

## Progression-2

**1. Find all the companies that include 'Facebook' on the name field.**

**query:** {name: 'Facebook'}

**:::info** Since we only need a query you just need to copy/paste that field.

```
db.companies.find({name:'Facebook'},{_id:0,name:1,premalink:1,homepage_url:1})
```

**Output:**

```
{ name: 'Facebook', homepage_url: 'http://facebook.com' }
```

**Let's do it one more together:**

**2. Find all the companies which category\_code is 'web'. Retrive only their name field:**

**query:** {category\_code: 'web'}

**projection:** {name: 1, \_id: 0}

```
db.companies.find({category_code:'web'},{_id:0,name:1})
```

**Output:**

```
{ name: 'Wetpaint' }
{ name: 'Postini' }
{ name: 'Geni' }
{ name: 'Fox Interactive Media' }
{ name: 'StumbleUpon' }
{ name: 'Gizmoz' }
{ name: 'eBay' }
{ name: 'Viacom' }
{ name: 'Plaxo' }
{ name: 'Yahoo!' }
{ name: 'Mahalo' }
{ name: 'Gannett' }
{ name: 'Thoof' }
{ name: 'Info' }
{ name: 'JotSpot' }
{ name: 'Meetup' }
{ name: 'Mercora' }
{ name: 'NetRatings' }
{ name: 'Wesabe' }
{ name: 'Jangl SMS' }
```

**3. Find all the companies named "Twitter", and retrieve only their name, category\_code and founded\_year fields.**

```
db.companies.find({name:'Twitter'},{_id:0,name:1,category_code:1,founded_year:1})
```

**Output:**

```
{ name: 'Twitter', category_code: 'social', founded_year: 2006 }
```

**4.Find all the companies who have web as their category\_code, but limit the search to 50 companies.**

```
db.companies.find({category_code:'web'},{_id:0,name:1,category_code:1}).limit(50)
```

**Output:**

```
{ name: 'Wetpaint', category_code: 'web' }
{ name: 'Postini', category_code: 'web' }
{ name: 'Geni', category_code: 'web' }
{ name: 'Fox Interactive Media', category_code: 'web' }
{ name: 'StumbleUpon', category_code: 'web' }
{ name: 'Gizmoz', category_code: 'web' }
{ name: 'eBay', category_code: 'web' }
{ name: 'Viacom', category_code: 'web' }
{ name: 'Plaxo', category_code: 'web' }
{ name: 'Yahoo!', category_code: 'web' }
{ name: 'Mahalo', category_code: 'web' }
{ name: 'Gannett', category_code: 'web' }
{ name: 'Thoof', category_code: 'web' }
{ name: 'Info', category_code: 'web' }
{ name: 'JotSpot', category_code: 'web' }
{ name: 'Meetup', category_code: 'web' }
{ name: 'Mercora', category_code: 'web' }
{ name: 'NetRatings', category_code: 'web' }
{ name: 'Wesabe', category_code: 'web' }
{ name: 'Jangl SMS', category_code: 'web' }
```

**5.Find all the companies which category\_code is 'enterprise' and have been founded in 2005. Retrieve only the name, category\_code and founded\_year fields.**

```
db.companies.find({category_code:'enterprise',founded_year:2005},
{_id:0,name:1,category_code:1,founded_year:1})
```

**Output:**

```
{ name: 'PBworks',
  category_code: 'enterprise',
  founded_year: 2005 }
{ name: 'Smartsheet',
  category_code: 'enterprise',
  founded_year: 2005 }
{ name: 'Soonr',
  category_code: 'enterprise',
  founded_year: 2005 }
{ name: 'LucidEra',
  category_code: 'enterprise',
  founded_year: 2005 }
{ name: 'eyeOS',
  category_code: 'enterprise',
  founded_year: 2005 }
{ name: 'Vemo', category_code: 'enterprise', founded_year: 2005 }
{ name: 'Coveo',
```

```
category_code: 'enterprise',  
founded_year: 2005 }  
{ name: 'Workday',  
category_code: 'enterprise',  
founded_year: 2005 }  
{ name: 'Virtualmin',  
category_code: 'enterprise',  
founded_year: 2005 }  
{ name: 'Total Server Solutions',  
category_code: 'enterprise',  
founded_year: 2005 }  
{ name: 'Collective Intellect',  
category_code: 'enterprise',  
founded_year: 2005 }  
{ name: 'Interarbor Solutions',  
category_code: 'enterprise',  
founded_year: 2005 }  
{ name: 'BrightDoor Systems',  
category_code: 'enterprise',  
founded_year: 2005 }  
{ name: 'Socialcast',  
category_code: 'enterprise',  
founded_year: 2005 }  
{ name: 'TechColumbus',  
category_code: 'enterprise',  
founded_year: 2005 }  
{ name: 'InsideView',  
category_code: 'enterprise',  
founded_year: 2005 }  
{ name: 'Samba Tech',  
category_code: 'enterprise',  
founded_year: 2005 }  
{ name: 'BuiBase',  
category_code: 'enterprise',  
founded_year: 2005 }  
{ name: 'rPath',  
category_code: 'enterprise',  
founded_year: 2005 }  
{ name: 'Mendix',  
category_code: 'enterprise',  
founded_year: 2005 }
```

**6.Find all the companies that have been founded on the 2000 or have 20 employees. Sort them descendingly by their number\_of\_employees.**

```
db.companies.find({$or:[{number_of_employees:20},{founded_year:2000}]},
 {_id:0,name:1,number_of_employees:1,founded_year:1}).sort({number_of_employees:-1})
```

**Output:**

```
{ name: 'Avaya', number_of_employees: 18000, founded_year: 2000 }
{ name: 'SLK Software Services Pvt Ltd',
  number_of_employees: 2100,
  founded_year: 2000 }
{ name: 'OnMobile',
  number_of_employees: 1600,
  founded_year: 2000 }
{ name: 'StubHub',
  number_of_employees: 1250,
  founded_year: 2000 }
{ name: 'Invensis Technologies',
  number_of_employees: 1200,
  founded_year: 2000 }
{ name: 'MD-IT', number_of_employees: 1000, founded_year: 2000 }
{ name: 'One97 Communications',
  number_of_employees: 1000,
  founded_year: 2000 }
{ name: 'Infinera Corporation',
  number_of_employees: 974,
  founded_year: 2000 }
{ name: 'ZoomInfo',
  number_of_employees: 800,
  founded_year: 2000 }
{ name: 'PhotoBox',
  number_of_employees: 600,
  founded_year: 2000 }
{ name: 'zanox', number_of_employees: 600, founded_year: 2000 }
{ name: 'MLB Advanced Media',
  number_of_employees: 600,
  founded_year: 2000 }
{ name: 'GRNLive', number_of_employees: 600, founded_year: 2000 }
{ name: 'Red Ventures',
  number_of_employees: 500,
  founded_year: 2000 }
{ name: 'Dot Com Infoway',
  number_of_employees: 500,
  founded_year: 2000 }
{ name: 'Tangoe', number_of_employees: 485, founded_year: 2000 }
{ name: 'Deem', number_of_employees: 400, founded_year: 2000 }
{ name: 'Kaseya', number_of_employees: 400, founded_year: 2000 }
{ name: 'Higher One',
  number_of_employees: 380,
  founded_year: 2000 }
{ name: 'CDNetworks',
```

```
number_of_employees: 350,  
founded_year: 2000 }
```

**7.Find all the companies that do not include web nor social on their category\_code. Limit the search to 20 documents and retrieve only their name and category\_code.**

```
db.companies.find({$nor                :                [{category_web:"web"},{category_web:"social"}]},  
{_id:0,name:1,number_of_employees:1,founded_year:1}).sort({number_of_employees:-1})
```

**Output:**

```
{ name: 'Siemens',  
  number_of_employees: 405000,  
  founded_year: 1847 }  
{ name: 'IBM', number_of_employees: 388000, founded_year: 1896 }  
{ name: 'Toyota',  
  number_of_employees: 320000,  
  founded_year: 1933 }  
{ name: 'PayPal',  
  number_of_employees: 300000,  
  founded_year: 1998 }  
{ name: 'Nippon Telegraph and Telephone Corporation',  
  number_of_employees: 227000,  
  founded_year: 1985 }  
{ name: 'Samsung Electronics',  
  number_of_employees: 221726,  
  founded_year: 1969 }  
{ name: 'Accenture',  
  number_of_employees: 205000,  
  founded_year: 2001 }  
{ name: 'Tata Consultancy Services',  
  number_of_employees: 200300,  
  founded_year: 1968 }  
{ name: 'Flextronics International',  
  number_of_employees: 200000,  
  founded_year: 1969 }  
{ name: 'Safeway',  
  number_of_employees: 186000,  
  founded_year: 1915 }  
{ name: 'Sony', number_of_employees: 180500, founded_year: 1946 }  
{ name: 'LG', number_of_employees: 177000, founded_year: 1947 }  
{ name: 'Ford', number_of_employees: 171000, founded_year: 1903 }  
{ name: 'Boeing',  
  number_of_employees: 160000,  
  founded_year: null }  
{ name: 'Digital Equipment Corporation',  
  number_of_employees: 140000,  
  founded_year: 1957 }  
{ name: 'Nokia',  
  number_of_employees: 125000,  
  founded_year: 1865 }  
{ name: 'Mitsubishi Electric',  
  number_of_employees: 107000,
```

```
founded_year: 1921 }
{ name: 'MIsubishi Electric',
  number_of_employees: 107000,
  founded_year: 1921 }
{ name: 'Comcast',
  number_of_employees: 100000,
  founded_year: 1963 }
{ name: 'Bertelsmann',
  number_of_employees: 100000,
  founded_year: 1835 }
```

**8.Find all the companies that were not founded on 'June'. Skip the first 50 results and retrieve only the founded\_month and name fields.**

```
db.companies.find({founded_month:{$not:{$eq:6}}},{_id:0,founded_month:1,name:1}).skip(50)
```

**Output:**

```
{ name: 'Ustream', founded_month: null }
{ name: 'AdaptiveBlue', founded_month: null }
{ name: 'Pando Networks', founded_month: 7 }
{ name: 'Intel', founded_month: null }
{ name: 'GrandCentral', founded_month: 4 }
{ name: 'Ikan', founded_month: 12 }
{ name: 'delicious', founded_month: 9 }
{ name: 'Jobster', founded_month: 1 }
{ name: 'Revision3', founded_month: 4 }
{ name: 'AllPeers', founded_month: 8 }
{ name: 'CriticalMetrics', founded_month: 1 }
{ name: 'ZenZui', founded_month: 3 }
{ name: 'Spock', founded_month: 4 }
{ name: 'Wize', founded_month: 8 }
{ name: 'SodaHead', founded_month: 3 }
{ name: 'CastTV', founded_month: null }
{ name: 'iSkoot', founded_month: 4 }
{ name: 'EQO', founded_month: 2 }
{ name: 'There', founded_month: null }
{ name: 'SellABand', founded_month: 8 }
```

**9.Find all the companies that have 50 employees, but do not correspond to the 'web' category\_code.**

```
db.companies.find({number_of_employees:50,category_code:{$not:{$eq:"web"}}},
{_id:0,category_code:1,name:1})
```

**Output:**

```
{ name: 'Scribd', category_code: 'news' }
{ name: 'adBrite', category_code: 'advertising' }
{ name: 'Socialtext', category_code: 'enterprise' }
{ name: 'ONEsite', category_code: 'other' }
{ name: 'boo-box', category_code: 'advertising' }
{ name: 'Echo', category_code: 'enterprise' }
```

```
{ name: 'Six Apart', category_code: 'enterprise' }
{ name: 'OMGPOP', category_code: 'games_video' }
{ name: 'Crunchyroll', category_code: 'games_video' }
{ name: '4INFO', category_code: 'advertising' }
{ name: 'Jive Software', category_code: 'software' }
{ name: 'BitGravity', category_code: 'network_hosting' }
{ name: 'Peer39', category_code: 'advertising' }
{ name: 'Lijit Networks', category_code: 'advertising' }
{ name: 'ChoiceStream', category_code: 'advertising' }
{ name: 'IceBreaker', category_code: 'mobile' }
{ name: 'Central Desktop', category_code: 'public_relations' }
{ name: 'EASEUS', category_code: 'software' }
{ name: 'Wrike', category_code: 'enterprise' }
{ name: 'Athena Archiver', category_code: 'software' }
```

**10. Find all the companies that have been founded on the 1st of the month, but does not have either 50 employees nor 'web' as their category\_code. Retrieve only the founded\_day and name and limit the search to 5 documents.**

```
db.companies.find({founded_day:1,$nor:[{category_code:"web"},{number_of_employees:50}],
{_id:0,category_code:1,name:1})
```

#### **Output:**

```
{ name: 'Facebook', category_code: 'social' }
{ name: 'Omnidrive', category_code: 'network_hosting' }
{ name: 'Helio', category_code: 'mobile' }
{ name: 'Joost', category_code: 'games_video' }
{ name: 'Babelgum', category_code: 'games_video' }
{ name: 'Technorati', category_code: 'advertising' }
{ name: 'OpenX', category_code: 'advertising' }
{ name: 'Sparter', category_code: 'games_video' }
{ name: 'Kyte', category_code: 'games_video' }
{ name: 'Jingle Networks', category_code: 'mobile' }
{ name: 'LifeLock', category_code: 'security' }
{ name: 'Prosper', category_code: 'finance' }
{ name: 'Jajah', category_code: 'mobile' }
{ name: 'blogTV', category_code: 'games_video' }
{ name: 'Livestream', category_code: 'games_video' }
{ name: 'GrandCentral', category_code: 'mobile' }
{ name: 'Jobster', category_code: 'search' }
{ name: 'ZenZui', category_code: 'mobile' }
{ name: 'Spock', category_code: 'search' }
{ name: 'Wize', category_code: 'ecommerce' }
```

**11. Find all the companies which the price\_amount of the acquisition was 40.000.000. Sort them by name.**

```
db.companies.find({"acquisition.price_amount":40000000},
 {_id:0,"acquisition.price_amount":1,name:1}).sort({name:1})
```

**Output:**

```
{ name: 'Alverix', acquisition: { price_amount: 40000000 } }
{ name: 'Applimation', acquisition: { price_amount: 40000000 } }
{ name: 'Babble', acquisition: { price_amount: 40000000 } }
{ name: 'CapitalStream',
  acquisition: { price_amount: 40000000 } }
{ name: 'Engineous Software',
  acquisition: { price_amount: 40000000 } }
{ name: 'FetchBack', acquisition: { price_amount: 40000000 } }
{ name: 'FoxyTunes', acquisition: { price_amount: 40000000 } }
{ name: 'Greenfield Online',
  acquisition: { price_amount: 40000000 } }
{ name: 'Mu Dynamics', acquisition: { price_amount: 40000000 } }
{ name: 'Smilebox', acquisition: { price_amount: 40000000 } }
{ name: 'TweetDeck', acquisition: { price_amount: 40000000 } }
{ name: 'Userplane', acquisition: { price_amount: 40000000 } }
{ name: 'eConversions',
  acquisition: { price_amount: 40000000 } }
```

**12. Find all the companies that have been acquired on January of 2014. Retrieve only the acquisition and name fields.**

```
db.companies.find({"acquisition.acquired_month":1,"acquisition.acquired_year":2014},
 {_id:0,acquisition:1,name:1})
```

**Output:**

```
{ name: 'Sense Networks',
  acquisition:
    { price_amount: null,
      price_currency_code: 'USD',
      term_code: null,
      source_url: 'http://techcrunch.com/2014/01/06/yp-acquires-sense-networks/',
      source_description: 'In Its First Acquisition, YP Buys Mobile Ad Company Sense Networks',
      acquired_year: 2014,
      acquired_month: 1,
      acquired_day: 6,
      acquiring_company: { name: 'YP', permalink: 'yp-2' } } }
{ name: 'Nullsoft',
  acquisition:
    { price_amount: null,
      price_currency_code: 'USD',
      term_code: null,
      source_url: 'http://techcrunch.com/2014/01/01/aol-sells-winamp-and-shoutcast-music-services-to-online-radio-aggregator-radionomy/',
      source_description: 'AOL Sells Winamp And Shoutcast Music Services To Online Radio Aggregator Radionomy',
```



```

    acquired_year: 2014,
    acquired_month: 1,
    acquired_day: null,
    acquiring_company: { name: 'Radionomy', permalink: 'radionomy' } } }
{ name: 'Alverix',
acquisition:
  { price_amount: 400000000,
    price_currency_code: 'USD',
    term_code: 'cash',
      source_url: 'http://ir.safeguard.com/investor-relations/press-releases/press-release-details/2014/Safeguard-
Scientifics-Partner-Company-Alverix-Acquired-by-BD/default.aspx',
    source_description: 'Safeguard Scientifics Partner Company Alverix Acquired by BD',
    acquired_year: 2014,
    acquired_month: 1,
    acquired_day: 7,
    acquiring_company: { name: 'Becton Dickinson', permalink: 'becton-dickinson' } } }

```