



Answers

**1. All the companies whose name match 'Babelgum'.
Retrieve only their `name` field.**

```
{
  'name': 'Babelgum'
}

{name: 1, _id: 0}
```

**2. All the companies that have more than 5000 employees.
Limit the search to 20 companies and sort them by number
of employees.**

```
{
  'number_of_employees': {
    '$gt': 5000
  }
}

{ number_of_employees: -1 }
```

**3. All the companies founded between 2000 and 2005, both
years included. Retrieve only the `name` and `founded_year`
fields.**

```
const filter = {
  '$and': [
    {
      'founded_year': {
        '$gte': 2000
      }
    }, {
      'founded_year': {
        '$lte': 2005
      }
    }
  ]
};

const projection = {
  'name': 1,
```

```
'founded_year': 1,  
'_id': 0  
};
```

4. All the companies that had a Valuation Amount of more than 100.000.000 and have been founded before 2010. Retrieve only the `name` and `ipo` fields.

```
const filter = {  
  '$and': [  
    {  
      'ipo.valuation_amount': {  
        '$gt': 100000000  
      }  
    }, {  
      'founded_year': {  
        '$lt': 2010  
      }  
    }  
  ]  
};  
const projection = {  
  'name': 1,  
  'ipo.valuation_amount': 1,  
  '_id': 0  
};
```

5. All the companies that have less than 1000 employees and have been founded before 2005. Order them by the number of employees and limit the search to 10 companies.

```
const filter = {  
  '$and': [  
    {  
      'number_of_employees': {  
        '$lt': 1000  
      }  
    }, {  
      'founded_year': {  
        '$lt': 2005  
      }  
    }  
  ]  
};  
const sort = {  
  'number_of_employees': -1  
};  
const limit = 10;
```

6. All the companies that don't include the `partners` field.

```
const filter = {  
  'partners': {  
    '$exists': false  
  }  
};
```

7. All the companies that have a null type of value on the `category_code` field.

```
const filter = {  
  'category_code': {  
    '$type': 10  
  }  
};
```

8. All the companies that have at least 100 employees but less than 1000. Retrieve only the `name` and `number of employees` fields.

```
const filter = {  
  '$and': [  
    {  
      'number_of_employees': {  
        '$gt': 100  
      }  
    }, {  
      'number_of_employees': {  
        '$lt': 1000  
      }  
    }  
  ]  
};  
  
const projection = {  
  'name': 1,  
  'number_of_employees': 1,  
  '_id': 0  
};
```

9. Order all the companies by their IPO price in a descending order.

```
const filter = {};  
const sort = {  
  'ipo.valuation_amount': -1  
};
```

10. Retrieve the 10 companies with more employees, order by the `number of employees`

```
const filter = {};  
const sort = {  
  'number_of_employees': -1  
};  
const limit = 10;
```

11. All the companies founded on the second semester of the year. Limit your search to 1000 companies.

```
const filter = {  
  'founded_month': {  
    '$gt': 6  
  }  
};  
const limit = 1000;
```

12. All the companies founded before 2000 that have an acquisition amount of more than 10.000.000

```
const filter = {  
  'founded_year': {  
    '$lt': 2000  
  }  
};  
const projection = {  
  'name': 1,  
  'acquisition': 1,  
  '_id': 0  
};  
const sort = {  
  'acquisition.price_amount': -1  
};
```

13. All the companies that have been acquired after 2010, order by the acquisition amount, and retrieve only their name and acquisition field.

```
const filter = {  
  'founded_year': {  
    '$lt': 2010  
  }  
};  
const projection = {  
  'name': 1,  
  'acquisition': 1,  
  '_id': 0  
};  
const sort = {  
  'acquisition.price_amount': -1  
};
```

14. Order the companies by their `founded_year`, retrieving only their `name` and `founded_year`.

```
{name:1, founded_year:1, _id:0}
```

```
{founded_year:-1}
```

15. All the companies that have been founded on the first seven days of the month, including the seventh. Sort them by their `acquisition_price` in a descending order. Limit the search to 10 documents.

```
const filter = {
  'founded_day': {
    '$lte': 7
  }
};
const sort = {
  'acquisition.price_amount': -1
};
const limit = 10;
```

16. All the companies on the 'web' `category` that have more than 4000 employees. Sort them by the amount of employees in ascending order.

```
const filter = {
  '$and': [
    {
      'category_code': 'web'
    }, {
      'number_of_employees': {
        '$gt': 4000
      }
    }
  ]
};
const sort = {
  'number_of_employees': 1
};
```

17. All the companies whose acquisition amount is more than 10.000.000, and currency is 'EUR'.

```
const filter = {
  '$and': [
    {
      'acquisition.price_currency_code': 'EUR'
    }, {
      'acquisition.price_amount': {
```

```
    '$gt': 10000000
  }
}
]
};
```

18. All the companies that have been acquired on the first trimester of the year. Limit the search to 10 companies, and retrieve only their `name` and `acquisition` fields.

```
const filter = {
  'acquisition.acquired_month': {
    '$lte': 3
  }
};
const projection = {
  'name': 1,
  'acquisition': 1,
  '_id': 0
};
```

19. All the companies that have been founded between 2000 and 2010, but have not been acquired before 2011.

```
const filter = {
  '$and': [
    {
      'founded_year': {
        '$gte': 2000
      }
    }, {
      'founded_year': {
        '$lte': 2010
      }
    }, {
      'acquisition.acquired_year': {
        '$gt': 2011
      }
    }
  ]
};
```