

Sreejith S



Task Mail 1

First Challenge for Hash Agile Internship/Freshers Drive

Inbox



Recruitment 5 days ago
to Recruitment ▾



Dear Candidate,

We are pleased to inform you that your first programming challenge is attached to this email. Please carefully read the problem statement and submit your solution.

Instructions:

- **Deadline:** You must solve the attached program in C language and submit your code via the provided Google Form link by **12:00 PM** today.
- **Submission Form:** <https://forms.gle/4xuGnsgdvHyjz9gZA>
- **Important:** Submissions received after the deadline will be given lower priority in the selection process.

Guidelines:

- Ensure that your solution is **original** and does not use built-in functions (as specified in the problem statement). We will be using tools like [ZeroGPT](#) to check for plagiarism and any content generated by AI.
- **Please attach a PDF document** that includes:
 - The **problem statement** given
 - The **program code** you have written
 - At least **three sample inputs** along with their respective outputs

We wish you all the best!

Best regards,
HR Team,
Hash Agile Technologies

Task Mail 2

Second Challenge for Hash Agile Internship/Freshers Drive

Inbox



Recruitment 5 days ago
to Recruitment



Dear Candidate,

As part of the interview process, we require you to complete the following task to demonstrate your understanding of Apache Solr:

1. Read about Apache Solr: [Solr Tutorial](#).
2. Install Solr on your local machine.
3. Create a collection in Solr.
4. Index the Employee data from <https://www.kaggle.com/datasets/williamlucas0/employee-sample-data>

Submit the step-by-step commands and supporting screenshots in a PDF file within 12 hours of receiving this email through the following link: [Submit your response](#).

Note: Any additional features like building a custom UI, Dockerizing the solution, or implementing innovative ideas will be considered an advantage.

Regards,

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Task Mail 3



Recruitment 2 days ago
to Recruitment



Dear Candidate,

Greetings!

Thank you for your continued effort in completing the online test. Due to the overwhelming response we've received, we are formalizing the output format for ease of review. This will help us streamline the evaluation process and ensure consistency across submissions.

Please continue with your previous assignment and submit your results using the newly provided format and create below functions in any of the desired language

• Function Definitions

1. **createCollection(p_collection_name)**

Using Any of the programming language implement below functions

1. **indexData(p_collection_name, p_exclude_column):**
Index the given employee data into the specified collection, excluding the column provided in p_exclude_column.
2. **searchByColumn(p_collection_name, p_column_name, p_column_value):**
Search within the specified collection for records where the column p_column_name matches the value p_column_value.
3. **getEmpCount(p_collection_name)**
4. **delEmpById(p_collection_name, p_employee_id)**
5. **getDepFacet(p_collection_name):**
Retrieve the count of employees grouped by department from the specified collection.

• Function Executions

1. Var v_nameCollection = 'Hash_<Your Name>'

Once the functions are implemented, execute the functions in the given order with the parameters mentioned

1. Var v_phoneCollection = 'Hash_<Your Phone last four digits>'
2. createCollection(v_nameCollection)

Git Hub Link:

https://github.com/S-Sreejith/Hash_Agile_Task

Task 3 Solution:

Starting solr...

```
C:\Windows\System32\cmd.exe

C:\Users\Sreejith\Downloads\solr-9.7.0\solr-9.7.0\bin>solr start
Java 17 detected. Enabled workaround for SOLR-16463
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.
WARNING: A command line option has enabled the Security Manager
WARNING: The Security Manager is deprecated and will be removed in a future release
Failed to parse command-line arguments due to: Unrecognized option: --max-wait-secs

usage: bin/solr status [-maxWaitSecs <SECS>] [--solr-url <URL>]

List of options:
  -maxWaitSecs <SECS>  Wait up to the specified number of seconds to see Solr running.
  --solr-url <URL>     Address of the Solr Web application, defaults to: http://localhost:8983.

Please see the Reference Guide for more tools documentation:
https://solr.apache.org/guide/solr/latest/deployment-guide/solr-control-script-reference.html

ERROR: Solr did not start or was not reachable. Check the logs for errors.
```

Creating Collection

Hash_sreejith

Hash_4940

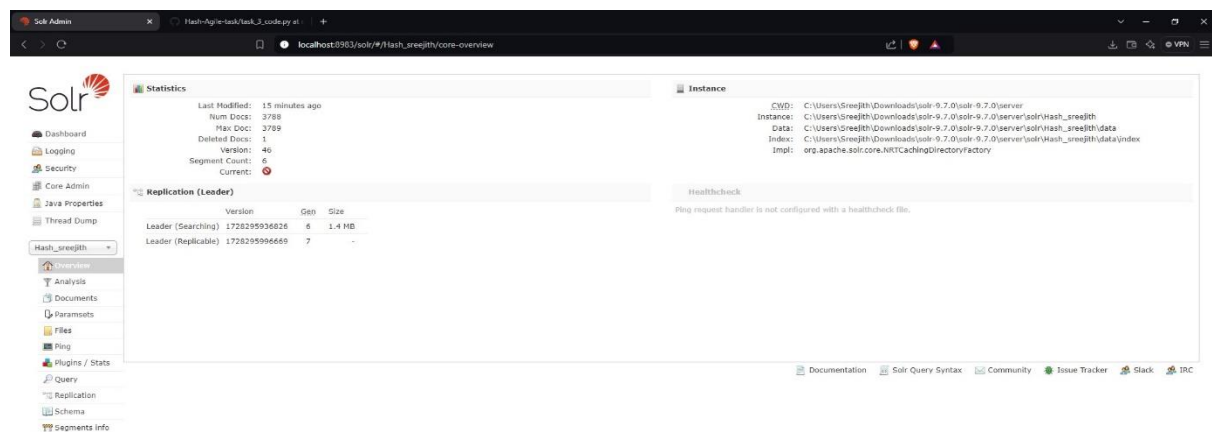
```
C:\Windows\System32\cmd.exe

C:\Users\Sreejith\Downloads\solr-9.7.0\solr-9.7.0\bin>solr create -c Hash_sreejith
WARNING: Using default configset with data driven schema functionality. NOT RECOMMENDED for production use.
To turn off: bin/solr config -c Hash_sreejith -p 8983 -action set-user-property -property update.autoCreateFields -value false
Option '-solrUrl', '--solrUrl': Deprecated for removal since 9.7: Use --solr-url instead
WARNING: URLs provided to this tool needn't include Solr's context-root (e.g. "/solr"). Such URLs are deprecated and support for them will be
removed in a future release. Correcting from [http://localhost:8983/solr] to [http://localhost:8983/].
Option '-confdir', '--confdir': Deprecated for removal since 9.7: Use --conf-dir instead
Option '-confdir', '--confdir': Deprecated for removal since 9.7: Use --conf-dir instead
Option '-confdir', '--confdir': Deprecated for removal since 9.7: Use --conf-dir instead
Option '-confdir', '--confdir': Deprecated for removal since 9.7: Use --conf-dir instead
Option '-confname', '--confname': Deprecated for removal since 9.7: Use --conf-name instead

Created new core 'Hash_sreejith'

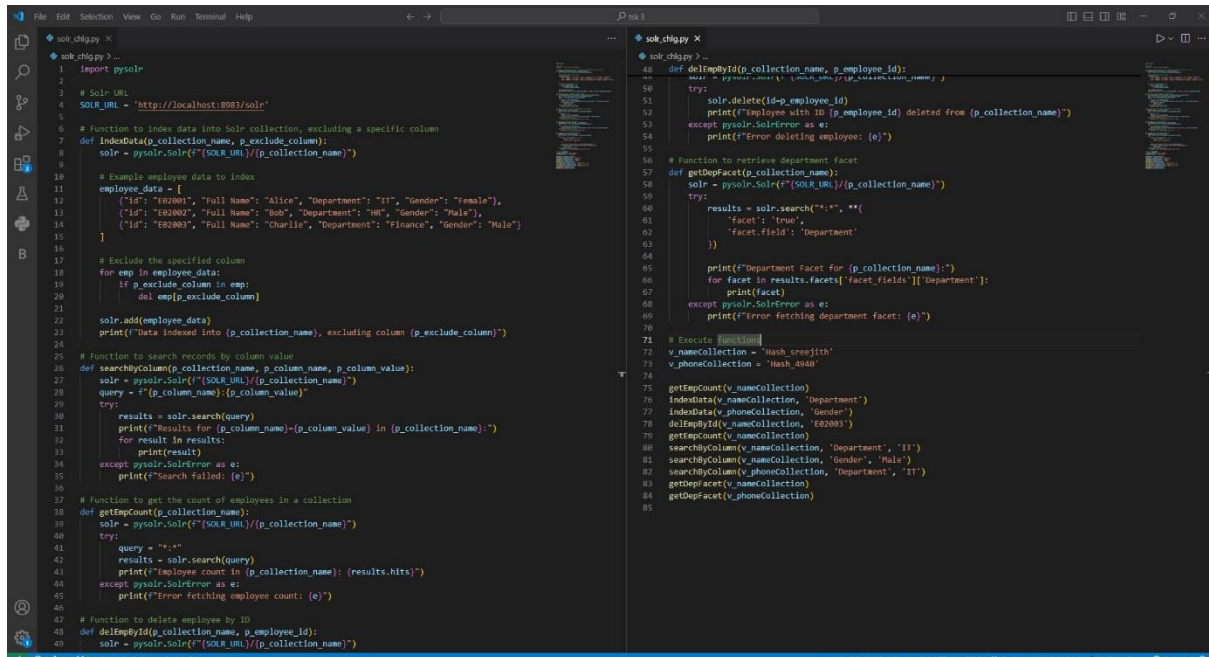
C:\Users\Sreejith\Downloads\solr-9.7.0\solr-9.7.0\bin>solr create -c Hash_4940
WARNING: Using default configset with data driven schema functionality. NOT RECOMMENDED for production use.
To turn off: bin/solr config -c Hash_4940 -p 8983 -action set-user-property -property update.autoCreateFields -value false
Option '-solrUrl', '--solrUrl': Deprecated for removal since 9.7: Use --solr-url instead
WARNING: URLs provided to this tool needn't include Solr's context-root (e.g. "/solr"). Such URLs are deprecated and support for them will be
removed in a future release. Correcting from [http://localhost:8983/solr] to [http://localhost:8983/].
Option '-confdir', '--confdir': Deprecated for removal since 9.7: Use --conf-dir instead
Option '-confdir', '--confdir': Deprecated for removal since 9.7: Use --conf-dir instead
Option '-confdir', '--confdir': Deprecated for removal since 9.7: Use --conf-dir instead
Option '-confdir', '--confdir': Deprecated for removal since 9.7: Use --conf-dir instead
Option '-confname', '--confname': Deprecated for removal since 9.7: Use --conf-name instead

Created new core 'Hash_4940'
```



Executing Python Code:

Solr_chlg.py



```
1 import pysolr
2
3 # Solr URL
4 SOLR_URL = 'http://localhost:8983/solr'
5
6 # Function to index data into Solr collection, excluding a specific column
7 def indexData(p_collection_name, p_exclude_column):
8     solr = pysolr.Solr(SOLR_URL/p_collection_name)
9
10    # Example employee data to index
11    employee_data = [
12        {'id': 'E02001', 'Full Name': 'Alice', 'Department': 'IT', 'Gender': 'Female'},
13        {'id': 'E02002', 'Full Name': 'Bob', 'Department': 'HR', 'Gender': 'Male'},
14        {'id': 'E02003', 'Full Name': 'Charlie', 'Department': 'Finance', 'Gender': 'Male'}
15    ]
16
17    # Exclude the specified column
18    for emp in employee_data:
19        if p_exclude_column in emp:
20            del emp[p_exclude_column]
21
22    solr.add(employee_data)
23    print(f'Data indexed into {p_collection_name}, excluding column {p_exclude_column}')
24
25 # Function to search records by column value
26 def searchByColumn(p_collection_name, p_column_name, p_column_value):
27     solr = pysolr.Solr(SOLR_URL/p_collection_name)
28     query = f'{p_column_name}:{p_column_value}'
29     try:
30         results = solr.search(query)
31         print(f'Results for {p_column_name}={p_column_value} in {p_collection_name}:')
32         for result in results:
33             print(result)
34     except pysolr.SolrError as e:
35         print(f'Search failed: {e}')
36
37 # Function to get the count of employees in a collection
38 def getEmpCount(p_collection_name):
39     solr = pysolr.Solr(SOLR_URL/p_collection_name)
40     try:
41         query = '*'
42         results = solr.search(query)
43         print(f'Employee count in {p_collection_name}: {results.hits}')
44     except pysolr.SolrError as e:
45         print(f'Error fetching employee count: {e}')
46
47 # Function to delete employee by ID
48 def delEmpById(p_collection_name, p_employee_id):
49     solr = pysolr.Solr(SOLR_URL/p_collection_name)
50     try:
51         solr.delete(id=p_employee_id)
52         print(f'Employee with ID {p_employee_id} deleted from {p_collection_name}')
53     except pysolr.SolrError as e:
54         print(f'Error deleting employee: {e}')
55
56 # Function to retrieve department facet
57 def getDepFacet(p_collection_name):
58     solr = pysolr.Solr(SOLR_URL/p_collection_name)
59     try:
60         results = solr.search('*:*', {'facet.field': 'Department'})
61         facet = results.facets['Department']
62         print(f'Department facet for {p_collection_name}:')
63         for facet in results.facets['facet_fields']['Department']:
64             print(facet)
65     except pysolr.SolrError as e:
66         print(f'Error fetching department facet: {e}')
67
68 # Execute function
69 v_nameCollection = 'hash_treejith'
70 v_phoneCollection = 'hash_4640'
71
72 getEmpCount(v_nameCollection)
73 indexData(v_nameCollection, 'Department')
74 indexData(v_phoneCollection, 'Gender')
75 delEmpById(v_nameCollection, 'E02003')
76 getEmpCount(v_nameCollection)
77 searchByColumn(v_nameCollection, 'Department', 'IT')
78 searchByColumn(v_nameCollection, 'Gender', 'Male')
79 getDepFacet(v_nameCollection)
80 getDepFacet(v_phoneCollection)
```

Running Python code in cmd:

1. createCollection(v_nameCollection)
2. createCollection(v_phoneCollection)
3. getEmpCount(v_nameCollection)
4. indexData(v_nameCollection,'Department')
5. indexData(v_phoneCollection, 'Gender')
6. delEmpById (v_nameCollection ,'E02003')
7. getEmpCount(v_nameCollection)
8. searchByColumn(v_nameCollection,'Department','IT')
9. searchByColumn(v_nameCollection,'Gender' , 'Male')
10. searchByColumn(v_phoneCollection,'Department','IT')
11. getDepFacet(v_nameCollection)
12. getDepFacet(v_phoneCollection)


```
C:\Windows\System32\cmd.exe

C:\Users\Sreejith\Desktop>tsk 3py python solr_chlg.py
Employee count in Hash_sreejith: 3788
Data indexed into Hash_sreejith, excluding column Department
Data indexed into Hash_4940, excluding column Gender
Employee with ID E02003 deleted from Hash_sreejith
Employee count in Hash_sreejith: 3788
Results for Department:IT in Hash_sreejith:
{'Department': 'IT', 'Gender': 'Male', 'Ethnicity': 'Asian', 'Age': 34, 'Country': 'China', 'City': 'Shanghai', 'id': 'dff68c33-0411-43e8-b733-29ad4df268b1', 'Employee_ID': 'E02004', 'Full_Name': 'Cameron Lo', 'Job_Title': 'Network Administrator', 'Business_Unit': 'Research & Development', 'Hire_Date': '3/24/2019', 'Annual_Salary': '$83,576', 'Bonus': '0%', 'version': 1812249624523571200, 'root': 'dff68c33-0411-43e8-b733-29ad4df268b1'}
{'Department': 'IT', 'Gender': 'Female', 'Ethnicity': 'Latino', 'Age': 39, 'Country': 'United States', 'City': 'Seattle', 'id': '99e615e4-c574-4d7f-8108-0728d326860c', 'Employee_ID': 'E02005', 'Full_Name': 'Harper Castillo', 'Job_Title': 'IT Systems Architect', 'Business_Unit': 'Corporate', 'Hire_Date': '4/7/2018', 'Annual_Salary': '$98,062', 'Bonus': '0%', 'version': 181224962452568352, 'root': '99e615e4-c574-4d7f-8108-0728d326860c'}
{'Department': 'IT', 'Gender': 'Male', 'Ethnicity': 'Asian', 'Age': 34, 'Country': 'China', 'City': 'Shanghai', 'id': '7307a15e-11f0-46b6-be0e-964512ec3d49', 'Employee_ID': 'E02004', 'Full_Name': 'Cameron Lo', 'Job_Title': 'Network Administrator', 'Business_Unit': 'Research & Development', 'Hire_Date': '3/24/2019', 'Annual_Salary': '$83,576', 'Bonus': '0%', 'version': 1812249625495601152, 'root': '7307a15e-11f0-46b6-be0e-964512ec3d49'}
{'Department': 'IT', 'Gender': 'Male', 'Ethnicity': 'Latino', 'Age': 39, 'Country': 'United States', 'City': 'Seattle', 'id': 'aed1f9e2-7572-4fae-b8f7-1597d02fe31f', 'Employee_ID': 'E02005', 'Full_Name': 'Harper Castillo', 'Job_Title': 'IT Systems Architect', 'Business_Unit': 'Corporate', 'Hire_Date': '4/7/2018', 'Annual_Salary': '$98,062', 'Bonus': '0%', 'version': 1812249625497698384, 'root': 'aed1f9e2-7572-4fae-b8f7-1597d02fe31f'}
{'Department': 'IT', 'Gender': 'Male', 'Ethnicity': 'Asian', 'Age': 62, 'Country': 'United States', 'City': 'Phoenix', 'id': 'e5df345d-587b-4eed-83f7-ef4bf42cf846', 'Employee_ID': 'E02007', 'Full_Name': 'Erza Vu', 'Job_Title': 'Network Administrator', 'Business_Unit': 'Manufacturing', 'Hire_Date': '4/22/2004', 'Annual_Salary': '$66,227', 'Bonus': '0%', 'Exit_Date': '2/14/2014', 'version': 1812249625727336454, 'root': 'e5df345d-587b-4eed-83f7-ef4bf42cf846'}
{'Department': 'IT', 'Gender': 'Female', 'Ethnicity': 'Caucasian', 'Age': 38, 'Country': 'United States', 'City': 'Seattle', 'id': '801152c4-949c-479a-8f6b-210361dc8ae3', 'Employee_ID': 'E02010', 'Full_Name': 'Gianna Holmes', 'Job_Title': 'System Administrator', 'Business_Unit': 'Manufacturing', 'Hire_Date': '9/9/2011', 'Annual_Salary': '$97,630', 'Bonus': '0%', 'version': 1812249625727336450, 'root': '801152c4-949c-479a-8f6b-210361dc8ae3'}
{'Department': 'IT', 'Gender': 'Male', 'Ethnicity': 'Latino', 'Age': 49, 'Country': 'United States', 'City': 'Miami', 'id': 'cd1ae82b-5e03-4d37-9eb0-3d3081e15370', 'Employee_ID': 'E02012', 'Full_Name': 'James Pena', 'Job_Title': 'Systems Analyst', 'Business_Unit': 'Manufacturing', 'Hire_Date': '10/12/2003', 'Annual_Salary': '$40,499', 'Bonus': '0%', 'version': 1812249625727336452, 'root': 'cd1ae82b-5e03-4d37-9eb0-3d3081e15370'}
{'Department': 'IT', 'Gender': 'Male', 'Ethnicity': 'Asian', 'Age': 45, 'Country': 'China', 'City': 'Chongqing', 'id': 'cd3e586d-b067-4263-885a-d746721661fe', 'Employee_ID': 'E02014', 'Full_Name': 'Jose Wong', 'Job_Title': 'Director', 'Business_Unit': 'Manufacturing', 'Hire_Date': '11/15/2017', 'Annual_Salary': '$150,558', 'Bonus': '23%', 'version': 1812249625727336454, 'root': 'cd3e586d-b067-4263-885a-d746721661fe'}
{'Department': 'IT', 'Gender': 'Female', 'Ethnicity': 'Asian', 'Age': 62, 'Country': 'United States', 'City': 'Miami', 'id': '5807ab39-29c5-433f-b49e-85ca5641cfff', 'Employee_ID': 'E02017', 'Full_Name': 'Luna Lu', 'Job_Title': 'IT Systems Architect', 'Business_Unit': 'Corporate', 'Hire_Date': '7/26/1997', 'Annual_Salary': '$64,208', 'Bonus': '0%', 'version': 1812249625744113605, 'root': '5807ab39-29c5-433f-b49e-85ca5641cfff'}
{'Department': 'IT', 'Gender': 'Male', 'Ethnicity': 'Asian', 'Age': 29, 'Country': 'United States', 'City': 'Seattle', 'id': '207f0501-a420-4b13-a05e-94d9adee3dc6', 'Employee_ID': 'E02020', 'Full_Name': 'Jordan Kumar', 'Job_Title': 'Service Desk Analyst', 'Business_Unit': 'Specialty Products', 'Hire_Date': '11/11/2017', 'Annual_Salary': '$95,729', 'Bonus': '0%', 'version': 181224962574411368, 'root': '207f0501-a420-4b13-a05e-94d9adee3dc6'}
Results for Gender:Male in Hash_sreejith:
{'Department': 'Engineering', 'Gender': 'Male', 'Ethnicity': 'Asian', 'Age': 47, 'Country': 'United States', 'City': 'Columbus', 'id': 'd28611bf-7637-423d-afca-721c496e5085', 'Employee_ID': 'E02002', 'Full_Name': 'Kai Lei', 'Job_Title': 'Controls Engineer', 'Business_Unit': 'Manufacturing', 'Hire_Date': '2/5/2022', 'Annual_Salary': '$92,368', 'Bonus': '0%', 'version': 1812249624487919616, 'root': 'd28611bf-7637-423d-afca-721c496e5085'}
{'Department': 'Sales', 'Gender': 'Male', 'Ethnicity': 'Asian', 'Age': 58, 'Country': 'United States', 'City': 'Chicago', 'id': 'a3b112c8-fd73-4b76-8aa6-048e4a7b0c57', 'Employee_ID': 'E02003', 'Full_Name': 'Robert Patel', 'Job_Title': 'Analyst', 'Business_Unit': 'Corporate', 'Hire_Date': '10/23/2013', 'Annual_Salary': '$45,703', 'Bonus': '0%', 'version': 1812249624508891136, 'root': 'a3b112c8-fd73-4b76-8aa6-048e4a7b0c57'}
{'Department': 'IT', 'Gender': 'Male', 'Ethnicity': 'Asian', 'Age': 34, 'Country': 'China', 'City': 'Shanghai', 'id': 'dff68c33-0411-43e8-b733-29ad4df268b1', 'Employee_ID': 'E02004', 'Full_Name': 'Cameron Lo', 'Job_Title': 'Network Administrator', 'Business_Unit': 'Research & Development', 'Hire_Date': '3/24/2019', 'Annual_Salary': '$83,576', 'Bonus': '0%', 'version': 1812249624523571200, 'root': 'dff68c33-0411-43e8-b733-29ad4df268b1'}
{'Department': 'Engineering', 'Gender': 'Male', 'Ethnicity': 'Asian', 'Age': 47, 'Country': 'United States', 'City': 'Columbus', 'id': '4372ef9a-0989-4820-ad2c-28b5088b4328f', 'Employee_ID': 'E02002', 'Full_Name': 'Kai Lei', 'Job_Title': 'Controls Engineer', 'Business_Unit': 'Manufacturing', 'Hire_Date': '2/5/2022', 'Annual_Salary': '$92,368', 'Bonus': '0%', 'version': 1812249625491406848, 'root': '4372ef9a-0989-4820-ad2c-28b5088b4328f'}
{'Department': 'Sales', 'Gender': 'Male', 'Ethnicity': 'Asian', 'Age': 58, 'Country': 'United States', 'City': 'Chicago', 'id': 'a1c8d8d8-e049-4217-bc3e-ea13a3b0c07f', 'Employee_ID': 'E02003', 'Full_Name': 'Robert Patel', 'Job_Title': 'Analyst', 'Business_Unit': 'Corporate', 'Hire_Date': '10/23/2013', 'Annual_Salary': '$45,703', 'Bonus': '0%', 'version': 1812249625493504000, 'root': 'a1c8d8d8-e049-4217-bc3e-ea13a3b0c07f'}
{'Department': 'IT', 'Gender': 'Male', 'Ethnicity': 'Asian', 'Age': 34, 'Country': 'China', 'City': 'Shanghai', 'id': '7307a15e-11f0-46b6-be0e-964512ec3d49', 'Employee_ID': 'E02004', 'Full_Name': 'Cameron Lo', 'Job_Title': 'Network Administrator', 'Business_Unit': 'Research & Development', 'Hire_Date': '3/24/2019', 'Annual_Salary': '$83,576', 'Bonus': '0%', 'version': 1812249625495601152, 'root': '7307a15e-11f0-46b6-be0e-964512ec3d49'}
{'Department': 'IT', 'Gender': 'Male', 'Ethnicity': 'Asian', 'Age': 62, 'Country': 'United States', 'City': 'Phoenix', 'id': 'e5df345d-587b-4eed-83f7-ef4bf42cf846', 'Employee_ID': 'E02007', 'Full_Name': 'Erza Vu', 'Job_Title': 'Network Administrator', 'Business_Unit': 'Manufacturing', 'Hire_Date': '4/22/2004', 'Annual_Salary': '$66,227', 'Bonus': '0%', 'Exit_Date': '2/14/2014', 'version': 1812249625727336454, 'root': 'e5df345d-587b-4eed-83f7-ef4bf42cf846'}
{'Department': 'Finance', 'Gender': 'Male', 'Ethnicity': 'Asian', 'Age': 62, 'Country': 'China', 'City': 'Chengdu', 'id': '92eba462-ec7a-463d-945e-d53012392ba2', 'Employee_ID': 'E02009', 'Full_Name': 'Miles Chang', 'Job_Title': 'Analyst II', 'Business_Unit': 'Corporate', 'Hire_Date': '2/19/1999', 'Annual_Salary': '$69,674', 'Bonus': '0%', 'version': 1812249625727336449, 'root': '92eba462-ec7a-463d-945e-d53012392ba2'}
{'Department': 'Finance', 'Gender': 'Male', 'Ethnicity': 'Caucasian', 'Age': 52, 'Country': 'United States', 'City': 'Miami', 'id': '3456b3a0-892a-495f-90e1-2e1a380376b1', 'Employee_ID': 'E02011', 'Full_Name': 'James Pena', 'Job_Title': 'Manager', 'Business_Unit': 'Specialty Products', 'Hire_Date': '2/5/2015', 'Annual_Salary': '$105,879', 'Bonus': '16%', 'version': 1812249625727336451, 'root': '3456b3a0-892a-495f-90e1-2e1a380376b1'}
{'Department': 'IT', 'Gender': 'Male', 'Ethnicity': 'Latino', 'Age': 49, 'Country': 'United States', 'City': 'Miami', 'id': 'cd1ae82b-5e03-4d37-9eb0-3d3081e15370', 'Employee_ID': 'E02012', 'Full_Name': 'James Pena', 'Job_Title': 'Systems Analyst', 'Business_Unit': 'Manufacturing', 'Hire_Date': '10/12/2003', 'Annual_Salary': '$40,499', 'Bonus': '0%', 'version': 1812249625727336452, 'root': 'cd1ae82b-5e03-4d37-9eb0-3d3081e15370'}
Results for Department:IT in Hash_4940:
{'id': 'E02001', 'Department': 'IT', 'Full_Name': 'Alice', 'version': 1812249689404211200, 'root': 'E02001'}
Department Facet for Hash_sreejith:
IT
1041
Sales
564
Engineering
472
Marketing
488
Accounting
396
Finance
387
Human Resources
372
Department Facet for Hash_4940:
C:\Users\Sreejith\Desktop>tsk 3>
```

Python Code:

```
import pysolr
```

```
SOLR_URL = 'http://localhost:8983/solr'
```

```
# Function to index data into Solr collection, excluding a specific column
```

```
def indexData(p_collection_name, p_exclude_column):
```

```
solr = pysolr.Solr(f'{SOLR_URL}/{p_collection_name}')
```

```
# Eample employee data to index
```

```
employee_data = [
```

```

        {"id": "E02001", "Full Name": "Alice", "Department": "IT", "Gender": "Female"},
        {"id": "E02002", "Full Name": "Bob", "Department": "HR", "Gender": "Male"},
        {"id": "E02003", "Full Name": "Charlie", "Department": "Finance", "Gender": "Male"}
    ]

# Exclude the specified column
for emp in employee_data:
    if p_exclude_column in emp:
        del emp[p_exclude_column]
    solr.add(employee_data)

print(f"Data indexed into {p_collection_name}, excluding column {p_exclude_column}")

# Function to search records by column value
def searchByColumn(p_collection_name, p_column_name, p_column_value):
    solr = pysolr.Solr(f'{SOLR_URL}/{p_collection_name}')
    query = f'{p_column_name}:{p_column_value}'
    try:
        results = solr.search(query)
        print(f'Results for {p_column_name}={p_column_value} in {p_collection_name}:')
        for result in results:
            print(result)
    except pysolr.SolrError as e:
        print(f'Search failed: {e}')

# Function to get the count of employees in a collection
def getEmpCount(p_collection_name):
    solr = pysolr.Solr(f'{SOLR_URL}/{p_collection_name}')
    try:
        query = "*:*"
        results = solr.search(query)
        print(f'Employee count in {p_collection_name}: {results.hits}')
    except pysolr.SolrError as e:
        print(f'Error fetching employee count: {e}')

```

```

# Function to delete employee by ID
def delEmpById(p_collection_name, p_employee_id):
    solr = pysolr.Solr(f'{SOLR_URL}/{p_collection_name}')
    try:
        solr.delete(id=p_employee_id)
        print(f'Employee with ID {p_employee_id} deleted from {p_collection_name}')
    except pysolr.SolrError as e:
        print(f'Error deleting employee: {e}')

# Function to retrieve department facet
def getDepFacet(p_collection_name):
    solr = pysolr.Solr(f'{SOLR_URL}/{p_collection_name}')
    try:
        results = solr.search("*:*", **{
            'facet': 'true',
            'facet.field': 'Department'
        })
        print(f'Department Facet for {p_collection_name}:')
        for facet in results.facets['facet_fields']['Department']:
            print(facet)
    except pysolr.SolrError as e:
        print(f'Error fetching department facet: {e}')

# Execute functions
v_nameCollection = 'Hash_sreejith'
v_phoneCollection = 'Hash_4940'
getEmpCount(v_nameCollection)
indexData(v_nameCollection, 'Department')
indexData(v_phoneCollection, 'Gender')
delEmpById(v_nameCollection, 'E02003')
getEmpCount(v_nameCollection)

```

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

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

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

getDepFacet(v_nameCollection)

getDepFacet(v_phoneCollection)