

Northeastern University

Course: DA5020
Assignment: NoSQL Data Storage & Retrieval using MongoDB
Total Points: 100
Date Due: Posted on Blackboard

Learning Objectives

In this assignment, you will learn how to:

- install the MongoDB server
- insert data into MongoDB
- fetch data from MongoDB

Tasks

1. (25 Points) Install the MongoDB server on your system. Follow the step-by-step *Guide to Install MongoDB* from the official website as listed below or follow the instructions in Chapter 14 of the book.
 - a. Installation on MacOS -
<https://docs.mongodb.org/manual/tutorial/install-mongodb-on-os-x/>
 - b. Installation on Windows -
<https://docs.mongodb.org/manual/tutorial/install-mongodb-on-windows/>
 - c. Installation on Ubuntu -
<https://docs.mongodb.org/manual/tutorial/install-mongodb-on-ubuntu/>
2. (15 Points) Insert the *Bird Strikes.csv* file into MongoDB and use the **export** command to display the inserted file. **Note:** Remember to reshape the data by removing the dots (periods) from the column names before inserting the data into MongoDB.
3. Perform the following fetch operations:
 - a. (10 points) Fetch the unique airport names from the database
 - b. (10 points) Count the number of records where *originState* equals "New Jersey"

- c. (10 points) Fetch the data with *conditionsPrecipitation* being fog and sort the data in descending order of *recordId*.
- d. (30 points) Fetch only the following columns for *aircraftAirlineOperator*:
“AMERICAN AIRLINES” and “CONTINENTAL AIRLINES”
 - i. *recordId*
 - ii. *originState*
 - iii. *aircraftAirlineOperator*
 - iv. *airportName*

Submission

To receive full credit, submit the following items:

1. complete R code with comments and results
2. screenshots of queries
3. screenshot of exported data