Отчет

Проверку осуществлял пока в файле с расширением js.

1. How many records does each airline class have? Use $project to show result as { class: "Z", total: 999 }

db.collection.aggregate([

{ $group: { \_id: "$class", \_total: { $sum: 1 } } },

{ $project: { \_id: 0, class: "$\_id", total: "$\_total" } }

]);

{ class: 'F', total: 140343 }

{ class: 'G', total: 17499 }

{ class: 'L', total: 23123 }

{ class: 'P', total: 5683 }

2. What are the top 3 destination cities outside of the United States (destCountry field, not included) with the highest average passengers count? Show result as { "avgPassengers" : 2312.380, "city" : "Minsk, Belarus" }

db.collection.aggregate([

{

$match: {

$expr: {

$ne: ["$destCountry", "United States"]

}

}

},

{

$group: {

\_id: "$destCity",

avgPassengers: { $avg: "$passengers" }

}

},

{ $sort: { avgPassengers: -1 } },

{ $limit: 3 },

{ $project: { \_id: 0, avgPassengers: 1, city: "$\_id" } }

]);

{ avgPassengers: 8052.380952380952,

city: 'Abu Dhabi, United Arab Emirates' }

{ avgPassengers: 7176.596638655462,

city: 'Dubai, United Arab Emirates' }

{ avgPassengers: 7103.333333333333, city: 'Guangzhou, China' }

3. Which carriers provide flights to Latvia (destCountry)? Show result as one document { "\_id" : "Latvia", "carriers" : [ "carrier1", " carrier2", …] }

db.collection.aggregate([

{ $match: { destCountry: "Latvia" } },

{ $group: { \_id: "$destCountry", carriers: { $addToSet: "$carrier" } } }

]);

{ \_id: 'Latvia',

carriers: [ 'JetClub AG', 'Blue Jet SP Z o o', 'Uzbekistan Airways' ] }

4. What are the carriers which flue the most number of passengers from the United State to either Greece, Italy or Spain? Find top 10 carriers, but provide the last 7 carriers (do not include the first 3). Show result as { "\_id" : "<carrier>", "total" : 999}

db.collection.aggregate([

{

$match: {

$expr: {

$and: [

{ $in: ["$destCountry", ["Spain", "Italy", "Greece"]] },

{ $eq: ["$originCountry", "United States"] }

]

}

}

},

{

$group: {

\_id: "$carrier",

total: { $max: "$passengers" }

}

},

{ $limit: 10 },

{ $skip: 3 }

]);

{ \_id: 'VistaJet Limited', total: 13 }

{ \_id: 'Air Alsie A/S', total: 7 }

{ \_id: 'Jet Aviation Flight Services, Inc.', total: 7 }

{ \_id: 'Norwegian Air Shuttle ASA', total: 2381 }

{ \_id: 'Global Jet Luxembourg, Sa', total: 7 }

{ \_id: 'American Airlines Inc.', total: 8065 }

{ \_id: 'Volga-Dnepr Airlines', total: 0 }

5. Find the city (originCity) with the highest sum of passengers for each state (originState) of the United States (originCountry). Provide the city for the first 5 states ordered by state alphabetically (you should see the city for Alaska, Arizona and etc). Show result as { "totalPassengers" : 999, "location" : { "state" : "abc", "city" : "xyz" } }

db.collection.aggregate([

{

$match: { originCountry: "United States" }

},

{

$group: {

\_id: "$originCity",

sumPassengers: { $sum: "$passengers" },

state: { $first: "$originState" }

}

},

{

$group: {

\_id: {

state: "$state"

},

maxPassengers: { $max: "$sumPassengers" },

city: { $first: "$\_id" }

}

},

{

$sort: { \_id: 1 }

},

{

$limit: 5

},

{

$project: {

totalPassengers: "$maxPassengers",

location: { state: "$\_id", city: "$city" },

\_id: 0

}

} ]);

{ totalPassengers: 760120,

location: { state: { state: 'Alabama' }, city: 'Huntsville, AL' } }

{ totalPassengers: 1472404,

location: { state: { state: 'Alaska' }, city: 'Danger Bay, AK' } }

{ totalPassengers: 13152753,

location: { state: { state: 'Arizona' }, city: 'Peach Springs, AZ' } }

{ totalPassengers: 571452,

location: { state: { state: 'Arkansas' }, city: 'Blytheville, AR' } }

{ totalPassengers: 23701556,

location: { state: { state: 'California' }, city: 'Santa Ynez, CA' } }