a7b75462bf18"), "address" : { "building" : "658", "coord" : [ -73.81363999999999, 40.82941100000001 ], "street" : "Clarence Ave", "zipcode" : "10465" }, "borough" : "Bronx", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-06-21T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2012-07-11T00:00:00Z"), "grade" : "A", "score" : 10 } ], "name" : "Manhem Club", "restaurant_id" : "40364363" }
{ "_id" : ObjectId("610789f4d723a7b75462bf30"), "address" : { "building" : "2222", "coord" : [ -73.84971759999999, 40.8304811 ], "street" : "Haviland Avenue", "zipcode" : "10462" }, "borough" : "Bronx", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-12-18T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2014-05-01T00:00:00Z"), "grade" : "B", "score" : 17 }, { "date" : ISODate("2013-03-14T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-09-20T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-02-08T00:00:00Z"), "grade" : "B", "score" : 19 } ], "name" : "The New Starling Athletic Club Of The Bronx", "restaurant_id" : "40364956" }
{ "_id" : ObjectId("610789f4d723a7b75462bf48"), "address" : { "building" : "72", "coord" : [ -73.92506, 40.8275556 ], "street" : "East 161 Street", "zipcode" : "10451" }, "borough" : "Bronx", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-04-15T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2013-11-14T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" : ISODate("2013-07-29T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-12-31T00:00:00Z"), "grade" : "B", "score" : 15 }, { "date" : ISODate("2012-05-30T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-01-09T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-08-15T00:00:00Z"), "grade" : "C", "score" : 37 } ], "name" : "Yankee Tavern", "restaurant_id" : "40365499" }
{ "_id" : ObjectId("610789f4d723a7b75462bf5b"), "address" : { "building" : "331", "coord" : [ -73.87786539999999, 40.8724377 ], "street" : "East 204 Street", "zipcode" : "10467" }, "borough" : "Bronx", "cuisine" : "Irish", "grades" : [ { "date" : ISODate("2014-08-26T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2014-03-26T00:00:00Z"), "grade" : "B", "score" : 23 }, { "date" : ISODate("2013-09-11T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-12-18T00:00:00Z"), "grade" : "B", "score" : 27 }, { "date" : ISODate("2011-10-20T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "McDwyers Pub", "restaurant_id" : "40365893" }
{ "_id" : ObjectId("610789f4d723a7b75462bf74"), "address" : { "building" : "5820", "coord" : [ -73.9002615, 40.885186 ], "street" : "B roadway", "zipcode" : "10463" }, "borough" : "Bronx", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-02-26T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2013-10-09T00:00:00Z"), "grade" : "B", "score" : 19 }, { "date" : ISODate("2013-05-15T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-11-20T00:00:00Z"), "grade" : "B", "score" : 18 }, { "date" : ISODate("2011-10-17T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-06-22T00:00:00Z"), "grade" : "C", "score" : 35 } ], "name" : "The Punch Bowl", "restaurant_id" : "40366497" }
>
```

Q.7

```
Command Prompt - mongo
> db.addresses.find({"borough": "Bronx"}).skip(5).limit(5)
{ "_id" : ObjectId("610789f4d723a7b75462bf18"), "address" : { "building" : "658", "coord" : [ -73.81363999999999, 40.82941100000001 ], "street" : "Clarence Ave", "zipcode" : "10465" }, "borough" : "Bronx", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-06-21T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2012-07-11T00:00:00Z"), "grade" : "A", "score" : 10 } ], "name" : "Manhem Club", "restaurant_id" : "40364363" }
{ "_id" : ObjectId("610789f4d723a7b75462bf30"), "address" : { "building" : "2222", "coord" : [ -73.84971759999999, 40.8304811 ], "street" : "Haviland Avenue", "zipcode" : "10462" }, "borough" : "Bronx", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-12-18T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2014-05-01T00:00:00Z"), "grade" : "B", "score" : 17 }, { "date" : ISODate("2013-03-14T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-09-20T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-02-08T00:00:00Z"), "grade" : "B", "score" : 19 } ], "name" : "The New Starling Athletic Club Of The Bronx", "restaurant_id" : "40364956" }
{ "_id" : ObjectId("610789f4d723a7b75462bf48"), "address" : { "building" : "72", "coord" : [ -73.92506, 40.8275556 ], "street" : "East 161 Street", "zipcode" : "10451" }, "borough" : "Bronx", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-04-15T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2013-11-14T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" : ISODate("2013-07-29T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-12-31T00:00:00Z"), "grade" : "B", "score" : 15 }, { "date" : ISODate("2012-05-30T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-01-09T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-08-15T00:00:00Z"), "grade" : "C", "score" : 37 } ], "name" : "Yankee Tavern", "restaurant_id" : "40365499" }
{ "_id" : ObjectId("610789f4d723a7b75462bf5b"), "address" : { "building" : "331", "coord" : [ -73.87786539999999, 40.8724377 ], "street" : "East 204 Street", "zipcode" : "10467" }, "borough" : "Bronx", "cuisine" : "Irish", "grades" : [ { "date" : ISODate("2014-08-26T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2014-03-26T00:00:00Z"), "grade" : "B", "score" : 23 }, { "date" : ISODate("2013-09-11T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-12-18T00:00:00Z"), "grade" : "B", "score" : 27 }, { "date" : ISODate("2011-10-20T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "McDwyers Pub", "restaurant_id" : "40365893" }
{ "_id" : ObjectId("610789f4d723a7b75462bf74"), "address" : { "building" : "5820", "coord" : [ -73.9002615, 40.885186 ], "street" : "B roadway", "zipcode" : "10463" }, "borough" : "Bronx", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-02-26T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2013-10-09T00:00:00Z"), "grade" : "B", "score" : 19 }, { "date" : ISODate("2013-05-15T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-11-20T00:00:00Z"), "grade" : "B", "score" : 18 }, { "date" : ISODate("2011-10-17T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-06-22T00:00:00Z"), "grade" : "C", "score" : 35 } ], "name" : "The Punch Bowl", "restaurant_id" : "40366497" }
>
```


Q.8

```
Command Prompt - mongo
> db.addresses.find({grades : { $elemMatch:{ "score":{ $gt : 90 }}}})
{ "_id" : ObjectId("610789f4d723a7b75462c039"), "address" : { "building" : "65", "coord" : [ -73.9782725, 40.7624022 ], "street" : "West 54 Street", "zipcode" : "10019" }, "borough" : "Manhattan", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-08-22T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2014-03-28T00:00:00Z"), "grade" : "C", "score" : 131 }, { "date" : ISODate("2013-09-25T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2013-04-08T00:00:00Z"), "grade" : "B", "score" : 25 }, { "date" : ISODate("2012-10-15T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-10-19T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Murals On 54/Randolphs'S", "restaurant_id" : "40372466" },
{ "_id" : ObjectId("610789f4d723a7b75462c0da"), "address" : { "building" : "345", "coord" : [ -73.9864626, 40.7266739 ], "street" : "East 6 Street", "zipcode" : "10003" }, "borough" : "Manhattan", "cuisine" : "Indian", "grades" : [ { "date" : ISODate("2014-09-15T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2014-01-14T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2013-05-30T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2013-04-24T00:00:00Z"), "grade" : "P", "score" : 2 }, { "date" : ISODate("2012-10-01T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-04-06T00:00:00Z"), "grade" : "C", "score" : 92 }, { "date" : ISODate("2011-11-03T00:00:00Z"), "grade" : "C", "score" : 41 } ], "name" : "Gandhi", "restaurant_id" : "40381295" },
{ "_id" : ObjectId("610789f4d723a7b75462c23d"), "address" : { "building" : "130", "coord" : [ -73.984758, 40.7457939 ], "street" : "Madison Avenue", "zipcode" : "10016" }, "borough" : "Manhattan", "cuisine" : "Pizza/Italian", "grades" : [ { "date" : ISODate("2014-12-24T00:00:00Z"), "grade" : "Z", "score" : 31 }, { "date" : ISODate("2014-06-17T00:00:00Z"), "grade" : "C", "score" : 98 }, { "date" : ISODate("2013-12-12T00:00:00Z"), "grade" : "C", "score" : 32 }, { "date" : ISODate("2013-05-22T00:00:00Z"), "grade" : "B", "score" : 21 }, { "date" : ISODate("2012-05-02T00:00:00Z"), "grade" : "A", "score" : 11 } ], "name" : "Bella Napoli", "restaurant_id" : "40393488" },
{ }
>
```

Q.9

```
Command Prompt - mongo
> db.addresses.find({grades : { $elemMatch:{ "score":{ $gt : 80 , $lt :100 }}}})
{ "_id" : ObjectId("610789f4d723a7b75462c0da"), "address" : { "building" : "345", "coord" : [ -73.9864626, 40.7266739 ], "street" : "East 6 Street", "zipcode" : "10003" }, "borough" : "Manhattan", "cuisine" : "Indian", "grades" : [ { "date" : ISODate("2014-09-15T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2014-01-14T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2013-05-30T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2013-04-24T00:00:00Z"), "grade" : "P", "score" : 2 }, { "date" : ISODate("2012-10-01T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-04-06T00:00:00Z"), "grade" : "C", "score" : 92 }, { "date" : ISODate("2011-11-03T00:00:00Z"), "grade" : "C", "score" : 41 } ], "name" : "Gandhi", "restaurant_id" : "40381295" },
{ "_id" : ObjectId("610789f4d723a7b75462c23d"), "address" : { "building" : "130", "coord" : [ -73.984758, 40.7457939 ], "street" : "Madison Avenue", "zipcode" : "10016" }, "borough" : "Manhattan", "cuisine" : "Pizza/Italian", "grades" : [ { "date" : ISODate("2014-12-24T00:00:00Z"), "grade" : "Z", "score" : 31 }, { "date" : ISODate("2014-06-17T00:00:00Z"), "grade" : "C", "score" : 98 }, { "date" : ISODate("2013-12-12T00:00:00Z"), "grade" : "C", "score" : 32 }, { "date" : ISODate("2013-05-22T00:00:00Z"), "grade" : "B", "score" : 21 }, { "date" : ISODate("2012-05-02T00:00:00Z"), "grade" : "A", "score" : 11 } ], "name" : "Bella Napoli", "restaurant_id" : "40393488" },
{ "_id" : ObjectId("610789f6d723a7b75462caa9"), "address" : { "building" : "", "coord" : [ -74.0163793, 40.7167671 ], "street" : "Hudson River", "zipcode" : "10282" }, "borough" : "Manhattan", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-06-27T00:00:00Z"), "grade" : "C", "score" : 89 }, { "date" : ISODate("2013-06-06T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("2012-06-19T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "West 79Th Street Boat Basin Cafe", "restaurant_id" : "40756344" },
{ }
>
```

Q.10

```
Command Prompt - mongo
> db.addresses.find({"address.coord" : {$lt : -95.754168}})
{ "_id" : ObjectId("610789f5d723a7b75462c523"), "address" : { "building" : "3707", "coord" : [ -101.8945214, 33.5197474 ], "street" : "82 Street", "zipcode" : "11372" }, "borough" : "Queens", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-06-04T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2013-11-07T00:00:00Z"), "grade" : "B", "score" : 19 }, { "date" : ISODate("2013-05-17T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-08-29T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-04-03T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-11-16T00:00:00Z"), "grade" : "A", "score" : 7 } ], "name" : "Burger King", "restaurant_id" : "40534067" }
{ "_id" : ObjectId("610789f6d723a7b75462c88e"), "address" : { "building" : "15259", "coord" : [ -119.6368672, 36.2504996 ], "street" : "10 Avenue", "zipcode" : "11357" }, "borough" : "Queens", "cuisine" : "Italian", "grades" : [ { "date" : ISODate("2014-09-04T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2014-03-26T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2013-03-04T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-09-27T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-04-20T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2011-11-23T00:00:00Z"), "grade" : "C", "score" : 34 } ], "name" : "Cascarino'S", "restaurant_id" : "40668681" }
{ "_id" : ObjectId("610789f6d723a7b75462cd34"), "address" : { "building" : "60", "coord" : [ -111.9975205, 42.0970258 ], "street" : "West 54 Street", "zipcode" : "10006" }, "borough" : "Manhattan", "cuisine" : "Japanese", "grades" : [ { "date" : ISODate("2014-03-20T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2013-06-28T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-07-05T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2011-07-27T00:00:00Z"), "grade" : "A", "score" : 2 } ], "name" : "Sports Center At Chelsea Piers (Sushi Bar)", "restaurant_id" : "40882356" }
>
```

Q.11, 12

```
Command Prompt - mongo
> db.addresses.find({"cuisine":{"$ne":"American"},"grades.score":{"$gt":70},"address.coord":{"$lt":-65.754168}})
{ "_id" : ObjectId("610789f4d723a7b75462c039"), "address" : { "building" : "65", "coord" : [ -73.9782725, 40.7624022 ], "street" : "West 54 Street", "zipcode" : "10019" }, "borough" : "Manhattan", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-08-22T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2014-03-28T00:00:00Z"), "grade" : "C", "score" : 131 }, { "date" : ISODate("2013-09-25T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2013-04-08T00:00:00Z"), "grade" : "B", "score" : 25 }, { "date" : ISODate("2012-10-15T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-10-19T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Murals On 54/Randolphs'S", "restaurant_id" : "40372466" }
{ "_id" : ObjectId("610789f4d723a7b75462c0da"), "address" : { "building" : "345", "coord" : [ -73.9864626, 40.7266739 ], "street" : "East 6 Street", "zipcode" : "10003" }, "borough" : "Manhattan", "cuisine" : "Indian", "grades" : [ { "date" : ISODate("2014-09-15T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2014-01-14T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2013-05-30T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2013-04-24T00:00:00Z"), "grade" : "P", "score" : 2 }, { "date" : ISODate("2012-10-01T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-04-06T00:00:00Z"), "grade" : "C", "score" : 92 }, { "date" : ISODate("2011-11-03T00:00:00Z"), "grade" : "C", "score" : 41 } ], "name" : "Gandhi", "restaurant_id" : "40381295" }
{ "_id" : ObjectId("610789f4d723a7b75462c168"), "address" : { "building" : "14", "coord" : [ -73.9883909, 40.740735 ], "street" : "East 23 Street", "zipcode" : "10010" }, "borough" : "Manhattan", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-10-28T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2014-04-10T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2013-08-08T00:00:00Z"), "grade" : "C", "score" : 58 }, { "date" : ISODate("2013-02-14T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-06-15T00:00:00Z"), "grade" : "C", "score" : 71 } ], "name" : "Live Bait Bar & Restaurant", "restaurant_id" : "40387237" }
{ "_id" : ObjectId("610789f4d723a7b75462c23d"), "address" : { "building" : "130", "coord" : [ -73.984758, 40.7457939 ], "street" : "Madison Avenue", "zipcode" : "10016" }, "borough" : "Manhattan", "cuisine" : "Pizza/Italian", "grades" : [ { "date" : ISODate("2014-12-24T00:00:00Z"), "grade" : "Z", "score" : 31 }, { "date" : ISODate("2014-06-17T00:00:00Z"), "grade" : "C", "score" : 98 }, { "date" : ISODate("2013-12-12T00:00:00Z"), "grade" : "C", "score" : 32 }, { "date" : ISODate("2013-05-22T00:00:00Z"), "grade" : "B", "score" : 21 }, { "date" : ISODate("2012-05-02T00:00:00Z"), "grade" : "A", "score" : 11 } ], "name" : "Bella Napoli", "restaurant_id" : "40393488" }
{ "_id" : ObjectId("610789f4d723a7b75462c248"), "address" : { "building" : "101", "coord" : [ -73.9243061, 40.8276297 ], "street" : "East 161 Street", "zipcode" : "10451" }, "borough" : "Bronx", "cuisine" : "Latin (Cuban, Dominican, Puerto Rican, South & Central American)", "grades" : [ { "date" : ISODate("2014-04-10T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-10-01T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("2013-04-11T00:00:00Z"), "grade" : "B", "score" : 25 }, { "date" : ISODate("2012-10-25T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-10-10T00:00:00Z"), "grade" : "P", "score" : 12 }, { "date" : ISODate("2012-05-25T00:00:00Z"), "grade" : "B", "score" : 14 }, { "date" : ISODate("2011-09-14T00:00:00Z"), "grade" : "B", "score" : 14 } ], "name" : "Bella Napoli", "restaurant_id" : "40393488" }
```

Q.13

```
> use restaurants
switched to db restaurants
> show collections
addresses
>
> db.addresses.find({"cuisine":{$ne:"American"},"grades.grade":"A","borough":{$ne:"Brooklyn"}}).sort({"cuisine":-1});
{ "_id" : ObjectId("610789f5d723a7b75462c5e7"), "address" : { "building" : "89", "coord" : [ -73.9995899, 40.7168015 ], "street" : "Baxter Street", "zipcode" : "10013" }, "borough" : "Manhattan", "cuisine" : "Vietnamese/Cambodian/Malaysia", "grades" : [ { "date" : ISODate("2014-08-21T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2013-08-31T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2013-04-11T00:00:00Z"), "grade" : "C", "score" : 3 }, { "date" : ISODate("2012-10-17T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" : ISODate("2012-05-15T00:00:00Z"), "grade" : "A", "score" : 10 } ], "name" : "Thai Son", "restaurant_id" : "40559606" }
{ "_id" : ObjectId("610789f5d723a7b75462c6a0"), "address" : { "building" : "8278", "coord" : [ -73.88143509999999, 40.7412552 ], "street" : "Broadway", "zipcode" : "11373" }, "borough" : "Queens", "cuisine" : "Vietnamese/Cambodian/Malaysia", "grades" : [ { "date" : ISODate("2014-06-12T00:00:00Z"), "grade" : "B", "score" : 21 }, { "date" : ISODate("2013-05-20T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-12-26T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-12-03T00:00:00Z"), "grade" : "P", "score" : 5 }, { "date" : ISODate("2012-05-04T00:00:00Z"), "grade" : "B", "score" : 27 } ], "name" : "Pho Bac Vietnamese Seafood Cuisine", "restaurant_id" : "40578058" }
{ "_id" : ObjectId("610789f6d723a7b75462ca89"), "address" : { "building" : "148", "coord" : [ -74.000254, 40.7172727 ], "street" : "Centre Street", "zipcode" : "10013" }, "borough" : "Manhattan", "cuisine" : "Vietnamese/Cambodian/Malaysia", "grades" : [ { "date" : ISODate("2014-10-01T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2014-05-19T00:00:00Z"), "grade" : "C", "score" : 5 }, { "date" : ISODate("2013-11-15T00:00:00Z"), "grade" : "B", "score" : 14 }, { "date" : ISODate("2013-03-08T00:00:00Z"), "grade" : "B", "score" : 25 }, { "date" : ISODate("2012-05-22T00:00:00Z"), "grade" : "B", "score" : 23 }, { "date" : ISODate("2011-10-27T00:00:00Z"), "grade" : "A", "score" : 9 } ], "name" : "Nha-Trang Centre Vietnam Restaurant", "restaurant_id" : "40751226" }
{ "_id" : ObjectId("610789f4d723a7b75462c18b"), "address" : { "building" : "300", "coord" : [ -73.985568, 40.7307496 ], "street" : "East 12 Street", "zipcode" : "10003" }, "borough" : "Manhattan", "cuisine" : "Vegetarian", "grades" : [ { "date" : ISODate("2014-02-05T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2013-04-24T00:00:00Z"), "grade" : "B", "score" : 19 }, { "date" : ISODate("2012-01-17T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-07-25T00:00:00Z"), "grade" : "A", "score" : 10 } ], "name" : "Angelica Kitchen", "restaurant_id" : "40388281" }
{ "_id" : ObjectId("610789f5d723a7b75462c340"), "address" : { "building" : "1307", "coord" : [ -73.9589834, 40.77141839999999 ], "street" : "3 Avenue", "zipcode" : "10021" }, "borough" : "Manhattan", "cuisine" : "Vegetarian", "grades" : [ { "date" : ISODate("2014-12-03T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2014-02-18T00:00:00Z"), "grade" : "B", "score" : 22 }, { "date" : ISO
```

Q.14

```

> db
restaurants
> db.addresses.find({name:/^Wil/},{restaurant_id":1,"name":1,"borough":1,"cuisine":1});
{ "_id" : ObjectId("610789f4d723a7b75462bee2"), "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Wilken'S Fine Food", "restaurant_id" : "40356483" }
{ "_id" : ObjectId("610789f4d723a7b75462bee5"), "borough" : "Bronx", "cuisine" : "American ", "name" : "Wild Asia", "restaurant_id" : "40357217" }
{ "_id" : ObjectId("610789f6d723a7b75462ccea"), "borough" : "Bronx", "cuisine" : "Pizza", "name" : "Wilbel Pizza", "restaurant_id" : "40871979" }
>

```

Q.15

```
> db.addresses.find({name:/ces$/},{ "restaurant_id":1,"name":1,"borough":1,"cuisine":1})
{ "_id" : ObjectId("610789f5d723a7b75462c36e"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "Pieces", "restaurant_id" :
"40399910" }
{ "_id" : ObjectId("610789f5d723a7b75462c42d"), "borough" : "Queens", "cuisine" : "American ", "name" : "S.M.R Restaurant Services", "
restaurant_id" : "40403857" }
{ "_id" : ObjectId("610789f5d723a7b75462c433"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "Good Shepherd Services", "
restaurant_id" : "40403989" }
{ "_id" : ObjectId("610789f6d723a7b75462c8e6"), "borough" : "Queens", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "The Ice
Box-Ralph'S Famous Italian Ices", "restaurant_id" : "40698899" }
{ "_id" : ObjectId("610789f6d723a7b75462cae8"), "borough" : "Brooklyn", "cuisine" : "Jewish/Kosher", "name" : "Alices", "restaurant_id
" : "40782042" }
{ "_id" : ObjectId("610789f6d723a7b75462cd04"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "Re: Sources", "restaurant_
id" : "40876068" }
>
```

Q.16

```
> db.addresses.find({"name": /. *Reg. */}, {"restaurant_id": 1, "name": 1, "borough": 1, "cuisine": 1})
{ "_id" : ObjectId("610789f4d723a7b75462bee3"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Regina Caterers", "restaurant_id" : "40356649" }
{ "_id" : ObjectId("610789f4d723a7b75462bfe0"), "borough" : "Manhattan", "cuisine" : "Café/Coffee/Tea", "name" : "Caffe Reggio", "restaurant_id" : "40369418" }
{ "_id" : ObjectId("610789f4d723a7b75462c0ef"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "Regency Hotel", "restaurant_id" : "40382679" }
{ "_id" : ObjectId("610789f5d723a7b75462c40c"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "Regency Whist Club", "restaurant_id" : "40402377" }
{ "_id" : ObjectId("610789f5d723a7b75462cef"), "borough" : "Queens", "cuisine" : "American ", "name" : "Rego Park Cafe", "restaurant_id" : "40523342" }
{ "_id" : ObjectId("610789f6d723a7b75462cb5d"), "borough" : "Queens", "cuisine" : "Pizza", "name" : "Regina Pizza", "restaurant_id" : "40801325" }
{ "_id" : ObjectId("610789f6d723a7b75462cd74"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "Regal Entertainment Group", "restaurant_id" : "40891782" }
>
```

Q.17

```
Command Prompt - mongo
> db
restaurants
> db.addresses.find({"borough": "Bronx", $or: [{"cuisine": "American"}, {"cuisine": "Chinese"}]});
{ "_id" : ObjectId("610789f4d723a7b75462befe"), "address" : { "building" : "1236", "coord" : [ -73.8893654, 40.81376179999999 ], "street" : "238 Spofford Ave", "zipcode" : "10474" }, "borough" : "Bronx", "cuisine" : "Chinese", "grades" : [ { "date" : ISODate("2013-12-30T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2013-01-08T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-06-12T00:00:00Z"), "grade" : "B", "score" : 15 } ], "name" : "Happy Garden", "restaurant_id" : "40363289" }
{ "_id" : ObjectId("610789f4d723a7b75462bf10"), "address" : { "building" : "277", "coord" : [ -73.8941893, 40.8634684 ], "street" : "East Kingsbridge Road", "zipcode" : "10458" }, "borough" : "Bronx", "cuisine" : "Chinese", "grades" : [ { "date" : ISODate("2014-03-03T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-09-26T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-03-19T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-08-29T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-08-17T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Happy Garden", "restaurant_id" : "40364296" }
{ "_id" : ObjectId("610789f5d723a7b75462c488"), "address" : { "building" : "2459", "coord" : [ -73.8929629, 40.8601605 ], "street" : "Webster Avenue", "zipcode" : "10458" }, "borough" : "Bronx", "cuisine" : "Chinese", "grades" : [ { "date" : ISODate("2014-12-23T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2014-01-07T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2012-12-28T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-07-18T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "China Wok II", "restaurant_id" : "40510328" }
{ "_id" : ObjectId("610789f5d723a7b75462c513"), "address" : { "building" : "2102", "coord" : [ -73.82609699999999, 40.8687177 ], "street" : "Bartow Ave", "zipcode" : "10475" }, "borough" : "Bronx", "cuisine" : "Chinese", "grades" : [ { "date" : ISODate("2014-08-04T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2014-02-21T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" : ISODate("2013-05-30T00:00:00Z"), "grade" : "B", "score" : 17 }, { "date" : ISODate("2012-04-13T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Dragon City", "restaurant_id" : "40529203" }
{ "_id" : ObjectId("610789f5d723a7b75462c5c2"), "address" : { "building" : "3511", "coord" : [ -73.9100876, 40.8860444 ], "street" : "Johnson Avenue", "zipcode" : "10463" }, "borough" : "Bronx", "cuisine" : "Chinese", "grades" : [ { "date" : ISODate("2014-07-02T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2013-11-06T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2013-03-29T00:00:00Z"), "grade" : "B", "score" : 17 }, { "date" : ISODate("2012-06-20T00:00:00Z"), "grade" : "B", "score" : 27 } ], "name" : "Hunan Balcony", "restaurant_id" : "40551996" }
{ "_id" : ObjectId("610789f5d723a7b75462c5c3"), "address" : { "building" : "732", "coord" : [ -73.883128, 40.85353 ], "street" : "East 187 Street", "zipcode" : "10458" }, "borough" : "Bronx", "cuisine" : "Chinese", "grades" : [ { "date" : ISODate("2014-11-07T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2014-05-15T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2013-11-18T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2013-06-10T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-09-17T00:00:00Z"), "grade" : "B", "score" : 19 } ], "name" : "Great Wall Restaurant", "restaurant_id" : "40552226" }
```


Q.18

```
Command Prompt - mongo
ant_id" : "40364355" }
Type "it" for more
>
> db.addresses.find({"borough":{"$ne":["Staten Island","Queens","Bronx","Brooklyn"]}},{"restaurant_id":1,"name":1,"borough":1, "cuisine":1});
{ "_id" : ObjectId("610789f4d723a7b75462bedb"), "borough" : "Bronx", "cuisine" : "Bakery", "name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }
{ "_id" : ObjectId("610789f4d723a7b75462bedc"), "borough" : "Brooklyn", "cuisine" : "Hamburgers", "name" : "Wendy'S", "restaurant_id" : "30112340" }
{ "_id" : ObjectId("610789f4d723a7b75462bedd"), "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Dj Reynolds Pub And Restaurant", "restaurant_id" : "30191841" }
{ "_id" : ObjectId("610789f4d723a7b75462bede"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Riviera Caterer", "restaurant_id" : "40356018" }
{ "_id" : ObjectId("610789f4d723a7b75462bedf"), "borough" : "Queens", "cuisine" : "Jewish/Kosher", "name" : "Tov Kosher Kitchen", "restaurant_id" : "40356068" }
{ "_id" : ObjectId("610789f4d723a7b75462bee0"), "borough" : "Queens", "cuisine" : "American ", "name" : "Brunos On The Boulevard", "restaurant_id" : "40356151" }
{ "_id" : ObjectId("610789f4d723a7b75462bee1"), "borough" : "Staten Island", "cuisine" : "Jewish/Kosher", "name" : "Kosher Island", "restaurant_id" : "40356442" }
{ "_id" : ObjectId("610789f4d723a7b75462bee2"), "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Wilken'S Fine Food", "restaurant_id" : "40356483" }
{ "_id" : ObjectId("610789f4d723a7b75462bee3"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Regina Caterers", "restaurant_id" : "40356649" }
{ "_id" : ObjectId("610789f4d723a7b75462bee4"), "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Taste The Tropics Ice Cream", "restaurant_id" : "40356731" }
{ "_id" : ObjectId("610789f4d723a7b75462bee5"), "borough" : "Bronx", "cuisine" : "American ", "name" : "Wild Asia", "restaurant_id" : "40357217" }
{ "_id" : ObjectId("610789f4d723a7b75462bee6"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "C & C Catering Service", "restaurant_id" : "40357437" }
{ "_id" : ObjectId("610789f4d723a7b75462bee7"), "borough" : "Brooklyn", "cuisine" : "Chinese", "name" : "May May Kitchen", "restaurant_id" : "40358429" }
{ "_id" : ObjectId("610789f4d723a7b75462bee8"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "1 East 66Th Street Kitchen"
Type here to search 25°C AQI 66 9:46 PM 8/2/2021
```

Q.19

```
Command Prompt - mongo
> db
restaurants
> db.addresses.find({"borough":{"$nin":["Staten Island","Queens","Bronx","Brooklyn"]}},{"restaurant_id":1,"name":1,"borough":1, "cuisine":1});
{ "_id" : ObjectId("610789f4d723a7b75462bedd"), "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Dj Reynolds Pub And Restaurant", "restaurant_id" : "30191841" }
{ "_id" : ObjectId("610789f4d723a7b75462bee8"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "1 East 66Th Street Kitchen", "restaurant_id" : "40359480" }
{ "_id" : ObjectId("610789f4d723a7b75462beed"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "Glorious Food", "restaurant_id" : "40361521" }
{ "_id" : ObjectId("610789f4d723a7b75462bef0"), "borough" : "Manhattan", "cuisine" : "Delicatessen", "name" : "Bully'S Deli", "restaurant_id" : "40361708" }
{ "_id" : ObjectId("610789f4d723a7b75462bef2"), "borough" : "Manhattan", "cuisine" : "Chicken", "name" : "Harriet'S Kitchen", "restaurant_id" : "40362098" }
{ "_id" : ObjectId("610789f4d723a7b75462bef3"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "P & S Deli Grocery", "restaurant_id" : "40362264" }
{ "_id" : ObjectId("610789f4d723a7b75462bef4"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "Angelika Film Center", "restaurant_id" : "40362274" }
{ "_id" : ObjectId("610789f4d723a7b75462bef7"), "borough" : "Manhattan", "cuisine" : "Turkish", "name" : "The Country Cafe", "restaurant_id" : "40362715" }
{ "_id" : ObjectId("610789f4d723a7b75462bef9"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "Downtown Deli", "restaurant_id" : "40363021" }
{ "_id" : ObjectId("610789f4d723a7b75462befd"), "borough" : "Manhattan", "cuisine" : "Bakery", "name" : "Olive'S", "restaurant_id" : "40363151" }
{ "_id" : ObjectId("610789f4d723a7b75462beff"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "Cafe Metro", "restaurant_id" : "40363298" }
{ "_id" : ObjectId("610789f4d723a7b75462bf01"), "borough" : "Manhattan", "cuisine" : "Sandwiches/Salads/Mixed Buffet", "name" : "Lexler Deli", "restaurant_id" : "40363426" }
{ "_id" : ObjectId("610789f4d723a7b75462bf05"), "borough" : "Manhattan", "cuisine" : "Continental", "name" : "Lorenzo & Maria'S", "restaurant_id" : "40363630" }
{ "_id" : ObjectId("610789f4d723a7b75462bf06"), "borough" : "Manhattan", "cuisine" : "Pizza", "name" : "Domino'S Pizza", "restaurant_id" : "40363644" }
Type here to search 25°C AQI 66 9:41 PM 8/2/2021
```

Q.20

```
Command Prompt - mongo
> db
restaurants
> db.addresses.find({"grades.score":{$not:{$gt:10}}},{ "restaurant_id":1,"name":1,"borough":1,"cuisine":1});
{ "_id" : ObjectId("610789f4d723a7b75462bee6"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "C & C Catering Service", "restaurant_id" : "40357437" }
{ "_id" : ObjectId("610789f4d723a7b75462bee8"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "1 East 66Th Street Kitchen", "restaurant_id" : "40359480" }
{ "_id" : ObjectId("610789f4d723a7b75462beec"), "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Nordic Delicacies", "restaurant_id" : "40361390" }
{ "_id" : ObjectId("610789f4d723a7b75462bef5"), "borough" : "Brooklyn", "cuisine" : "Hamburgers", "name" : "White Castle", "restaurant_id" : "40362344" }
{ "_id" : ObjectId("610789f4d723a7b75462bf08"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Sonny'S Heros", "restaurant_id" : "40363744" }
{ "_id" : ObjectId("610789f4d723a7b75462bf18"), "borough" : "Bronx", "cuisine" : "American ", "name" : "Manhem Club", "restaurant_id" : "40364363" }
{ "_id" : ObjectId("610789f4d723a7b75462bf26"), "borough" : "Staten Island", "cuisine" : "American ", "name" : "Great Kills Yacht Club", "restaurant_id" : "40364610" }
{ "_id" : ObjectId("610789f4d723a7b75462bf2d"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "Serendipity 3", "restaurant_id" : "40364863" }
{ "_id" : ObjectId("610789f4d723a7b75462bf31"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "White Horse Tavern", "restaurant_id" : "40364958" }
{ "_id" : ObjectId("610789f4d723a7b75462bf3a"), "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Dorrian'S Red Hand Restaurant", "restaurant_id" : "40365239" }
{ "_id" : ObjectId("610789f4d723a7b75462bf8b"), "borough" : "Manhattan", "cuisine" : "Mexican", "name" : "Mexico Lindo Restaurant", "restaurant_id" : "40367038" }
{ "_id" : ObjectId("610789f4d723a7b75462bfab"), "borough" : "Brooklyn", "cuisine" : "Greek", "name" : "El Greco Diner", "restaurant_id" : "40367795" }
{ "_id" : ObjectId("610789f4d723a7b75462bfb1"), "borough" : "Bronx", "cuisine" : "Not Listed/Not Applicable", "name" : "The Lark'S Nest", "restaurant_id" : "40367946" }
{ "_id" : ObjectId("610789f4d723a7b75462bfb2"), "borough" : "Bronx", "cuisine" : "Café/Coffee/Tea", "name" : "Terrace Cafe", "restaurant_id" : "40368018" }
{ "_id" : ObjectId("610789f4d723a7b75462bfb3"), "borough" : "Bronx", "cuisine" : "African", "name" : "African Terrace", "restaurant_id" : "40368045" }
```

Q.21

```
Command Prompt - mongo
> db
restaurants
> db.addresses.find({"or":[{"name":/^Wil/},{ "$and":[{"cuisine":{"$ne:"American"}},{ "cuisine":{"$ne:"Chinese"}}]}]},{ "restaurant_id":1,"name":1,"borough":1,"cuisine":1});
{ "_id" : ObjectId("610789f4d723a7b75462bedb"), "borough" : "Bronx", "cuisine" : "Bakery", "name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }
{ "_id" : ObjectId("610789f4d723a7b75462bedc"), "borough" : "Brooklyn", "cuisine" : "Hamburgers", "name" : "Wendy'S", "restaurant_id" : "30112340" }
{ "_id" : ObjectId("610789f4d723a7b75462bedd"), "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Dj Reynolds Pub And Restaurant", "restaurant_id" : "30191841" }
{ "_id" : ObjectId("610789f4d723a7b75462bede"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Riviera Caterer", "restaurant_id" : "40356018" }
{ "_id" : ObjectId("610789f4d723a7b75462bedf"), "borough" : "Queens", "cuisine" : "Jewish/Kosher", "name" : "Tov Kosher Kitchen", "restaurant_id" : "40356068" }
{ "_id" : ObjectId("610789f4d723a7b75462bee0"), "borough" : "Queens", "cuisine" : "American ", "name" : "Brunos On The Boulevard", "restaurant_id" : "40356151" }
{ "_id" : ObjectId("610789f4d723a7b75462bee1"), "borough" : "Staten Island", "cuisine" : "Jewish/Kosher", "name" : "Kosher Island", "restaurant_id" : "40356442" }
{ "_id" : ObjectId("610789f4d723a7b75462bee2"), "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Wilken'S Fine Food", "restaurant_id" : "40356483" }
{ "_id" : ObjectId("610789f4d723a7b75462bee3"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Regina Caterers", "restaurant_id" : "40356649" }
{ "_id" : ObjectId("610789f4d723a7b75462bee4"), "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Taste The Tropics Ice Cream", "restaurant_id" : "40356731" }
{ "_id" : ObjectId("610789f4d723a7b75462bee5"), "borough" : "Bronx", "cuisine" : "American ", "name" : "Wild Asia", "restaurant_id" : "40357217" }
{ "_id" : ObjectId("610789f4d723a7b75462bee6"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "C & C Catering Service", "restaurant_id" : "40357437" }
{ "_id" : ObjectId("610789f4d723a7b75462bee8"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "1 East 66Th Street Kitchen", "restaurant_id" : "40359480" }
{ "_id" : ObjectId("610789f4d723a7b75462bee9"), "borough" : "Brooklyn", "cuisine" : "Jewish/Kosher", "name" : "Seuda Foods", "restaurant_id" : "40360045" }
```

Q.22

```
Command Prompt - mongo
>
> db.addresses.find({"grades.date":ISODate("2014-08-11T00:00:00Z"),"grades.grade":"A","grades.score":11},{"restaurant_id":1,"name":1,"grades":1});
{ "_id" : ObjectId("610789f4d723a7b75462bf59"), "grades" : [ { "date" : ISODate("2014-08-11T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2013-07-22T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2013-03-14T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-07-02T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-02-02T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-08-24T00:00:00Z"), "grade" : "A", "score" : 11 } ], "name" : "Neary'S Pub", "restaurant_id" : "40365871" }
{ "_id" : ObjectId("610789f4d723a7b75462c034"), "grades" : [ { "date" : ISODate("2014-08-11T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2013-12-10T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2013-06-10T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-06-08T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-01-25T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2011-09-13T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Don Filippo Restaurant", "restaurant_id" : "40372417" }
{ "_id" : ObjectId("610789f5d723a7b75462c2fa"), "grades" : [ { "date" : ISODate("2014-08-11T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("2013-08-29T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2013-04-25T00:00:00Z"), "grade" : "C", "score" : 2 }, { "date" : ISODate("2012-10-23T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-04-16T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-11-15T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Mustang Sally'S Restaurant", "restaurant_id" : "40397374" }
{ "_id" : ObjectId("610789f5d723a7b75462c506"), "grades" : [ { "date" : ISODate("2015-01-12T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2014-08-11T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2014-01-14T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2013-02-07T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-04-30T00:00:00Z"), "grade" : "A", "score" : 11 } ], "name" : "Club Macanudo (Cigar Bar)", "restaurant_id" : "40526406" }
{ "_id" : ObjectId("610789f5d723a7b75462c5fb"), "grades" : [ { "date" : ISODate("2014-08-11T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2014-01-09T00:00:00Z"), "grade" : "B", "score" : 27 }, { "date" : ISODate("2013-06-11T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" : ISODate("2012-10-09T00:00:00Z"), "grade" : "B", "score" : 19 }, { "date" : ISODate("2012-05-10T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-11-23T00:00:00Z"), "grade" : "A", "score" : 9 } ], "name" : "Marino'S Pizza & Restaurant", "restaurant_id" : "40560917" }
{ "_id" : ObjectId("610789f6d723a7b75462c7a3"), "grades" : [ { "date" : ISODate("2015-01-05T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2014-08-11T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2014-03-04T00:00:00Z"), "grade" : "B", "score" : 22 }, { "date" : ISODate("2013-09-13T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2013-01-16T00:00:00Z"), "grade" : "A", "score" : 11 } ], "name" : "Gene'S Coffee Shop", "restaurant_id" : "40614916" }
{ "_id" : ObjectId("610789f6d723a7b75462c911"), "grades" : [ { "date" : ISODate("2014-08-11T00:00:00Z"), "grade" : "A", "score" : 10 } ] }
```

Q.23

```
Command Prompt - mongo
> db
restaurants
> db.addresses.find({"grades.1.date":ISODate("2014-08-11T00:00:00Z"),"grades.1.grade":"A","grades.1.score":9},{"restaurant_id":1,"name":1,"grades":1});
{ "_id" : ObjectId("610789f4d723a7b75462c17d"), "address" : { "building" : "47", "coord" : [ -78.877224, 42.89546199999999 ] }, "street" : "Broadway @ Trinity Pl", "zipcode" : "10006" }, "name" : "T.G.I. Friday'S", "restaurant_id" : "40387990" }
{ "_id" : ObjectId("610789f4d723a7b75462c1a9"), "address" : { "building" : "11", "coord" : [ -0.7119979, 51.6514664 ] }, "street" : "Penn plaza E, Penn Sta", "zipcode" : "10001" }, "name" : "T.G.I. Fridays", "restaurant_id" : "40388936" }
{ "_id" : ObjectId("610789f5d723a7b75462c402"), "address" : { "building" : "3000", "coord" : [ -87.86567699999999, 42.61150920000001 ] }, "street" : "47 Avenue", "zipcode" : "11101" }, "name" : "Di Luvio'S Deli", "restaurant_id" : "40402284" }
{ "_id" : ObjectId("610789f5d723a7b75462c637"), "address" : { "building" : "21972199", "coord" : [ -78.589606, 42.8912372 ] }, "street" : "Broadway", "zipcode" : "10024" }, "name" : "La Caridad 78", "restaurant_id" : "40568285" }
{ "_id" : ObjectId("610789f6d723a7b75462cd09"), "address" : { "building" : "7981", "coord" : [ -84.9751215, 45.4713351 ] }, "street" : "Hoyt Street", "zipcode" : "11201" }, "name" : "Bijan'S", "restaurant_id" : "40876618" }
{ "_id" : ObjectId("610789f6d723a7b75462cd1e"), "address" : { "building" : "0", "coord" : [ -88.0778799, 42.4154769 ] }, "street" : "& G rand Central", "zipcode" : "10017" }, "name" : "Hyatt, Ny Central/Room Service", "restaurant_id" : "40879243" }
{ "_id" : ObjectId("610789f6d723a7b75462cd34"), "address" : { "building" : "60", "coord" : [ -111.9975205, 42.0970258 ] }, "street" : "W est Side Highway", "zipcode" : "10006" }, "name" : "Sports Center At Chelsea Piers (Sushi Bar)", "restaurant_id" : "40882356" }
>
```

Q.24

```
Command Prompt - mongo
>
> db.addresses.find({"address.coord.1":{$gt:42,$lte:52}},{"restaurant_id":1,"name":1,"address":1,"coord":1});
{ "_id" : ObjectId("610789f4d723a7b75462c17d"), "address" : { "building" : "47", "coord" : [ -78.877224, 42.89546199999999 ] }, "street" : "Broadway @ Trinity Pl", "zipcode" : "10006" }, "name" : "T.G.I. Friday'S", "restaurant_id" : "40387990" }
{ "_id" : ObjectId("610789f4d723a7b75462c1a9"), "address" : { "building" : "11", "coord" : [ -0.7119979, 51.6514664 ] }, "street" : "Penn plaza E, Penn Sta", "zipcode" : "10001" }, "name" : "T.G.I. Fridays", "restaurant_id" : "40388936" }
{ "_id" : ObjectId("610789f5d723a7b75462c402"), "address" : { "building" : "3000", "coord" : [ -87.86567699999999, 42.61150920000001 ] }, "street" : "47 Avenue", "zipcode" : "11101" }, "name" : "Di Luvio'S Deli", "restaurant_id" : "40402284" }
{ "_id" : ObjectId("610789f5d723a7b75462c637"), "address" : { "building" : "21972199", "coord" : [ -78.589606, 42.8912372 ] }, "street" : "Broadway", "zipcode" : "10024" }, "name" : "La Caridad 78", "restaurant_id" : "40568285" }
{ "_id" : ObjectId("610789f6d723a7b75462cd09"), "address" : { "building" : "7981", "coord" : [ -84.9751215, 45.4713351 ] }, "street" : "Hoyt Street", "zipcode" : "11201" }, "name" : "Bijan'S", "restaurant_id" : "40876618" }
{ "_id" : ObjectId("610789f6d723a7b75462cd1e"), "address" : { "building" : "0", "coord" : [ -88.0778799, 42.4154769 ] }, "street" : "& G rand Central", "zipcode" : "10017" }, "name" : "Hyatt, Ny Central/Room Service", "restaurant_id" : "40879243" }
{ "_id" : ObjectId("610789f6d723a7b75462cd34"), "address" : { "building" : "60", "coord" : [ -111.9975205, 42.0970258 ] }, "street" : "W est Side Highway", "zipcode" : "10006" }, "name" : "Sports Center At Chelsea Piers (Sushi Bar)", "restaurant_id" : "40882356" }
>
```

Q.25

```
Command Prompt - mongo
> db
restaurants
> db.addresses.find().sort({"name":1})
{ "_id" : ObjectId("610789f6d723a7b75462cb6b"), "address" : { "building" : "129", "coord" : [ -73.962943, 40.685007 ], "street" : "Gat
es Avenue", "zipcode" : "11238" }, "borough" : "Brooklyn", "cuisine" : "Italian", "grades" : [ { "date" : ISODate("2014-03-06T00:00:00
Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2013-08-29T00:00:00Z"), "grade" : "A", "score" : 2 }, { "date" : ISODate("2013-
03-08T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2012-06-27T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" :
ISODate("2011-11-17T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "(Lewis Drug Store) Locanda Vini E Olii", "restaurant_id" :
"40804423" }
{ "_id" : ObjectId("610789f4d723a7b75462bee8"), "address" : { "building" : "1", "coord" : [ -73.96926909999999, 40.7685235 ], "street"
: "East 66 Street", "zipcode" : "10065" }, "borough" : "Manhattan", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-
05-07T00:00:00Z"), "grade" : "A", "score" : 3 }, { "date" : ISODate("2013-05-03T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" :
ISODate("2012-04-30T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("2011-12-27T00:00:00Z"), "grade" : "A", "score" : 0
} ], "name" : "1 East 66Th Street Kitchen", "restaurant_id" : "40359480" }
{ "_id" : ObjectId("610789f6d723a7b75462c6fa"), "address" : { "building" : "10016", "coord" : [ -73.8216636, 40.5838155 ], "street" :
"Rockaway Beach Boulevard", "zipcode" : "11694" }, "borough" : "Queens", "cuisine" : "Delicatessen", "grades" : [ { "date" : ISODate("
2014-01-28T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2013-08-20T00:00:00Z"), "grade" : "A", "score" : 9 }, { "da
te" : ISODate("2013-03-19T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-03-06T00:00:00Z"), "grade" : "A", "scor
e" : 10 }, { "date" : ISODate("2011-03-01T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "101 Deli", "restaurant_id" : "405912
71" }
{ "_id" : ObjectId("610789f5d723a7b75462c5ee"), "address" : { "building" : "10018", "coord" : [ -74.0343092, 40.6125569 ], "street" :
"4 Avenue", "zipcode" : "11209" }, "borough" : "Brooklyn", "cuisine" : "Italian", "grades" : [ { "date" : ISODate("2014-12-01T00:00:00
Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2013-11-29T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2013
-06-03T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-06-05T00:00:00Z"), "grade" : "B", "score" : 15 }, { "date"
: ISODate("2012-01-10T00:00:00Z"), "grade" : "A", "score" : 10 } ], "name" : "101 Restaurant And Bar", "restaurant_id" : "40560108" }
{ "_id" : ObjectId("610789f5d723a7b75462c3bb"), "address" : { "building" : "1020", "coord" : [ -73.96396419999999, 40.8032642 ], "stre
et" : "Amsterdam Avenue", "zipcode" : "10025" }, "borough" : "Manhattan", "cuisine" : "American ", "grades" : [ { "date" : ISODate("20
14-06-26T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-06-19T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date"
: ISODate("2012-12-27T00:00:00Z"), "grade" : "C", "score" : 38 } ], "name" : "1020 Bar", "restaurant_id" : "40401104" }
{ "_id" : ObjectId("610789f6d723a7b75462c7f5"), "address" : { "building" : "10401", "coord" : [ -73.9004264, 40.6520939 ], "street" :
"Foster Avenue", "zipcode" : "11236" }, "borough" : "Brooklyn", "cuisine" : "Café/Coffee/Tea", "grades" : [ { "date" : ISODate("2014-1
```

Q.26

```
Command Prompt - mongo
> db
restaurants
> db.addresses.find().sort({"name":-1})
{ "_id" : ObjectId("610789f4d723a7b75462bf9a"), "address" : { "building" : "6946", "coord" : [ -73.8811834, 40.7017759 ], "street" : "
Myrtle Avenue", "zipcode" : "11385" }, "borough" : "Queens", "cuisine" : "German", "grades" : [ { "date" : ISODate("2014-09-24T00:00:0
0Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2014-04-17T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("201
3-03-12T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-10-02T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date"
: ISODate("2012-05-09T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2011-12-28T00:00:00Z"), "grade" : "B", "score"
: 24 } ], "name" : "Zum Stammtisch", "restaurant_id" : "40367377" }
{ "_id" : ObjectId("610789f6d723a7b75462cad4"), "address" : { "building" : "107109", "coord" : [ -73.9744668, 40.731155 ], "street" :
"Avenue C", "zipcode" : "10009" }, "borough" : "Manhattan", "cuisine" : "German", "grades" : [ { "date" : ISODate("2014-03-04T00:00:00
Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2013-08-21T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2013
-02-27T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-06-05T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date"
: ISODate("2011-12-20T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2011-07-15T00:00:00Z"), "grade" : "A", "score" :
6 } ], "name" : "Zum Schneider", "restaurant_id" : "40763382" }
{ "_id" : ObjectId("610789f6d723a7b75462cd0e"), "address" : { "building" : "2905", "coord" : [ -73.91337299999999, 40.775064 ], "stree
t" : "23 Avenue", "zipcode" : "11105" }, "borough" : "Queens", "cuisine" : "Greek", "grades" : [ { "date" : ISODate("2014-09-29T00:00:
00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2014-04-18T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("20
13-03-19T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-10-03T00:00:00Z"), "grade" : "B", "score" : 20 }, { "dat
e" : ISODate("2012-05-07T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Zorba'S", "restaurant_id" : "40877247" }
{ "_id" : ObjectId("610789f6d723a7b75462cb56"), "address" : { "building" : "305", "coord" : [ -73.94830499999999, 40.781662 ], "street
" : "East 92 Street", "zipcode" : "10128" }, "borough" : "Manhattan", "cuisine" : "Brazilian", "grades" : [ { "date" : ISODate("2015-0
1-09T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2014-07-16T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" :
ISODate("2013-04-26T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-04-21T00:00:00Z"), "grade" : "A", "score" : 1
2 } ], "name" : "Zebu Grill", "restaurant_id" : "40800325" }
{ "_id" : ObjectId("610789f5d723a7b75462c311"), "address" : { "building" : "29", "coord" : [ -73.86119219999999, 40.8338023 ], "street
" : "Hugh Grant Circle", "zipcode" : "10462" }, "borough" : "Bronx", "cuisine" : "Bakery", "grades" : [ { "date" : ISODate("2014-08-27
T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2013-09-10T00:00:00Z"), "grade" : "A", "score" : 0 }, { "date" : ISODa
te("2013-05-07T00:00:00Z"), "grade" : "C", "score" : 2 }, { "date" : ISODate("2013-03-23T00:00:00Z"), "grade" : "P", "score" : 13 }, {
"date" : ISODate("2012-10-24T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-11-01T00:00:00Z"), "grade" : "A", "
score" : 13 } ], "name" : "Zaro'S Bread Basket", "restaurant_id" : "40397863" }
{ "_id" : ObjectId("610789f5d723a7b75462c48c"), "address" : { "building" : "1", "coord" : [ -76.878256, 40.26205 ], "street" : "Pennsy
```


Q.27

[illegible]

Q.28

```

C:\Windows\system32\cmd.exe
> db
restaurants
> db.addresses.find({"address.street":{"exists:true"}})
{ "_id" : ObjectId("610789f4d723a7b75462bedb"), "address" : { "building" : "1007", "coord" : [ -73.856077, 40.848447 ], "street" : "Morris Park Ave", "zipcode" : "10462", "borough" : "Bronx", "cuisine" : "Bakery", "grades" : [ { "date" : ISODate("2014-03-03T00:00:00Z"), "grade" : "A", "score" : 2 }, { "date" : ISODate("2013-09-11T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("2013-01-24T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-11-23T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2011-03-10T00:00:00Z"), "grade" : "B", "score" : 14 } ], "name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }, { "_id" : ObjectId("610789f4d723a7b75462bedc"), "address" : { "building" : "469", "coord" : [ -73.961704, 40.662942 ], "street" : "Flatbush Avenue", "zipcode" : "11225", "borough" : "Brooklyn", "cuisine" : "Hamburgers", "grades" : [ { "date" : ISODate("2014-12-30T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2014-07-01T00:00:00Z"), "grade" : "B", "score" : 23 }, { "date" : ISODate("2013-04-30T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-05-08T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Wendy'S", "restaurant_id" : "30112340" }, { "_id" : ObjectId("610789f4d723a7b75462bedd"), "address" : { "building" : "351", "coord" : [ -73.98513559999999, 40.7676919 ], "street" : "West 57 Street", "zipcode" : "10019", "borough" : "Manhattan", "cuisine" : "Irish", "grades" : [ { "date" : ISODate("2014-09-06T00:00:00Z"), "grade" : "A", "score" : 2 }, { "date" : ISODate("2013-07-22T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-07-31T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-12-29T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Dj Reynolds Pub And Restaurant", "restaurant_id" : "30191841" }, { "_id" : ObjectId("610789f4d723a7b75462bede"), "address" : { "building" : "2780", "coord" : [ -73.98241999999999, 40.579505 ], "street" : "Stillwell Avenue", "zipcode" : "11224", "borough" : "Brooklyn", "cuisine" : "American", "grades" : [ { "date" : ISODate("2014-06-10T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2013-06-05T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2012-04-13T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-10-12T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Riviera Caterer", "restaurant_id" : "40356018" }, { "_id" : ObjectId("610789f4d723a7b75462bedf"), "address" : { "building" : "97-22", "coord" : [ -73.8601152, 40.7311739 ], "street" : "63 Road", "zipcode" : "11374", "borough" : "Queens", "cuisine" : "Jewish/Kosher", "grades" : [ { "date" : ISODate("2014-11-24T00:00:00Z"), "grade" : "Z", "score" : 20 }, { "date" : ISODate("2013-01-17T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-08-02T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2011-12-15T00:00:00Z"), "grade" : "B", "score" : 25 } ], "name" : "Tov Kosher Kitchen", "restaurant_id" : "40356068" }, { "_id" : ObjectId("610789f4d723a7b75462beed"), "address" : { "building" : "8825", "coord" : [ -73.8803827, 40.7643124 ], "street" : "Astoria Boulevard", "zipcode" : "11369", "borough" : "Queens", "cuisine" : "American", "grades" : [ { "date" : ISODate("2014-11-15T00:00:00Z"), "grade" : "Z", "score" : 38 }, { "date" : ISODate("2014-05-02T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-03-02T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2012-02-10T00:00:00Z"), "grade" : "A", "score" : 13 } ] }

```

Q.29

```
Command Prompt - mongo
> db
restaurants
> db.addresses.find({"address.coord":{$type:1}})
{ "_id" : ObjectId("610789f4d723a7b75462bedb"), "address" : { "building" : "1007", "coord" : [ -73.856077, 40.848447 ], "street" : "Morris Park Ave", "zipcode" : "10462" }, "borough" : "Bronx", "cuisine" : "Bakery", "grades" : [ { "date" : ISODate("2014-03-03T00:00:00Z"), "grade" : "A", "score" : 2 }, { "date" : ISODate("2013-09-11T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("2013-01-24T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-11-23T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2011-03-10T00:00:00Z"), "grade" : "B", "score" : 14 } ], "name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }
{ "_id" : ObjectId("610789f4d723a7b75462bedc"), "address" : { "building" : "469", "coord" : [ -73.961704, 40.662942 ], "street" : "Flaithush Avenue", "zipcode" : "11225", "borough" : "Brooklyn", "cuisine" : "Hamburgers", "grades" : [ { "date" : ISODate("2014-12-30T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2014-07-01T00:00:00Z"), "grade" : "B", "score" : 23 }, { "date" : ISODate("2013-04-30T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-05-08T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Wendy'S", "restaurant_id" : "30112340" }
{ "_id" : ObjectId("610789f4d723a7b75462bedd"), "address" : { "building" : "351", "coord" : [ -73.98513559999999, 40.7676919 ], "street" : "West 57 Street", "zipcode" : "10019", "borough" : "Manhattan", "cuisine" : "Irish", "grades" : [ { "date" : ISODate("2014-09-06T00:00:00Z"), "grade" : "A", "score" : 2 }, { "date" : ISODate("2013-07-22T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-07-31T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-12-29T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Dj Reynolds Pub And Restaurant", "restaurant_id" : "30191841" }
{ "_id" : ObjectId("610789f4d723a7b75462bede"), "address" : { "building" : "2780", "coord" : [ -73.98241999999999, 40.579505 ], "street" : "Stillwell Avenue", "zipcode" : "11224", "borough" : "Brooklyn", "cuisine" : "American", "grades" : [ { "date" : ISODate("2014-06-10T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2013-06-05T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2012-04-13T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-10-12T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Riviera Caterer", "restaurant_id" : "40356018" }
{ "_id" : ObjectId("610789f4d723a7b75462bedf"), "address" : { "building" : "97-22", "coord" : [ -73.8601152, 40.7311739 ], "street" : "63 Road", "zipcode" : "11374", "borough" : "Queens", "cuisine" : "Jewish/Kosher", "grades" : [ { "date" : ISODate("2014-11-24T00:00:00Z"), "grade" : "Z", "score" : 20 }, { "date" : ISODate("2013-01-17T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-08-02T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2011-12-15T00:00:00Z"), "grade" : "B", "score" : 25 } ], "name" : "Tov Kosher Kitchen", "restaurant_id" : "40356068" }
{ "_id" : ObjectId("610789f4d723a7b75462bee0"), "address" : { "building" : "8825", "coord" : [ -73.8803827, 40.7643124 ], "street" : "Astoria Boulevard", "zipcode" : "11369", "borough" : "Queens", "cuisine" : "American", "grades" : [ { "date" : ISODate("2014-11-15T00:00:00Z"), "grade" : "Z", "score" : 38 }, { "date" : ISODate("2014-05-02T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-03-02T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2012-02-10T00:00:00Z"), "grade" : "A", "score" : 13 } ] }
>
```

Q.30

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Command Prompt - mongo
> db
restaurants
> db.addresses.find({"grades.score":{$mod:[7,0]}},{"restaurant_id":1,"name":1,"grades":1})
{ "_id" : ObjectId("610789f4d723a7b75462bedb"), "grades" : [ { "date" : ISODate("2014-03-03T00:00:00Z"), "grade" : "A", "score" : 2 }, { "date" : ISODate("2013-09-11T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("2013-01-24T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-11-23T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2011-03-10T00:00:00Z"), "grade" : "B", "score" : 14 } ], "name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }
{ "_id" : ObjectId("610789f4d723a7b75462bede"), "grades" : [ { "date" : ISODate("2014-06-10T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2013-06-05T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2012-04-13T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-10-12T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Riviera Caterer", "restaurant_id" : "40356018" }
{ "_id" : ObjectId("610789f4d723a7b75462bee0"), "grades" : [ { "date" : ISODate("2014-11-15T00:00:00Z"), "grade" : "Z", "score" : 38 }, { "date" : ISODate("2014-05-02T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-03-02T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2012-02-10T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Brunos On The Boulevard", "restaurant_id" : "40356151" }
{ "_id" : ObjectId("610789f4d723a7b75462bee7"), "grades" : [ { "date" : ISODate("2014-09-16T00:00:00Z"), "grade" : "B", "score" : 21 }, { "date" : ISODate("2013-08-28T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2013-04-02T00:00:00Z"), "grade" : "C", "score" : 56 }, { "date" : ISODate("2012-08-15T00:00:00Z"), "grade" : "B", "score" : 27 }, { "date" : ISODate("2012-03-28T00:00:00Z"), "grade" : "B", "score" : 27 } ], "name" : "May May Kitchen", "restaurant_id" : "40358429" }
{ "_id" : ObjectId("610789f4d723a7b75462bee8"), "grades" : [ { "date" : ISODate("2014-05-07T00:00:00Z"), "grade" : "A", "score" : 3 }, { "date" : ISODate("2013-05-03T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" : ISODate("2012-04-30T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("2011-12-27T00:00:00Z"), "grade" : "A", "score" : 0 } ], "name" : "1 East 66th Street Kitchen", "restaurant_id" : "40359480" }
{ "_id" : ObjectId("610789f4d723a7b75462bee9"), "grades" : [ { "date" : ISODate("2014-11-10T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2013-10-10T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-10-04T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2012-05-21T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2011-12-30T00:00:00Z"), "grade" : "B", "score" : 19 } ], "name" : "Seuda Foods", "restaurant_id" : "40360045" }
{ "_id" : ObjectId("610789f4d723a7b75462beef"), "grades" : [ { "date" : ISODate("2014-08-16T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2013-08-27T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-09-20T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2011-09-29T00:00:00Z"), "grade" : "A", "score" : 10 } ], "name" : "Sal'S Deli", "restaurant_id" : "40361618" }
{ "_id" : ObjectId("610789f4d723a7b75462bef1"), "grades" : [ { "date" : ISODate("2014-03-19T00:00:00Z"), "grade" : "A", "score" : 3 } ],
```

Q.31

```
Command Prompt - mongo
> db
restaurants
> db.addresses.find({name:{$regex:"mon.*",$options:"i"}},{name:1,"borough":1,"address.coord":1,"cuisine":1});
{ "_id" : ObjectId("610789f4d723a7b75462bf6f"), "address" : { "coord" : [ -73.98306099999999, 40.7441419 ] }, "borough" : "Manhattan",
  "cuisine" : "American ", "name" : "Desmond'S Tavern" }
{ "_id" : ObjectId("610789f4d723a7b75462bf78"), "address" : { "coord" : [ -73.8221418, 40.7272376 ] }, "borough" : "Queens", "cuisine"
  : "Jewish/Kosher", "name" : "Shimons Kosher Pizza" }
{ "_id" : ObjectId("610789f4d723a7b75462bf84"), "address" : { "coord" : [ -74.10465599999999, 40.58834 ] }, "borough" : "Staten Island",
  "cuisine" : "American ", "name" : "Richmond County Country Club" }
{ "_id" : ObjectId("610789f4d723a7b75462bfaf"), "address" : { "coord" : [ -73.9812843, 40.5947365 ] }, "borough" : "Brooklyn", "cuisin
e" : "Pizza/Italian", "name" : "Lb Spumoni Gardens" }
{ "_id" : ObjectId("610789f4d723a7b75462c001"), "address" : { "coord" : [ -73.951199, 40.7166026 ] }, "borough" : "Brooklyn", "cuisine
" : "Italian", "name" : "Bamonte'S Restaurant" }
{ "_id" : ObjectId("610789f4d723a7b75462c038"), "address" : { "coord" : [ -73.924072, 40.76108900000001 ] }, "borough" : "Queens", "cu
isine" : "Greek", "name" : "Omonia Cafe" }
{ "_id" : ObjectId("610789f4d723a7b75462c088"), "address" : { "coord" : [ -74.0023353, 40.7333573 ] }, "borough" : "Manhattan", "cuisi
ne" : "American ", "name" : "Manhattan Monster" }
{ "_id" : ObjectId("610789f4d723a7b75462c0b5"), "address" : { "coord" : [ -74.001094, 40.729583 ] }, "borough" : "Manhattan", "cuisine
" : "Italian", "name" : "Monte'S" }
{ "_id" : ObjectId("610789f4d723a7b75462c0bb"), "address" : { "coord" : [ -73.9901605, 40.7526176 ] }, "borough" : "Manhattan", "cuisi
ne" : "American ", "name" : "Delmonico'S Kitchen" }
{ "_id" : ObjectId("610789f4d723a7b75462c0d1"), "address" : { "coord" : [ -73.9979536, 40.6914024 ] }, "borough" : "Brooklyn", "cuisin
e" : "Bottled beverages, including water, sodas, juices, etc.", "name" : "Montero Bar & Grill" }
{ "_id" : ObjectId("610789f4d723a7b75462c25c"), "address" : { "coord" : [ -73.9707505, 40.7635651 ] }, "borough" : "Manhattan", "cuisi
ne" : "Delicatessen", "name" : "Delmonico Gourmet" }
{ "_id" : ObjectId("610789f5d723a7b75462c2c9"), "address" : { "coord" : [ -73.9760637, 40.7508686 ] }, "borough" : "Manhattan", "cuisi
ne" : "American ", "name" : "Delmonico Gourmet" }
{ "_id" : ObjectId("610789f5d723a7b75462c2dd"), "address" : { "coord" : [ -73.9705633, 40.7605759 ] }, "borough" : "Manhattan", "cuisi
ne" : "Italian", "name" : "Montebello Restaurant" }
{ "_id" : ObjectId("610789f5d723a7b75462c375"), "address" : { "coord" : [ -74.1914658, 40.55274360000001 ] }, "borough" : "Staten Isla
nd", "cuisine" : "Italian", "name" : "Villa Monte Pizzeria" }
{ "_id" : ObjectId("610789f5d723a7b75462c420"), "address" : { "coord" : [ -73.97198209999999, 40.764464 ] }, "borough" : "Manhattan",
```

Q.32

```
Command Prompt - mongo
> db
restaurants
> db.addresses.find({name:{$regex:/^Mad/i,}}, {name:1,"borough":1,"address.coord":1,"cuisine":1})
{ "_id" : ObjectId("610789f5d723a7b75462c417"), "address" : { "coord" : [ -73.9860597, 40.7431194 ] }, "borough" : "Manhattan", "cuisi
ne" : "American ", "name" : "Madison Square" }
{ "_id" : ObjectId("610789f5d723a7b75462c4e5"), "address" : { "coord" : [ -73.98302199999999, 40.742313 ] }, "borough" : "Manhattan",
  "cuisine" : "Indian", "name" : "Madras Mahal" }
{ "_id" : ObjectId("610789f6d723a7b75462c793"), "address" : { "coord" : [ -74.000002, 40.72735 ] }, "borough" : "Manhattan", "cuisine"
  : "American ", "name" : "Madame X" }
{ "_id" : ObjectId("610789f6d723a7b75462c843"), "address" : { "coord" : [ -73.98171959999999, 40.7499406 ] }, "borough" : "Manhattan",
  "cuisine" : "French", "name" : "Madison Bistro" }
{ "_id" : ObjectId("610789f6d723a7b75462c8cc"), "address" : { "coord" : [ -73.9717845, 40.6897199 ] }, "borough" : "Brooklyn", "cuisin
e" : "African", "name" : "Madiba" }
{ "_id" : ObjectId("610789f6d723a7b75462cbd1"), "address" : { "coord" : [ -73.9040753, 40.9069011 ] }, "borough" : "Bronx", "cuisine"
  : "Italian", "name" : "Madison'S" }
{ "_id" : ObjectId("610789f6d723a7b75462cc4f"), "address" : { "coord" : [ -73.9886598, 40.7565811 ] }, "borough" : "Manhattan", "cuisi
ne" : "Hotdogs", "name" : "Madame Tussaud'S" }
{ "_id" : ObjectId("610789f6d723a7b75462cc87"), "address" : { "coord" : [ -73.95623719999999, 40.7761697 ] }, "borough" : "Manhattan",
  "cuisine" : "American ", "name" : "Mad River Bar & Grille" }
>
```