

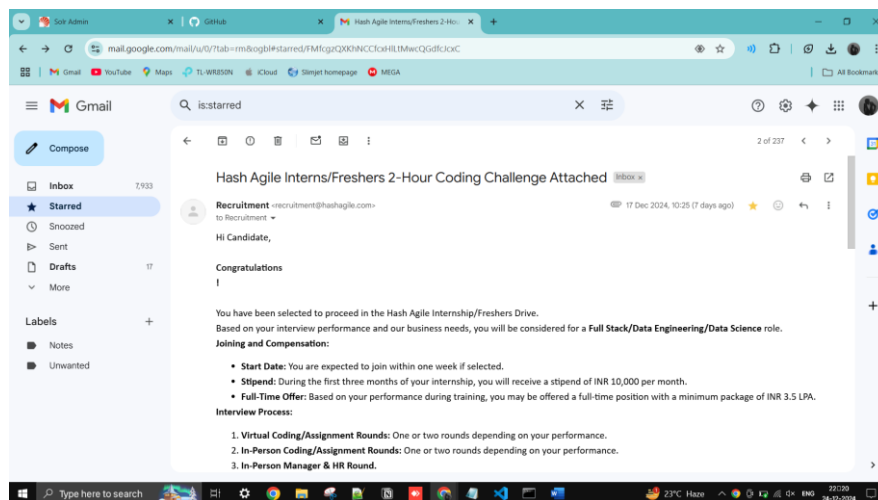
HASH AGILE ASSIGNMENT ROUND - 2

FULL NAME : AJITH KUMAR S

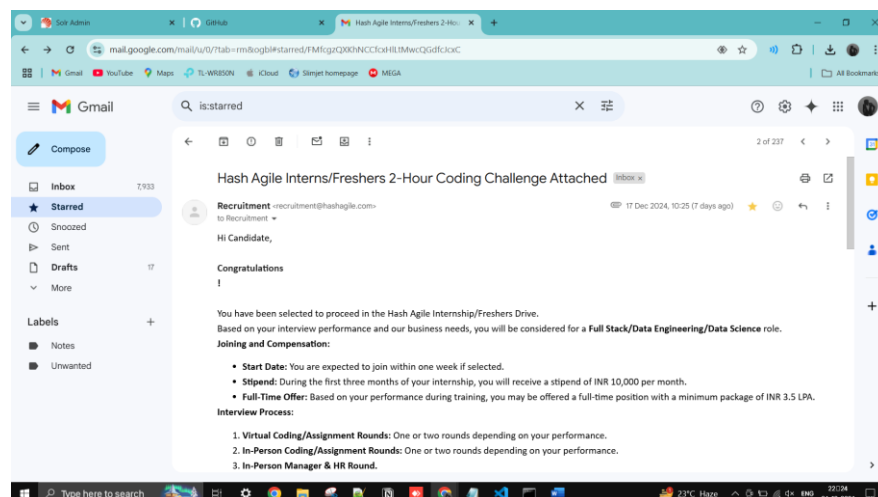
Candidate Picture :



FIRST ROUND EMAIL SCREENSHOT :



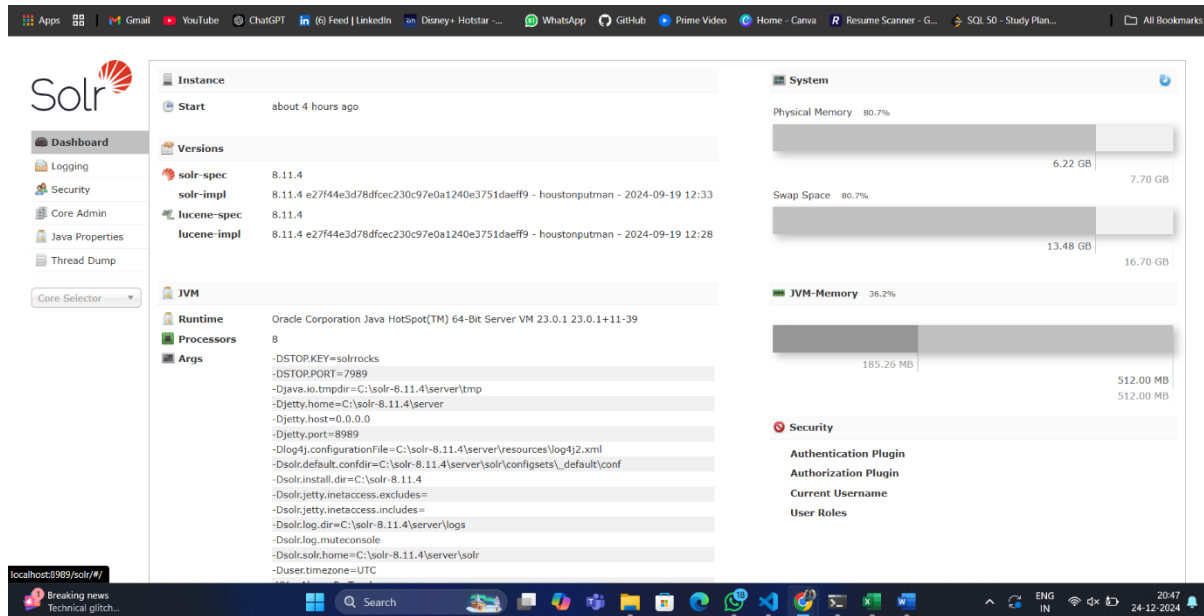
SECOND ROUND EMAIL SCREENSHOT:



GITHUB LINK ROUND 1 : <https://github.com/AKSKumar2002/Hash-Agile-Assignment>

GITHUB LINK ROUND 2: <https://github.com/AKSKumar2002/Hash-Agile-Assignment>

- Screenshot as proof of the service running on port 8989



Function Executions:

a) Var v_nameCollection = 'Hash_<Your Name>'

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.4894]
(c) Microsoft Corporation. All rights reserved.

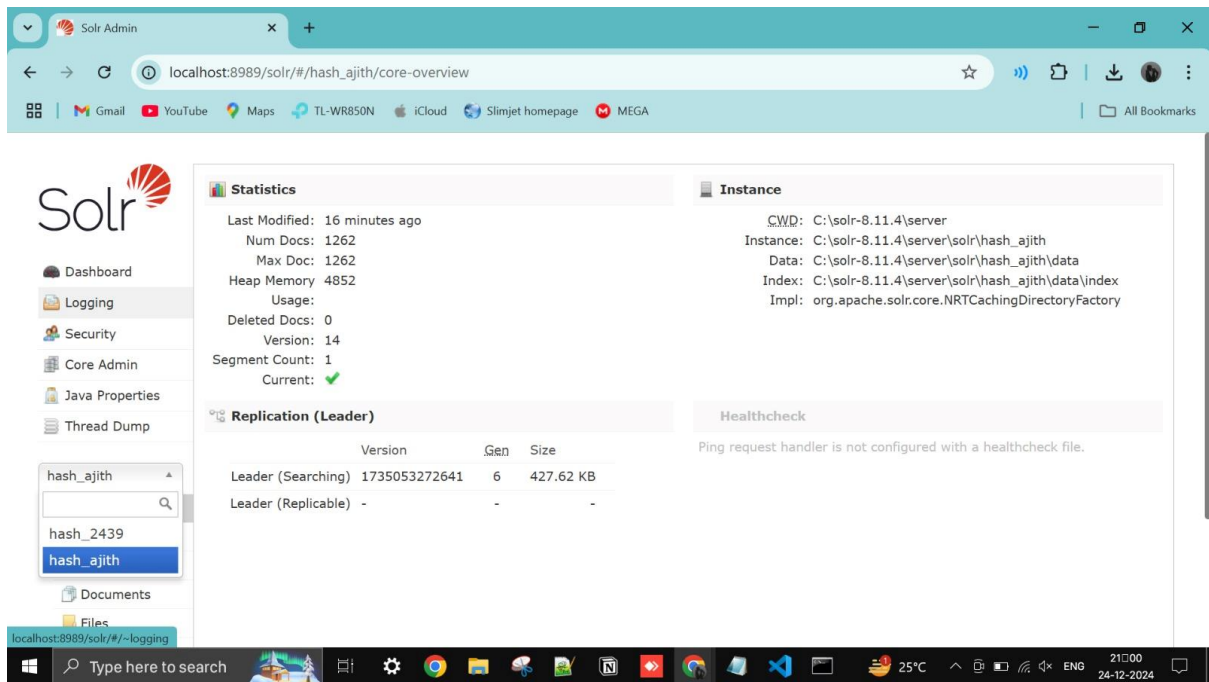
C:\solr-8.11.4\bin>solr start
Java HotSpot(TM) 64-Bit Server VM warning: JVM cannot use large page memory because it does not have enough privilege
to lock pages in memory.
Waiting up to 30 to see Solr running on port 8989
Started Solr server on port 8989. Happy searching!

C:\solr-8.11.4\bin>solr.cmd create -c hash_ajith
WARNING: Using _default configset with data driven schema functionality. NOT RECOMMENDED for production use.
To turn off: bin\solr config -c hash_ajith -p 8989 -action set-user-property -property update.autoCreateField
s -value false
Created new core 'hash_ajith'
```

b) Var v_phoneCollection ='Hash_<Your Phone last four digits>'

```
C:\solr-8.11.4\bin>solr.cmd create -c hash_2439
WARNING: Using _default configset with data driven schema functionality. NOT RECOMMENDED for production use.
To turn off: bin\solr config -c hash_2439 -p 8989 -action set-user-property -property update.autoCreateFields
-value false
Created new core 'hash_2439'
```

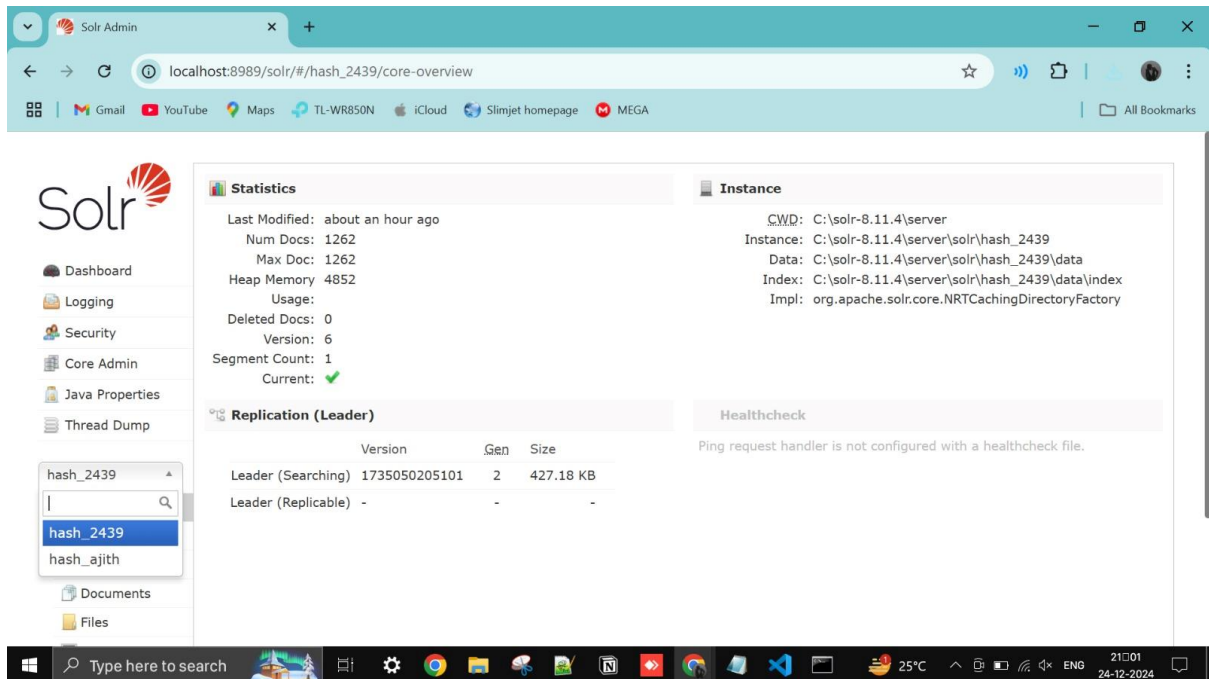
c) createCollection(v_nameCollection)



The screenshot shows the Solr Admin web interface in a browser. The address bar displays `localhost:8989/solr/#/hash_ajith/core-overview`. The left sidebar contains navigation links: Dashboard, Logging, Security, Core Admin, Java Properties, and Thread Dump. Below these is a search bar with a dropdown menu showing `hash_ajith`, `hash_2439`, and `hash_ajith` (selected). The main content area is divided into three sections: Statistics, Instance, and Replication (Leader). The Statistics section shows: Last Modified: 16 minutes ago, Num Docs: 1262, Max Doc: 1262, Heap Memory: 4852, Usage: Deleted Docs: 0, Version: 14, Segment Count: 1, Current: ✔. The Instance section shows: CWD: C:\solr-8.11.4\server, Instance: C:\solr-8.11.4\server\solr\hash_ajith, Data: C:\solr-8.11.4\server\solr\hash_ajith\data, Index: C:\solr-8.11.4\server\solr\hash_ajith\data\index, Impl: org.apache.solr.core.NRTCachingDirectoryFactory. The Replication (Leader) section shows a table with columns: Version, Gen, Size. The table has two rows: Leader (Searching) with Version 1735053272641, Gen 6, and Size 427.62 KB; and Leader (Replicable) with dashes in all columns. A Healthcheck section at the bottom right states: Ping request handler is not configured with a healthcheck file.

	Version	Gen	Size
Leader (Searching)	1735053272641	6	427.62 KB
Leader (Replicable)	-	-	-

d) createCollection(v_phoneCollection)



The screenshot shows the Solr Admin web interface in a browser. The address bar displays `localhost:8989/solr/#/hash_2439/core-overview`. The left sidebar contains navigation links: Dashboard, Logging, Security, Core Admin, Java Properties, and Thread Dump. Below these is a search bar with a dropdown menu showing `hash_2439`, `hash_2439` (selected), and `hash_ajith`. The main content area is divided into three sections: Statistics, Instance, and Replication (Leader). The Statistics section shows: Last Modified: about an hour ago, Num Docs: 1262, Max Doc: 1262, Heap Memory: 4852, Usage: Deleted Docs: 0, Version: 6, Segment Count: 1, Current: ✔. The Instance section shows: CWD: C:\solr-8.11.4\server, Instance: C:\solr-8.11.4\server\solr\hash_2439, Data: C:\solr-8.11.4\server\solr\hash_2439\data, Index: C:\solr-8.11.4\server\solr\hash_2439\data\index, Impl: org.apache.solr.core.NRTCachingDirectoryFactory. The Replication (Leader) section shows a table with columns: Version, Gen, Size. The table has two rows: Leader (Searching) with Version 1735050205101, Gen 2, and Size 427.18 KB; and Leader (Replicable) with dashes in all columns. A Healthcheck section at the bottom right states: Ping request handler is not configured with a healthcheck file.

	Version	Gen	Size
Leader (Searching)	1735050205101	2	427.18 KB
Leader (Replicable)	-	-	-

e) getEmpCount(v_nameCollection)

The screenshot shows the Solr Admin web interface. The left sidebar contains navigation links: Dashboard, Logging, Security, Core Admin, Java Properties, Thread Dump, hash_ajith (selected), Overview, Analysis, Dataimport, Documents, Files, Ping, and Plugins/Status. The main panel is titled 'Request-Handler (qt) /select'. The 'q' field contains '*:*'. The 'q.op' dropdown is set to 'OR'. The 'fq' field is empty. The 'sort' field is empty. The 'start, rows' section shows 'start' as 0 and 'rows' as 10. The 'df' field is empty. The 'wt' field is empty. The URL bar shows 'localhost:8989/solr/#/hash_ajith/query?q=*:*&q.op=OR&indent=true'. The response is a JSON object with a 'responseHeader' and a 'response' section. The 'response' section contains 'numFound': 1262, 'start': 0, 'numFoundExact': true, and 'docs': an array of employee records. The first record is: { "Department": ["Engineering"], "Gender": ["Male"], "Ethnicity": ["Asian"], "Age": [47], "Country": ["United States"], "City": ["Columbus"], "id": "e7761ce3-abe3-4200-8972-6eccf4d51ebf", "Employee_ID": ["E02002"], "Full_Name": ["Kai Le"], "Job_Title": ["Controls Engineer"], "Business_Unit": ["Manufacturing"], "Hire_Date": ["2/5/2022"] }.

f) indexData(v_nameCollection,'Department')

The screenshot shows the Solr Admin web interface. The left sidebar is the same as in the previous screenshot. The main panel is titled 'Request-Handler (qt) /select'. The 'q' field contains 'id:5cfe44ff-14cb-43df-91f0-03d114945e6a'. The 'q.op' dropdown is set to 'OR'. The 'fq' field is empty. The 'sort' field is empty. The 'start, rows' section shows 'start' as 0 and 'rows' as 10. The 'df' field is empty. The URL bar shows 'localhost:8989/solr/#/hash_ajith/query?q=id:5cfe44ff-14cb-43df-91f0-03d114945e6a&q.op=OR&indent=true'. The response is a JSON object with a 'responseHeader' and a 'response' section. The 'response' section contains 'numFound': 1, 'start': 0, 'numFoundExact': true, and 'docs': an array of employee records. The first record is: { "Department": ["Accounting", "Human Resources", "Marketing", "Sales"], "id": "5cfe44ff-14cb-43df-91f0-03d114945e6a", "_version_": 1819337377153286144 }.

g) indexData(v_phoneCollection, 'Gender')

The screenshot shows the Solr Admin web interface. The browser address bar displays the URL: `localhost:8989/solr/#/hash_ajith/query?q=Gender:(Male%20OR%20Female)&q.op=OR&indent=true`. The left sidebar contains navigation links: Dashboard, Logging, Security, Core Admin, Java Properties, Thread Dump, hash_ajith (selected), Overview, Analysis, Dataimport, Documents, Files, and Ping. The main content area is divided into two panels. The left panel, titled 'Request-Handler (qt)', shows the query configuration: `/select`, `common`, `q` (Gender:(Male OR Female)), `q.op` (OR), `fq` (empty), `sort` (empty), `start, rows` (0, 10), `fl` (empty), `df` (empty), and `wt` (empty). The right panel displays the JSON response from the query, which includes a status of 0, a QTime of 2, and a list of documents. The first document is for an employee with Department: Engineering, Gender: Male, Ethnicity: Asian, Age: 47, Country: United States, City: Columbus, ID: e7761ce3-abe3-4200-8972-6ecf4d51ebf, Employee_ID: E02002, Full_Name: Kai Le, Job_Title: Controls Engineer, Business_Unit: Manufacturing, and Hire_Date: 2/5/2022.

h) getEmpCount(v_nameCollection)

The screenshot shows the Solr Admin web interface. The browser address bar displays the URL: `localhost:8989/solr/#/hash_ajith/query?q=*&q.op=OR&indent=true`. The left sidebar contains navigation links: Dashboard, Logging, Security, Core Admin, Java Properties, Thread Dump, hash_ajith (selected), Overview, Analysis, Dataimport, Documents, Files, and Ping. The main content area is divided into two panels. The left panel, titled 'Request-Handler (qt)', shows the query configuration: `/select`, `common`, `q` (*), `q.op` (OR), `fq` (empty), `sort` (empty), `start, rows` (0, 10), `fl` (empty), `df` (empty), and `wt` (empty). The right panel displays the JSON response from the query, which includes a status of 0, a QTime of 5, and a list of documents. The first document is for an employee with Department: Engineering, Gender: Male, Ethnicity: Asian, Age: 47, Country: United States, City: Columbus, ID: e7761ce3-abe3-4200-8972-6ecf4d51ebf, Employee_ID: E02002, Full_Name: Kai Le, Job_Title: Controls Engineer, Business_Unit: Manufacturing, and Hire_Date: 2/5/2022.

i) delEmpById (v_nameCollection , 'E02003')

The screenshot shows the Solr Admin web interface. The left sidebar contains navigation links: Dashboard, Logging, Security, Core Admin, Java Properties, Thread Dump, hash_ajith (selected), Overview, Analysis, Dataimport, Documents, and Files. The main content area is divided into two panels. The left panel, titled 'Request-Handler (qt)', shows the '/select' handler with the following parameters: q (id:E02002), q.op (OR), fq (empty), sort (empty), start, rows (0 to 10), fl (empty), df (empty), and wt (empty). The right panel displays the HTTP response for the query: `http://localhost:8989/solr/hash_ajith/select?debugQuery=false&indent=true&q.op=OR&q=id%3AE02002`. The response is a JSON object with a status of 0, QTime of 1, and a response containing an empty array of documents.

j) getEmpCount(v_nameCollection)

The screenshot shows the Solr Admin web interface. The left sidebar is the same as in the previous screenshot. The main content area is divided into two panels. The left panel, titled 'Request-Handler (qt)', shows the '/select' handler with the following parameters: q (*:*), q.op (OR), fq (empty), sort (empty), start, rows (0 to 10), fl (empty), df (empty), and wt (empty). The right panel displays the HTTP response for the query: `http://localhost:8989/solr/hash_ajith/select?indent=true&q.op=OR&q=*&q=*&q=*`. The response is a JSON object with a status of 0, QTime of 5, and a response containing a document with employee details: `{ "Department": "Engineering", "Gender": "Male", "Ethnicity": "Asian", "Age": 47, "Country": "United States", "City": "Columbus", "id": "e7761ce3-abe3-4200-8972-6eccf4d51ebf", "Employee_ID": "E02002", "Full_Name": "Kai Le", "Job_Title": "Controls Engineer", "Business_Unit": "Manufacturing", "Hire_Date": "2/5/2022" }`.

k) searchByColumn(v_nameCollection,'Department','IT')

The screenshot shows the Solr Admin web interface. The browser address bar displays the URL: `localhost:8989/solr/#/hash_ajith/query?q=Department:IT&q.op=OR&indent=true`. The left sidebar contains navigation links: Dashboard, Logging, Security, Core Admin, Java Properties, Thread Dump, hash_ajith (selected), Overview, Analysis, Dataimport, Documents, Files, Ping, and Plugins/Status. The main content area is divided into two panels. The left panel, titled 'Request-Handler (qt)/select', shows the search configuration: 'common' selected, 'q' set to 'Department:IT', 'q.op' set to 'OR', 'fq' is empty, 'sort' is empty, 'start, rows' is '0 10', 'fl' is empty, 'df' is empty, and 'wt' is empty. The right panel displays the JSON response from the search. The response includes a 'responseHeader' with status 0, QTime 0, and params indicating the query and indent. The 'response' section shows 'numFound': 347, 'start': 0, 'numFoundExact': true, and a list of documents. The first document is for a person with Department: IT, Gender: Male, Ethnicity: Asian, Age: 34, Country: China, City: Shanghai, ID: ef5f6952-1630-41e1-b2a8-cf775a22988d, Employee_ID: E02004, Full_Name: Cameron Lo, Job_Title: Network Administrator, Business_Unit: Research & Development, and Hire_Date: 3/24/2019.

```
{
  "responseHeader": {
    "status": 0,
    "QTime": 0,
    "params": {
      "q": "Department:IT",
      "indent": "true",
      "q.op": "OR",
      "_": "1735050210443"
    }
  },
  "response": {
    "numFound": 347,
    "start": 0,
    "numFoundExact": true,
    "docs": [
      {
        "Department": ["IT"],
        "Gender": ["Male"],
        "Ethnicity": ["Asian"],
        "Age": [34],
        "Country": ["China"],
        "City": ["Shanghai"],
        "id": "ef5f6952-1630-41e1-b2a8-cf775a22988d",
        "Employee_ID": ["E02004"],
        "Full_Name": ["Cameron Lo"],
        "Job_Title": ["Network Administrator"],
        "Business_Unit": ["Research & Development"],
        "Hire_Date": ["3/24/2019"],

```

l) searchByColumn(v_nameCollection,'Gender','Male')

The screenshot shows the Solr Admin web interface. The browser address bar displays the URL: `localhost:8989/solr/#/hash_ajith/query?q=Gender:Male&q.op=OR&indent=true`. The left sidebar is the same as in the previous screenshot. The main content area shows the search configuration in the 'Request-Handler (qt)/select' panel: 'common' selected, 'q' set to 'Gender:Male', 'q.op' set to 'OR', 'fq' is empty, 'sort' is empty, 'start, rows' is '0 10', 'fl' is empty, 'df' is empty, and 'wt' is empty. The right panel displays the JSON response. The response header is the same. The 'response' section shows 'numFound': 581, 'start': 0, 'numFoundExact': true, and a list of documents. The first document is for a person with Department: Engineering, Gender: Male, Ethnicity: Asian, Age: 47, Country: United States, City: Columbus, ID: e7761ce3-abe3-4200-8972-6eccf4d51ebf, Employee_ID: E02002, Full_Name: Kai Le, Job_Title: Controls Engineer, Business_Unit: Manufacturing, and Hire_Date: 2/5/2022.

```
{
  "responseHeader": {
    "status": 0,
    "QTime": 0,
    "params": {
      "q": "Gender:Male",
      "indent": "true",
      "q.op": "OR",
      "_": "1735050210443"
    }
  },
  "response": {
    "numFound": 581,
    "start": 0,
    "numFoundExact": true,
    "docs": [
      {
        "Department": ["Engineering"],
        "Gender": ["Male"],
        "Ethnicity": ["Asian"],
        "Age": [47],
        "Country": ["United States"],
        "City": ["Columbus"],
        "id": "e7761ce3-abe3-4200-8972-6eccf4d51ebf",
        "Employee_ID": ["E02002"],
        "Full_Name": ["Kai Le"],
        "Job_Title": ["Controls Engineer"],
        "Business_Unit": ["Manufacturing"],
        "Hire_Date": ["2/5/2022"],

```

m) searchByColumn(v_phoneCollection,'Department','IT')

The screenshot shows the Solr Admin web interface in a browser. The address bar displays the URL: `localhost:8989/solr/#/hash_ajith/query?q=*:*&q.op=OR&indent=true&facet=true&facet.field=Department`. The main content area displays a JSON response from the search. The response includes a document for an employee and facet counts for the 'Department' field.

```
{
  "Employee_ID": ["E02011"],
  "Full_Name": ["Jameson Thomas"],
  "Job_Title": ["Manager"],
  "Business_Unit": ["Specialty Products"],
  "Hire_Date": ["2/5/2015"],
  "Annual_Salary": ["$105,879 "],
  "Bonus__": ["10%"],
  "_version_": 1819331984657219584
},
"facet_counts": {
  "facet_queries": {},
  "facet_fields": {
    "Department": [
      "it", 347,
      "sales", 188,
      "engineering", 159,
      "marketing", 136,
      "accounting", 132,
      "finance", 129,
      "human", 124,
      "resources", 124
    ]
  },
  "facet_ranges": {},
  "facet_intervals": {},
  "facet_heatmaps": {}
}
```

The Windows taskbar at the bottom shows the search bar, task view button, and several open applications including Chrome, File Explorer, and VS Code. The system tray on the right indicates the date and time as 19:56 on 24-12-2024.

n) getDepFacet(v_nameCollection)

This screenshot is identical to the one above, showing the Solr Admin interface with the same URL and JSON response. It displays the search results for the 'Department' facet, highlighting the 'it' department with 347 results.

```
{
  "Employee_ID": ["E02011"],
  "Full_Name": ["Jameson Thomas"],
  "Job_Title": ["Manager"],
  "Business_Unit": ["Specialty Products"],
  "Hire_Date": ["2/5/2015"],
  "Annual_Salary": ["$105,879 "],
  "Bonus__": ["10%"],
  "_version_": 1819331984657219584
},
"facet_counts": {
  "facet_queries": {},
  "facet_fields": {
    "Department": [
      "it", 347,
      "sales", 188,
      "engineering", 159,
      "marketing", 136,
      "accounting", 132,
      "finance", 129,
      "human", 124,
      "resources", 124
    ]
  },
  "facet_ranges": {},
  "facet_intervals": {},
  "facet_heatmaps": {}
}
```

The interface elements, including the browser tabs, taskbar, and system tray, are consistent with the previous screenshot.

o) getDepFacet(v_phoneCollection)

The screenshot shows the Solr Admin web interface in a browser. The address bar displays the URL: `localhost:8989/solr/#/hash_2439/query?q=*:*&q.op=OR&indent=true&facet=true&facet.field=Department`. The left sidebar contains navigation links: Dashboard, Logging, Security, Core Admin, Java Properties, Thread Dump, and a dropdown menu for 'hash_2439' with sub-links for Overview, Analysis, Dataimport, Documents, and Files.

The main content area is divided into two panels. The left panel, titled 'Request-Handler (qt)', shows the query configuration: `/select`, `common`, `q` (with a text input containing `*:*`), `q.op` (set to `OR`), `fq` (empty), `sort` (empty), `start, rows` (set to `0` and `10`), `fl` (empty), and `df` (empty). The right panel displays the JSON response from the query:

```
{
  "responseHeader": {
    "status": 0,
    "QTime": 1,
    "params": {
      "q": "*:*",
      "facet.field": "Department",
      "indent": "true",
      "q.op": "OR",
      "facet": "true",
      "_": "1735053279604"
    }
  },
  "response": {
    "numFound": 1263,
    "start": 0,
    "numFoundExact": true,
    "docs": [
      {
        "Department": ["Engineering"],
        "Gender": ["Male"],
        "Ethnicity": ["Asian"],
        "Age": [47],
        "Country": ["United States"],
        "City": ["Columbus"],
        "id": "0e0817f9-129a-4809-b1e0-265dce4fc22f",
        "Employee_ID": ["E02002"],
        "Full Name": ["Kai Le"]
      }
    ]
  }
}
```

The Windows taskbar at the bottom shows the system clock as 21:54 on 24-12-2024, with a temperature of 24°C.