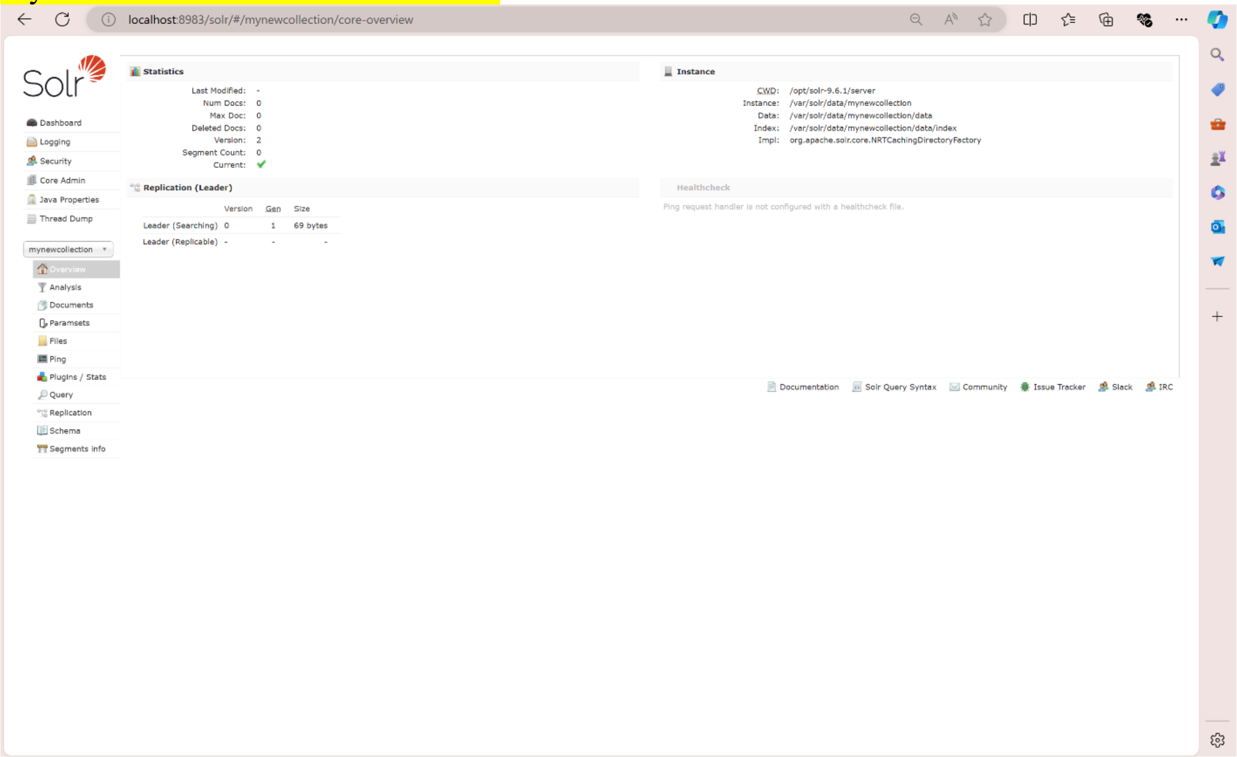
Monica Santana – Exercise 8

Mynewcollection in Solr web interface



Statistics

```
    Last Modified:  -
         Num Docs:  0
          Max Doc:  0
     Deleted Docs:  0
          Version:  2
    Segment Count:  0
          Current:  ✓
```

Replication (Leader)

	Version	Gen	Size
Leader (Searching)	0	1	69 bytes
Leader (Replicable)	-	-	-

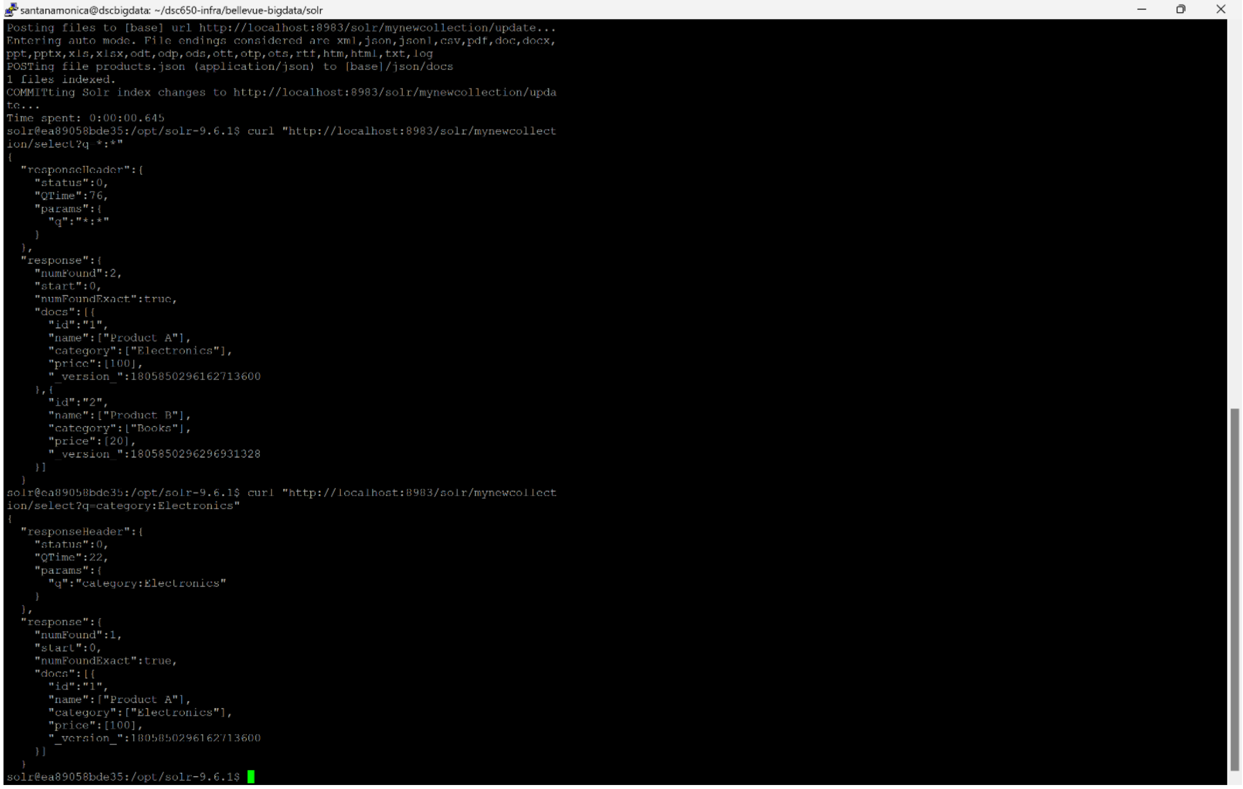
Instance

```
      CWD:  /opt/solr-9.6.1/server
 Instance:  /var/solr/data/mynewcollection
     Data:  /var/solr/data/mynewcollection/data
    Index:  /var/solr/data/mynewcollection/data/index
    Impl:   org.apache.solr.core.NRTCachingDirectoryFactory
```

Healthcheck

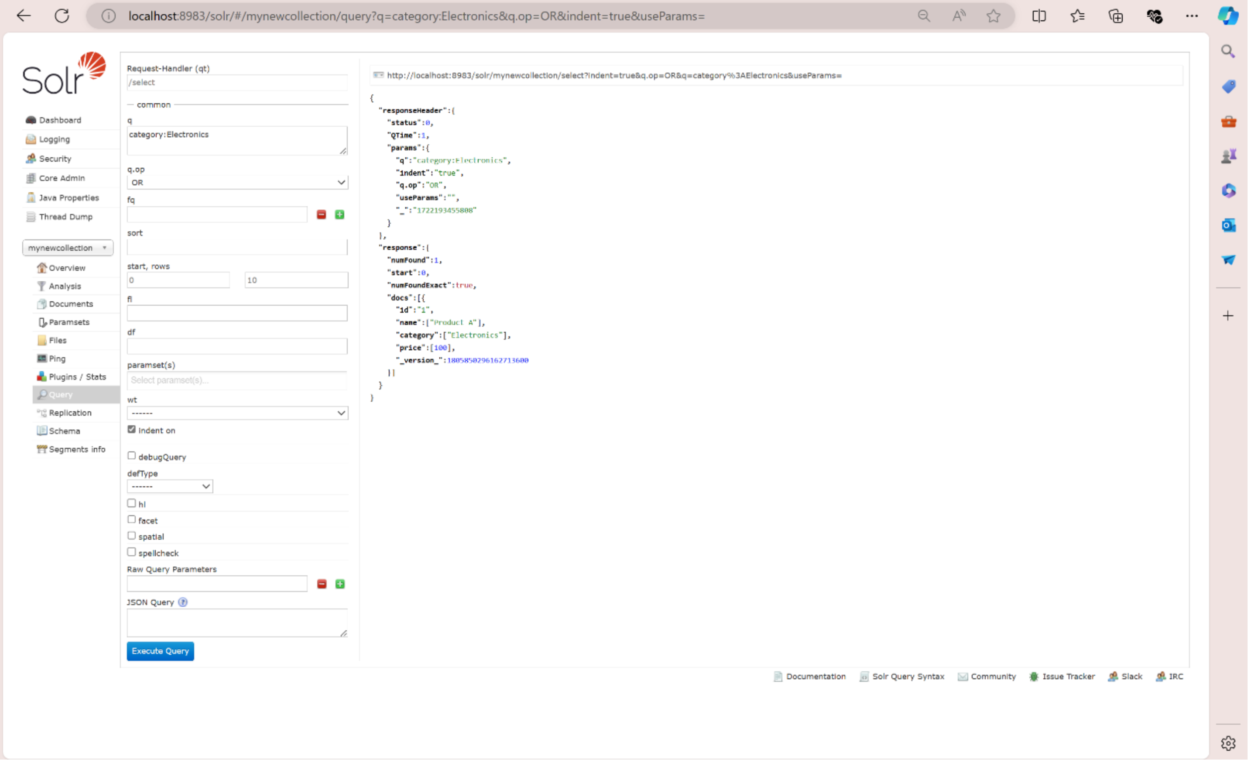
Ping request handler is not configured with a healthcheck file.

Added json data in the mynewcollection and the queries


santanamonica@dscbigdata: ~/dsc650-infra/bellevue-bigdata/solr

```
Posting files to [base] url http://localhost:8983/solr/mynewcollection/update...
Entering auto mode. File endings considered are xml,json,jsonl,csv,pdf,doc,docx,
ppt,pptx,xls,xlsx,odt,odp,ods,ott,otp,ots,rtf,htm,html,txt,log
POSTing file products.json (application/json) to [base]/json/docs
1 files indexed.
COMMITting Solr index changes to http://localhost:8983/solr/mynewcollection/upda
te...
Time spent: 0:00:00.645
solr@ea89058bde35:/opt/solr-9.6.1$ curl "http://localhost:8983/solr/mynewcollect
ion/select?q=*:*"
{
  "responseHeader":{
    "status":0,
    "QTime":76,
    "params":{
      "q":"*:*"
    }
  },
  "response":{
    "numFound":2,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"1",
      "name":["Product A"],
      "category":["Electronics"],
      "price":[100],
      "_version_":1805850296162713600
    },{
      "id":"2",
      "name":["Product B"],
      "category":["Books"],
      "price":[20],
      "_version_":1805850296296931328
    }]
  }
solr@ea89058bde35:/opt/solr-9.6.1$ curl "http://localhost:8983/solr/mynewcollect
ion/select?q=category:Electronics"
{
  "responseHeader":{
    "status":0,
    "QTime":22,
    "params":{
      "q":"category:Electronics"
    }
  },
  "response":{
    "numFound":1,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"1",
      "name":["Product A"],
      "category":["Electronics"],
      "price":[100],
      "_version_":1805850296162713600
    }]
  }
solr@ea89058bde35:/opt/solr-9.6.1$
```

Counting the number of products in each category by filtering them separately, first electronics



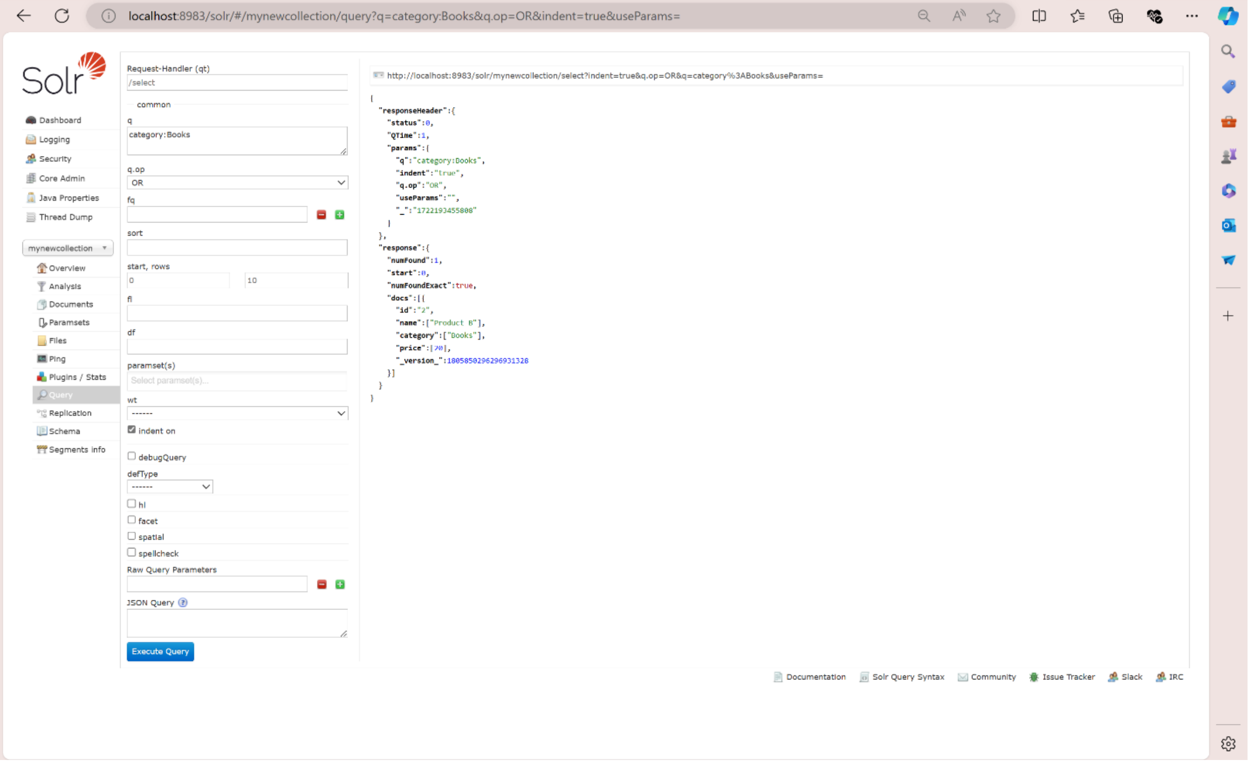
localhost:8983/solr/#/mynewcollection/query?q=category:Electronics&q.op=OR&indent=true&useParams=

Request-Handler (qt): /select
common
q: category:Electronics
q.op: OR
fq:
sort:
start, rows: 0 10
fl:
df:
paramset(s): Select paramset(s)...
wt: ------
☑ indent on
☐ debugQuery
defType: ------
☐ hl
☐ facet
☐ spatial
☐ spellcheck
Raw Query Parameters
JSON Query

http://localhost:8983/solr/mynewcollection/select?indent=true&q.op=OR&q=category%3AElectronics&useParams=

```
{
  "responseHeader":{
    "status":0,
    "QTime":1,
    "params":{
      "q":"category:Electronics",
      "indent":"true",
      "q.op":"OR",
      "useParams":"",
      "_":"1722193455808"
    }
  },
  "response":{
    "numFound":1,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"1",
      "name":["Product A"],
      "category":["Electronics"],
      "price":[100],
      "_version_":1805850296162713600
    }]
  }
}
```

Now books category



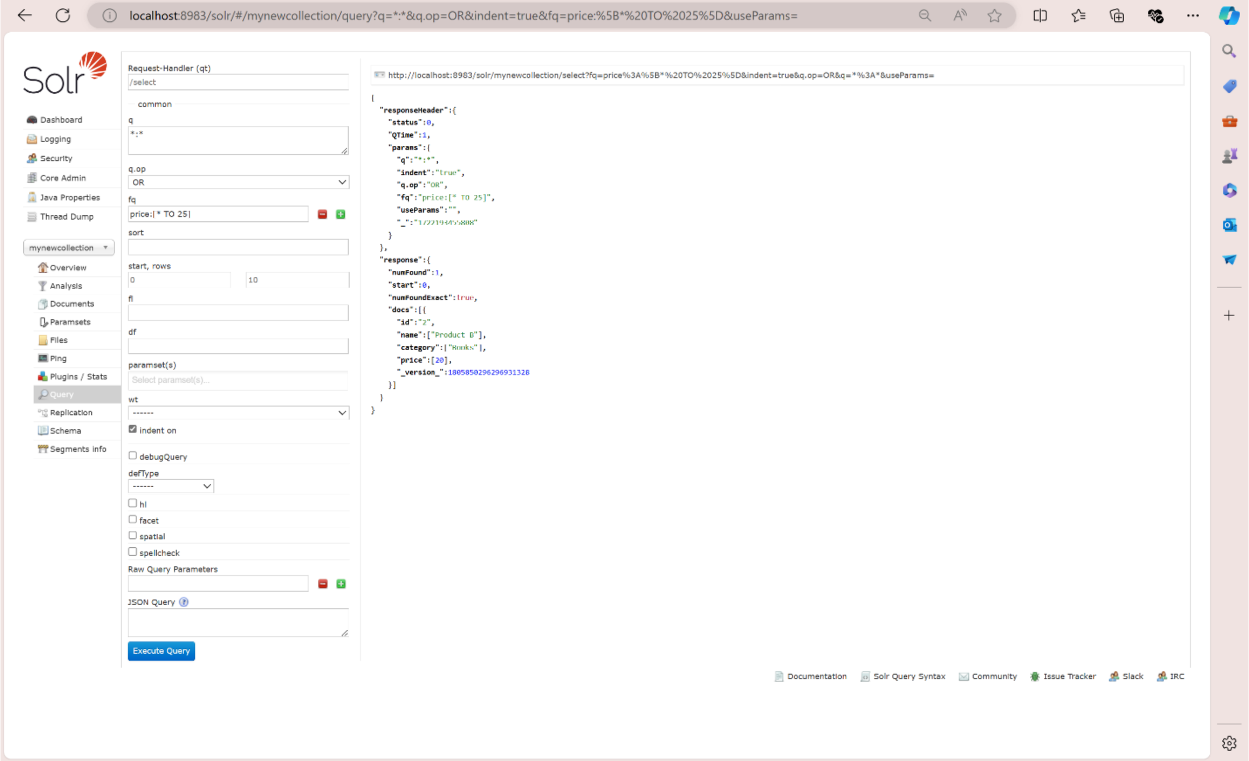
localhost:8983/solr/#/mynewcollection/query?q=category:Books&q.op=OR&indent=true&useParams=

Request-Handler (qt): /select
common
q: category:Books
q.op: OR
fq:
sort:
start, rows: 0 10
fl:
df:
paramset(s): Select paramset(s)...
wt: ------
☑ indent on
☐ debugQuery
defType: ------
☐ hl
☐ facet
☐ spatial
☐ spellcheck
Raw Query Parameters
JSON Query

http://localhost:8983/solr/mynewcollection/select?indent=true&q.op=OR&q=category%3ABooks&useParams=

```
{
  "responseHeader":{
    "status":0,
    "QTime":1,
    "params":{
      "q":"category:Books",
      "indent":"true",
      "q.op":"OR",
      "useParams":"",
      "_":"1722193455808"
    }
  },
  "response":{
    "numFound":1,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"2",
      "name":["Product B"],
      "category":["Books"],
      "price":[20],
      "_version_":1805850296296931328
    }]
  }
}
```

First query is selecting products with a price up to $25, which would be the book



localhost:8983/solr/#/mynewcollection/query?q=*:*&q.op=OR&indent=true&fq=price:%5B*%20TO%2025%5D&useParams=

Request-Handler (qt): /select

common

q: *:*

q.op: OR

fq: price:[* TO 25]

start, rows: 0 10

☑ indent on

□ debugQuery

□ hl

□ facet

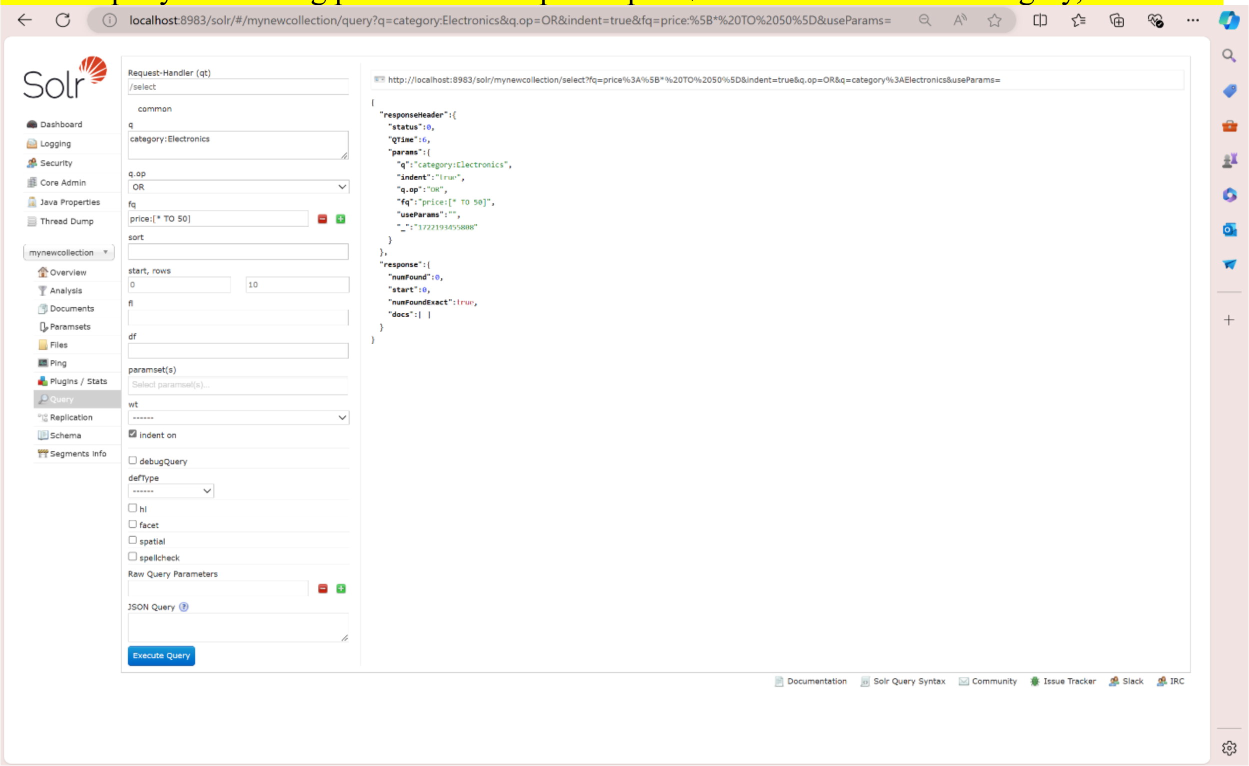
□ spatial

□ spellcheck

http://localhost:8983/solr/mynewcollection/select?fq=price%3A%5B*%20TO%2025%5D&indent=true&q.op=OR&q=*%3A*&useParams=

```
{
  "responseHeader":{
    "status":0,
    "QTime":1,
    "params":{
      "q":"*:*",
      "indent":"true",
      "q.op":"OR",
      "fq":"price:[* TO 25]",
      "useParams":"",
      "_":"1722193455808"
    }
  },
  "response":{
    "numFound":1,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"2",
      "name":["Product B"],
      "category":["Books"],
      "price":[20],
      "_version_":1805850296296931328
    }]
  }
}
```

Second query is selecting products with a price up to $50 in the electronics category, which is 0



localhost:8983/solr/#/mynewcollection/query?q=category:Electronics&q.op=OR&indent=true&fq=price:%5B*%20TO%2050%5D&useParams=

Request-Handler (qt): /select

common

q: category:Electronics

q.op: OR

fq: price:[* TO 50]

start, rows: 0 10

☑ indent on

□ debugQuery

□ hl

□ facet

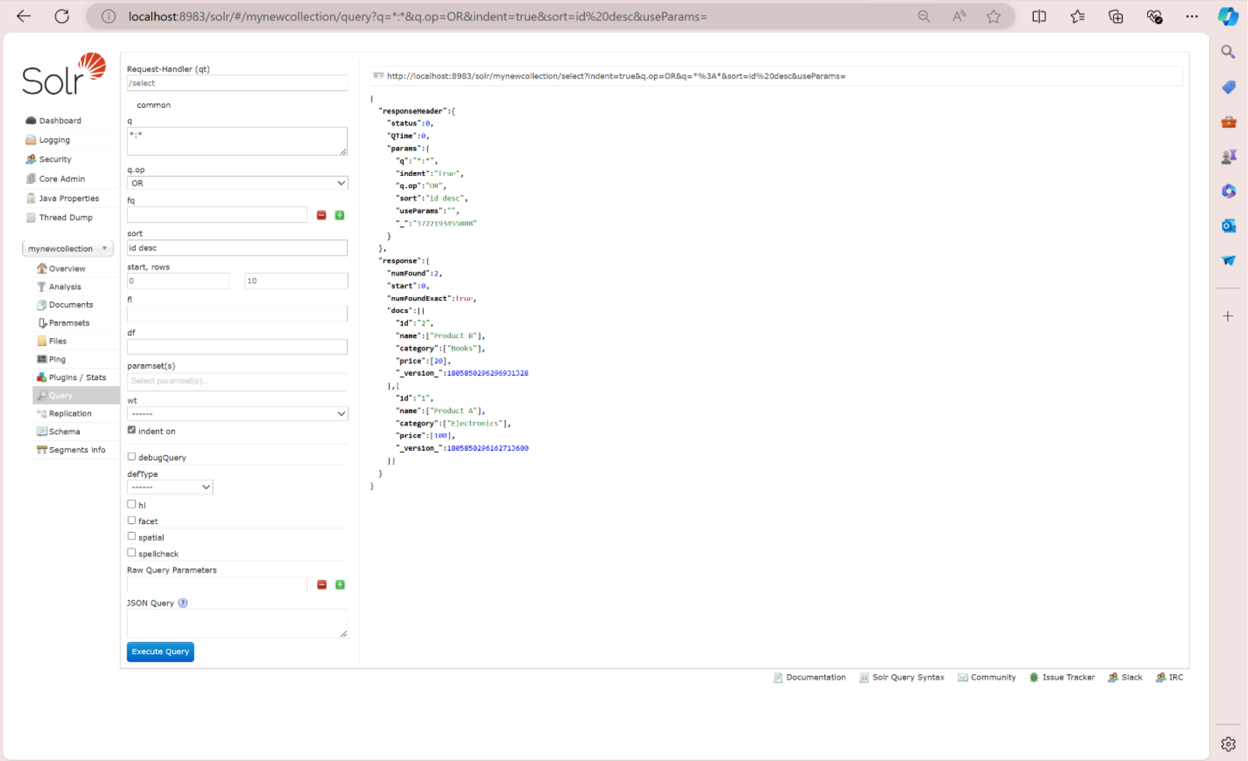
□ spatial

□ spellcheck

http://localhost:8983/solr/mynewcollection/select?fq=price%3A%5B*%20TO%2050%5D&indent=true&q.op=OR&q=category%3AElectronics&useParams=

```
{
  "responseHeader":{
    "status":0,
    "QTime":6,
    "params":{
      "q":"category:Electronics",
      "indent":"true",
      "q.op":"OR",
      "fq":"price:[* TO 50]",
      "useParams":"",
      "_":"1722193455808"
    }
  },
  "response":{
    "numFound":0,
    "start":0,
    "numFoundExact":true,
    "docs":[ ]
  }
}
```

Last query is sorting all the data in a descending order so now product B, books, is at top



```
localhost:8983/solr/#/mynewcollection/query?q=*:*&q.op=OR&indent=true&sort=id%20desc&useParams=
```

Request-Handler (qt): /select

q: *:*

q.op: OR

sort: id desc

start, rows: 0 10

☑ indent on

□ debugQuery

defType: ------

□ hl

□ facet

□ spatial

□ spellcheck

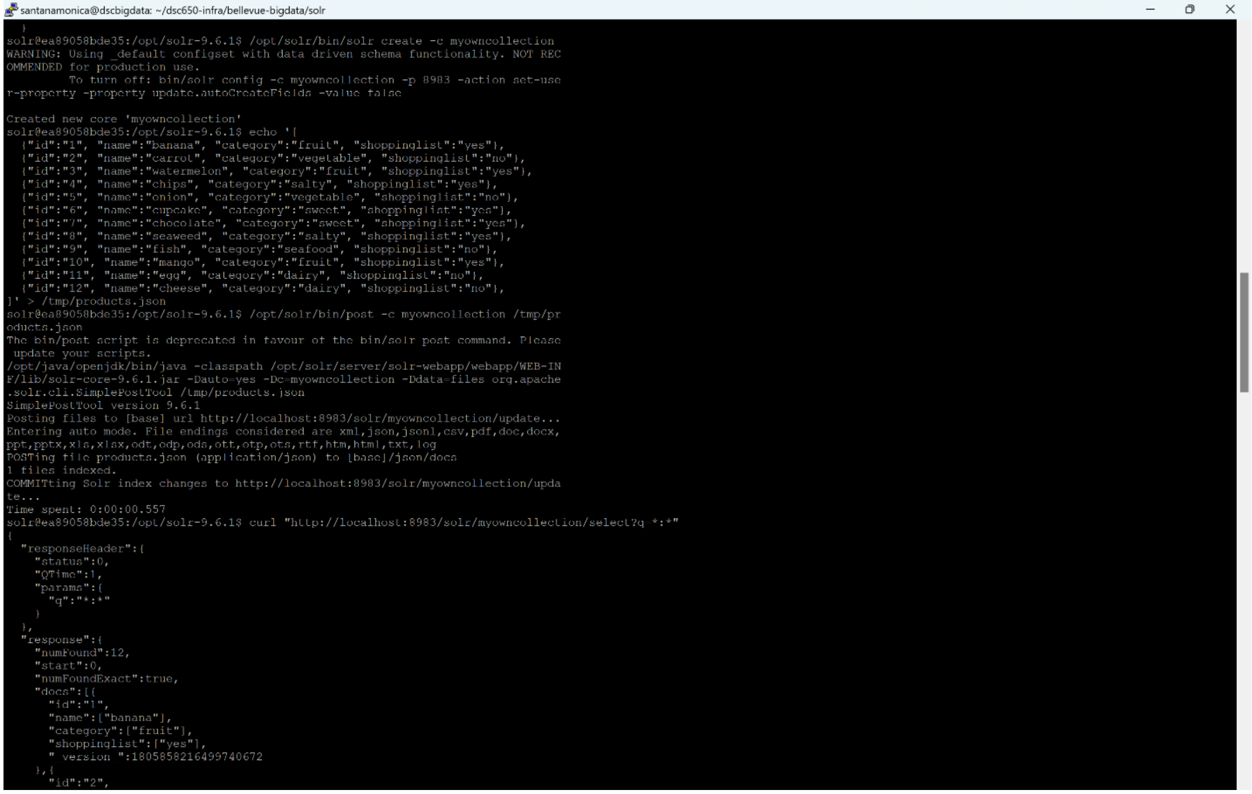
```
http://localhost:8983/solr/mynewcollection/select?indent=true&q.op=OR&q=*%3A*&sort=id%20desc&useParams=
```

```
{
  "responseHeader":{
    "status":0,
    "QTime":0,
    "params":{
      "q":"*:*",
      "indent":"true",
      "q.op":"OR",
      "sort":"id desc",
      "useParams":"",
      "_":"1722193455808"
    }
  },
  "response":{
    "numFound":2,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"2",
      "name":["Product B"],
      "category":["Books"],
      "price":[20],
      "_version_":1805850296296931328
    },{
      "id":"1",
      "name":["Product A"],
      "category":["Electronics"],
      "price":[100],
      "_version_":1805850296162713600
    }]
  }
}
```

Created myowncollection in Solr and the queries

```
echo '[
  {"id":"1", "name":"banana", "category":"fruit", "shoppinglist":"yes"},
  {"id":"2", "name":"carrot", "category":"vegetable", "shoppinglist":"no"},
  {"id":"3", "name":"watermelon", "category":"fruit", "shoppinglist":"yes"},
  {"id":"4", "name":"chips", "category":"salty", "shoppinglist":"yes"},
  {"id":"5", "name":"onion", "category":"vegetable", "shoppinglist":"no"},
  {"id":"6", "name":"cupcake", "category":"sweet", "shoppinglist":"yes"},
  {"id":"7", "name":"chocolate", "category":"sweet", "shoppinglist":"yes"},
  {"id":"8", "name":"seaweed", "category":"salty", "shoppinglist":"yes"},
  {"id":"9", "name":"fish", "category":"seafood", "shoppinglist":"no"},
  {"id":"10", "name":"mango", "category":"fruit", "shoppinglist":"yes"},
  {"id":"11", "name":"egg", "category":"dairy", "shoppinglist":"no"},
  {"id":"12", "name":"cheese", "category":"dairy", "shoppinglist":"no"},
]' > /tmp/products.json
```

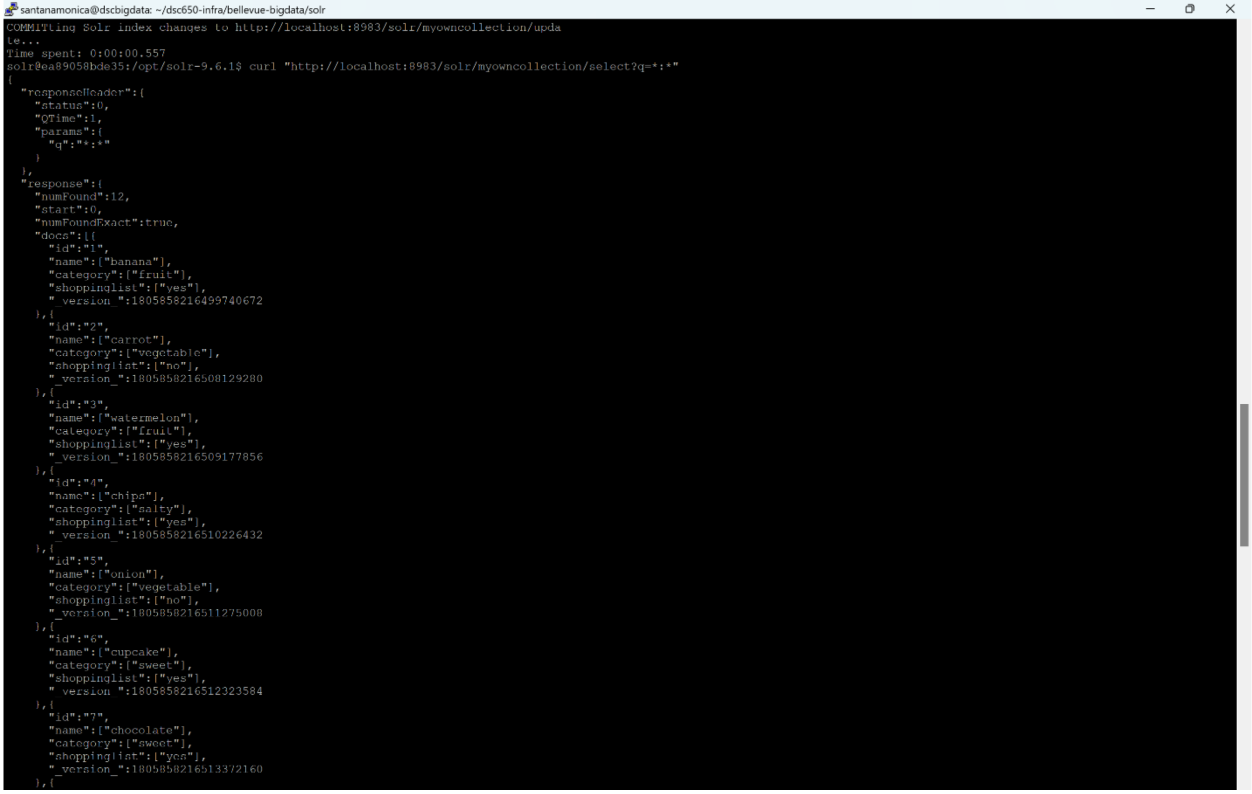
Myowncollection and the generated data



santanamonica@dscbigdata: ~/dsc650-infra/bellevue-bigdata/solr

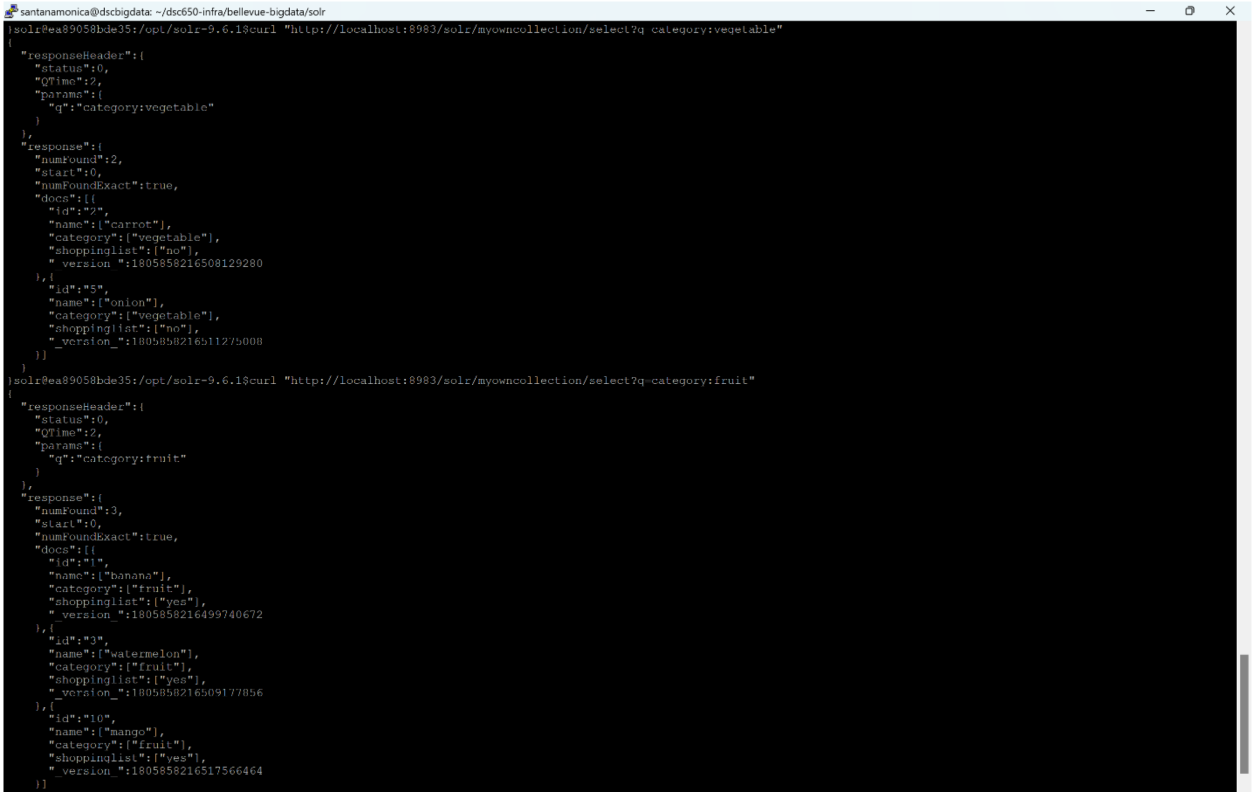
```
  }
solr@ea89058bde35:/opt/solr-9.6.1$ /opt/solr/bin/solr create -c myowncollection
WARNING: Using _default configset with data driven schema functionality. NOT REC
OMMENDED for production use.
         To turn off: bin/solr config -c myowncollection -p 8983 -action set-use
r-property -property update.autoCreateFields -value false

Created new core 'myowncollection'
solr@ea89058bde35:/opt/solr-9.6.1$ echo '[
  {"id":"1", "name":"banana", "category":"fruit", "shoppinglist":"yes"},
  {"id":"2", "name":"carrot", "category":"vegetable", "shoppinglist":"no"},
  {"id":"3", "name":"watermelon", "category":"fruit", "shoppinglist":"yes"},
  {"id":"4", "name":"chips", "category":"salty", "shoppinglist":"yes"},
  {"id":"5", "name":"onion", "category":"vegetable", "shoppinglist":"no"},
  {"id":"6", "name":"cupcake", "category":"sweet", "shoppinglist":"yes"},
  {"id":"7", "name":"chocolate", "category":"sweet", "shoppinglist":"yes"},
  {"id":"8", "name":"seaweed", "category":"salty", "shoppinglist":"yes"},
  {"id":"9", "name":"fish", "category":"seafood", "shoppinglist":"no"},
  {"id":"10", "name":"mango", "category":"fruit", "shoppinglist":"yes"},
  {"id":"11", "name":"egg", "category":"dairy", "shoppinglist":"no"},
  {"id":"12", "name":"cheese", "category":"dairy", "shoppinglist":"no"},
]' > /tmp/products.json
solr@ea89058bde35:/opt/solr-9.6.1$ /opt/solr/bin/post -c myowncollection /tmp/pr
oducts.json
The bin/post script is deprecated in favour of the bin/solr post command. Please
 update your scripts.
/opt/java/openjdk/bin/java -classpath /opt/solr/server/solr-webapp/webapp/WEB-IN
F/lib/solr-core-9.6.1.jar -Dauto=yes -Dc=myowncollection -Ddata=files org.apache
.solr.cli.SimplePostTool /tmp/products.json
SimplePostTool version 9.6.1
Posting files to [base] url http://localhost:8983/solr/myowncollection/update...
Entering auto mode. File endings considered are xml,json,jsonl,csv,pdf,doc,docx,
ppt,pptx,xls,xlsx,odt,odp,ods,ott,otp,ots,rtf,htm,html,txt,log
POSTing file products.json (application/json) to [base]/json/docs
1 files indexed.
COMMITting Solr index changes to http://localhost:8983/solr/myowncollection/upda
te...
Time spent: 0:00:00.557
solr@ea89058bde35:/opt/solr-9.6.1$ curl "http://localhost:8983/solr/myowncollection/select?q=*:*"
{
  "responseHeader":{
    "status":0,
    "QTime":1,
    "params":{
      "q":"*:*"
    }
  },
  "response":{
    "numFound":12,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"1",
      "name":["banana"],
      "category":["fruit"],
      "shoppinglist":["yes"],
      "_version_":1805858216499740672
    },{
      "id":"2",
```

Queries of entire data and categories of vegetable and fruit



santanamonica@dscbigdata: ~/dsc650-infra/bellevue-bigdata/solr

```
COMMITting Solr index changes to http://localhost:8983/solr/myowncollection/upda
te...
Time spent: 0:00:00.557
solr@ea89058bde35:/opt/solr-9.6.1$ curl "http://localhost:8983/solr/myowncollection/select?q=*:*"
{
  "responseHeader":{
    "status":0,
    "QTime":1,
    "params":{
      "q":"*:*"
    }
  },
  "response":{
    "numFound":12,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"1",
      "name":["banana"],
      "category":["fruit"],
      "shoppinglist":["yes"],
      "_version_":1805858216499740672
    },{
      "id":"2",
      "name":["carrot"],
      "category":["vegetable"],
      "shoppinglist":["no"],
      "_version_":1805858216508129280
    },{
      "id":"3",
      "name":["watermelon"],
      "category":["fruit"],
      "shoppinglist":["yes"],
      "_version_":1805858216509177856
    },{
      "id":"4",
      "name":["chips"],
      "category":["salty"],
      "shoppinglist":["yes"],
      "_version_":1805858216510226432
    },{
      "id":"5",
      "name":["onion"],
      "category":["vegetable"],
      "shoppinglist":["no"],
      "_version_":1805858216511275008
    },{
      "id":"6",
      "name":["cupcake"],
      "category":["sweet"],
      "shoppinglist":["yes"],
      "_version_":1805858216512323584
    },{
      "id":"7",
      "name":["chocolate"],
      "category":["sweet"],
      "shoppinglist":["yes"],
      "_version_":1805858216513372160
    },{
```

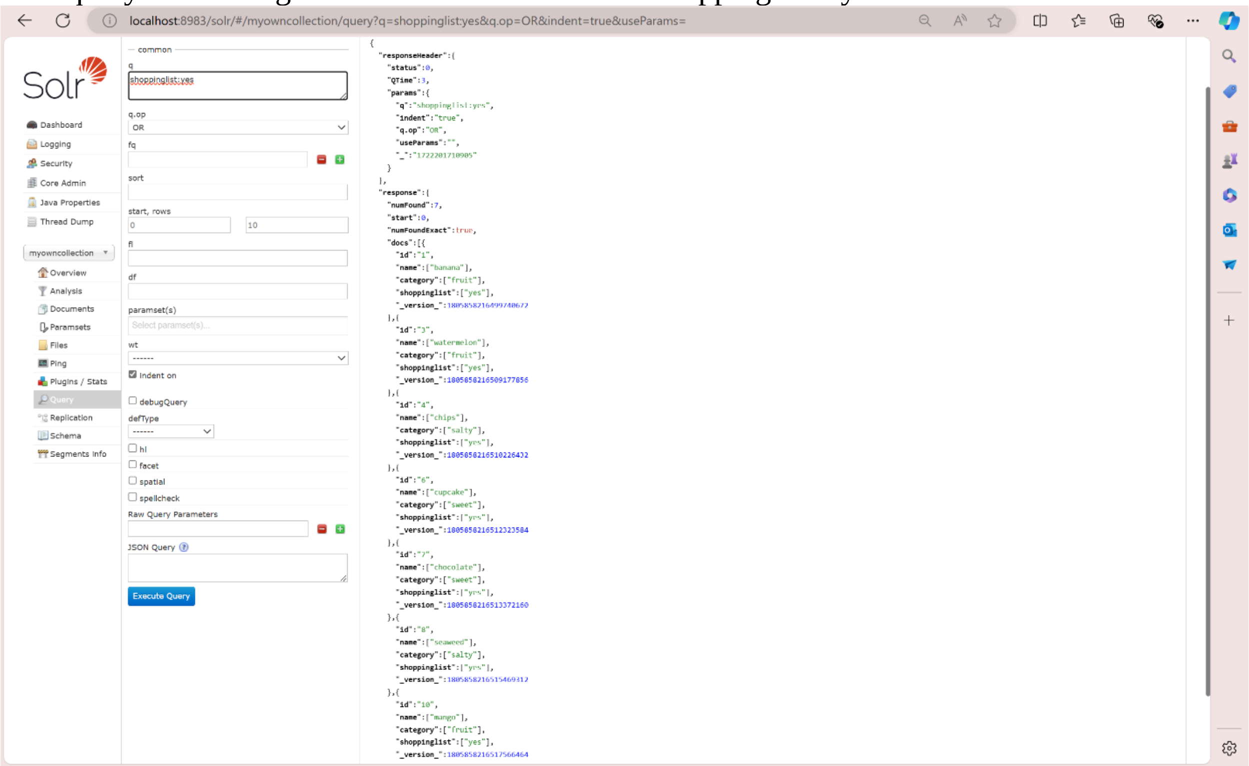


santanamonica@dscbigdata: ~/dsc650-infra/bellevue-bigdata/solr

```
}solr@ea89058bde35:/opt/solr-9.6.1$curl "http://localhost:8983/solr/myowncollection/select?q=category:vegetable"
{
  "responseHeader":{
    "status":0,
    "QTime":2,
    "params":{
      "q":"category:vegetable"
    }
  },
  "response":{
    "numFound":2,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"2",
      "name":["carrot"],
      "category":["vegetable"],
      "shoppinglist":["no"],
      "_version_":1805858216508129280
    },{
      "id":"5",
      "name":["onion"],
      "category":["vegetable"],
      "shoppinglist":["no"],
      "_version_":1805858216511275008
    }]
  }
}solr@ea89058bde35:/opt/solr-9.6.1$curl "http://localhost:8983/solr/myowncollection/select?q=category:fruit"
{
  "responseHeader":{
    "status":0,
    "QTime":2,
    "params":{
      "q":"category:fruit"
    }
  },
  "response":{
    "numFound":3,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"1",
      "name":["banana"],
      "category":["fruit"],
      "shoppinglist":["yes"],
      "_version_":1805858216499740672
    },{
      "id":"3",
      "name":["watermelon"],
      "category":["fruit"],
      "shoppinglist":["yes"],
      "_version_":1805858216509177856
    },{
      "id":"10",
      "name":["mango"],
      "category":["fruit"],
      "shoppinglist":["yes"],
      "_version_":1805858216517566464
    }]
```

Queries in Solr Web Interface

First query is selecting all the items that are on the shopping list "yes" out of the 12



localhost:8983/solr/#/myowncollection/query?q=shoppinglist:yes&q.op=OR&indent=true&useParams=

common

q: shoppinglist:yes

q.op: OR

fq:

sort:

start, rows: 0 10

fl:

df:

paramset(s): Select paramset(s)...

wt: ------

☑ Indent on

☐ debugQuery

defType: ------

☐ hl

☐ facet

☐ spatial

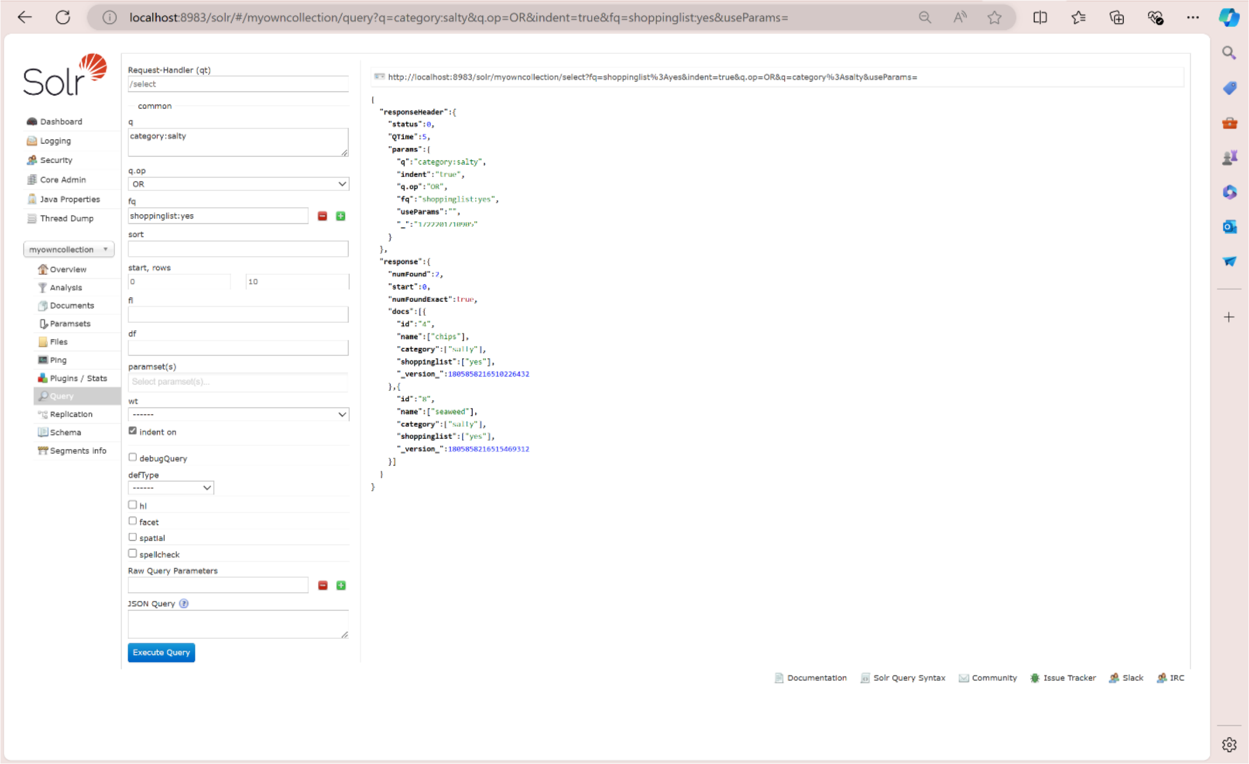
☐ spellcheck

Raw Query Parameters

JSON Query

```
{
  "responseHeader":{
    "status":0,
    "QTime":3,
    "params":{
      "q":"shoppinglist:yes",
      "indent":"true",
      "q.op":"OR",
      "useParams":"",
      "_":"1722201710905"
    }
  },
  "response":{
    "numFound":7,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"1",
      "name":["banana"],
      "category":["fruit"],
      "shoppinglist":["yes"],
      "_version_":1805858216499740672
    },{
      "id":"3",
      "name":["watermelon"],
      "category":["fruit"],
      "shoppinglist":["yes"],
      "_version_":1805858216509177856
    },{
      "id":"4",
      "name":["chips"],
      "category":["salty"],
      "shoppinglist":["yes"],
      "_version_":1805858216510226432
    },{
      "id":"6",
      "name":["cupcake"],
      "category":["sweet"],
      "shoppinglist":["yes"],
      "_version_":1805858216512323584
    },{
      "id":"7",
      "name":["chocolate"],
      "category":["sweet"],
      "shoppinglist":["yes"],
      "_version_":1805858216513372160
    },{
      "id":"8",
      "name":["seaweed"],
      "category":["salty"],
      "shoppinglist":["yes"],
      "_version_":1805858216515469312
    },{
      "id":"10",
      "name":["mango"],
      "category":["fruit"],
      "shoppinglist":["yes"],
      "_version_":1805858216517566464
```

Second query is selecting all the items that are on the shopping list and in the salty category



localhost:8983/solr/#/myowncollection/query?q=category:salty&q.op=OR&indent=true&fq=shoppinglist:yes&useParams=

Request-Handler (qt)
/select

common

q
category:salty

q.op
OR

fq
shoppinglist:yes

sort

start, rows
0 10

fl

df

paramset(s)
Select paramset(s)...

wt

☑ indent on

□ debugQuery

defType

□ hl

□ facet

□ spatial

□ spellcheck

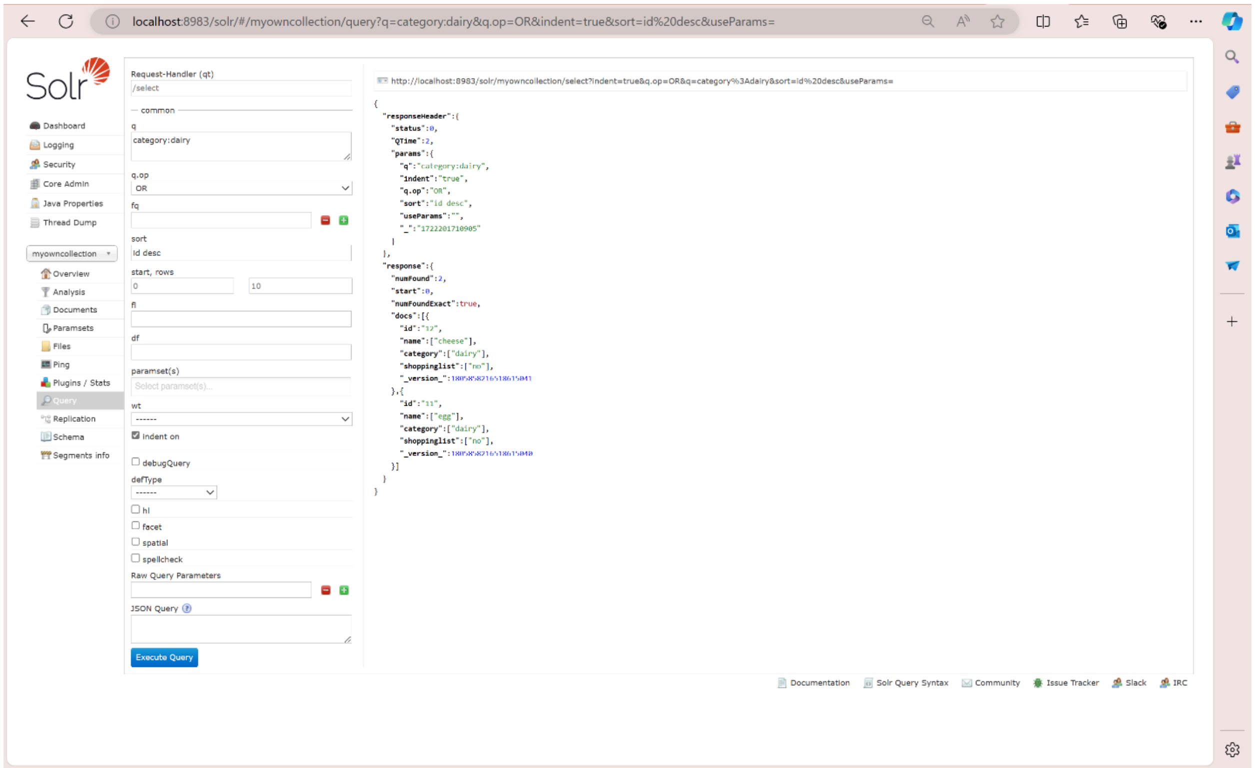
Raw Query Parameters

JSON Query

http://localhost:8983/solr/myowncollection/select?fq=shoppinglist%3Ayes&indent=true&q.op=OR&q=category%3Asalty&useParams=

```
{
  "responseHeader":{
    "status":0,
    "QTime":5,
    "params":{
      "q":"category:salty",
      "indent":"true",
      "q.op":"OR",
      "fq":"shoppinglist:yes",
      "useParams":"",
      "_":"1722201710905"
    }
  },
  "response":{
    "numFound":2,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"4",
      "name":["chips"],
      "category":["salty"],
      "shoppinglist":["yes"],
      "_version_":1805858216510226432
    },{
      "id":"8",
      "name":["seaweed"],
      "category":["salty"],
      "shoppinglist":["yes"],
      "_version_":1805858216515469312
    }]
  }
}
```

Third query is selecting all the items that are in the dairy category and descending the order



localhost:8983/solr/#/myowncollection/query?q=category:dairy&q.op=OR&indent=true&sort=id%20desc&useParams=

Request-Handler (qt)
/select

common

q
category:dairy

q.op
OR

fq

sort
id desc

start, rows
0 10

fl

df

paramset(s)
Select paramset(s)...

wt

☑ indent on

□ debugQuery

defType

□ hl

□ facet

□ spatial

□ spellcheck

Raw Query Parameters

JSON Query

http://localhost:8983/solr/myowncollection/select?indent=true&q.op=OR&q=category%3Adairy&sort=id%20desc&useParams=

```
{
  "responseHeader":{
    "status":0,
    "QTime":2,
    "params":{
      "q":"category:dairy",
      "indent":"true",
      "q.op":"OR",
      "sort":"id desc",
      "useParams":"",
      "_":"1722201710905"
    }
  },
  "response":{
    "numFound":2,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"12",
      "name":["cheese"],
      "category":["dairy"],
      "shoppinglist":["no"],
      "_version_":1805858216518615041
    },{
      "id":"11",
      "name":["egg"],
      "category":["dairy"],
      "shoppinglist":["no"],
      "_version_":1805858216518615040
    }]
  }
}
```