MongoDB Task2

1. db.airlines.aggregate(

{$unwind: '$class'},

{$group: { \_id :'$class', count: {$sum: 1}

}

},

{$project: {

\_id: 0,

class: '$\_id',

count: 1

}

}

).pretty()

Result:

{ "count" : 140343, "class" : "F" }

{ "count" : 23123, "class" : "L" }

{ "count" : 5683, "class" : "P" }

{ "count" : 17499, "class" : "G" }

1. Query

db.airlines.aggregate(

{$match:{

"destCountry": {$ne:"United States"}

}

},

{$group: {

\_id :'$destCity', count: {$avg: "$passengers"}

}

},

{$project: {

\_id: 0,

avgPassengers: '$count',

city: "$\_id"}

},

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

{ "$limit": 3 }

)

Result:

{ "avgPassengers" : 8052.380952380952, "city" : "Abu Dhabi, United Arab Emirates" }

{ "avgPassengers" : 7176.596638655462, "city" : "Dubai, United Arab Emirates" }

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

1. Query

db.airlines.aggregate( [

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

... { $group :

... { \_id : "$destCountry",

... carriers: {$addToSet: "$carrier"}

... }

... }

... ]).pretty()

Result

{

"\_id" : "Latvia",

"carriers" : [

"Uzbekistan Airways",

"Blue Jet SP Z o o",

"JetClub AG"

]

}

1. Query:

db.airlines.aggregate([

{ $match : {originCountry : "United States" }

},

{ "$match" :

{ $or:[

{"destCountry":"Greece"},

{"destCountry":"Italy"},

{"destCountry":"Spain"}]}

},

{

$group: {

\_id: "$carrier",

total: {

$sum: "$passengers"

}

}},

{ $sort: {

total: -1

}

},

{ $limit: 10 },

{ $skip : 3 }

]).pretty()

Result:

{ "\_id" : "Compagnia Aerea Italiana", "total" : 280256 }

{ "\_id" : "United Air Lines Inc.", "total" : 229936 }

{ "\_id" : "Emirates", "total" : 100903 }

{ "\_id" : "Air Europa", "total" : 94968 }

{ "\_id" : "Meridiana S.p.A", "total" : 20308 }

{ "\_id" : "Norwegian Air Shuttle ASA", "total" : 13344 }

{ "\_id" : "VistaJet Limited", "total" : 183 }

1. Query:

db.airlines.aggregate([

{ $match : {originCountry : "United States" }

},

{

$group: {

\_id: {

originCity:"$originCity",

originState: "$originState"},

totalPassengers: {

$sum: "$passengers"

}

}},

{ $sort: {

totalPassengers: -1

}

},

{ $limit: 5 },

{ $sort: {

"\_id.originState":1

}

},

{ $project: {

\_id: 0,

totalPassengers:"$totalPassengers",

location: {

state: "$\_id.originState",

city: "$\_id.originCity"

}

}}

]).pretty()

Result:

{

"totalPassengers" : 23701556,

"location" : {

"state" : "California",

"city" : "Los Angeles, CA"

}

}

{

"totalPassengers" : 29416565,

"location" : {

"state" : "Georgia",

"city" : "Atlanta, GA"

}

}

{

"totalPassengers" : 28035755,

"location" : {

"state" : "Illinois",

"city" : "Chicago, IL"

}

}

{

"totalPassengers" : 25266639,

"location" : {

"state" : "New York",

"city" : "New York, NY"

}

}

{

"totalPassengers" : 18408792,

"location" : {

"state" : "Texas",

"city" : "Dallas/Fort Worth, TX"

}

}