**MongoDB Aggregation Assignment-2**

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**Creating Database:-**  db.createCollection(“population”)

Now import the zip.json file using MongoDB Compass.

**Atlanta Population**

* db.zipcodes.find({“city”: “ATLANTA”, “state”: “GA”}).pretty()
* db.zipcodes.aggregate([{$match: {“city”: “ATLANTA”, “state”: “GA”}}]).pretty()
* db.zipcodes.aggregate([{$match: {"city": "ATLANTA"}}, {$group:{\_id:"$city", count:{$sum: 1}}}])
* db.zipcodes.aggregate([{$match: {"city": "ATLANTA"}}, {$group: {\_id: "$city", totalPop: {$sum: "$pop"}}}])

**Populations By State**

* db.zipcodes.aggregate([{$group: {\_id: "$state", totalPop: {$sum: "$pop"}}}])
* db.zipcodes.aggregate([{$sort:{"pop": -1}}]).pretty()
* db.zipcodes.aggregate([{$sort:{"pop": -1}},{$limit: 3}]).pretty()

**Populations By City**

* db.zipcodes.aggregate([{$group: {\_id: {state: "$state", city: "$city"}, pop: {$sum: "$pop"}}}])
* db.zipcodes.aggregate([{ $group: {\_id: {state: "$state", city: "$city"}, pop: {$sum: "$pop"}}}, {$sort: { pop: -1}}])
* db.zipcodes.aggregate([{ $group: { \_id: { state: "$state", city: "$city"}, pop: {$sum: "$pop"}}}, {$sort: { pop: -1}}, {$limit: 3}])
* db.zipcodes.aggregate([{$match: {"state" : "TX"}}, {$group: {\_id: {state: "$state", city: "$city"}, pop: {$sum:"$pop"}}}, {$sort: {pop: -1}}, {$limit: 3}]).pretty()

**Bonus**

* db.zipcodes.aggregate( [{ $group: { \_id: { state: "$state", city: "$city" }, pop: { $sum: "$pop"}}},{ $group: { \_id: "$\_id.state", avgCityPop: { $avg: "$pop"}}}]).pretty()
* db.zipcodes.aggregate( [{ $group: {\_id: {state: "$state", city: "$city"}, pop: {$sum: "$pop"}}},{$group: {\_id: "$\_id.state", avgCityPop: { $avg: "$pop"}}}, {$sort: {avgCityPop: -1}}, {$limit:3}] )