Lecturer: Clive Gargan Tools for Data Analytics

Exercise - MongoDB Queries

(NOTE:SOME OF BELOW QUERIES WILL REQUIRE ADDITIONAL RESEARCH IN ORDER TO IMPLEMENT. SOLUTIONS WILL BE POSTED ON MOODLE)

- 1. On Moodle upload the restaurants.json file to your MongoDB Atlas database. (NOTE: Upload using Mongo Compass as shown in class).
- 2. Write a MongoDB query to display all the documents in the collection restaurants.
- 3. Write a MongoDB query to display the fields restaurant_id, name, borough and cuisine for all the documents in the collection restaurant.
- 4. Write a MongoDB query to display the fields restaurant_id, name, borough and cuisine, but exclude the field _id for all the documents in the collection restaurant.
- 5. Write a MongoDB query to display the fields restaurant_id, name, borough and zip code, but exclude the field _id for all the documents in the collection restaurant.
- 6. Write a MongoDB query to display all the restaurant which is in the borough Bronx.
- 7. Write a MongoDB query to display the first 5 restaurant which is in the borough Bronx.
- 8. Write a MongoDB query to display the next 5 restaurants after skipping first 5 which are in the borough Bronx.
- 9. Write a MongoDB query to find the restaurants who achieved a score more than 90.
- 10. Write a MongoDB query to find the restaurants that achieved a score, more than 80 but less than 100.
- 11. Write a MongoDB query to find the restaurants which locate in latitude value less than 95.754168.
- 12. Write a MongoDB query to find the restaurants that do not prepare any cuisine of 'American' and their grade score more than 70 and latitude less than -65.754168.
- 13. Write a MongoDB query to find the restaurants which do not prepare any cuisine of 'American' and achieved a score more than 70 and located in the longitude less than 65.754168. Note: Do this query without using \$and operator.

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14. Write a MongoDB query to find the restaurants which do not prepare any cuisine of 'American' and achieved a grade point 'A' not belongs to the borough Brooklyn. The document must be displayed according to the cuisine in descending order.

- 15. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which contain 'Wil' as first three letters for its name.
- 16. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which contain 'ces' as last three letters for its name.
- 17. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which contain 'Reg' as three letters somewhere in its name.
- 18. Write a MongoDB query to find the restaurants which belong to the borough Bronx and prepared either American or Chinese dish.
- 19. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which belong to the borough Staten Island or Queens or Bronxor Brooklyn.
- 20. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which are not belonging to the borough Staten Island or Queens or Bronxor Brooklyn.
- 21. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which achieved a score which is not more than 10.
- 22. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which prepared dish except 'American' and 'Chinees' or restaurant's name begins with letter 'Wil'.
- 23. Write a MongoDB query to find the restaurant Id, name, and grades for those restaurants which achieved a grade of "A" and scored 11 on an ISODate "2014-08-11T00:00:00Z" among many of survey dates..
- 24. Write a MongoDB query to find the restaurant Id, name and grades for those restaurants where the 2nd element of grades array contains a grade of "A" and score 9 on an ISODate "2014-08-11T00:00:00Z".

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25. Write a MongoDB query to find the restaurant Id, name, address and geographical location for those restaurants where 2nd element of coord array contains a value which is more than 42 and upto 52..

- 26. Write a MongoDB query to arrange the name of the restaurants in ascending order along with all the columns.
- 27. Write a MongoDB query to arrange the name of the restaurants in descending along with all the columns.
- 28. Write a MongoDB query to arranged the name of the cuisine in ascending order and for that same cuisine borough should be in descending order.
- 29. Write a MongoDB query to know whether all the addresses contains the street or not.
- 30. Write a MongoDB query which will select all documents in the restaurants collection where the coord field value is Double.
- 31. Write a MongoDB query which will select the restaurant Id, name and grades for those restaurants which returns 0 as a remainder after dividing the score by 7.
- 32. Write a MongoDB query to find the restaurant name, borough, longitude and attitude and cuisine for those restaurants which contains 'mon' as three letters somewhere in its name.
- 33. Write a MongoDB query to find the restaurant name, borough, longitude and latitude and cuisine for those restaurants which contain 'Mad' as first three letters of its name.