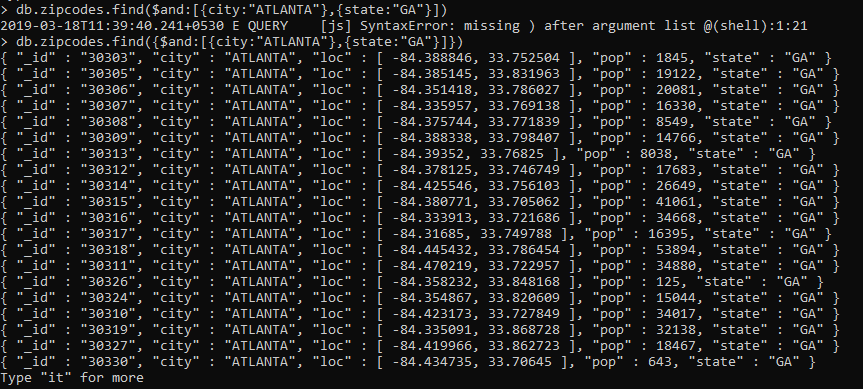
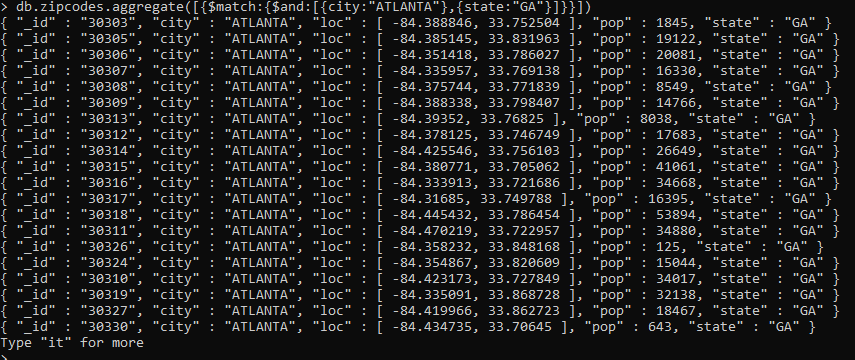
**Atlanta Population**

1. use db.zipcodes.find() to filter results to only the results where city is ATLANTA and state is GA.



1. use db.zipcodes.aggregate with $match to do the same as above.



1. use $group to count the number of zip codes in Atlanta.

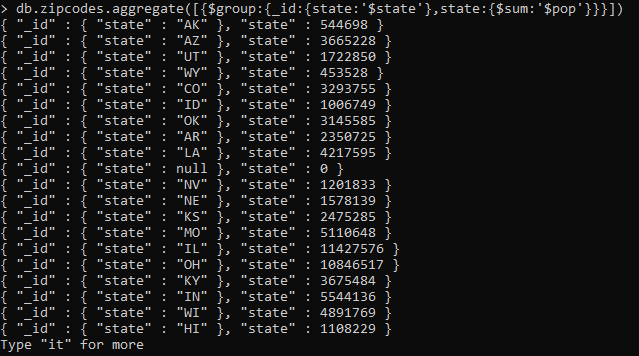


1. use $group to find the total population in Atlanta.

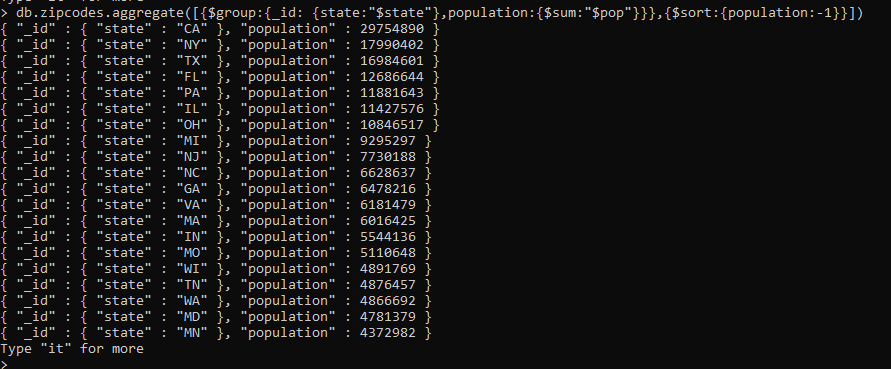


**Populations By State**

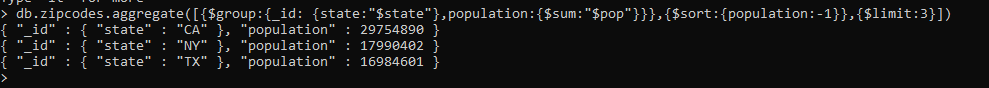
1. use aggregate to calculate the total population for each state



1. sort the results by population, highest first.

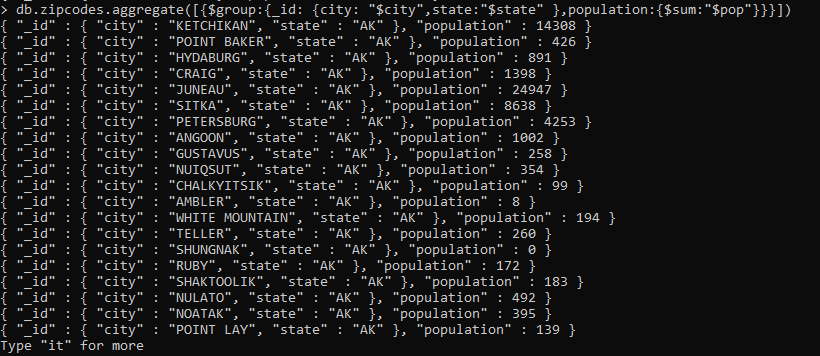


1. limit the results to just the first 3 results. What are the top 3 states in population?

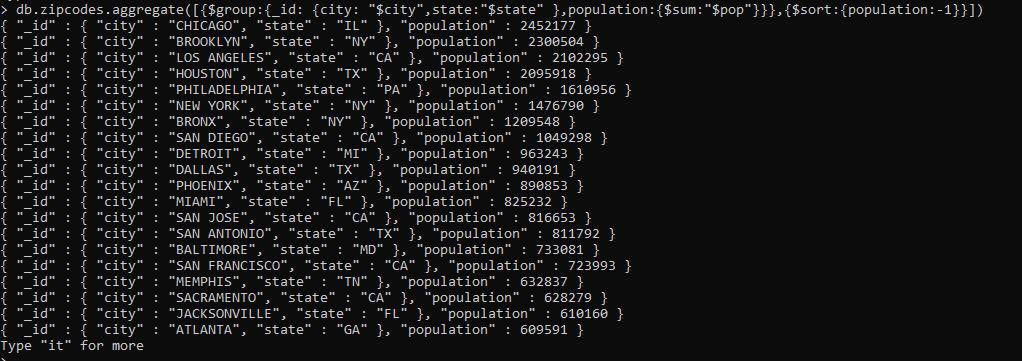


**Populations by City**

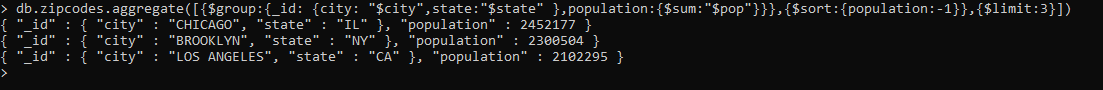
1. use aggregate to calculate the total population for each city (you have to use city/state combination). You can use a combination for the \_id of the $group: { city: '$city', state: '$state' }



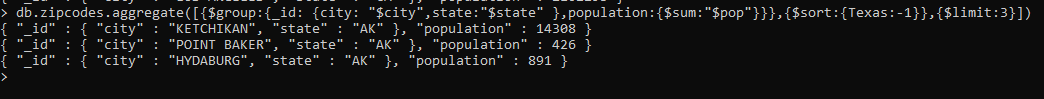
1. sort the results by population, highest first



1. limit the results to just the first 3 results. What are the top 3 cities in population?

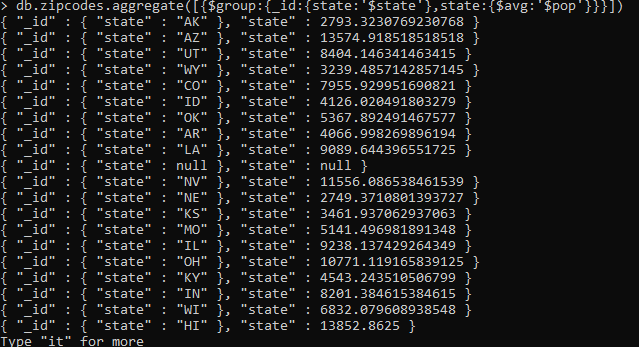


1. What are the top 3 cities in population in Texas?

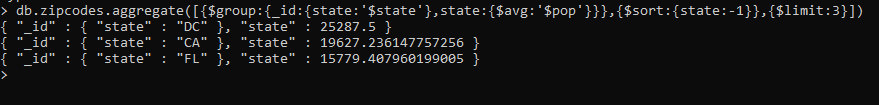


**Bonus**

1. Write a query to get the average city population for each state.

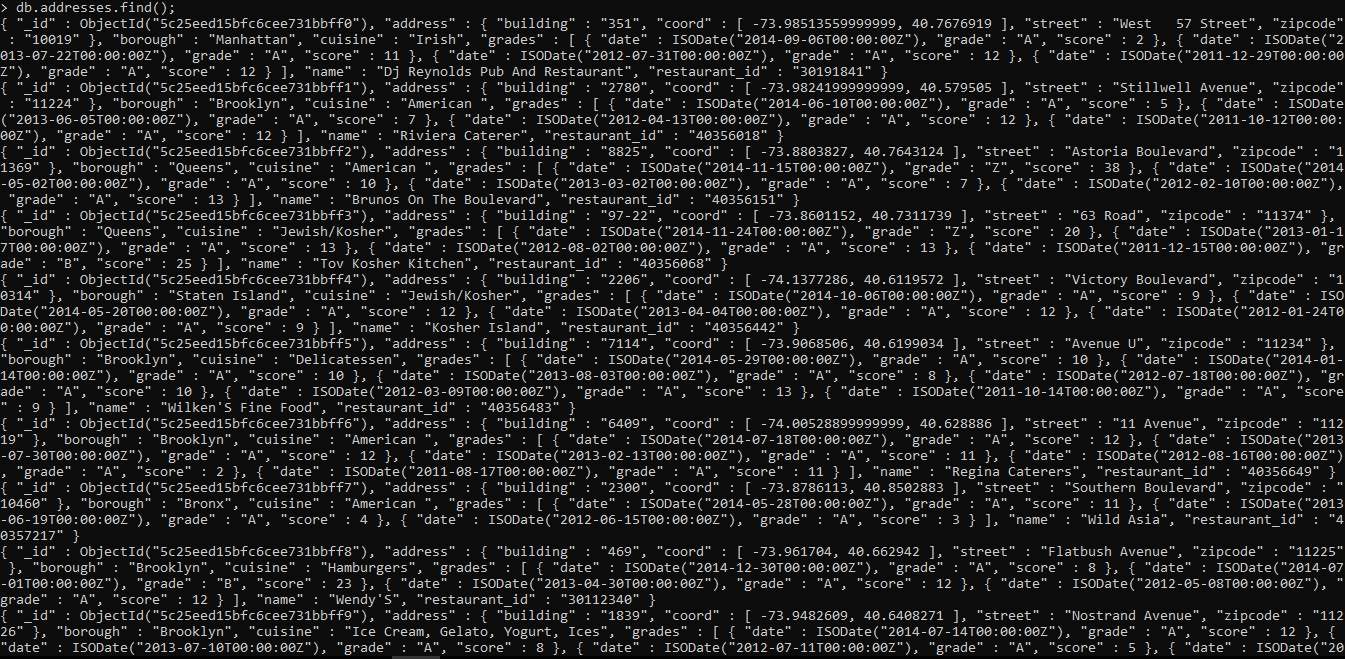


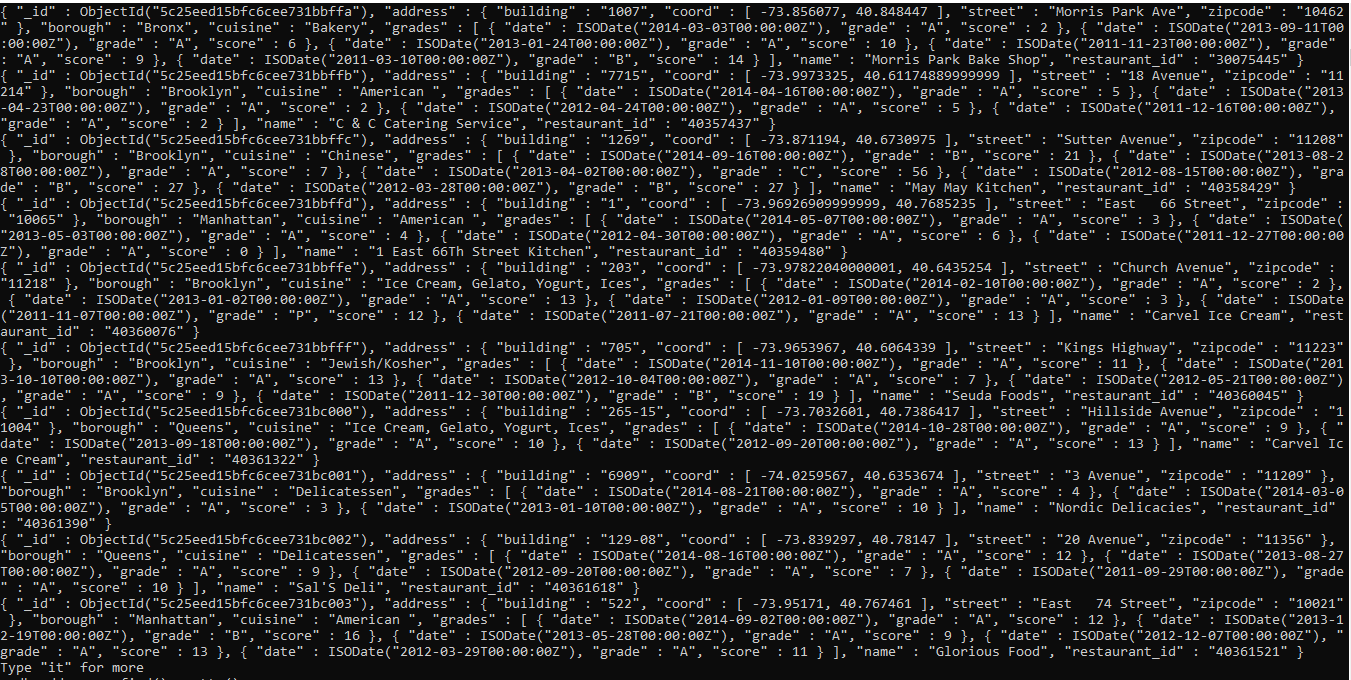
1. What are the top 3 states in terms of average city population?



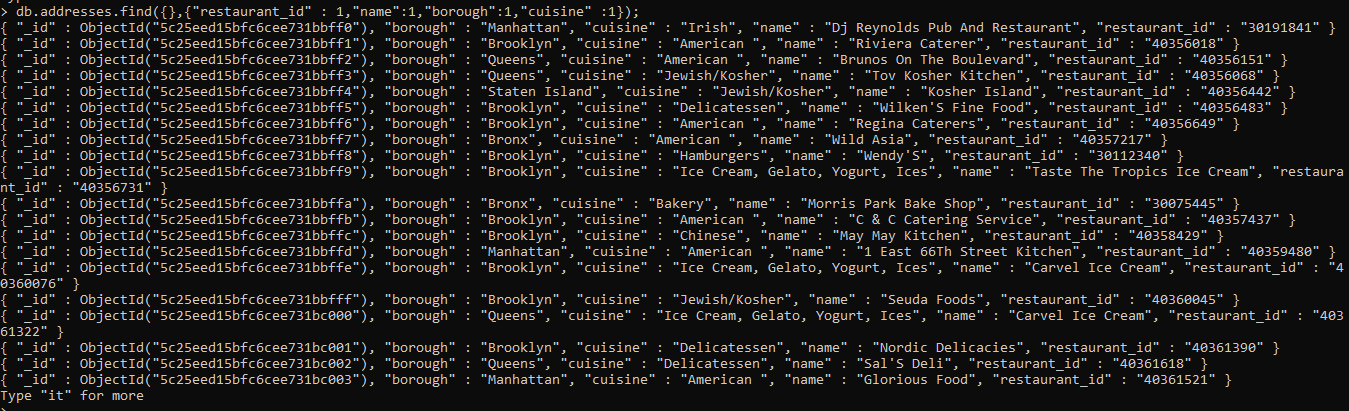
# Exercise Questions

1. Write a MongoDB query to display all the documents in the collection restaurants.

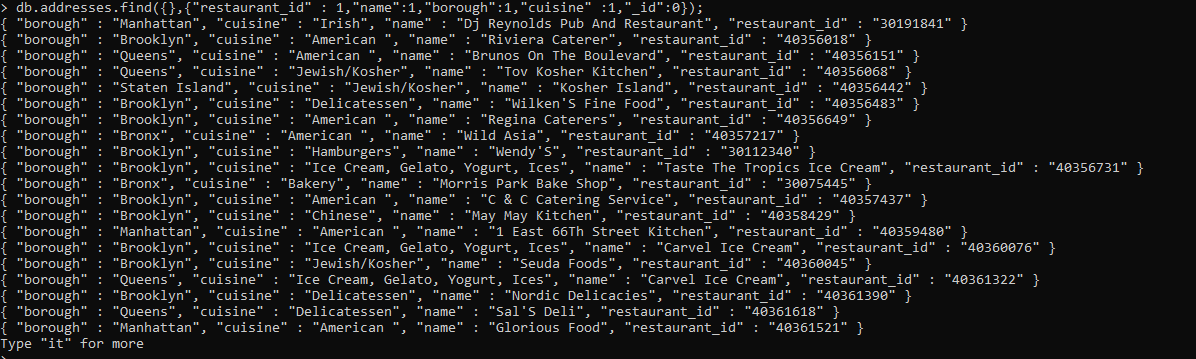




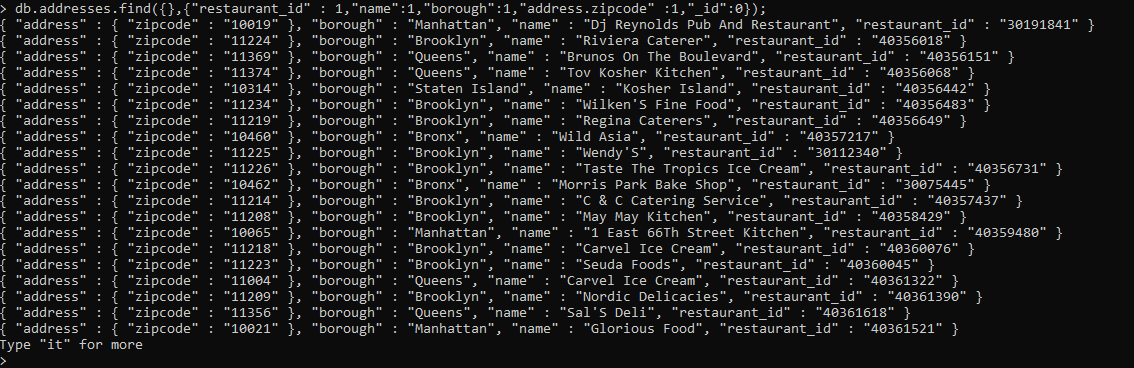
1. Write a MongoDB query to display the fields restaurant\_id, name, borough and cuisine for all the documents in the collection restaurant.



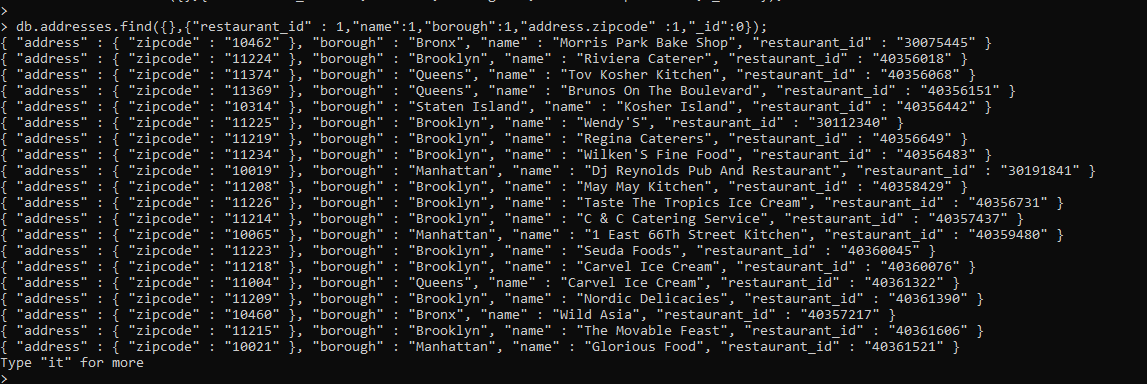
1. Write a MongoDB query to display the fields restaurant\_id, name, borough and cuisine, but exclude the field \_id for all the documents in the collection restaurant.



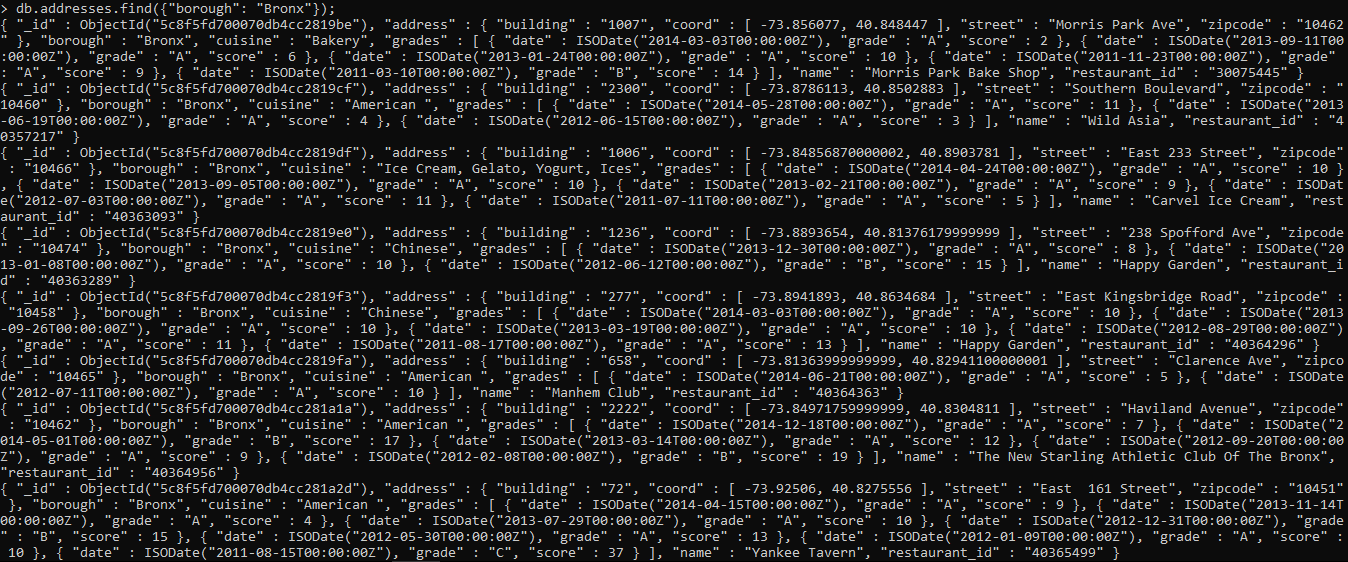
1. Write a MongoDB query to display the fields restaurant\_id, name, borough and zip code, but exclude the field \_id for all the documents in the collection restaurant.



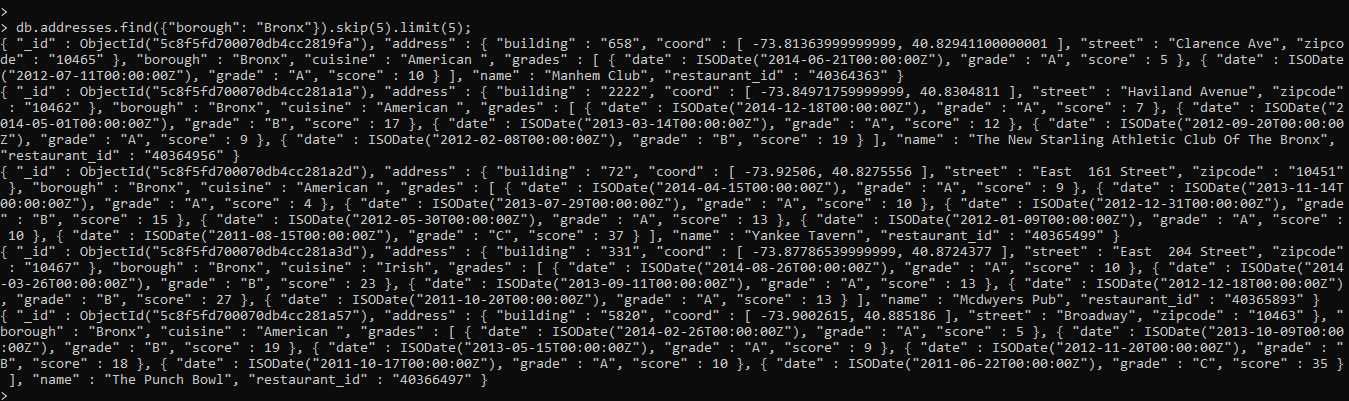
5.Write a MongoDB query to display the first 5 restaurant which is in the borough Bronx.



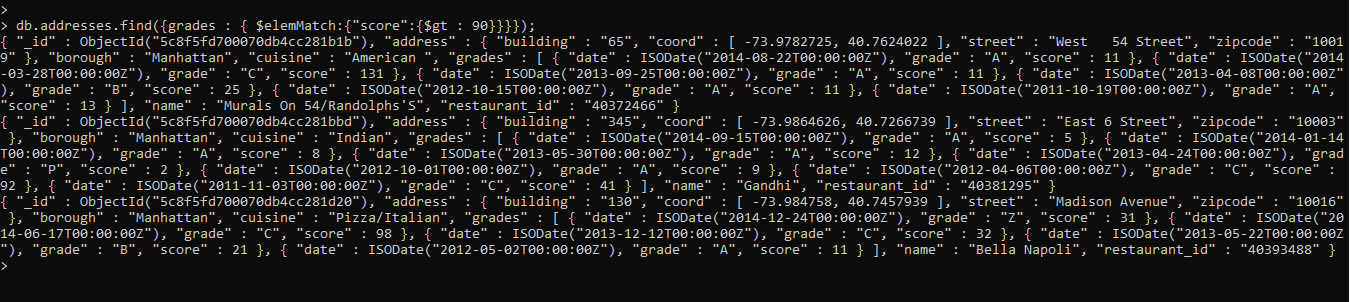
6.Write a MongoDB query to display all the restaurant which is in the borough Bronx.



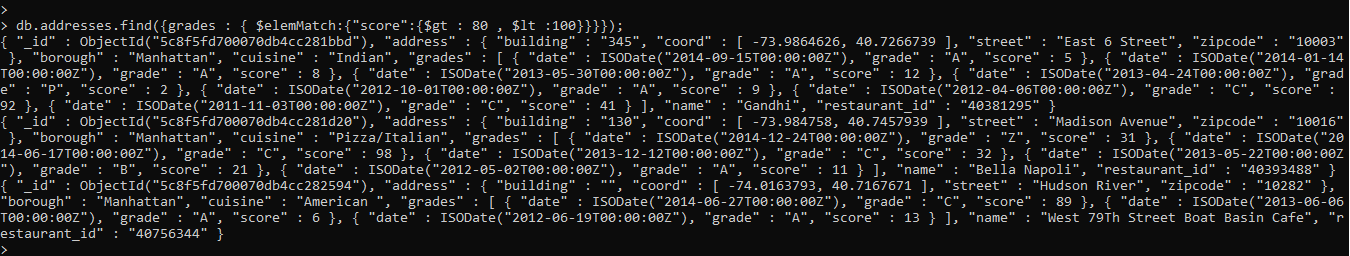
7.Write a MongoDB query to display the next 5 restaurants after skipping first 5 which are in the borough Bronx.



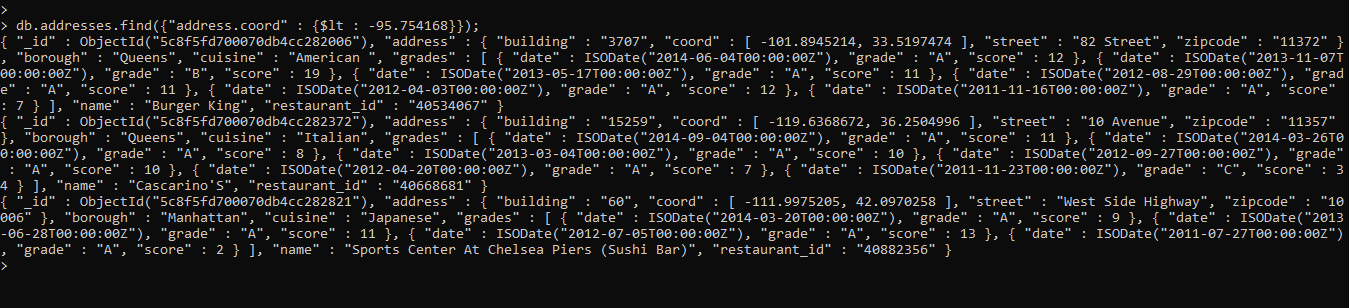
8.Write a MongoDB query to find the restaurants who achieved a score more than 90.



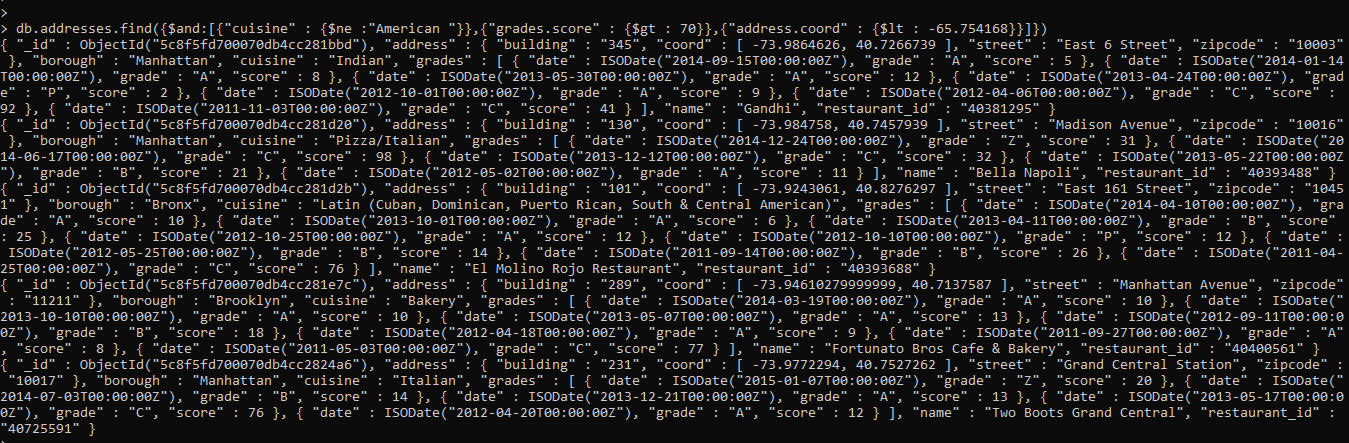
9.Write a MongoDB query to find the restaurants that achieved a score, more than 80 but less than 100.



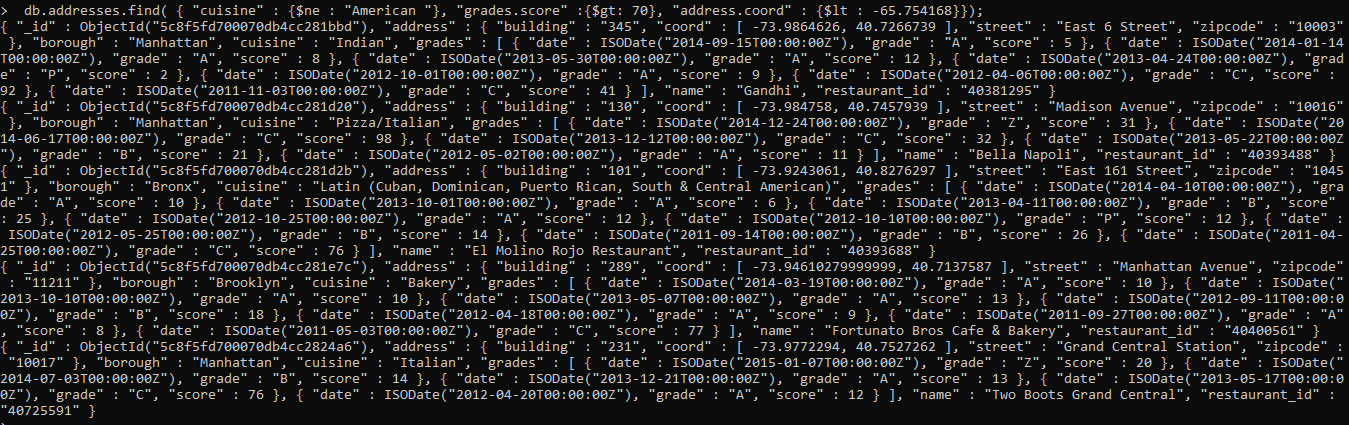
10.Write a MongoDB query to find the restaurants which locate in latitude value less than -95.754168.



11.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.



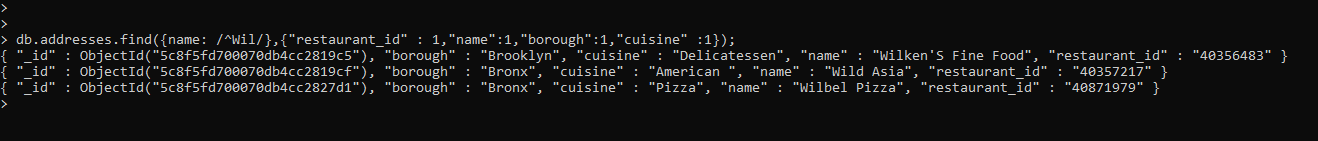
12.Write a MongoDB query to find the restaurants which do not prepare any cuisine of 'American' and achieved a score more than 70 and located in the longitude less than -65.754168.



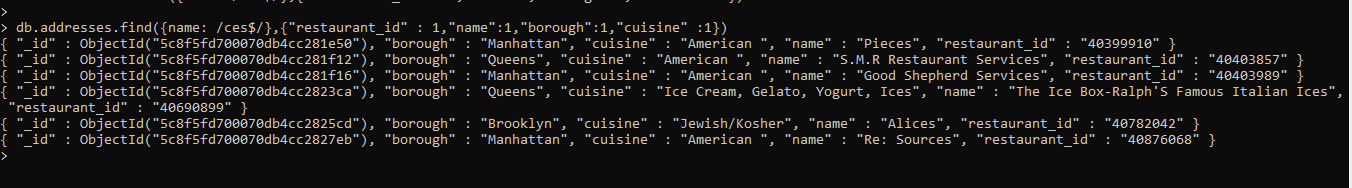
13.Write a MongoDB query to find the restaurants which do not prepare any cuisine of 'American ' and achieved a grade point 'A' not belongs to the borough Brooklyn. The document must be displayed according to the cuisine in descending order.



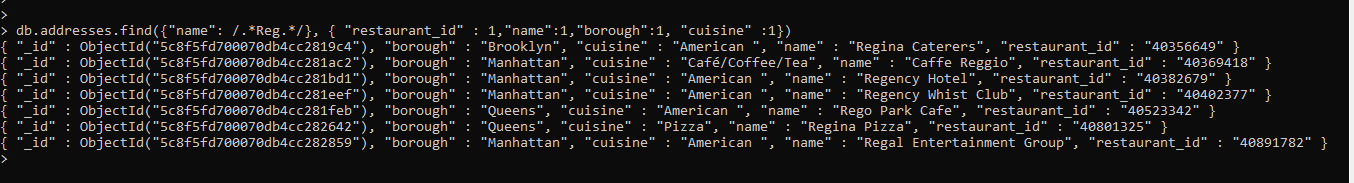
14.Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which contain 'Wil' as first three letters for its name.



15.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.



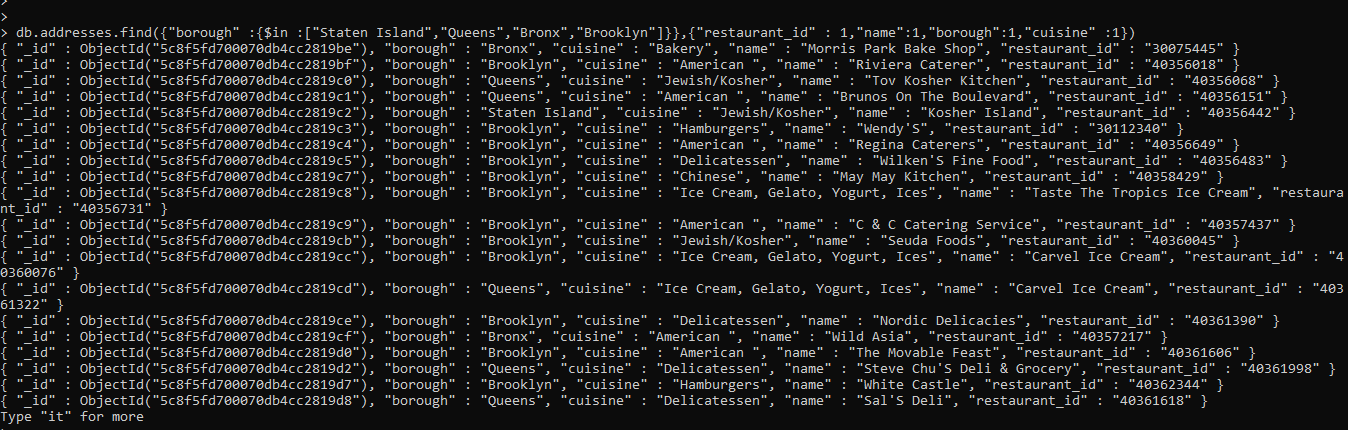
16.Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which contain 'Reg' as three letters somewhere in its name.



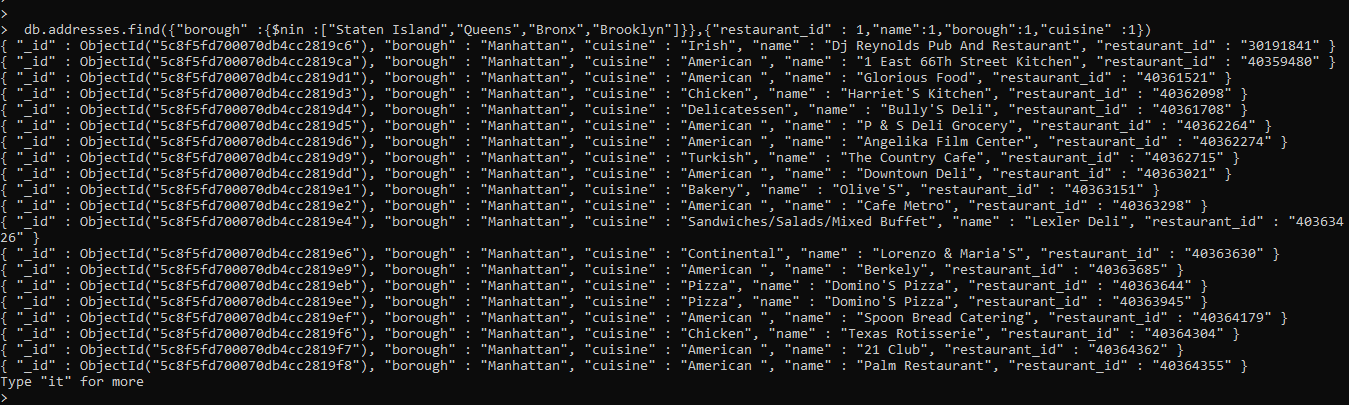
17.Write a MongoDB query to find the restaurants which belong to the borough Bronx and prepared either American or Chinese dish.



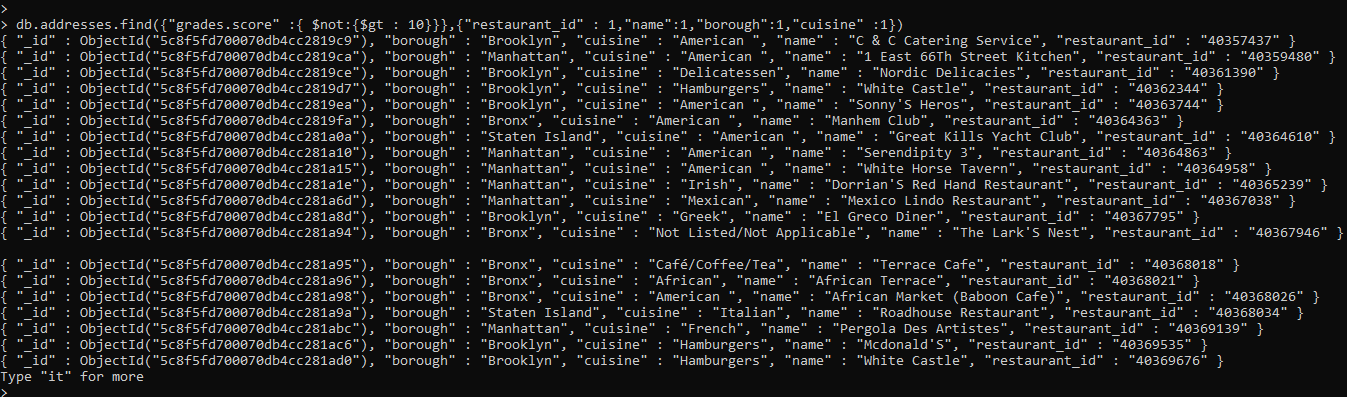
18.Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which belong to the borough Staten Island or Queens or Bronxor Brooklyn.



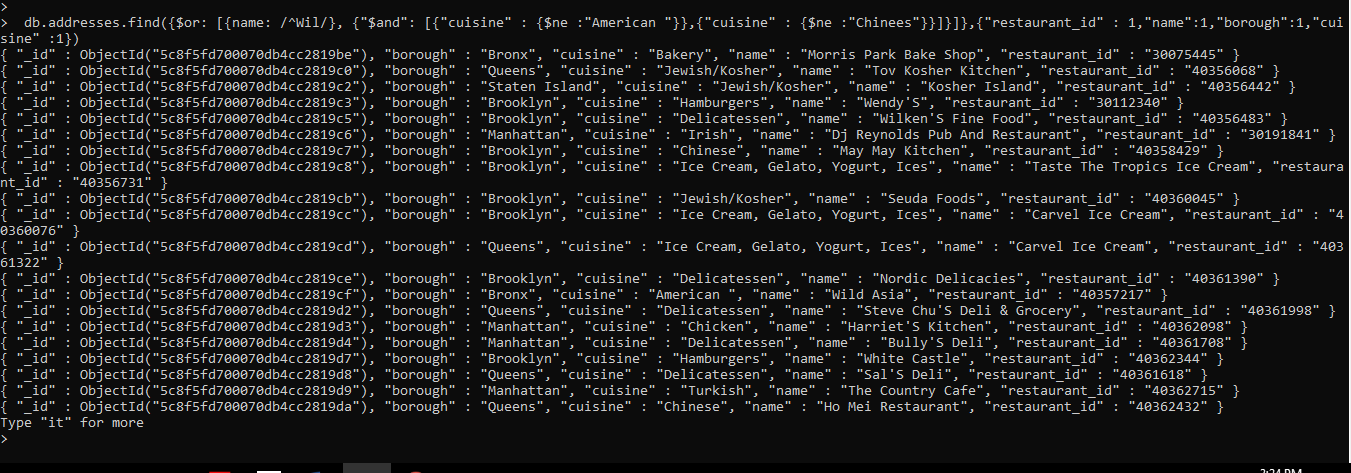
19.Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which are not belonging to the borough Staten Island or Queens or Bronxor Brooklyn.



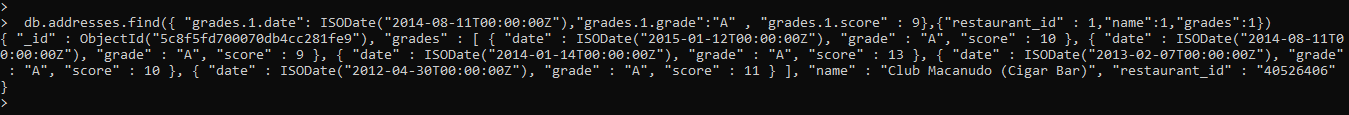
20.Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which achieved a score which is not more than 10.



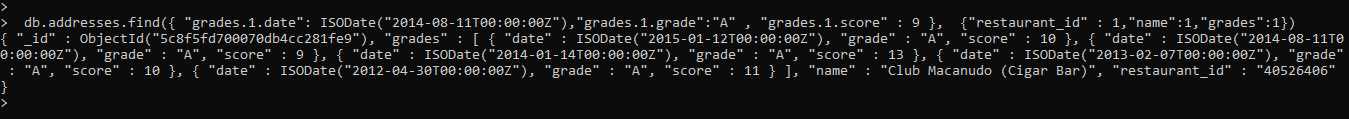
21.Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which prepared dish except 'American' and 'Chinees' or restaurant's name begins with letter 'Wil'.



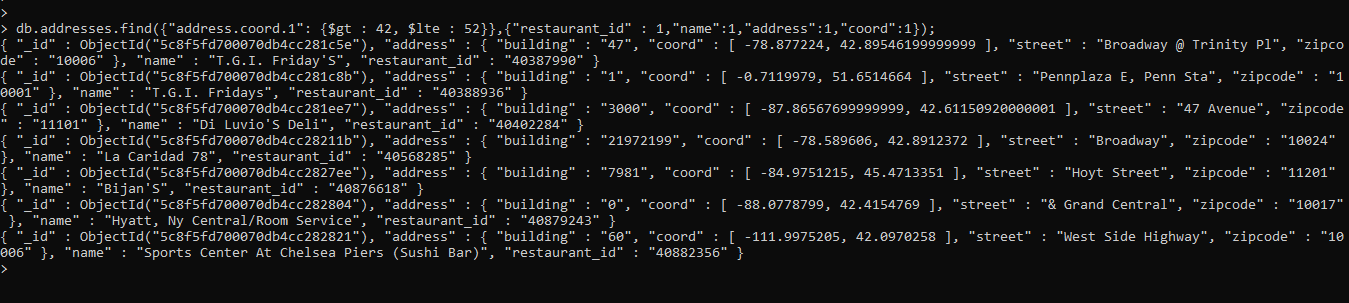
22.Write a MongoDB query to find the restaurant Id, name, and grades for those restaurants which achieved a grade of "A" and scored 11 on an ISODate "2014-08-11T00:00:00Z" among many of survey dates..



23.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"



24.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..



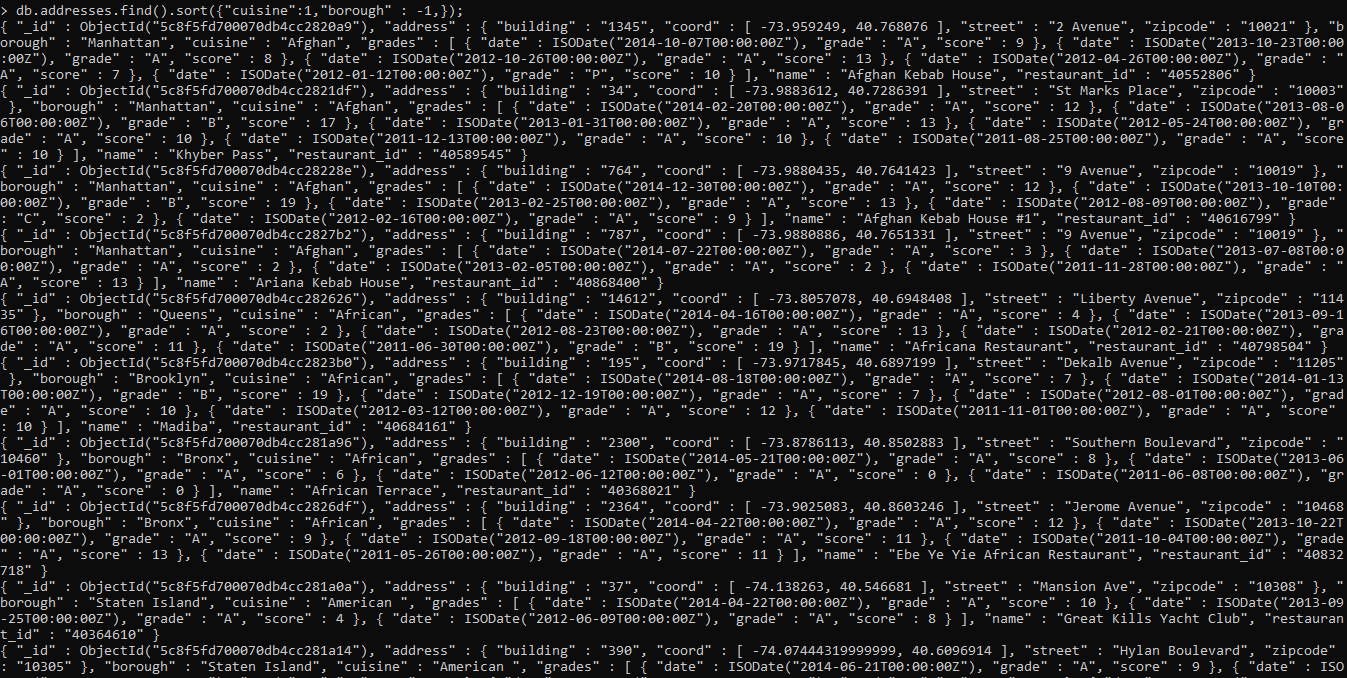
25.Write a MongoDB query to arrange the name of the restaurants in ascending order along with all the columns.



26.Write a MongoDB query to arrange the name of the restaurants in descending along with all the columns.



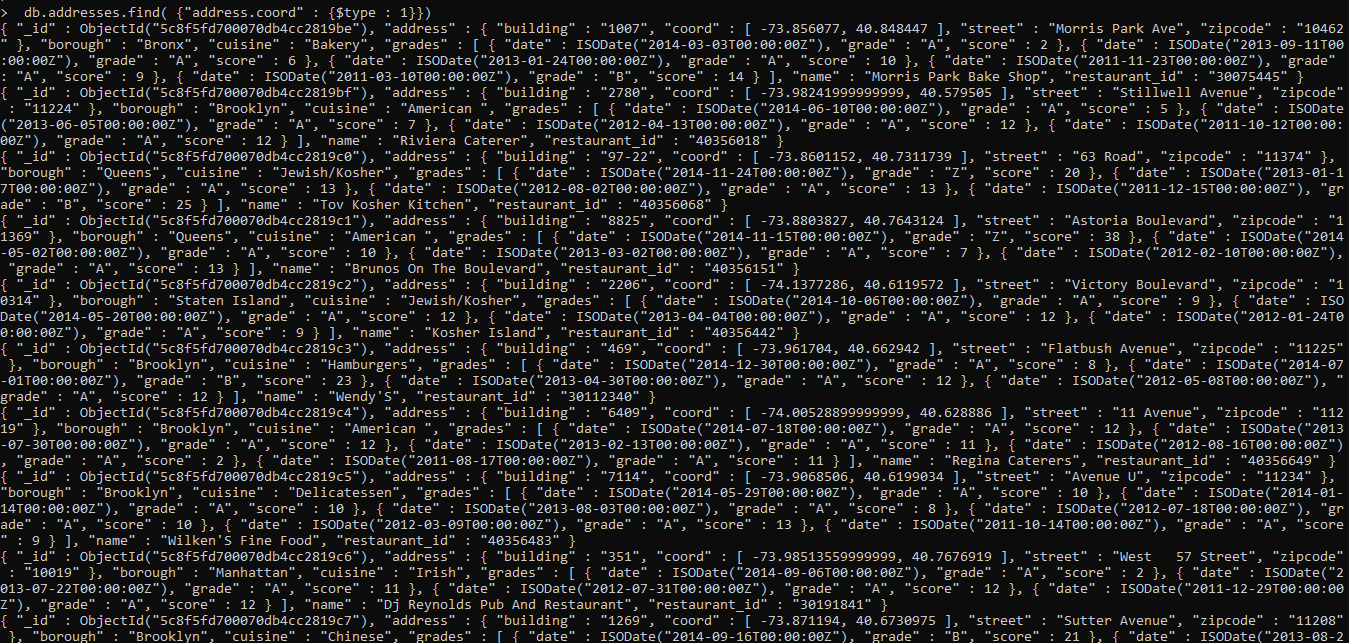
27.Write a MongoDB query to arranged the name of the cuisine in ascending order and for that same cuisine borough should be in descending order.



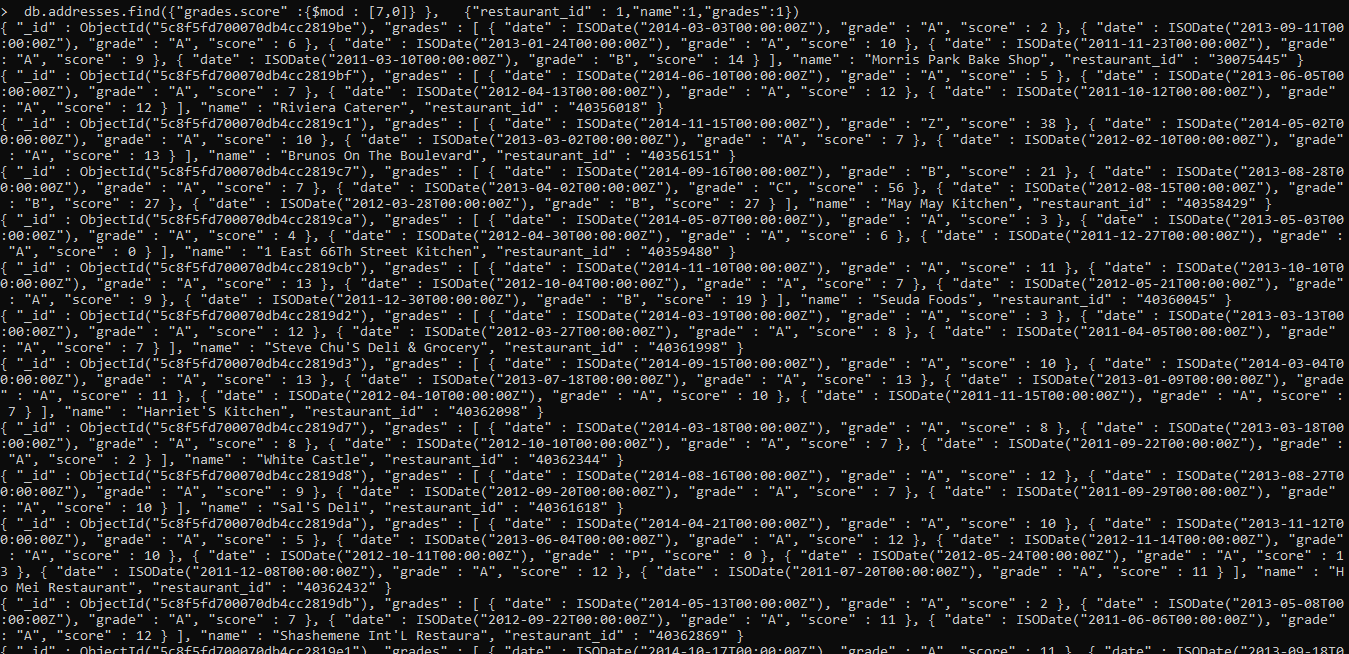
28.Write a MongoDB query to know whether all the addresses contains the street or not.



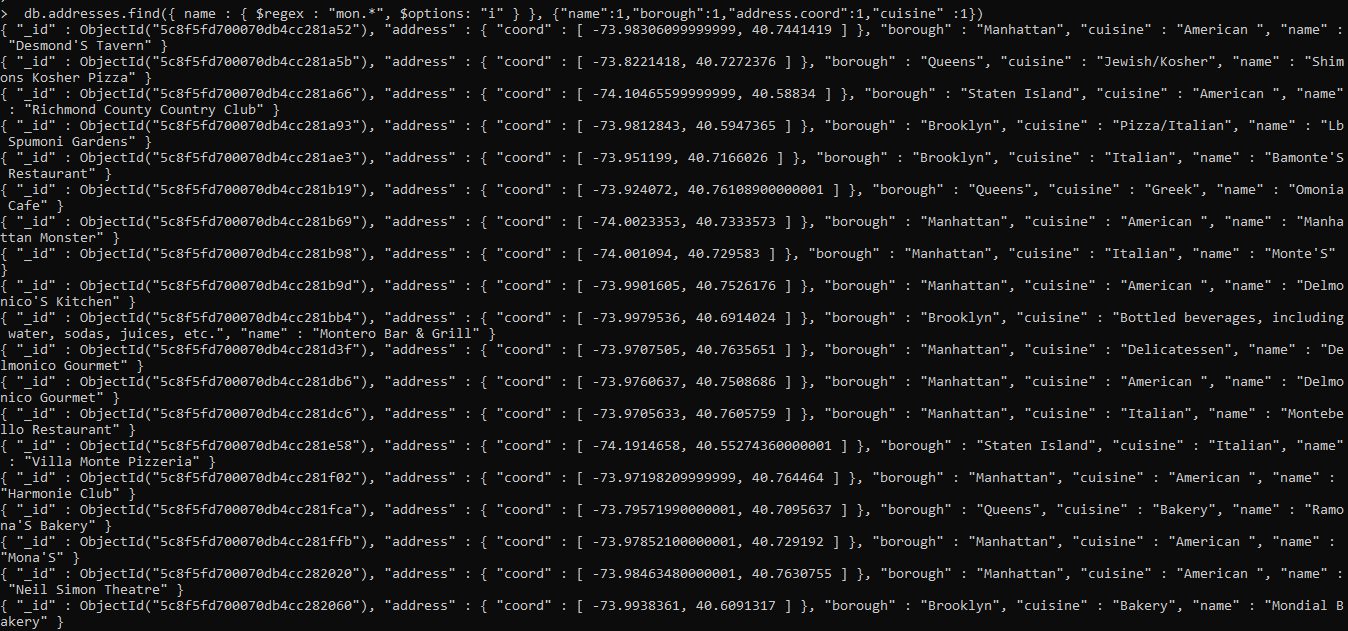
29.Write a MongoDB query which will select all documents in the restaurants collection where the coord field value is Double.



30.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.



31.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.



32.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.

