Prompt

After completing the textbook reading and reviewing the module resources, complete the following tasks using the MongoDB shell.

1. Using the mongoimport tool, **create the database** “companies” by loading the documents found in the “companies.json” file into the “research” collection. This file is located in the “/usr/local/datasets/” directory in Apporto. Verify your load by issuing the following queries: A computer screen with text on it

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   1. db.research.find({"name" : "AdventNet"})A screenshot of a computer program

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   2. db.research.find({"founded\_year" : 1996},{"name" : 1}).limit(10) A screenshot of a computer

      Description automatically generated
2. Perform the following tasks **using MongoDB queries**:
   1. List only the first 20 names of companies founded after the year 2010, ordered alphabetically. A screenshot of a computer program

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   2. List only the first 20 names of companies with offices in either California or Texas, ordered by the number of employees and sorted largest to smallest. A screenshot of a computer screen

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Provide **screenshots** of your statements and the results as evidence.

1. **Design and implement a MongoDB aggregation pipeline** to show the total number of offices by state for all companies that have offices in the United States. Be sure that you account for the fact that some companies have offices in several states. Explain your aggregation pipeline.  
   Provide **screenshots** of your statements and the results as evidence.

**Using the query :**

db.research.aggregate([

{ $unwind: "$offices" },

{ $match: {"offices.country\_code": "USA"} },

{ $group: {\_id: "$offices.state", totalOffices: {$sum: 1}} },

{ $sort: {totalOffices: -1} }

])

I was able to print a result of all offices, in the USA, summed per state. Using the Unwind offices field function I was able to output each offices array as a separate document. This allowed aggregation and count based upon all office objects.

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