

Q1. Which state generates more job?

```
db.CompanyJobDetail.aggregate([{\n  $unwind: "$company"\n}, {\n  $group: {\n    _id: "$company.state",\n    jobcount: {\n      $count: {}\n    }\n  }\n}]).sort({\n  jobcount: -1\n})
```

```
^  
Type "it" for more  
Atlas atlas-38kxtb-shard-0 [primary] Data225Lab2> db.CompanyJobDetail.aggregate([{$unwind:"$company"}, { $group:{_id:"$company.state",jobcount:{$count:{}}}}]).sort({jobcount:-1})  
[  
  { _id: 'CA', jobcount: 3513 },  
  { _id: 'TX', jobcount: 1271 },  
  { _id: 'NY', jobcount: 1012 },  
  { _id: 'IL', jobcount: 843 },  
  { _id: 'NJ', jobcount: 656 },  
  { _id: 'FL', jobcount: 525 },  
  { _id: 'NC', jobcount: 468 },  
  { _id: 'PA', jobcount: 399 },  
  { _id: 'Georgia', jobcount: 390 },  
  { _id: 'MO', jobcount: 343 },  
  { _id: 'VA', jobcount: 288 },  
  { _id: 'MA', jobcount: 259 },  
  { _id: 'WA', jobcount: 257 },  
  { _id: 'Pennsylvania', jobcount: 226 },  
  { _id: 'Virginia', jobcount: 208 },  
  { _id: 'Ohio', jobcount: 199 },  
  { _id: 'GA', jobcount: 195 },  
  { _id: 'MN', jobcount: 175 },  
  { _id: 'MI', jobcount: 172 },  
  { _id: 'Tennessee', jobcount: 168 }  
]  
Type "it" for more  
Atlas atlas-38kxtb-shard-0 [primary] Data225Lab2> 
```

Linkedin Data set is showing California state alone has highest job requirement in USA, and this requirement is greater than the combined requirement from Texas and New York, which are from East coast.

Q2. Let us check which Job title has highest job requirement in California

```
db.CompanyJobDetail.aggregate([{\n  $match: {\n    "job_location": {\n      $regex: 'CA'\n    }\n  }\n}, {\n  "$group": {\n
```

```

        _id: "$job_title",
        "jobcount": {
          $count: {}
        }
      }
    }, {
      "$project": {
        "_id": 1,
        "jobcount": 1
      }
    })
  }).sort({
    jobcount: -1
  })
})

```

```

Atlas atlas-38kxtb-shard-0 [primary] Data225Lab2> db.CompanyJobDetail.aggregate([{$match:{"job_location":{"regex":"CA"}}},{ "$group":{"_id":"$job_title","jobcount":{"$count: {}}}},{ "$project":{"_id":1,"jobcount":1}}]).sort({"jobcount":-1})
[
  { _id: 'Sales Director [Owner/Operator]', jobcount: 16 },
  { _id: 'Executive Assistant', jobcount: 9 },
  { _id: 'Senior Accountant', jobcount: 8 },
  { _id: 'Operations Manager', jobcount: 7 },
  { _id: 'Assistant Manager', jobcount: 7 },
  { _id: 'Sales Director {Owner/Operator}', jobcount: 7 },
  { _id: 'Associate Attorney', jobcount: 7 },
  { _id: 'Sales Associate', jobcount: 7 },
  { _id: 'Staff Accountant', jobcount: 7 },
  { _id: 'Senior Data Scientist', jobcount: 7 },
  { _id: 'Sales Director {Owner/Operator}', jobcount: 6 },
  { _id: 'Administrative Assistant', jobcount: 6 },
  { _id: 'Process Technician III - (T3)', jobcount: 6 },
  { _id: 'Electrical Engineer', jobcount: 5 },
  { _id: 'Senior Financial Analyst', jobcount: 5 },
  { _id: 'Retail Sales Associate', jobcount: 5 },
  { _id: 'Package Handler (Warehouse like)', jobcount: 4 },
  { _id: 'CAD Designer', jobcount: 4 },
  { _id: 'Customer Service Representative', jobcount: 4 },
  { _id: 'Cashier', jobcount: 4 }
]
Type "it" for more

```

So query result shows Sales Director(owner/operator) title has highest job requirement in California state followed by Executive Assistant title.

Q3. Number of job posted from companies having highest followers. Are the companies having high volume of followers generating required amount of jobs?

```

Atlas atlas-38kxtb-shard-0 [primary] Data225Lab2> db.JobPostFromCompany.aggregate([{$unwind:"$company_details"},{$group":{"_id":"$company_details.company_name","maxfollower":{"$max":"$company_details.follower_count"}}},{ $sort:{"maxfollower":-1}},{ $limit:5}])
[
  { _id: 'Amazon', maxfollower: 31887198 },
  { _id: 'Google', maxfollower: 30762143 },
  { _id: 'Unilever', maxfollower: 19405390 },
  { _id: 'Apple', maxfollower: 19028985 },
  { _id: 'IBM', maxfollower: 16114398 }
]
Atlas atlas-38kxtb-shard-0 [primary] Data225Lab2>

```

```
{
```

```

db.JobPostFromCompany.aggregate([
  {
    $unwind: "$company_details"
  }, {
    "$group": {
      _id: "$company_details.company_name",
      maxfollower: {
        $max: "$company_details.follower_count"
      }
    }
  }, {
    $sort: {
      "maxfollower": -1
    }
  }, {
    $limit: 5
  }]
)

```

So, Amazon has highest followers followed by Google and Unilever. We will explore how many jobs were created by these top following companies.

```

db.JobPostFromCompany.aggregate([
  {
    $unwind: "$company_details"
  }, {
    $match: {
      "company_details.company_name": {
        $in: ["Amazon", "Google", "Unilever", "Apple"]
      }
    }
  }, {
    "$group": {
      _id: "$company_details.company_name",
      "jobcount": {
        $count: {}
      }
    }
  }]
)[
  {
    _id: 'Apple',
    jobcount: 15
  }, {
    _id: 'Amazon',
    jobcount: 93
  }, {
    _id: 'Google',
    jobcount: 93
  }, {
    _id: 'Unilever',
    jobcount: 2
  }
]

```

```

Atlas atlas-38kxrb-shard-0 [primary] Data225Lab2> db.JobPostFromCompany.aggregate([{$unwind: "$company_details" }, { $match: { "company_details.company_name":{$in:[ "Amazon","Google","Unilever","Apple"]
}}, { "$group": { "_id": "$company_details.company_name", "jobcount":{$count:{$}}}}}
[
  { _id: 'Apple', jobcount: 15 },
  { _id: 'Amazon', jobcount: 93 },
  { _id: 'Google', jobcount: 93 },
  { _id: 'Unilever', jobcount: 2 }
]
Atlas atlas-38kxrb-shard-0 [primary] Data225Lab2>

```

So, Amazon and Google has created 93 jobs whereas Apple has created 15 and Unilever created just 2 jobs.