

NoSQL

To do this homework, please watch the videos and read the lecture notes as well as the helpful websites first.

Part 1: Download and install MongoDB:

1. Go to <https://www.mongodb.com/download-center/community> Download MongoDB.
2. To install scroll down and follow the installation steps found [on this site](#) for your device:

(MongoDB Community Edition)

3. Note You will need 2 terminals to run it:
 - a. Terminal 1: MongoDB Server: `mongod --config /usr/local/etc/mongod.conf`
 - b. Terminal 2: Start MongoDB: `mongo`
Note: `quit()` will get you out of it

Part 2: Import data set

1. Import the restaurant dataset [restaurant dataset](#) by doing the following (Note: Dr. Iacobelli's video will walk you through this too):
 - a. Download the file to your computer (I moved mine into the bin directory in here `mongodb-osx-x86_64-4.0.8/bin`).
 - b. Now in an interactive shell
 - a. Import the dataset with this command:
`mongoimport --db test --collection restaurants --drop --file dataset.json`
we will use database "test" and the table name/collection will be restaurants.
If the database exists it will be dropped and the file is dataset.json.

Part 3: Using NoSQL

First look at all entries in the database with `db.restaurants.find()` or `db.restaurants.find({})` – Look at the different entries and pay attention to what you see.

In one file, write the commands to achieve each of these tasks (hint: checkout the cheatsheet)

Note: When copying and pasting from MS Word remember to check the quotes as " is not the same as "

1. Select all entries in the database WHERE the cuisine is Hamburgers. *Hint: In the {} you can put `cuisine:"Hamburgers"` for `cuisine="Hamburgers"`*
2. Select **only** the boroughs and name of the restaurant where the cuisine is Hamburgers. *Hint: If you do not want to display the id, you can add `:0` which will hide it*
3. Paste your results showing only the boroughs and restaurant names of the above statement.
4. Insert a restaurant "The Gallifrey Mug" with an address which contains a building at 910 and street at Morris Ave. and a zipcode of 10451, in the borough of Brooklyn.
5. Update The Gallifrey Mug record you just inserted. Set the cuisine to "Pizza"
6. Select all the details for only the new record you created and updated.
7. Paste the results of the new entry you created in the step above.

8. Find the number of restaurants that serve Chinese cuisine in the borough of Brooklyn
Hint: You can add .count() after the statement ANOTHER HINT: when searching for multiple criteria, put them in the same { } separated by , Last HINT: Your number should match mine at 763
9. Select the name and street of restaurants that serve Peruvian cuisine and have a grade of A in Brooklyn. *Hint: To get these to work you must have quotes around the variable names that contain record items like this "grades.grade": "A" and "address.zipcode": 1*
10. Paste the results
11. Update "The Gallifrey Mug" and add a new field "manager" that has a first_name of Jackie and a last_name of Price.
12. Verify your changes to The Gallifrey Mug (write the command and results)
13. Remove the restaurant you created called The Gallifrey Mug
14. Verify it worked – show command/results.
15. Try anything you would like and paste the code and results of it working.