**Week 8**

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DSC 650 Big Data

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1. Creating a Solr Collection



2. Generating and Adding Data to the Collection



```
solr@d2ac86b8429f:/opt/solr-9.4.1$ echo '[
{"id":"1", "name":"Product A", "category":"Electronics", "price":"100"}, {"id":"2", "name":"Product B", "ca
]' > /tmp/products.json
[solr@d2ac86b8429f:/opt/solr-9.4.1$ /opt/solr/bin/post -c mynewcollection /tmp/products.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-INF/lib/solr-core-9.4.1.jar -
SimplePostTool version 9.4.1
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,o
POSTing file products.json (application/json) to [base]/json/docs
1 files indexed.
COMMITting Solr index changes to http://localhost:8983/solr/mynewcollection/update...
Time spent: 0:00:00.536
solr@d2ac86b8429f:/opt/solr-9.4.1$
```

3. Querying the Collection

```
[solr@d2ac86b8429f:/opt/solr-9.4.1$ curl "http://localhost:8983/solr/mynewcollection/select?q=*:*"
{
  "responseHeader":{
    "status":0,
    "QTime":27,
    "params":{
      "q":"*:*"
    }
  },
  "response":{
    "numFound":2,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"1",
      "name":["Product A"],
      "category":["Electronics"],
      "price":[100],
      "_version_":1789911362277736448
    },{
      "id":"2",
      "name":["Product B"],
      "category":["Books"],
      "price":[20],
      "_version_":1789911362358476800
    }]
  }
}solr@d2ac86b8429f:/opt/solr-9.4.1$ curl "http://localhost:8983/solr/mynewcollection/select?q=category:Electronics"
{
  "responseHeader":{
    "status":0,
    "QTime":18,
    "params":{
      "q":"category:Electronics"
    }
  },
  "response":{
    "numFound":1,
    "start":0,
    "numFoundExact":true,
    "docs":[{
      "id":"1",
      "name":["Product A"],
      "category":["Electronics"],
      "price":[100],
      "_version_":1789911362277736448
    }]
  }
}solr@d2ac86b8429f:/opt/solr-9.4.1$
```

4. Advanced Querying in Solr Web Interface

```json
    },
    "facet_counts":{
      "facet_queries":{ },
      "facet_fields":{
        "category":["books",1,"electronics",1]
      },
      "facet_ranges":{ },
      "facet_intervals":{ },
      "facet_heatmaps":{ }
    }
}


  ,,
  },
  "facet_counts":{
    "facet_queries":{
      "price:[* TO 50]":1
```

5. Custom JSON Data- Queries

```json
"responseHeader":{
 "status":0,
 "QTime":2,
 "params":{
  "q":"gender:Male",
  "indent":"true",
  "q.op":"OR",
  "useParams":"",
  "_":"1706994231716"
 }
},
"response":{
 "numFound":2,
 "start":0,
 "numFoundExact":true,
 "docs":[{
  "id":"2",
  "first_name":["Giavani"],
  "last_name":["Frediani"],
  "email":["gfrediani1@senate.gov"],
  "gender":["Male"],
  "ip_address":["229.179.4.212"],
  "_version_":1789913175120936960
 },{
  "id":"4",
  "first_name":["Willard"],
  "last_name":["Valek"],
  "email":["wvalek3@vk.com"],
  "gender":["Male"],
  "ip_address":["67.76.188.26"],
  "_version_":1789913175123034112
 }]

"responseHeader":{
 "status":0,
 "QTime":1,
 "params":{
  "q":"*:*",
  "indent":"true",
  "fl":"first_name last_name",
  "q.op":"OR",
  "useParams":"",
  "_":"1706994231716"
 }
},
"response":{
 "numFound":4,
 "start":0,
 "numFoundExact":true,
 "docs":[{
  "first_name":["Jeanette"],
  "last_name":["Penddreth"]
 },{
  "first_name":["Giavani"],
  "last_name":["Frediani"]
 },{
  "first_name":["Noell"],
  "last_name":["Bea"]
 },{
  "first_name":["Willard"],
  "last_name":["Valek"]
 }]

{
"responseHeader":{
 "status":0,
 "QTime":3,
 "params":{
  "q":"first_name:Noell",
  "indent":"true",
  "q.op":"OR",
  "useParams":"",
  "_":"1706994231716"
 }
},
"response":{
 "numFound":1,
 "start":0,
 "numFoundExact":true,
 "docs":[{
  "id":"3",
  "first_name":["Noell"],
  "last_name":["Bea"],
  "email":["nbea2@imageshack.us"],
  "gender":["Female"],
  "ip_address":["180.66.162.255"],
  "_version_":1789913175121985536
 }]
}
}

},
"facet_counts":{
 "facet_queries":{ },
 "facet_fields":{
  "gender":["female",2,"male",2]
 },
```