

Practical no. 04

AIM: AGGREGATION USING MONGODB

Commands:

1. `db.avo.find({$and:[{geography:{$nin:["boston"]}},{average_price:{$gt:1.4}}]},{_id:1,geography:1,average_price:1})`

```
{
  _id: ObjectId('65d9c3bdd8a07e135cb293d0'),
  average_price: 1.63,
  geography: 'Indianapolis'
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293d2'),
  average_price: 1.81,
  geography: 'Jacksonville'
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293d4'),
  average_price: 1.5,
  geography: 'Las Vegas'
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293d8'),
  average_price: 1.48,
  geography: 'Louisville'
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293da'),
  average_price: 1.82,
  geography: 'Miami/Ft. Lauderdale'
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293dc'),
  average_price: 1.56,
  geography: 'Midsouth'
}
]
Type "it" for more
```

2. `db.avo.find({$or:[{geography:{$nin:["boston"]}},{average_price:{$gt:1.4}}]},{_id:1,geography:1,average_price:1})`

```
{
  _id: ObjectId('65d9c3bdd8a07e135cb293b7'),
  average_price: 1.19,
  geography: 'Charlotte'
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293b8'),
  average_price: 2.13,
  geography: 'Charlotte'
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293b9'),
  average_price: 1.11,
  geography: 'Chicago'
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293ba'),
  average_price: 1.49,
  geography: 'Chicago'
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293bb'),
  average_price: 0.88,
  geography: 'Cincinnati/Dayton'
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293bc'),
  average_price: 1.34,
  geography: 'Cincinnati/Dayton'
}
]
Type "it" for more
```

3. `db.avofind({geography:{$nin:["chicago"] }},{})`

```
'4046': 3274.3,
'4225': 168764.78,
'4770': 1447.06,
_id: ObjectId('65d9c3bdd8a07e135cb293bb'),
date: '2015-01-04',
average_price: 0.88,
total_volume: 228569.58,
total_bags: 55083.44,
small_bags: 17525.31,
large_bags: 37445.46,
xlarge_bags: 112.67,
type: 'conventional',
year: 2015,
geography: 'Cincinnati/Dayton'
},
{
'4046': 144.47,
'4225': 6921.75,
'4770': 0,
_id: ObjectId('65d9c3bdd8a07e135cb293bc'),
date: '2015-01-04',
average_price: 1.34,
total_volume: 8764.33,
total_bags: 1698.11,
small_bags: 585.96,
large_bags: 1112.15,
xlarge_bags: 0,
type: 'organic',
year: 2015,
geography: 'Cincinnati/Dayton'
}
]
Type "it" for more
```

4. `db.avofind({average_price:{$gte: 1}},{_id:1, average_price:1})`

```
reshma> db.avofind({average_price:{$gte: 1}},{_id:1, average_price:1})
[
  { _id: ObjectId('65d9c3bdd8a07e135cb293a9'), average_price: 1.22 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293aa'), average_price: 1.79 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293ab'), average_price: 1 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293ac'), average_price: 1.76 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293ad'), average_price: 1.08 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293ae'), average_price: 1.29 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293af'), average_price: 1.01 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b0'), average_price: 1.64 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b1'), average_price: 1.02 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b2'), average_price: 1.83 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b3'), average_price: 1.4 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b4'), average_price: 1.73 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b6'), average_price: 1.24 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b7'), average_price: 1.19 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b8'), average_price: 2.13 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b9'), average_price: 1.11 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293ba'), average_price: 1.49 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293bc'), average_price: 1.34 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293be'), average_price: 1.44 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293c0'), average_price: 1.35 }
]
Type "it" for more
```

5. `db.av0.find({large_bags:{$lte: 112}},{_id:1, average_price:1,large_bags:1})`

```
{
  _id: ObjectId('65d9c3bdd8a07e135cb293d4'),
  average_price: 1.5,
  large_bags: 30.45
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293d6'),
  average_price: 1.25,
  large_bags: 0
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293d8'),
  average_price: 1.48,
  large_bags: 80.55
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293da'),
  average_price: 1.82,
  large_bags: 0
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293de'),
  average_price: 1.84,
  large_bags: 107.09
},
{
  _id: ObjectId('65d9c3bdd8a07e135cb293e0'),
  average_price: 1.41,
  large_bags: 0
}
]
Type "it" for more
```

6. `db.av0.find({large_bags:{$lte: 112}},{_id:1, average_price:1})`

```
reshma> db.av0.find({large_bags:{$lte: 112}},{_id:1, average_price:1})
[
  { _id: ObjectId('65d9c3bdd8a07e135cb293aa'), average_price: 1.79 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293ae'), average_price: 1.29 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b2'), average_price: 1.83 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b3'), average_price: 1.4 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b4'), average_price: 1.73 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b6'), average_price: 1.24 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b8'), average_price: 2.13 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293ba'), average_price: 1.49 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293c0'), average_price: 1.35 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293c6'), average_price: 1.6 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293ca'), average_price: 1.68 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293cc'), average_price: 2.32 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293ce'), average_price: 1.22 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293d2'), average_price: 1.81 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293d4'), average_price: 1.5 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293d6'), average_price: 1.25 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293d8'), average_price: 1.48 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293da'), average_price: 1.82 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293de'), average_price: 1.84 },
  { _id: ObjectId('65d9c3bdd8a07e135cb293e0'), average_price: 1.41 }
]
Type "it" for more
```

7. db.av0.find({large_bags:{\$lte: 112}},{_id:1, date:1})

```
reshma> db.av0.find({large_bags:{$lte: 112}},{_id:1, date:1})
[
  { _id: ObjectId('65d9c3bdd8a07e135cb293aa'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293ae'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b2'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b3'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b4'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b6'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293b8'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293ba'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293c0'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293c6'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293ca'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293cc'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293ce'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293d2'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293d4'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293d6'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293d8'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293da'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293de'), date: '2015-01-04' },
  { _id: ObjectId('65d9c3bdd8a07e135cb293e0'), date: '2015-01-04' }
]
Type "it" for more
```

8. db.av0.count({"Las Vegas":{\$exists:false }})

```
reshma> db.av0.count({"Las Vegas":{$exists:false }})
DeprecationWarning: Collection.count() is deprecated. Use countDocuments or estimatedDocumentCount.
33045
```

9. db.av0.count({"Las Vegas":{\$exists:true}})

```
reshma> db.av0.count({"Las Vegas":{$exists:true}})
0
```

10. db.av0.count({average_price:{\$type:"string" }})

```
reshma> db.av0.count({average_price:{$type:"string" }})
0
```

11. db.av0.count({average_price:{\$type:"int" }})

```
reshma> db.av0.count({average_price:{$type:"int" }})
387
```