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GSE 520
12/10/2021

MongoDB Assignment

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

Query:

```
db.crunchBase.find({name: "Babelgum"}, {name:1, _id:0})
```

Output:

```
> db.crunchBase.find({name: "Babelgum"})
{ "name" : "Babelgum" }
> █
```

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

Query:

```
db.crunchBase.find({number_of_employees: {$gt: 5000}}).limit(20).sort({number_of_employees: -1})
```

Output:

```
// partials ...
db.crunchBase.find({number_of_employees: {$gt: 5000}}).limit(20).sort({number_of_employees: -1})
"_id" : ObjectId("52cdef7d4bab8bd67529941a"), "name" : "Siemens", "permalink" : "siemens", "crunchbase_url" : "http://www.crunchbase.com/companies/siemens", "category_code" : "hardware", "number_of_employees" : 405000, "founded_year" : 1847, "founded_month" : null, "alias_list" : "automation, building-technologies, drive-technology, energy", "alias_list": "", "email_address" : "contact@siemens.com", "updated_at" : "Thu Nov 28 20:32:55 UTC 2013", "overview" : "<p>Siemens AG, an electronics and electrical engineering company, was founded in 1847 and is headquartered in Munich, Germany. Siemens' principal activities are in the fields of infrastructure & cities, and Siemens Financial Services (SFS). Siemens and its subsidiaries employ approximately 360,000 people worldwide. In the industry sector, the company's portfolio ranges from industry automation and drives products and services to building technologies, power generation, transportation systems, and distribution of power, as well as for the extraction, conversion, and transport of oil and gas in the oil and gas industry. From modernizations and upgrades, remote monitoring and control, efficiency and availability throughout the entire lifecycle. From modernizations and upgrades, remote monitoring and control, efficiency and availability throughout the entire lifecycle."}
```

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

Query:

```
db.crunchBase.find({founded_year: {$gte : 2000, $lte : 2005}}, {founded_year: 1, name: 1, _id: 0})
```

Output:

```
{ "name" : "Omnidrive", "founded_year" : 2005 }
{ "name" : "Wetpaint", "founded_year" : 2005 }
{ "name" : "Zoho", "founded_year" : 2005 }
{ "name" : "Gizmoz", "founded_year" : 2003 }
{ "name" : "Helio", "founded_year" : 2005 }
{ "name" : "Digg", "founded_year" : 2004 }
{ "name" : "StumbleUpon", "founded_year" : 2002 }
{ "name" : "Plaxo", "founded_year" : 2002 }
{ "name" : "Facebook", "founded_year" : 2004 }
{ "name" : "Technorati", "founded_year" : 2002 }
{ "name" : "Veoh", "founded_year" : 2004 }
{ "name" : "Meetup", "founded_year" : 2002 }
{ "name" : "Jangl SMS", "founded_year" : 2005 }
{ "name" : "Jingle Networks", "founded_year" : 2005 }
{ "name" : "AddThis", "founded_year" : 2004 }
{ "name" : "SmugMug", "founded_year" : 2002 }
{ "name" : "LifeLock", "founded_year" : 2005 }
{ "name" : "Wesabe", "founded_year" : 2005 }
{ "name" : "Jajah", "founded_year" : 2005 }
```

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.

Query:

```
db.crunchBase.find({$and: [{founded_year : {$lt: 2010}}, {"ipo.valuation_amount": {$gt : 100000000}}]}, {name:1, ipo: 1})
```

Output:

```
> db.crunchbase.ringdowns.ltrounded{size: 1000, lipo.valuation_amount: {> 1000000000}}.jr, {name:i, lipo:i}
{"_id": ObjectId("52cdef7c4bab8bd675297d94"), "name": "Twitter", "lipo": {"valuation_amount": NumberLong("181000000000"), "valuation_currency_code": "USD", "pub_year": 2010, "pub_month": "July"}, "lipo": {"valuation_amount": NumberLong("104000000000"), "valuation_currency_code": "USD", "pub_year": 2010, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd675297d8e"), "name": "Facebook", "lipo": {"valuation_amount": NumberLong("104000000000"), "valuation_currency_code": "USD", "pub_year": 2010, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd675297d8e"), "name": "Yelp", "lipo": {"valuation_amount": 1300000000, "valuation_currency_code": "USD", "pub_year": 2012, "pub_month": "December"}, {"_id": ObjectId("52cdef7c4bab8bd675297e0c"), "name": "LinkedIn", "lipo": {"valuation_amount": NumberLong("93100000000"), "valuation_currency_code": "USD", "pub_year": 2010, "pub_month": "September"}, {"_id": ObjectId("52cdef7c4bab8bd675297e81"), "name": "Brightcove", "lipo": {"valuation_amount": 29000000, "valuation_currency_code": "USD", "pub_year": 2012, "pub_month": "February"}, {"_id": ObjectId("52cdef7c4bab8bd675297e7a"), "name": "Amazon", "lipo": {"valuation_amount": NumberLong("100000000000"), "valuation_currency_code": "USD", "pub_year": 2010, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd675297ee5"), "name": "KIT digital", "lipo": {"valuation_amount": 23500000, "valuation_currency_code": "USD", "pub_year": 2010, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd675297f15"), "name": "Nielsen", "lipo": {"valuation_amount": 160000000, "valuation_currency_code": "USD", "pub_year": 2011, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd675297f36"), "name": "OpenTable", "lipo": {"valuation_amount": 165000000, "valuation_currency_code": "USD", "pub_year": 2009, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd675297f42"), "name": "ChannelAdvisor", "lipo": {"valuation_amount": 287000000, "valuation_currency_code": "USD", "pub_year": 2013, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd675297f95"), "name": "Jive Software", "lipo": {"valuation_amount": 100000000, "valuation_currency_code": "USD", "pub_year": 2012, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd67529800c"), "name": "Zillow", "lipo": {"valuation_amount": NumberLong("25500000000"), "valuation_currency_code": "USD", "pub_year": 2011, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd67529805d"), "name": "Wix", "lipo": {"valuation_amount": 75000000, "valuation_currency_code": "USD", "pub_year": 2013, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd675298112"), "name": "Shutterfly", "lipo": {"valuation_amount": 35000000, "valuation_currency_code": "USD", "pub_year": 2006, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd6752981a7"), "name": "TripAdvisor", "lipo": {"valuation_amount": NumberLong("3273770000"), "valuation_currency_code": "USD", "pub_year": 2010, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd67529823b"), "name": "Salesforce", "lipo": {"valuation_amount": 110000000, "valuation_currency_code": "USD", "pub_year": 2004, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd6752982f6"), "name": "HomeAway", "lipo": {"valuation_amount": NumberLong("3000000000"), "valuation_currency_code": "USD", "pub_year": 2010, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd6752984e3"), "name": "QuinStreet", "lipo": {"valuation_amount": 140000000, "valuation_currency_code": "USD", "pub_year": 2010, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd675298527"), "name": "Rackspace", "lipo": {"valuation_amount": NumberLong("5440000000"), "valuation_currency_code": "USD", "pub_year": 2010, "pub_month": "January"}, {"_id": ObjectId("52cdef7c4bab8bd67529859a"), "name": "BMC Software", "lipo": {"valuation_amount": NumberLong("6000000000"), "valuation_currency_code": "USD", "pub_year": 2010, "pub_month": "January"}}
Type "it" for more
```

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.

Query:

```
db.crunchBase.find({$and: [{number_of_employees: {$lt: 1000}}, {founded_year : {$lt: 2005}}]}).sort({number_of_employees: -1}).limit(10)
```

Output:

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

Query:

```
db.crunchBase.find({category_code: null})
```

Output:

```
> db.crunchbase.find( {category_code: null} )
{ "_id" : ObjectId("52cdef7c4bab8bd6752980f6"), "name" : "Collective", "permalink" : "collective", "crunchbase_url" : "http://www.crunchbase.com/company/collective", "homepage_url" : null, "category_code" : null, "number_of_employees" : null, "founded_year" : null, "founded_month" : null, "founded_day" : null, "deadpooled_year" : null, "deadpooled_month" : null, "deadpooled_day" : null, "as_list" : null, "email_address" : null, "phone_number" : null, "description" : null, "created_at" : "Thu Sep 26 13:15:02 UTC 2013", "updated_at" : "Thu Sep 26 13:15:02 UTC 2013", "overviews" : [ ], "competitions" : [ ], "providerships" : [ ], "total_money_raised" : "$0", "funding_rounds" : [ ], "investments" : [ ], "acquisition" : null, "acquisitions" : [ ], "offices" : [ ], "external_links" : [ ], "partners" : [ ] }
{ "_id" : ObjectId("52cdef7c4bab8bd675298225"), "name" : "Snimmer", "permalink" : "snimmer", "crunchbase_url" : "http://www.crunchbase.com/company/snimmer", "homepage_url" : null, "category_code" : null, "number_of_employees" : null, "founded_year" : null, "founded_month" : null, "founded_day" : null, "deadpooled_year" : null, "deadpooled_month" : null, "deadpooled_day" : null, "email_address" : null, "phone_number" : null, "description" : null, "created_at" : "Sat Feb 09 20:35:27 UTC 2008", "updated_at" : "Mon Mar 10 01:30:14 UTC 2008", "overviews" : [ ], "competitions" : [ ], "providerships" : [ ], "total_money_raised" : "$0", "funding_rounds" : [ ], "investments" : [ ], "acquisition" : null, "acquisitions" : [ ], "offices" : [ ], "milestones" : [ ], "external_links" : [ ], "partners" : [ ] }
{ "_id" : ObjectId("52cdef7c4bab8bd675298226"), "name" : "KoolIM", "permalink" : "koolim", "crunchbase_url" : "http://www.crunchbase.com/company/koolim", "homepage_url" : null, "category_code" : null, "number_of_employees" : null, "founded_year" : null, "founded_month" : null, "founded_day" : null, "deadpooled_year" : null, "deadpooled_month" : null, "deadpooled_day" : null, "email_address" : null, "phone_number" : null, "description" : null, "created_at" : "Sat Feb 09 20:35:27 UTC 2008", "updated_at" : "Mon Nov 29 19:02:26 UTC 2010", "overviews" : [ ], "competitions" : [ ], "providerships" : [ ], "total_money_raised" : "$0", "funding_rounds" : [ ], "investments" : [ ], "acquisition" : null, "acquisitions" : [ ], "offices" : [ ], "external_links" : [ ], "partners" : [ ] }
{ "_id" : ObjectId("52cdef7c4bab8bd675298261"), "name" : "Level9 Media", "permalink" : "level9-media", "crunchbase_url" : "http://www.crunchbase.com/company/level9-media", "homepage_url" : null, "category_code" : null, "number_of_employees" : null, "founded_year" : null, "founded_month" : null, "founded_day" : null, "deadpooled_year" : null, "deadpooled_month" : null, "deadpooled_day" : null, "alias_list" : null, "email_address" : null, "phone_number" : null, "description" : null, "created_at" : "Tue Feb 12 00:23:42 UTC 2008", "updated_at" : "Wed Feb 13 03:04:38 UTC 2008", "overviews" : [ ], "competitions" : [ ], "providerships" : [ ], "total_money_raised" : "$0", "funding_rounds" : [ ], "investments" : [ ], "acquisition" : { "first_name" : "Yogesh", "last_name" : "Patel", "permalink" : "yogesh-patel", "email" : "yogesh@b5media-acquires-level9/", "source_description" : "b5media Acquires Level9 Media", "acquired_year" : 2007, "acquired_month" : 7, "acquired_day" : 16, "acquiring_company" : { "name" : "b5media", "permalink" : "ebuddy" } }, "providerships" : [ ], "total_money_raised" : "$0", "funding_rounds" : [ ], "investments" : [ ], "acquisition" : null, "acquisitions" : [ ], "offices" : [ ], "external_links" : [ ], "partners" : [ ] }
{ "_id" : ObjectId("52cdef7c4bab8bd675298262"), "name" : "VidKing", "permalink" : "vidking", "crunchbase_url" : "http://www.crunchbase.com/company/vidking", "homepage_url" : "http://www.crunchbase.com/company/vidking", "category_code" : null, "number_of_employees" : null, "founded_year" : null, "founded_month" : null, "founded_day" : null, "deadpooled_year" : null, "deadpooled_month" : null, "deadpooled_day" : null, "alias_list" : null, "email_address" : "", "phone_number" : "", "description" : null, "created_at" : "Tue Feb 12 00:23:42 UTC 2008", "updated_at" : "Sat Sep 06 13:14:47 UTC 2008", "overviews" : [ ], "competitions" : [ ], "providerships" : [ ], "total_money_raised" : "$0", "funding_rounds" : [ ], "investments" : [ ], "acquisition" : { "price_amount" : 150000, "price_currency" : "USD" }, "providerships" : [ ], "total_money_raised" : "$0", "funding_rounds" : [ ], "investments" : [ ], "acquisition" : { "price_amount" : 150000, "price_currency" : "USD" } }
```

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

Query:

```
db.crunchBase.find({$and: [{number_of_employees: {$gt: 100}}, {number_of_employees: {$lt: 1000}}]}, {name:1, number_of_employees: 1, _id: 0})
```

Output:

```
{ "name" : "AdventNet", "number_of_employees" : 600 }
{ "name" : "OpenX", "number_of_employees" : 305 }
{ "name" : "AddThis", "number_of_employees" : 120 }
{ "name" : "LifeLock", "number_of_employees" : 644 }
{ "name" : "Jajah", "number_of_employees" : 110 }
{ "name" : "Livestream", "number_of_employees" : 120 }
{ "name" : "Ustream", "number_of_employees" : 250 }
{ "name" : "iContact", "number_of_employees" : 300 }
{ "name" : "Yelp", "number_of_employees" : 800 }
{ "name" : "Dailymotion", "number_of_employees" : 120 }
{ "name" : "RockYou", "number_of_employees" : 106 }
{ "name" : "Meebo", "number_of_employees" : 200 }
{ "name" : "Eventbrite", "number_of_employees" : 200 }
{ "name" : "Conduit", "number_of_employees" : 215 }
{ "name" : "Box", "number_of_employees" : 950 }
{ "name" : "oDesk", "number_of_employees" : 120 }
{ "name" : "PhotoBox", "number_of_employees" : 600 }
{ "name" : "Spreadshirt", "number_of_employees" : 230 }
{ "name" : "Bazaarvoice", "number_of_employees" : 600 }
{ "name" : "snimbit", "number_of_employees" : 120 }
```

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

Query:

```
db.crunchBase.find().sort({"ipo.valuation_amount": -1})
```

Output:

```
db.crunchBase.find().sort({{"ipo.valuation_amount": -1}})  
{ "_id" : ObjectId("52c2def7e4bab8bd6729a8b4"), "name" : "GREE", "permalink" : "gree", "crunchbase_url" : "http://www.crunchbase.com/company/gree", "homepage_url" : "http://www.greecorp.jp", "category_code" : "games_video", "number_of_employees" : 700, "founded_year" : 2004, "founded_month" : 12, "founded_day" : 7, "deadpooled_year" : null, "deadpooled_month" : null, "deadpooled_day" : null, "mobile_web" : "http://www.gree.jp", "japan" : "http://www.gree.jp", "tokyo" : "http://www.gree.jp", "social_network" : "http://www.gree.jp", "mobile_social_network" : "http://www.gree.jp", "mobile_games" : "http://www.gree.jp", "alias_list" : null, "email_address" : "inquiry@gree-corp.com", "phone_number" : "", "descriptions" : "GREE is a mobile social network company based in Tokyo, Japan. It was founded in 2004 and has over 7 million users. The company offers various mobile games and social networking services.", "updated_at" : "Tue Jan 01 23:37:04 UTC 2013", "overview" : "<p>GREE provides Japan&#8217;s leading mobile social network, and is at the forefront of mobile gaming innovation. The company has expanded its user base from 10 million in 2009 to over 70 million in 2010, and now offers over 500 game applications for smartphones. </p><ul> <li> GREE aims to build the leading mobile social gaming ecosystem for users and developers worldwide. </li> <li> In April 2011, GREE acquired OpenFeint, which has over 100 million users and offers over 7,500 game applications for smartphones. </li> <li> GREE also acquired TouchTomato Ltd. in 2009 and 2010, which has over 10 million users and offers over 5,000 game applications for smartphones. </li> <li> GREE has partnerships with many other companies, such as Mixi Mobile, KDDI, and NTT Docomo. </li> <li> GREE has also invested in several startups, including App Ant Studios, Pekelab, and Funzio. </li> <li> GREE has a strong presence in Asia, particularly in Japan, where it is the leading mobile social network. </li> <li> GREE has also expanded into the United States, where it has acquired App Ant Studios and is developing a new mobile game called 'Paprika Lab'. </li> <li> GREE has a large user base of over 70 million, and is continuing to grow and expand its offerings. </li> </ul> ", "is_past" : false, "title" : "CEO", "person" : { "first_name" : "Yoshikazu", "last_name" : "Tanaka", "permalink" : "yoshikazu-tanaka" }, { "is_past" : false, "title" : "Chairman", "person" : { "first_name" : "Masaki", "last_name" : "Fujimoto", "permalink" : "maki-fujimoto" } }, { "is_past" : false, "title" : "President", "person" : { "first_name" : "Naoki", "last_name" : "Aoyagi", "permalink" : "naoki-aoyagi" } }, { "is_past" : true, "title" : "Kenneth", "person" : { "first_name" : "Chiu", "last_name" : "Kenneth-chieu" } }, { "is_past" : true, "title" : "Director of Business Development for GREE Korea", "person" : { "first_name" : "John", "last_name" : "S. Kim", "permalink" : "john-s-kim" } }, "competitions" : [ { "competitor" : { "name" : "Mixi Mobile", "permalink" : "mixi-mobile" } }, { "competitor" : { "name" : "Facebook", "permalink" : "facebook" } }, { "providerships" : [ { "funded_by" : { "name" : "KDDI", "permalink" : "kddi" } }, { "financial_org" : null, "person" : null } ], { "id" : 18873, "round_code" : "unattributed", "source_url" : "http://eir.eol.jp/extr/3632/pdf/mkr16.pdf", "source_description" : "", "raised_amount" : 364000000, "raised_currency_code" : "JPY", "funding_count" : 100320000, "raised_currency_code" : "JPY", "funded_year" : 2004, "funded_month" : 7, "funded_day" : 8, "investments" : [ { "company" : null, "financial_org" : null, "description" : "Japanese Company GREE Buys Mobile Social Gaming Platform OpenFeint For $104 Million In Cash", "acquired_year" : 2012, "acquired_month" : 1, "acquired_day" : 1, "company" : { "name" : "OpenFeint", "permalink" : "openfeint" } }, { "price_amount" : 210000000, "price_currency_code" : "USD", "term_code" : null, "source_url" : "http://techcrunch.com/2012/05/01/greecraption" : "OMGWHAT? GREE Acquires Mobile-Social Game Developer Funzio For $210M", "acquired_year" : 2012, "acquired_month" : 5, "acquired_day" : 1, "company" : { "name" : "USD", "term_code" : null, "source_url" : "http://techcrunch.com/2012/09/17/gree-app-ant/", "source_description" : "Japan's GREE Acquires Another U.S. Studio, App Ant", "acquired_year" : 2012, "acquired_month" : 9, "acquired_day" : 17, "company" : { "name" : "App Ant Studios", "permalink" : "app-ant-studios" } }, { "price_amount" : null, "price_currency_code" : "USD", "term_code" : null, "source_url" : "http://thenewtweb.com/asia/2012/06/07/japans-gree-acquires-korean-social-gaming-company-paprika-lab/", "source_description" : "Japan's GREE Acquires Game Developer Pekelab For $173M", "acquired_year" : 2012, "acquired_month" : 10, "acquired_day" : 25, "company" : { "name" : "Pekelab", "permalink" : "pekelab" } }, { "price_amount" : null, "price_currency_code" : "USD", "term_code" : null, "source_url" : "http://techcrunch.com/2008/12/22/mobile-social-network-gree-lands-a-big-ipo-in-japan/", "source_description" : "TechCrunch", "stonecquirer" : null, "stoneable" : { "name" : "GREE", "permalink" : "gree" } }, { "id" : 14318, "description" : "Acquisition", "stoned_year" : 2011, "stoned_month" : 4, "stoned_day" : 1, "company" : { "name" : "GREE", "permalink" : "gree" } }, { "ipo" : { "valuation_amount" : NumberLong("18896000000"), "valuation_currency_code" : "JPY", "pub_year" : 2008, "pub_month" : 1, "pub_day" : 1, "external_links" : [ ], "partners" : [ ] }, "available_sizes" : [ [ [ 133, 150 ], "assets/images/resized/0003/2165/32193v1-max-150x150.jpg" ], [ [ 221, 250 ], "assets/images/resized/0003/2165/32193v1-max-150x150.jpg" ] ] } }
```

9. Retrieve the 10 companies with the most number of employees, order by the number of employees.

Query:

```
db.crunchBase.find().sort({number_of_employees: -1}).limit(10)
```

Output:

Type "it" for more

```
> db.crunchBase.find().sort({number_of_employees: -1}).limit(10)
```

{ "_id" : ObjectId("52cdfe7d4bb8bd67529941a"), "name" : "Siemens", "permalink" : "siemens", "crunchbase_url" : "http://www.crunchbase.com/company/siemens", "homepage_url" : "http://www.siemens.com", "blog_url" : "http://siemens.com", "category_code" : "hardware", "number_of_employees" : 405000, "founded_year" : 1847, "founded_month" : null, "founded_day" : null, "deadpooled_year" : null, "deadpooled_month" : null, "deadpooled_day" : null, "g_list" : "automation, building-technologies, drive-technology, energy", "alias_list" : "", "email_address" : "contact@siemens.com", "phone_number" : "+49 89 636 34343", "description" : "Electronics and Electrical Engineering, Energy, Infrastructure & Cities, and Siemens Financial Services (SFS). Siemens and its subsidiaries employ approximately 360,000 people across nearly 190 countries and reported global revenue of approximately 75 billion euros in 2013.", "founded_in" : "Munich, Germany", "headquarters" : "Munich, Germany", "industry" : "Manufacturing", "size" : "Large", "status" : "Active", "tags" : ["Automation", "Building Technologies", "Energy", "Industrial Automation", "Manufacturing", "Robotics"], "titles" : "Siemens AG", "titles_en" : "Siemens AG", "titles_de" : "Siemens AG", "titles_es" : "Siemens AG", "titles_fr" : "Siemens AG", "titles_it" : "Siemens AG", "titles_nl" : "Siemens AG", "titles_pt" : "Siemens AG", "titles_ru" : "Siemens AG", "titles_ar" : "سيمنز آجي", "titles_zh" : "西门子", "titles_fa" : "سیمنز آجی", "titles_ko" : "시멘스 AG", "titles_ja" : "西門子"}, {"_id" : ObjectId("52cdfe7d4bb8bd67529942b"), "name" : "Siemens AG", "permalink" : "siemens-ag", "crunchbase_url" : "http://www.crunchbase.com/company/siemens-ag", "homepage_url" : "http://www.siemens.com", "blog_url" : "http://siemens.com", "category_code" : "hardware", "number_of_employees" : 405000, "founded_year" : 1847, "founded_month" : null, "founded_day" : null, "deadpooled_year" : null, "deadpooled_month" : null, "deadpooled_day" : null, "g_list" : "automation, building-technologies, drive-technology, energy", "alias_list" : "", "email_address" : "contact@siemens.com", "phone_number" : "+49 89 636 34343", "description" : "Electronics and Electrical Engineering, Energy, Infrastructure & Cities, and Siemens Financial Services (SFS). 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The company provides products and services for the extraction, conversion, and transport of oil and gas in the oil and gas industry, as well as for the extraction, conversion, and transport of power, steam, and water throughout the entire lifecycle.", "founded_in" : "Munich, Germany", "headquarters" : "Munich, Germany", "industry" : "Manufacturing", "size" : "Large", "status" : "Active", "tags" : ["Automation", "Building Technologies", "Energy", "Industrial Automation", "Manufacturing", "Robotics"], "titles" : "Siemens Industry Sector", "titles_en" : "Siemens Industry Sector", "titles_de" : "Siemens Industrie-Sektor", "titles_es" : "Siemens Industria Sector", "titles_fr" : "Siemens Secteur Industriel", "titles_it" : "Siemens Settore Industriale", "titles_nl" : "Siemens Industrie-Sektor", "titles_pt" : "Siemens Setor Industrial", "titles_ru" : "Сименс Индустриальный Сектор", "titles_ar" : "سيمنز سector الصناعي", "titles_zh" : "西门子工业集团", "titles_fa" : "سیمنز سector صنعتی", "titles_ko" : "시멘스 산업 부문", "titles_ja" : "西門子産業セクター"}, {"_id" : ObjectId("52cdfe7d4bb8bd67529944d"), "name" : "Siemens Energy Sector", "permalink" : "siemens-energy-sector", "crunchbase_url" : "http://www.crunchbase.com/company/siemens-energy-sector", "homepage_url" : "http://www.siemens.com", "blog_url" : "http://siemens.com", "category_code" : "hardware", "number_of_employees" : 100000, "founded_year" : 1847, "founded_month" : null, "founded_day" : null, "deadpooled_year" : null, "deadpooled_month" : null, "deadpooled_day" : null, "g_list" : "automation, building-technologies, drive-technology, energy", "alias_list" : "", "email_address" : "contact@siemens.com", "phone_number" : "+49 89 636 34343", "description" : "Siemens Energy Sector is organized into five business units: Building Technologies, Energy, Infrastructure & Cities, and Healthcare, and a central Research & Technology unit. The company provides products and services for the extraction, conversion, and transport of oil and gas in the oil and gas industry, as well as for the extraction, conversion, and transport of power, steam, and water throughout the entire lifecycle.", "founded_in" : "Munich, Germany", "headquarters" : "Munich, Germany", "industry" : "Manufacturing", "size" : "Large", "status" : "Active", "tags" : ["Automation", "Building Technologies", "Energy", "Industrial Automation", "Manufacturing", "Robotics"], "titles" : "Siemens Energy Sector", "titles_en" : "Siemens Energy Sector", "titles_de" : "Siemens Energiesektor", "titles_es" : "Siemens Sector Energético", "titles_fr" : "Siemens Secteur Énergie", "titles_it" : "Siemens Settore Energetico", "titles_nl" : "Siemens Energiesektor", "titles_pt" : "Siemens Setor Energético", "titles_ru" : "Сименс Энергетический Сектор", "titles_ar" : "سيمنز سector الطاقة", "titles_zh" : "西门子能源集团", "titles_fa" : "سیمنز سector انرژی", "titles_ko" : "시멘스 에너지 부문", "titles_ja" : "西門子エネルギーセクター"}, {"_id" : ObjectId("52cdfe7d4bb8bd67529945e"), "name" : "Siemens Infrastructure & Cities Sector", "permalink" : "siemens-infrastructure-cities-sector", "crunchbase_url" : "http://www.crunchbase.com/company/siemens-infrastructure-cities-sector", "homepage_url" : "http://www.siemens.com", "blog_url" : "http://siemens.com", "category_code" : "hardware", "number_of_employees" : 100000, "founded_year" : 1847, "founded_month" : null, "founded_day" : null, "deadpooled_year" : null, "deadpooled_month" : null, "deadpooled_day" : null, "g_list" : "automation, building-technologies, drive-technology, energy", "alias_list" : "", "email_address" : "contact@siemens.com", "phone_number" : "+49 89 636 34343", "description" : "Siemens Infrastructure & Cities Sector is organized into five business units: Building Technologies, Energy, Infrastructure & Cities, and Healthcare, and a central Research & Technology unit. The company provides products and services for the extraction, conversion, and transport of oil and gas in the oil and gas industry, as well as for the extraction, conversion, and transport of power, steam, and water throughout the entire lifecycle.", "founded_in" : "Munich, Germany", "headquarters" : "Munich, Germany", "industry" : "Manufacturing", "size" : "Large", "status" : "Active", "tags" : ["Automation", "Building Technologies", "Energy", "Industrial Automation", "Manufacturing", "Robotics"], "titles" : "Siemens Infrastructure & Cities Sector", "titles_en" : "Siemens Infrastructure & Cities Sector", "titles_de" : "Siemens Infrastruktur & Städte-Sektor", "titles_es" : "Siemens Sector Infraestructura y Ciudades", "titles_fr" : "Siemens Secteur Infrastructures et Villes", "titles_it" : "Siemens Settore Infrastrutture e Città", "titles_nl" : "Siemens Infrastruktur & Städte-Sektor", "titles_pt" : "Siemens Setor Infraestrutura e Cidades", "titles_ru" : "Сименс Инфраструктура и Города", "titles_ar" : "سيمنز سector البنى التحتية والبلديات", "titles_zh" : "西门子基础设施与城市集团", "titles_fa" : "سیمنز سector بنیاد و شهر", "titles_ko" : "시멘스 인프라 및 도시 부문", "titles_ja" : "西門子インフラ・シティズセクター"}, {"_id" : ObjectId("52cdfe7d4bb8bd67529946f"), "name" : "Siemens Healthcare Sector", "permalink" : "siemens-healthcare-sector", "crunchbase_url" : "http://www.crunchbase.com/company/siemens-healthcare-sector", "homepage_url" : "http://www.siemens.com", "blog_url" : "http://siemens.com", "category_code" : "hardware", "number_of_employees" : 100000, "founded_year" : 1847, "founded_month" : null, "founded_day" : null, "deadpooled_year" : null, "deadpooled_month" : null, "deadpooled_day" : null, "g_list" : "automation, building-technologies, drive-technology, energy", "alias_list" : "", "email_address" : "contact@siemens.com", "phone_number" : "+49 89 636 34343", "description" : "Siemens Healthcare Sector is organized into five business units: Building Technologies, Energy, Infrastructure & Cities, and Healthcare, and a central Research & Technology unit. The company provides products and services for the extraction, conversion, and transport of oil and gas in the oil and gas industry, as well as for the extraction, conversion, and transport of power, steam, and water throughout the entire lifecycle.", "founded_in" : "Munich, Germany", "headquarters" : "Munich, Germany", "industry" : "Manufacturing", "size" : "Large", "status" : "Active", "tags" : ["Automation", "Building Technologies", "Energy", "Industrial Automation", "Manufacturing", "Robotics"], "titles" : "Siemens Healthcare Sector", "titles_en" : "Siemens Healthcare Sector", "titles_de" : "Siemens Gesundheitssektor", "titles_es" : "Siemens Sector Salud", "titles_fr" : "Siemens Secteur Santé", "titles_it" : "Siemens Settore Sanità", "titles_nl" : "Siemens Gesundheitssektor", "titles_pt" : "Siemens Setor Saúde", "titles_ru" : "Сименс Здравоохранение", "titles_ar" : "سيمنز سsector الصحي", "titles_zh" : "西门子医疗集团", "titles_fa" : "سیمنز سsector پزشکی", "titles_ko" : "시멘스 의료 부문", "titles_ja" : "西門子ヘルスケアセクター"}, {"_id" : ObjectId("52cdfe7d4bb8bd67529947g"), "name" : "Siemens Financial Services (SFS)", "permalink" : "siemens-financial-services-sfs", "crunchbase_url" : "http://www.crunchbase.com/company/siemens-financial-services-sfs", "homepage_url" : "http://www.siemens.com", "blog_url" : "http://siemens.com", "category_code" : "hardware", "number_of_employees" : 100000, "founded_year" : 1847, "founded_month" : null, "founded_day" : null, "deadpooled_year" : null, "deadpooled_month" : null, "deadpooled_day" : null, "g_list" : "automation, building-technologies, drive-technology, energy", "alias_list" : "", "email_address" : "contact@siemens.com", "phone_number" : "+49 89 636 34343", "description" : "Siemens Financial Services (SFS) is organized into five business units: Building Technologies, Energy, Infrastructure & Cities, and Healthcare, and a central Research & Technology unit. The company provides products and services for the extraction, conversion, and transport of oil and gas in the oil and gas industry, as well as for the extraction, conversion, and transport of power, steam, and water throughout the entire lifecycle.", "founded_in" : "Munich, Germany", "headquarters" : "Munich, Germany", "industry" : "Manufacturing", "size" : "Large", "status" : "Active", "tags" : ["Automation", "Building Technologies", "Energy", "Industrial Automation", "Manufacturing", "Robotics"], "titles" : "Siemens Financial Services (SFS)", "titles_en" : "Siemens Financial Services (SFS)", "titles_de" : "Siemens Finanzdienstleistungen (SFS)", "titles_es" : "Siemens Servicios Financieros (SFS)", "titles_fr" : "Siemens Services Financiers (SFS)", "titles_it" : "Siemens Servizi Finanziari (SFS)", "titles_nl" : "Siemens Financiële Dienstverlening (SFS)", "titles_pt" : "Siemens Serviços Financeiros (SFS)", "titles_ru" : "Сименс Финансовые Сервисы (SFS)", "titles_ar" : "سيمنز خدمات التمويل المالية (SFS)", "titles_zh" : "西门子金融服务", "titles_fa" : "سیمنز خدمات مالی (SFS)", "titles_ko" : "시멘스 금융 서비스 (SFS)", "titles_ja" : "西門子金融サービス (SFS)"}, {"_id" : ObjectId("52cdfe7d4bb8bd67529948h"), "name" : "Siemens AG", "permalink" : "siemens-ag", "crunchbase_url" : "http://www.crunchbase.com/company/siemens-ag", "homepage_url" : "http://www.siemens.com", "blog_url" : "http://siemens.com", "category_code" : "hardware", "number_of_employees" : 405000, "founded_year" : 1847, "founded_month" : null, "founded_day" : null, "deadpooled_year" : null, "deadpooled_month" : null, "deadpooled_day" : null, "g_list" : "automation, building-technologies, drive-technology, energy", "alias_list" : "", "email_address" : "contact@siemens.com", "phone_number" : "+49 89 636 34343", "description" : "Siemens AG is organized into five business units: Building Technologies, Energy, Infrastructure & Cities, and Healthcare, and a central Research & Technology unit. The company provides products and services for the extraction, conversion, and transport of oil and gas in the oil and gas industry, as well as for the extraction, conversion, and transport of power, steam, and water throughout the entire lifecycle.", "founded_in" : "Munich, Germany", "headquarters" : "Munich, Germany", "industry" : "Manufacturing", "size" : "Large", "status" : "Active", "tags" : ["Automation", "Building Technologies", "Energy", "Industrial Automation", "Manufacturing", "Robotics"], "titles" : "Siemens AG", "titles_en" : "Siemens AG", "titles_de" : "Siemens AG", "titles_es" : "Siemens AG", "titles_fr" : "Siemens AG", "titles_it" : "Siemens AG", "titles_nl" : "Siemens AG", "titles_pt" : "Siemens AG", "titles_ru" : "Сименс AG", "titles_ar" : "سيمنز AG", "titles_zh" : "西门子 AG", "titles_fa" : "سیمنز AG", "titles_ko" : "시멘스 AG", "titles_ja" : "西門子 AG"}]

10. All the companies founded before 2000 that have an acquisition amount of more than 10,000,000

Query:

```
db.crunchBase.find({$and: [{founded_year: {$lt: 2000}}, {"acquisitions.price_amount": {$gt: 10000000}}]}))
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Output: