# MongoDB Practice

MongoDB Exercise in mongo shell

**Lab Exercise 1:**

**Import a csv to mongodb**

{ "\_id" : "02906", "city" : "PROVIDENCE", "pop" : 31069, "state" : "RI", "capital" : { "name" : "Providence", "electoralCollege" : 4 } },

{ "\_id" : "02108", "city" : "BOSTON", "pop" : 3697, "state" : "MA", "capital" : { "name" : "Boston", "electoralCollege" : 11 } },

{ "\_id" : "10001", "city" : "NEW YORK", "pop" : 18913, "state" : "NY", "capital" : { "name" : "Albany", "electoralCollege" : 29 } },

{ "\_id" : "01012", "city" : "CHESTERFIELD", "pop" : 177, "state" : "MA", "capital" : { "name" : "Boston", "electoralCollege" : 11 } },

{ "\_id" : "32801", "city" : "ORLANDO", "pop" : 9275, "state" : "FL", "capital" : { "name" : "Tallahassee", "electoralCollege" : 29 } },

{ "\_id" : "12966", "city" : "BANGOR", "pop" : 2867, "state" : "NY", "capital" : { "name" : "Albany", "electoralCollege" : 29 } },

{ "\_id" : "32920", "city" : "CAPE CANAVERAL", "pop" : 7655, "state" : "FL", "capital" : { "name" : "Tallahassee", "electoralCollege" : 29 } },

{ "\_id" : "NY", "name" : "New York", "pop" : 28300000, "state" : 1788 },

{ "\_id" : "33125", "city" : "MIAMI", "pop" : 47761, "state" : "FL", "capital" : { "name" : "Tallahassee", "electoralCollege" : 29 } },

{ "\_id" : "RI", "name" : "Rhode Island", "pop" : 1060000, "state" : 1790 },

{ "\_id" : "MA", "name" : "Massachusetts", "pop" : 6868000, "state" : 1790 },

{ "\_id" : "FL", "name" : "Florida", "pop" : 6800000, "state" : 1845 },

{ "\_id" : "1", "name" : "Tom", "addresses" : [ "01001", "12997" ] },

{ "\_id" : "02907", "city" : "CRANSTON", "pop" : 25668, "state" : "RI", "capital" : { "name" : "Providence", "electoralCollege" : 4 } },

{ "\_id" : "2", "name" : "Bill", "addresses" : [ "01001", "12967", "32920" ] },

{ "\_id" : "3", "name" : "Mary", "addresses" : [ "32801", "32920", "33125" ] },

{ "\_id" : "12967", "city" : "NORTH LAWRENCE", "pop" : 943, "state" : "NY", "capital" : { "name" : "Albany", "electoralCollege" : 29 } },

{ "\_id" : "01001", "city" : "AGAWAM", "pop" : 15338, "state" : "MA", "capital" : { "name" : "Boston", "electoralCollege" : 11 } },

{ "\_id" : "12997", "city" : "WILMINGTON", "pop" : 958, "state" : "NY", "capital" : { "name" : "Albany", "electoralCollege" : 29 } }

To import from shell:

mongoimport --db <database\_name> --collection <collection\_name> --file

**Questions:**

1. Show name and population of the cities where the population is over 10000
2. Show the name and population of the state based on the cities shown
3. Show the total cities in NY as 'Population'
4. Show the \_id, city, name of the capital city of each state with a popultaion greater than 20,000.

**Lab Exercise 2:**

## create database

Connect to a running mongo instance, use a database named mongo\_practice. use mongo\_practice

## Insert Documents

Insert the following documents into a movies collection.

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

db.movies.insert({title:"Pulp Fiction", writer:"Quentin Tarantino", year:"2009", actors:["John Travolta", "Uma Thurman"]})

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

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

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

db.movies.insert({title:"The Hobbit: The Battle of the Five Armies", writer:"J.R.R Tolkien", year:"2002", 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 a rising darkness."})

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

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

**Query / Find Documents**

query the movies collection to

1. get all documents
2. get all documents with writer set to "Quentin Tarantino"
3. get all documents where actors include "Brad Pitt"
4. get all documents with franchise set to "The Hobbit"
5. get all movies released in the 90s
6. get all movies released before the year 2000 or after 2010

**Update Documents**

1. add a synopsis to "The Hobbit: An Unexpected Journey" : "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. add a synopsis to "The Hobbit: The Desolation of Smaug" : "The dwarves, along with Bilbo Baggins and Gandalf the Grey, continue their quest to reclaim Erebor, their homeland, from Smaug. Bilbo Baggins is in possession of a mysterious and magical ring."
3. add an actor named "Samuel L. Jackson" to the movie "Pulp Fiction"

**Text Search**

1. find all movies that have a synopsis that contains the word "Bilbo"
2. find all movies that have a synopsis that contains the word "Gandalf"
3. find all movies that have a synopsis that contains the word "Bilbo" and not the word "Gandalf"
4. find all movies that have a synopsis that contains the word "dwarves" or "hobbit"
5. find all movies that have a synopsis that contains the word "gold" and "dragon"

**Delete Documents**

1. delete the movie "Pee Wee Herman's Big Adventure"
2. delete the movie "Avatar"