

## CS/CE 457/464 - Homework Assignment 5: NoSQL

Due Date: Monday, September 30 at 11:59 pm

### Purpose:

Demonstrate exploration of data via creation of statistical tables using MongoDB NoSQL

**Points:** 100 (10 points each question)

**Deliverables:** You can either include screenshots of your output or copy paste your queries and **output (Raw Shell Output in JSON)** for your answers and submit PDF version.

- Review IDMA Chapter 7 and lecture slides
  - Book Chapter 7
- Create a Database and Load/Import the dataset into collection using dataset `airbnb_listings.json`
- Query the collection and **interpret the results**, displaying:
  1. the count of total number of records in the collection.
  2. the count of records for property\_type “House”.
  3. counts for each property\_type in descending order of count (use group).
  4. the count of records for review\_scores\_cleanliness less than 5.
  5. the count of records for each room\_type, cancellation\_policy. Order the output by count in ascending order.
  6. Similar to question 5, the count of records for each room\_type, cancellation\_policy when property\_type is “Apartment”. Order the output by cancellation\_policy in ascending order.
  7. Find all the records where address.market is “New York” and monthly\_price is greater than 5000. Display only id and monthly\_price and sort the output by monthly\_price in descending order.
  8. Display the records with cleaning\_fee in descending order. Display name, property\_type and cleaning\_fee. Limit records to 10 (easy)
  9. Come up with your own query to show any interesting insight. Use atleast two fields for match and two fields for group.
  10. Come up with your own query to show any interesting insight. Use atleast two fields for group.

### Tools:

- MongoDB, MongoDBCompass, Studio3T