Assignments -2(Aggregation Exercises):

Atlana population:

1. db.zipcodes.find({$and:[{city:"ATLANTA"},{state:"GA"}]}).pretty()
2. db.zipcodes.aggregate([{ $match: {city:"ATLANTA",state:"GA"} }]).pretty()
3. db.zipcodes.aggregate([{$group:{_id:"ATLANTA",count:{$sum:1}}}])
4. db.zipcodes.aggregate([{$group: {_id:"$ATLANTA",count:{$sum:"$pop"}}}])

Population by state:

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

Population by city:

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

Bonus:

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