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**SE-2326**

**NoSQL**

## **Assignment 2**

*Restaurants.*

**Task 1: Create collection and import data**

**Task 2: Get first 5 docs, display name, street, and cuisine sorted by cuisine**

```
>_MONGOSH
> use restaurants
< switched to db restaurants
> db.rest.find(
  {},
  { name: 1, "address.street": 1, cuisine: 1, _id: 0 }
).sort({ cuisine: -1 }).limit(5)
< [
  {
    address: {
      street: 'Mott Street'
    },
    cuisine: 'Vietnamese/Cambodian/Malaysia',
    name: 'Pho Bang Restaurant'
  },
  {
    address: {
      street: 'Broadway'
    },
    cuisine: 'Vietnamese/Cambodian/Malaysia',
    name: 'Pho Bac Vietnamese Seafood Cuisine'
  },
  {
    address: {
      street: '9 Avenue'
    },
    cuisine: 'Vietnamese/Cambodian/Malaysia',
    name: 'O-Mai'
```

**Task 3: Get first 15 docs, display name, street, and borough**

**Task 4: Retrieve the first 10 documents, displaying the name, street, and building number.**

```
> db.rest.find(
  { "grades.score": { $gte: 35 } },
  { name: 1, "address.street": 1, "address.building": 1, _id: 0 }
).limit(10)
< [
  {
    address: {
      building: '8825',
      street: 'Astoria Boulevard'
    },
    name: 'Brunos On The Boulevard'
  },
  {
    address: {
      building: '1269',
      street: 'Sutter Avenue'
    },
    name: 'May May Kitchen'
  },
  {
    address: {
      building: '94',
      street: 'Fulton Street'
    },
    name: 'Texas Rotisserie'
  }
]
```

**Task 5: Retrieve the first 15 documents, displaying the name and street, where the cuisine is "American."**

```
> db.rest.find(
  { $or: [{ cuisine: "American" }, { borough: "Bronx" }] }
  { name: 1, "address.street": 1, _id: 0 }
).skip(10).limit(15)
< [
  {
    address: {
      street: '8 Avenue'
    },
    name: 'Cafe Metro'
  },
  {
    address: {
      street: 'Columbus Avenue'
    },
    name: 'P & S Deli Grocery'
  },
  {
    address: {
      street: '11 Avenue'
    },
    name: 'Regina Caterers'
  },
  {
    address: {
      street: 'Church Street'
    },
    name: 'The Little Pie Company'
  }
]
```

**Task 6: Get the first 10 documents, displaying the name, cuisine, and borough, where the name starts with "Ma."**

```
> db.rest.find(
  { name: { $regex: /^Ma/i } },
  { name: 1, cuisine: 1, borough: 1, _id: 0 }
).limit(10)
< [
  {
    borough: 'Brooklyn',
    cuisine: 'Chinese',
    name: 'May May Kitchen'
  },
  {
    borough: 'Bronx',
    cuisine: 'American',
    name: 'Manhem Club'
  },
  {
    borough: 'Manhattan',
    cuisine: 'Italian',
    name: 'Marchis Restaurant'
  },
  {
    borough: 'Queens',
    cuisine: 'Pizza',
    name: 'Margherita Pizza'
  },
  {
    borough: 'Bronx',
    cuisine: 'American',
    name: 'Mandarin Kitchen'
  }
]
```

**Task 7: Retrieve the first 10 documents, displaying the name, cuisine, and borough, where the name contains "Man."**

**Task 8:** Retrieve the first 10 documents, displaying the name, cuisine, and borough, where the name starts with "Ma" and has received a "B" grade at least once.

```
> db.rest.find(
  {
    name: { $regex: /^Ma/i },
    "grades.grade": "B"
  },
  { name: 1, cuisine: 1, borough: 1, _id: 0 }
).limit(10)
< [
  {
    borough: 'Brooklyn',
    cuisine: 'Chinese',
    name: 'May May Kitchen'
  },
  {
    borough: 'Bronx',
    cuisine: 'American',
    name: 'Marina Delray'
  },
  {
    borough: 'Manhattan',
    cuisine: 'Spanish',
    name: 'Malaga Restaurant'
  },
  {

```

**Task 9:** Retrieve the first 10 documents where the zipcode is 10462, 11374, or 11219, and the cuisine is "Pizza" or "Seafood."

```
> db.rest.find(
  {
    $and: [
      { "address.zipcode": { $in: ["10462", "11374", "11219"] } },
      { cuisine: { $in: ["Pizza", "Seafood"] } }
    ]
  },
  { cuisine: 1, name: 1, _id: 0 }
).sort({ cuisine: -1 }).limit(10)
< [
  {
    cuisine: 'Seafood',
    name: 'Parkchester Fish & Chips'
  },
  {
    cuisine: 'Seafood',
    name: 'Sabor Latino Seafood Restaurant'
  },
  {
    cuisine: 'Seafood',
    name: 'London Lennies'
  },
  {
    cuisine: 'Pizza',
    name: 'Pizza Hut'
  }
]
```

**Task 10: Retrieve the first 10 documents where the zipcode is 10462, 11374, or 11219, or the cuisine is "Pizza," "Seafood," or "American."**

```
> db.rest.find(
  {
    $or: [
      { "address.zipcode": { $in: ["10462", "11374", "11219"] } },
      { cuisine: { $in: ["Pizza", "Seafood", "American"] } }
    ],
    { cuisine: 1, name: 1, _id: 0 }
  ).sort({ cuisine: 1 }).limit(10)
< [
  {
    cuisine: 'African',
    name: 'Afrikiko Garden'
  },
  {
    cuisine: 'American',
    name: 'Angelika Film Center'
  },
  {
    cuisine: 'American',
    name: 'Riviera Caterer'
  },
  {
    cuisine: 'American',
    name: 'C & C Catering Service'
```

## ***Companies.***

**1. Locate all companies with 'Facebook' in the name field.**

```
],
external_links: [
{
  external_url: 'http://latimesblogs.latimes.com/technology/2008/09/facebook-hire-1.html',
  title: 'Facebook hires general counsel as it continues to grow'
},
{
  external_url: 'http://www.sociableblog.com/2011/12/16/facebook-timeline-now-live-for-all/',
  title: 'Facebook Timeline Now Live for All Users'
},
{
  external_url: 'http://www.sociableblog.com/2012/02/02/facebook-ipo-value-personal-data/',
  title: 'Facebook IPO, The Value of Personal Data'
},
{
  external_url: 'http://www.sociableblog.com/2012/04/01/facebook-timeline-for-all-pages-goes-live',
  title: 'March 31, 2012: Facebook Timeline for All Pages Goes Live'
```

2. Find all companies with a category\_code of 'web' and retrieve only their name field.

```
> db.companies.find(
  { category_code: "web" },
  { name: 1, _id: 0 }
);
< [
  {
    name: 'Wetpaint'
  },
  {
    name: 'Postini'
  },
  {
    name: 'Geni'
  },
  {
    name: 'StumbleUpon'
  },
  {
    name: 'Gizmoz'
```

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

```
> db.companies.find(  
  { name: "Twitter" },  
  { name: 1, category_code: 1, founded_year: 1, _id: 0 }  
);  
< {  
  name: 'Twitter',  
  category_code: 'social',  
  founded_year: 2006  
}
```

4. Find all companies with 'web' as their category\_code, limiting the results to 50 companies.

```
> db.companies.find(
  { category_code: "enterprise", founded_year: 2005 },
  { name: 1, category_code: 1, founded_year: 1, _id: 0 }
);
< [
  {
    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
  },
  {
    id: 39348,
    round_code: 'debt_round',
    source_url: 'http://venturebeat.com/2013/06/05/rearden-commerce-gets-9-3m-in-debt-financing/',
    source_description: 'Rearden Commerce gets $9.3M in debt financing',
    raised_amount: 9300000,
    raised_currency_code: 'USD',
    funded_year: 2013,
    funded_month: 6,
    funded_day: 5,
    investments: []
  },
  {
    id: 49966,
    round_code: 'g',
    source_url: '',
    source_description: 'Silicon Valley Venture Capital Almanac source',
    raised_amount: 69985435,
    raised_currency_code: 'USD',
    funded_year: 2013,
    funded_month: 9,
    funded_day: 24
  }
]
```

```
> db.companies.find(
  { category_code: { $nin: ["web", "social"] } },
  { name: 1, category_code: 1, _id: 0 }
).limit(20);
< [
  {
    name: 'AdventNet',
    category_code: 'enterprise'
  },
  {
    name: 'Zoho',
    category_code: 'software'
  },
  {
    name: 'Digg',
    category_code: 'news'
  },
  {
    name: 'Flektor',
    category_code: 'games_video'
  },
  {
    name: 'Omnidrive',
    category_code: 'network_hosting'
  }
]

> db.companies.find(
  { founded_month: { $ne: 6 } },
  { founded_month: 1, name: 1, _id: 0 }
).skip(50);
< [
  {
    name: 'delicious',
    founded_month: 9
  },
  {
    name: 'Pando Networks',
    founded_month: 7
  },
  {
    name: 'Wize',
    founded_month: 8
  },
  {
    name: 'CastTV',
    founded_month: null
  }
]
```

```
{
  external_url: 'http://www.athenaarchiver.com/software/email-archiving.htm',
  title: 'Email Archiving Software'
},
{
  external_url: 'http://www.athenaarchiver.com/emergency-discovery/email-discovery.htm',
  title: 'Electronic Discovery'
},
{
  external_url: 'http://www.athenaarchiver.com/exchange-outlook/add-in.html',
  title: 'Exchange Archiving - Hosted Microsoft Exchange Services'
},
{
  external_url: 'http://www.athenaarchiver.com/exchange-host/exchange-hosting.html',
}

> db.companies.find(
  {
    founded_day: 1,
    $nor: [{ number_of_employees: 50 }, { category_code: "web" }]
  },
  { founded_day: 1, name: 1, _id: 0 }
).limit(5);

< {
  name: 'Omnidrive',
  founded_day: 1
}
{
  name: 'Helio',
  founded_day: 1
}
{
  name: 'Facebook',
  founded_day: 1
}
{
  name: 'Babelgum',
```

```

    {
      name: 'TweetDeck',
      permalink: 'tweetdeck'
    }
  ],
relationships: [
  {
    is_past: false,
    title: 'CEO and Founder',
    person: {
      first_name: 'Iain',
      last_name: 'Dodsworth',
      permalink: 'iain-dodsworth'
    }
  },
  {
    is_past: false,
    title: 'Investor',
    person: {
      first_name: 'Roger',
      last_name: 'Ehrenberg',
      permalink: 'roger-ehrenberg'
    }
  }
]

```

```

> db.companies.find(
  { "acquisition.acquired_year": 2014, "acquisition.acquired_month": 1 },
  { acquisition: 1, name: 1, _id: 0 }
);
< {
  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'
    }
  }
}

```