

## Homework 9

(1) `db.zips.aggregate([{$match: {state:"IA"}}]).pretty()`

(2) `db.zips.aggregate([{$match: {pop:{$lt: 1000}}])).pretty()`

(3) `db.zips.aggregate([{$group : {_id : "$city", num_zipcodes : {$sum:1}}}, {$match : { num_zipcodes : {$gte : 2}}}, {$project : {_id : 0, 'city' : "$_id", 'Number of Zipcodes': "$num_zipcodes"}}, {$sort : {city:1}}])`

(4) `db.zips.aggregate( [{ $group:{_id: { state: "$state", city: "$city" },pop: { $sum: "$pop"} }},{$sort: { pop: 1}},{$group:{_id : "$_id.state", smallestCity: { $first: "$_id.city" },smallestPop: { $first: "$pop" } }},{ $project:{_id: 0,state: "$_id",smallestCity: { name: "$smallestCity", pop: "$smallestPop" } } } ] )`