Advanced Database   **Fall 2017**

Cairo University
Faculty of Engineering
Computer Engineering Dept.
CMP(N)401   Lab3: NoSQL

Structure of 'restaurants' collection :

```
{
  "address": {
    "building": "1007",
    "coord": [ -73.856077, 40.848447 ],
    "street": "Morris Park Ave",
    "zipcode": "10462"
  },
  "borough": "Bronx",
  "cuisine": "Bakery",
  "grades": [
    { "date": { "$date": 1393804800000 }, "grade": "A", "score": 2 },
    { "date": { "$date": 1378857600000 }, "grade": "A", "score": 6 },
    { "date": { "$date": 1358985600000 }, "grade": "A", "score": 10 },
    { "date": { "$date": 1322006400000 }, "grade": "A", "score": 9 },
    { "date": { "$date": 1299715200000 }, "grade": "B", "score": 14 }
  ],
  "name": "Morris Park Bake Shop",
  "restaurant_id": "30075445"
}
```

1. Import restaurants.json: the collection comprises of 3772 documents.
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 zip code, but exclude the field _id for all the documents in the collection restaurant.
4. Write a MongoDB query to display the first 5 restaurant which is in the borough Bronx.

5. Write a MongoDB query to display the next 5 restaurants after skipping first 5 which are in the borough Bronx.
6. 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.
7. Write a MongoDB query to find the restaurants which belong to the borough Bronx and prepared either American or Chinese dish.
8. 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. (Note use $not)
9. 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. (Note use $mod: [7,0])
10. 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.