**Name: Shrirang Dawande**

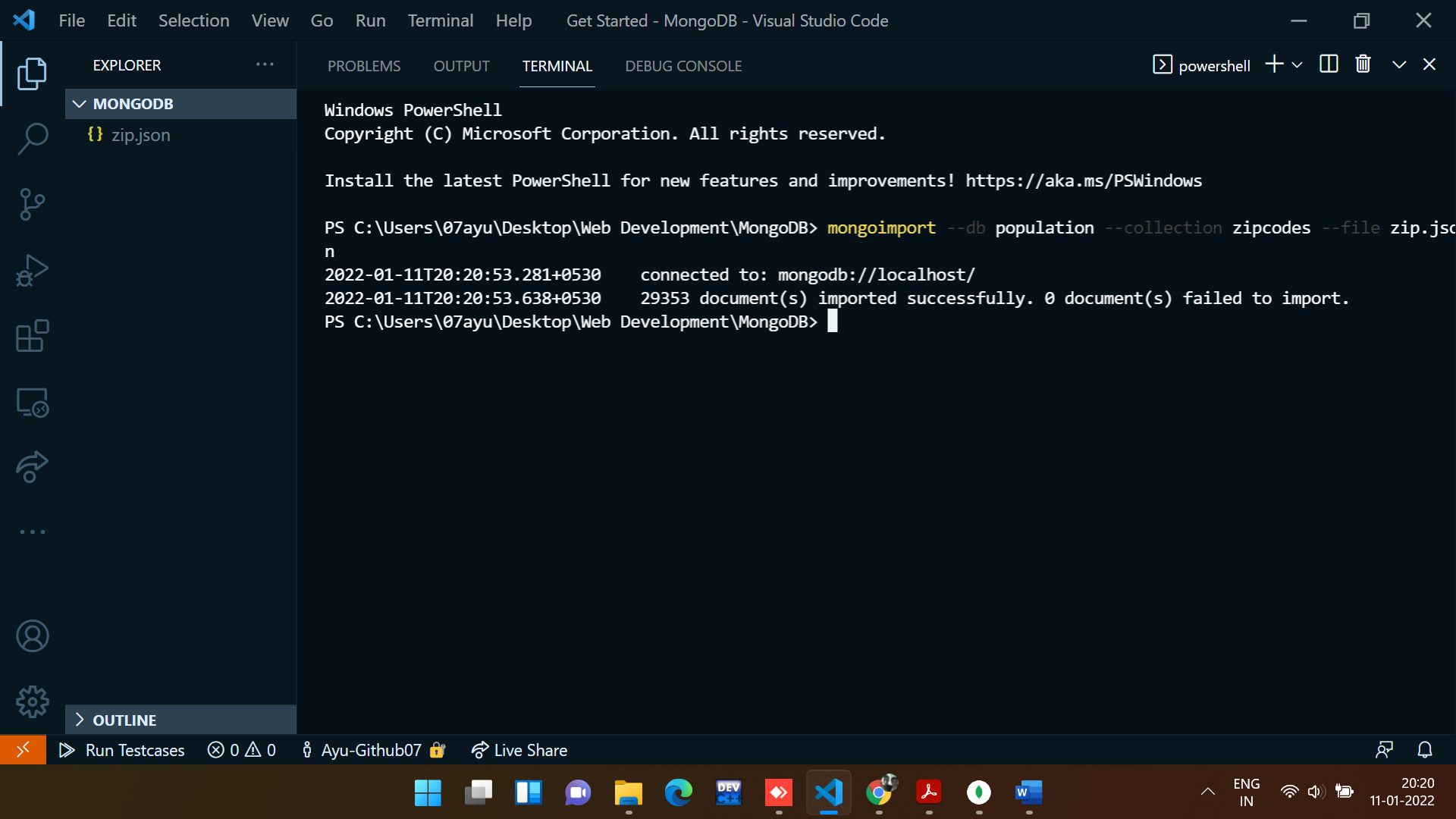
**Date: 12-01-2022**

**MongoDB -Aggregation Exercises**

Import the zips.json file into your MongoDB. Database name is "population" and collection name is "zipcodes".

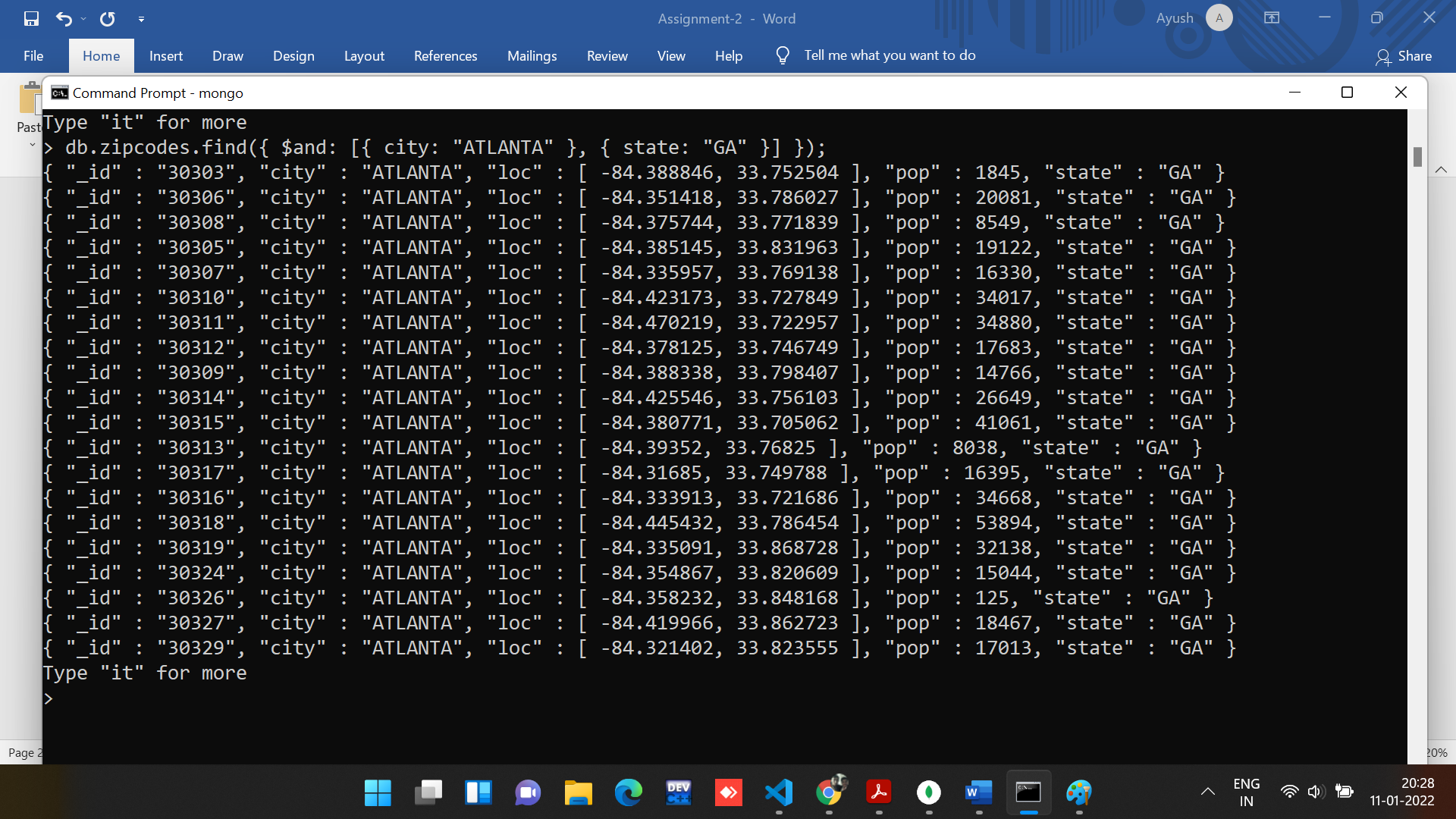
**mongoimport --db population --collection zipcodes --file zip.json**

**Database imported successfully:**

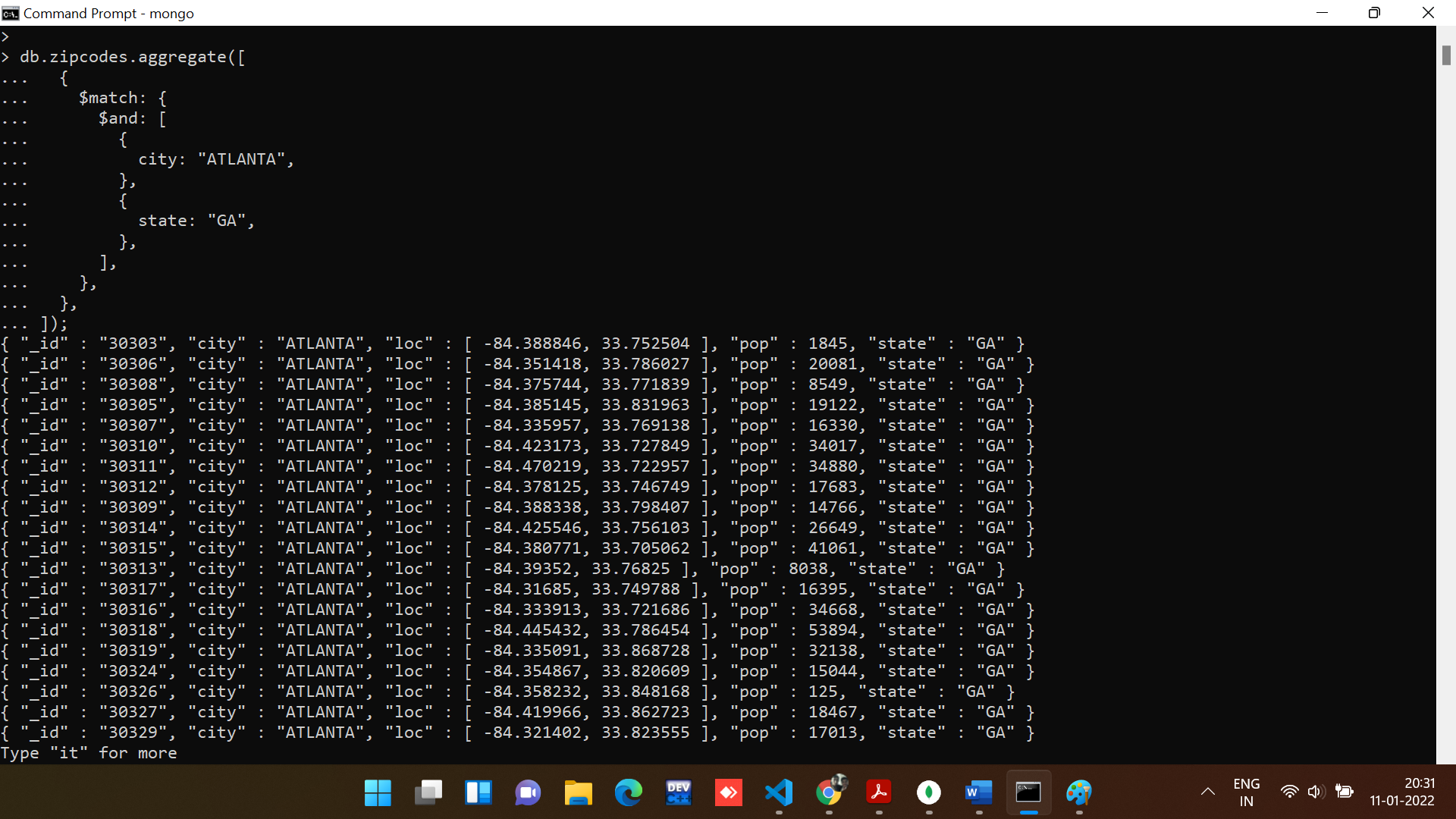


**Section-1: -** **Atlanta Population**

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

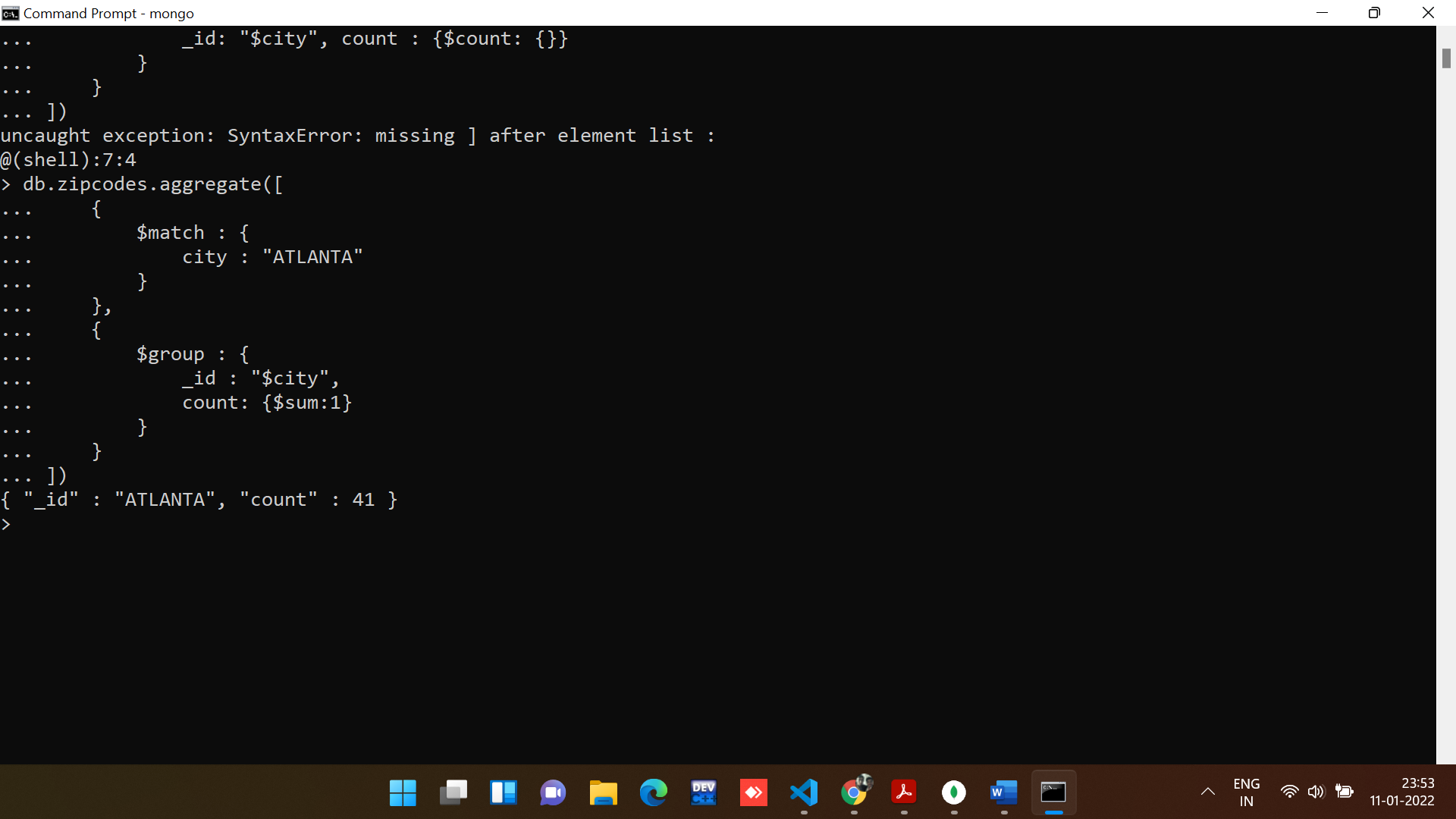


2. use db.zipcodes.aggregate with $match to do the same as above.

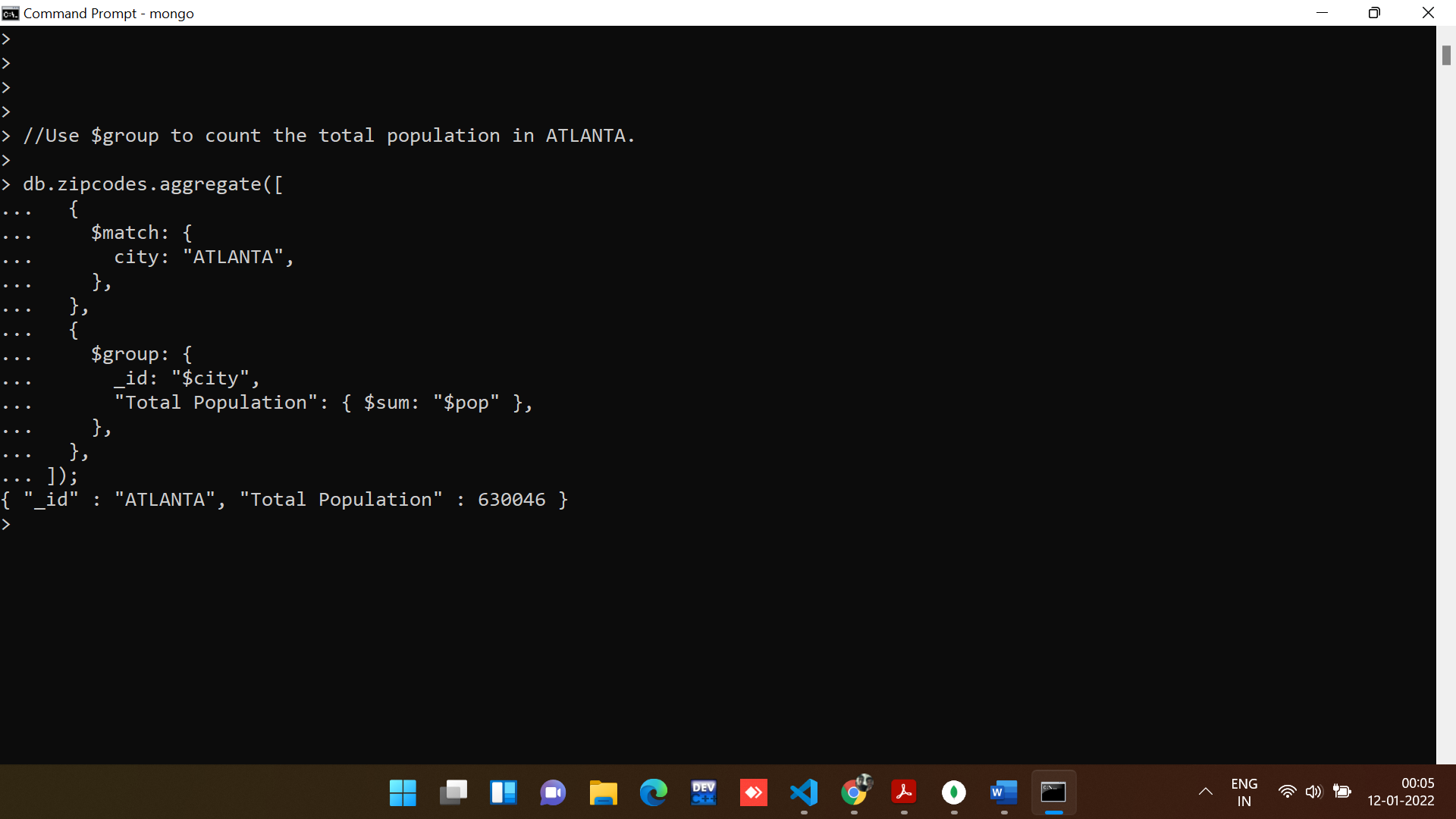


3. use $group to count the number of zip codes in Atlanta.

**Output:**

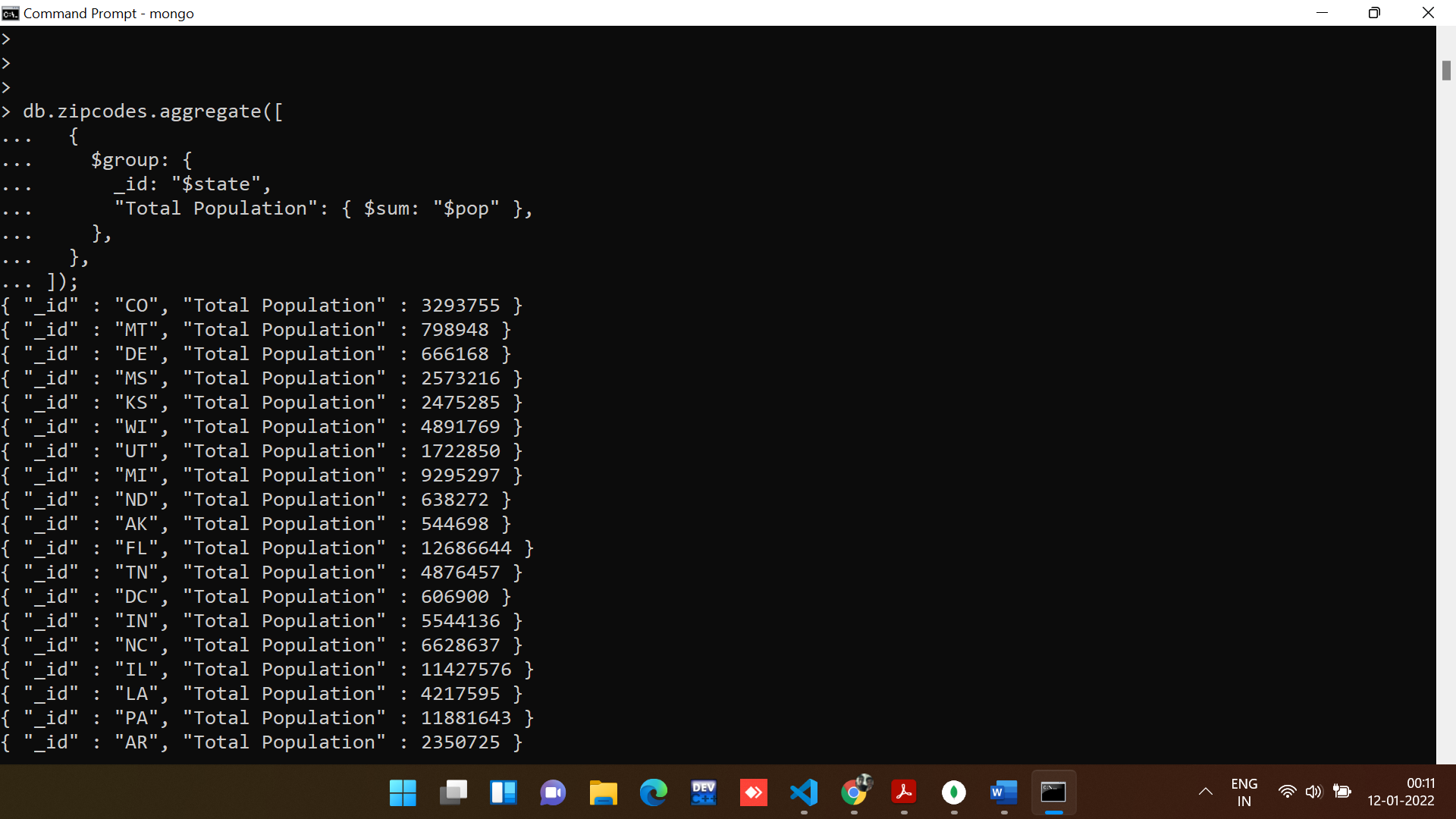


4. use $group to find the total population in Atlanta.

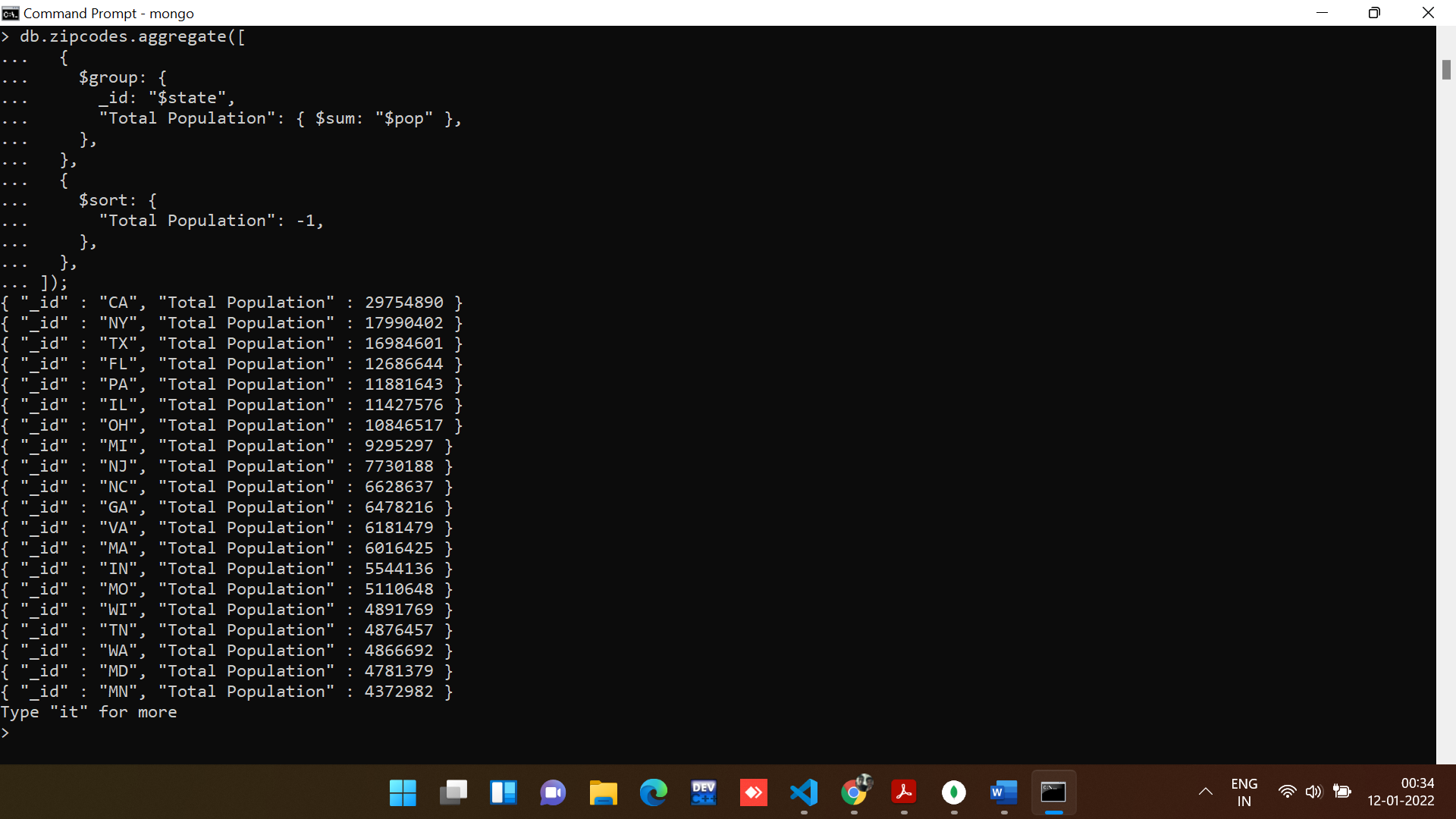


**Section-2: -** **Populations by State**

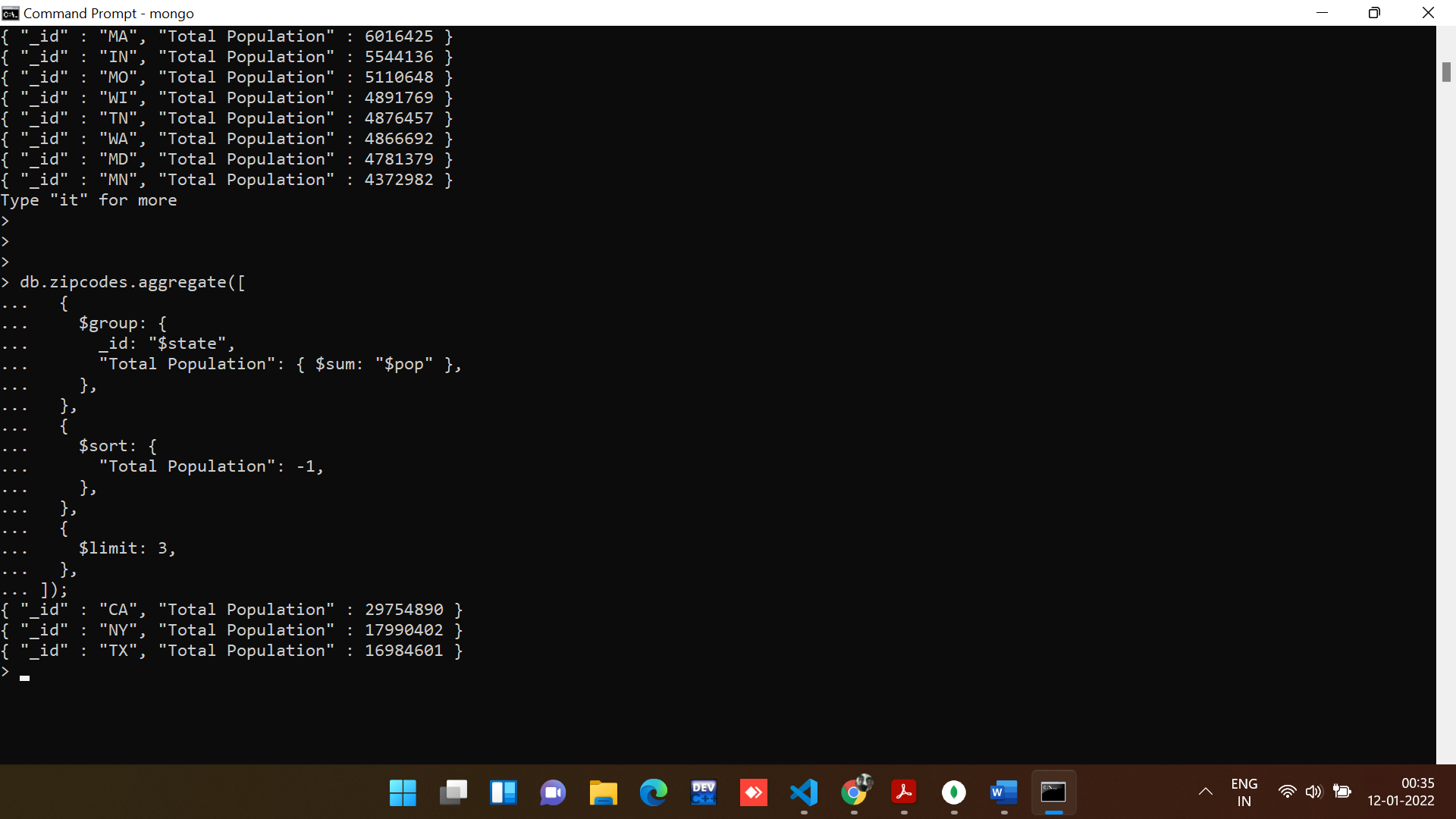
1. use aggregate to calculate the total population for each state.



2. sort the results by population, highest first.

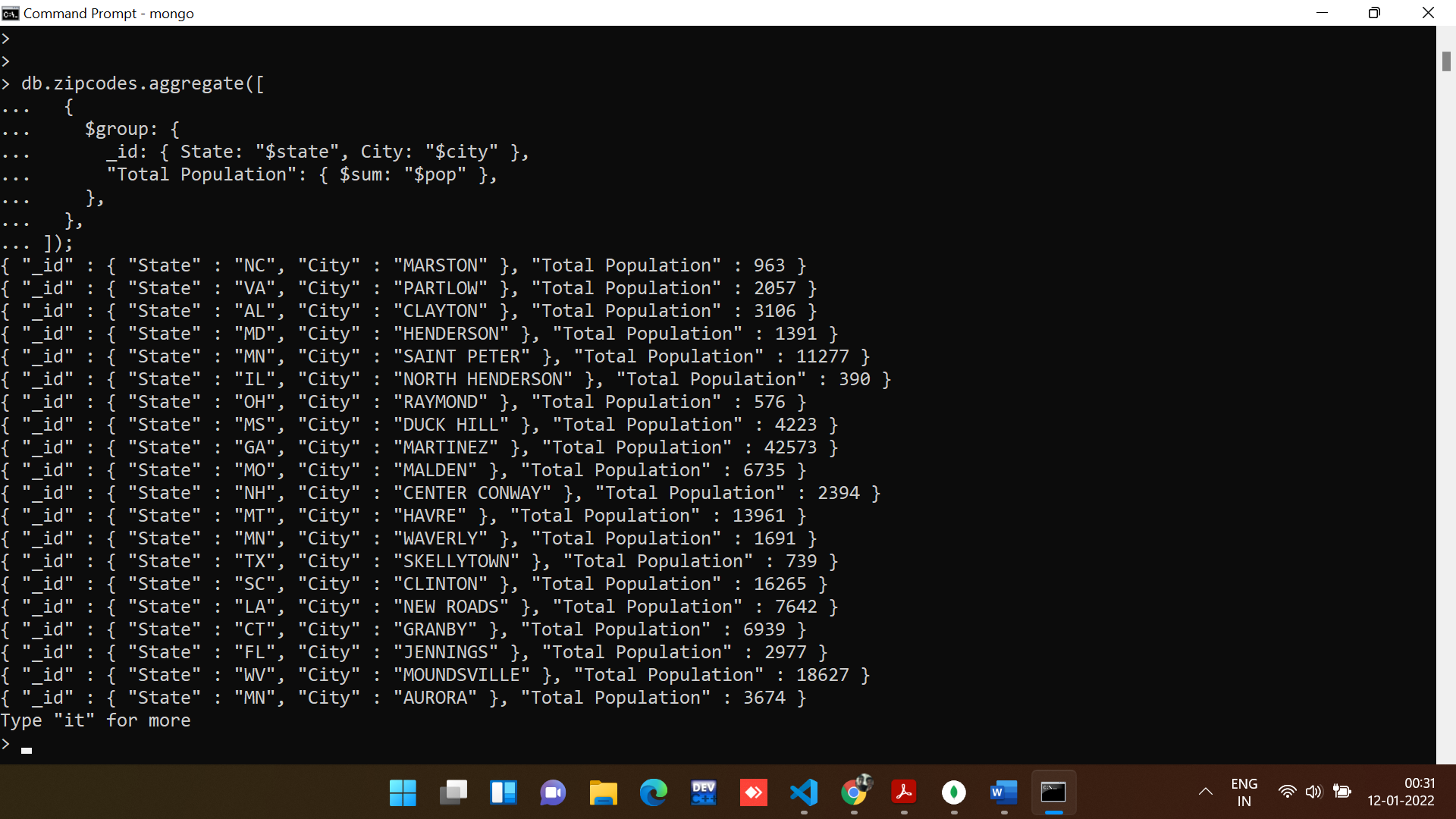


3. limit the results to just the first 3 results. What are the top 3 states in population?

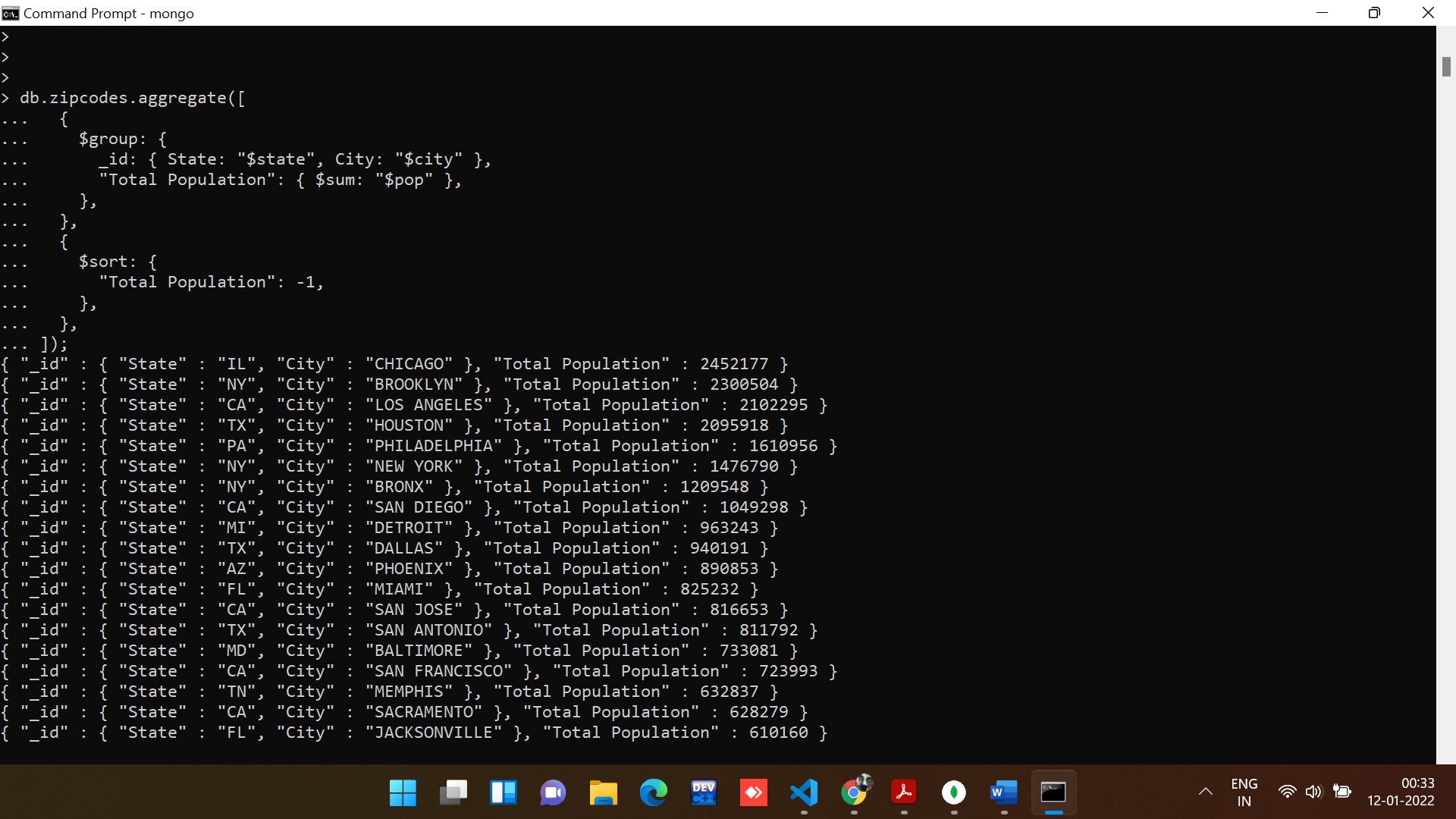


**Section-3: -Populations by City**

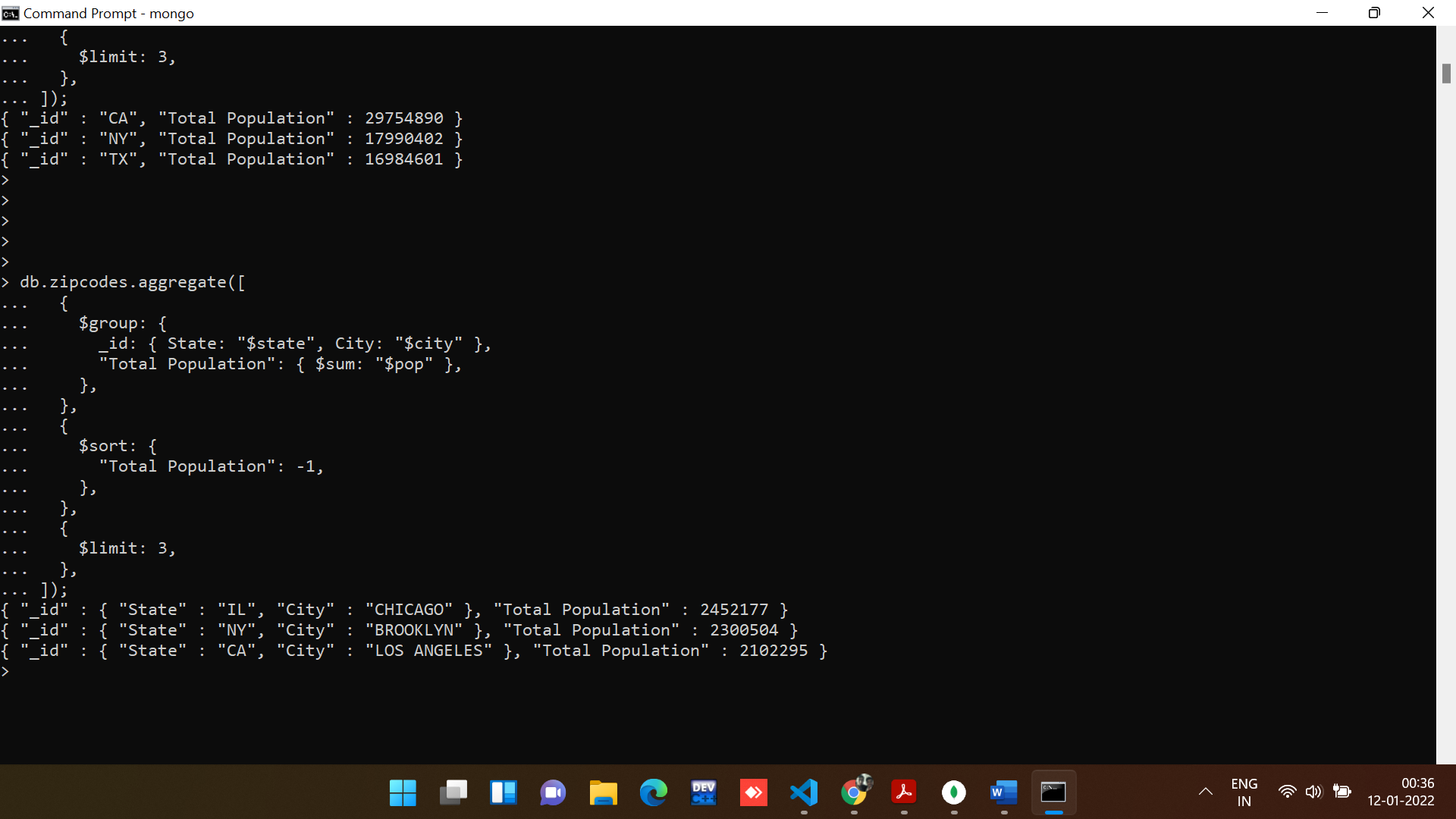
1. use aggregate to calculate the total population for each city (you have to use city/state combination). You can use a combination for the \_id of the $group: { city: '$city', state: '$state' }



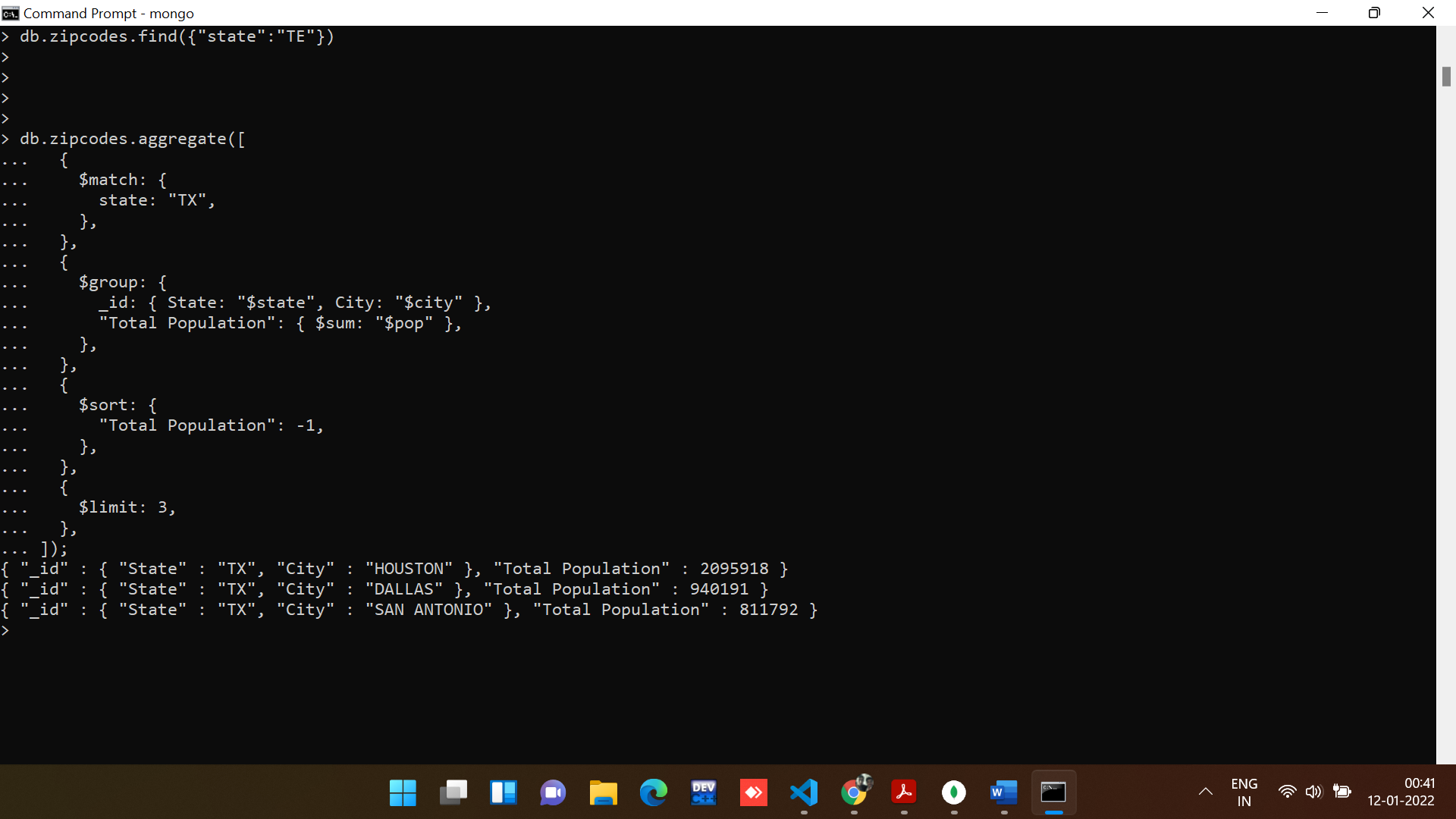
2. sort the results by population, highest first .



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

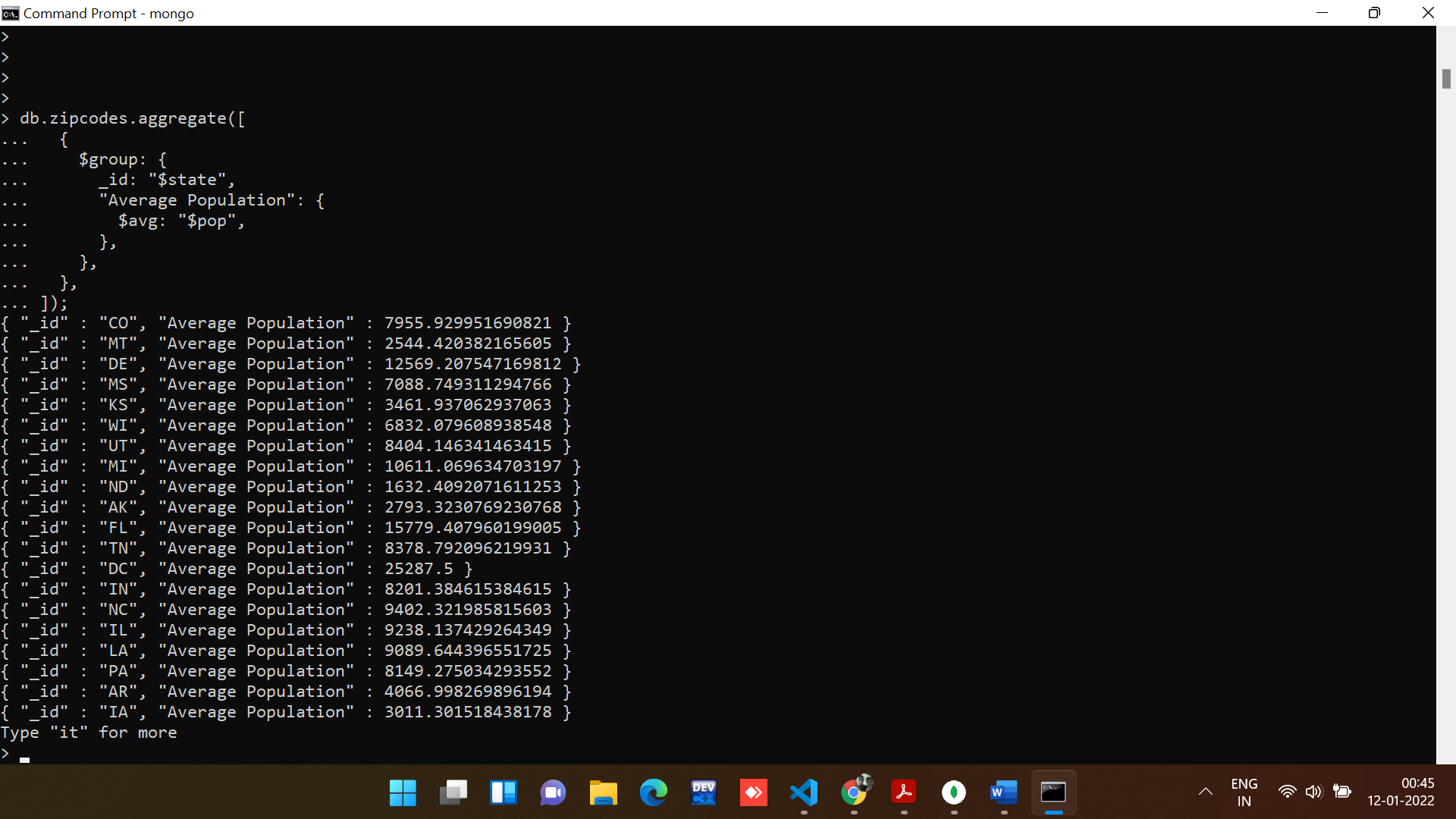


4. What are the top 3 cities in population in Texas?



**Section-4: - Bonus**

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



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

