

Name :Dharmendra Poondla

Selfie pic



```
C:\Users\9550449358\Downloads\solr-9.7.0\solr-9.7.0>Exception in thread "main" java.lang.UnsupportedClassVersionError: org/eclipse/jetty/start/Main has been compiled by a more recent version of the Java Runtime (class file version 55.0), than the current version of the Java Runtime only recognizes class file versions up to 52.0
    at java.lang.ClassLoader.defineClass1(Native Method)
    at java.lang.ClassLoader.defineClass(Unknown Source)
    at java.security.SecureClassLoader.defineClass(Unknown Source)
    at java.net.URLClassLoader.defineClass(Unknown Source)
    at java.net.URLClassLoader.access$100(Unknown Source)
    at java.net.URLClassLoader$1.run(Unknown Source)
    at java.net.URLClassLoader$1.run(Unknown Source)
    at java.security.AccessController.doPrivileged(Native Method)
    at java.net.URLClassLoader.findClass(Unknown Source)
    at java.lang.ClassLoader.loadClass(Unknown Source)
    at sun.misc.Launcher$AppClassLoader.loadClass(Unknown Source)
    at java.lang.ClassLoader.loadClass(Unknown Source)
    at sun.Launcher.LauncherHelper.checkAndLoadMain(Unknown Source)
bin/solr -e cloud
```

Dashboard

Logging

Security

Cloud

Schema Designer

Collections

Java Properties

Thread Dump

Suggestions

Collection Sele...

Core Selector

Instance

Start about 8 hours ago

Versions

	solr-spec	8.11.4
	solr-impl	8.11.4 e27f44e3d78dfcec230c97e0a1240e3751dae99 - houstonputman - 2024-09-19 12:33
	lucene-spec	8.11.4
	lucene-impl	8.11.4 e27f44e3d78dfcec230c97e0a1240e3751dae99 - houstonputman - 2024-09-19 12:28

JVM

Runtime

Processors

Args

Oracle Corporation Java HotSpot(TM) 64-Bit Server VM 1.8.0_421 25.421-b09

12

-DSTOP.KEY=solrlocks

-DSTOP.PORT=7989

-Djava.io.tmpdir=C:\Users\9550449358\Downloads\solr-8.11.4\solr-8.11.4\server\tmp

-Djetty.home=C:\Users\9550449358\Downloads\solr-8.11.4\solr-8.11.4\server

-Djetty.host=0.0.0.0

-Djetty.port=8989

-Dlog4j.configurationFile=C:\Users\9550449358\Downloads\solr-8.11.4\solr-8.11.4\server\

-Dsoler.default.confdir=C:\Users\9550449358\Downloads\solr-8.11.4\solr-8.11.4\server\soler

-Dsoler.install.dir=C:\Users\9550449358\Downloads\solr-8.11.4\solr-8.11.4

-Dsoler.jetty.inetaccess.excludes=

-Dsoler.jetty.inetaccess.includes=

-Dsoler.log.dir=C:\Users\9550449358\Downloads\solr-8.11.4\solr-8.11.4\example\cloud\node

-Dsoler.log.muteconsole

-Dsoler.solr.home=C:\Users\9550449358\Downloads\solr-8.11.4\solr-8.11.4\example\cloud\n

-Duser.timezone=UTC

-DzkClientTimeout=30000

-DzkRun

System

Physical Memory 91.8%

5.38 GB | 5.86 GB

Swap Space 83.6%

17.48 GB | 20.86 GB

JVM-Memory 38.3%

195.91 MB | 512.00 MB 512.00 MB

Security

Authentication Plugin

Authorization Plugin

Current Username

User Roles

```

def create_solr_collection(collection_name, num_shards=1, replication_factor=1):

    solr_url = f"http://localhost:8989/solr/admin/collections"

    params = {
        "action": "CREATE",
        "name": collection_name,
        "numShards": num_shards,
        "replicationFactor": replication_factor
    }

    try:
        response = requests.get(solr_url, params=params)

        if response.status_code == 200:
            print(f"Collection '{collection_name}' created successfully.")
        else:
            print(f"Failed to create collection '{collection_name}'. Response: {response.text}")

    except Exception as e:
        print(f"Error while creating collection: {e}")

```

Output

Collection 'my_new_collection' created successfully.

```

def read_excel_data(file_path, exclude_columns=None):
    """
    Reads data from an Excel file and returns it as a list of dictionaries.

    :param file_path: Path to the Excel file.
    :param exclude_columns: A list of columns to exclude from indexing.
    :return: List of dictionaries representing the data.
    """

    df = pd.read_csv(file_path, encoding='ISO-8859-1')

    if exclude_columns:
        df = df.drop(columns=exclude_columns, errors='ignore')

    data = df.to_dict(orient='records')
    return data

def index_data_to_solr(data, collection_name):
    """
    Index data to Solr.

    :param data: List of dictionaries containing the data to index.
    :param collection_name: The name of the Solr collection.
    """

    solr_url = f"http://localhost:8989/solr/{collection_name}/update?commit=true"

    headers = {
        'Content-Type': 'application/json'
    }

    try:
        response = requests.post(solr_url, headers=headers, data=json.dumps(data))

        if response.status_code == 200:
            print(f"Data successfully indexed into collection '{collection_name}'")
        else:
            print(f"Failed to index data. Response: {response.text}")

    except Exception as e:
        print(f"Error while indexing data: {e}")

```

Output

```
===== RESTART: C:/Users/9550449358/AppData/Local/Programs/Python/Python311/v2.py =====  
Data successfully indexed into collection 'my_new_collection'
```

```

class SolrSearchRequest:
    def __init__(self, collection_name, column_name, column_value):
        self.collection_name = collection_name
        self.column_name = column_name
        self.column_value = column_value

def searchByColumn(solr_url, search_request: SolrSearchRequest):

    query = f'{search_request.column_name}:{search_request.column_value}'

    search_url = f"{solr_url}/{search_request.collection_name}/select"

    params = {
        'q': query,
        'wt': 'json',
        'indent': 'true'
    }

    try:

        response = requests.get(search_url, params=params)

        response.raise_for_status()

        data = response.json()

        if data['response']['numFound'] > 0:
            return data['response']['docs']
        else:
            return []

    except requests.exceptions.RequestException as e:
        print(f"Error occurred while searching: {e}")
        return None

```

```

class SolrSearchRequest:
    def __init__(self, collection_name, column_name, column_value):
        self.collection_name = collection_name
        self.column_name = column_name
        self.column_value = column_value

def searchByColumn(solr_url, search_request: SolrSearchRequest):

    query = f'{search_request.column_name}:{search_request.column_value}'

    search_url = f"{solr_url}/{search_request.collection_name}/select"

    params = {
        'q': query,
        'wt': 'json',
        'indent': 'true'
    }

    try:

        response = requests.get(search_url, params=params)

        response.raise_for_status()

        data = response.json()

        if data['response']['numFound'] > 0:
            return data['response']['docs']
        else:
            return []

    except requests.exceptions.RequestException as e:
        print(f"Error occurred while searching: {e}")
        return None

```

Output

```

===== RESTART: C:/Users/9550449358/AppData/Local/Programs/Python/Python311/v3.py =====
Search Results: [{"Gender": ["Male"], "Ethnicity": ["Asian"], "Age": [47.0], "Country": ["United States"], "City": ["Columbus"], "id": "7175ca46-9829-4a68-a2e2-c8b62ec6516b", "Employee_ID": ["E02002"], "Full_Name": ["Kai Le"], "Job Title": ["Controls Engineer"], "Business_Unit": ["Manufacturing"], "Hire_Date": ["2/5/2022"], "Annual_Salary": ["$92,368"], "Bonus": ["0%"], "Exit_Date": ["NaN"], "_version": 1812465758751424512}, {"Gender": ["Male"], "Ethnicity": ["Asian"], "Age": [47.0], "Country": ["NaN"], "City": ["Columbus"], "id": "07815269-22a1-494a-9bb4-46cf75e85755", "Employee_ID": ["E02002"], "Full_Name": ["Kai Le"], "Job Title": ["NaN"], "Business_Unit": ["Manufacturing"], "Hire_Date": ["2/5/2022"], "Annual_Salary": ["$92,368"], "Bonus": ["0%"], "Exit_Date": ["NaN"], "_version": 1812465760438593296}, {"Gender": ["Male"], "Ethnicity": ["Asian"], "Age": [47.0], "Country": ["NaN"], "City": ["NaN"], "id": "ce3c46e1-0615-4ff9-93ca-b5bf4d616f00", "Employee_ID": ["E02002"], "Full_Name": ["Kai Le"], "Job Title": ["Controls Engineer"], "Business_Unit": ["Manufacturing"], "Hire_Date": ["2/5/2022"], "Annual_Salary": ["$92,368"], "Bonus": ["0%"], "Exit_Date": ["NaN"], "_version": 1812465760517226496}]

```

```

def getEmpCount(solr_url, p_collection_name):

    count_url = f"{solr_url}/{p_collection_name}/select"

    |
    params = {
        'q': '*:~',
        'rows': 0,
        'wt': 'json',
        'indent': 'true'
    }

    try:

        response = requests.get(count_url, params=params)

        response.raise_for_status()

        data = response.json()

        return data['response']['numFound']

    except requests.exceptions.RequestException as e:
        print(f"Error occurred while fetching employee count: {e}")
        return None

```

Output

```

===== RESTART: C:/Users/9550449358/AppData/Local/Programs/Python/Python311/v4.py =====
Employee Count in 'my_new_collection': 1262

```

```
def delEmpById(solr_url, p_collection_name, p_employee_id):

    delete_url = f"{solr_url}/{p_collection_name}/update?commit=true"

    payload = {
        "delete": {
            "query": f"Employee_ID:\"{p_employee_id}\""
        }
    }

    try:

        response = requests.post(delete_url, data=json.dumps(payload), headers={'Content-Type': 'application/json'})

        response.raise_for_status()

        |
        return response.json()

    except requests.exceptions.RequestException as e:
        print(f"Error occurred while deleting employee ID {p_employee_id}: {e}")
        return None
```

Output

```
===== RESTART: C:/Users/9550449358/AppData/Local/Programs/Python/Python311/v5.py =====
Delete operation response: {'responseHeader': {'rf': 1, 'status': 0, 'QTime': 404}}
```

```
def getDepFacet(solr_url, p_collection_name):

    facet_url = f"{solr_url}/{p_collection_name}/select"

    params = {
        'q': '*:*',
        'facet': 'true',
        'facet.field': 'Gender',
        'facet.mincount': 1, |
    }

    try:

        response = requests.get(facet_url, params=params)

        response.raise_for_status()

        facet_counts = response.json().get('facet_counts', {}).get('facet_fields', {}).get('Gender', [])

        department_counts = {}
        for i in range(0, len(facet_counts), 2):
            department_name = facet_counts[i]
            count = facet_counts[i + 1]
            department_counts[department_name] = count

        return department_counts

    except requests.exceptions.RequestException as e:
        print(f"Error occurred while retrieving department facet counts: {e}")
        return None
```

Output

```
===== RESTART: C:/Users/9550449358/AppData/Local/Programs/Python/Python311/v6.py =====
Department counts: {'female': 629, 'male': 581, 'nan': 49}
```

- a) Var v_nameCollection = 'Hash_<Your Name>'
- b) Var v_phoneCollection = 'Hash_<Your Phone last four digits>'
- c) createCollection(v_nameCollection)
- d) createCollection(v_phoneCollection)

```
v_nameCollection = "Hash_Dharmendra"
```

```
v_phoneCollection = "Hash_4358"
```

```
create_solr_collection(solr_url, v_nameCollection)  
create_solr_collection(solr_url, v_phoneCollection)
```

Output]

```
Collection 'Hash_Dharmendra' already exists.  
Collection 'Hash 4358' already exists.
```

- e) getEmpCount(v_nameCollection)

```
data = read_csv_data(file_path, exclude_columns=["Department"])  
index_data_to_solr(data, solr_url, v_nameCollection)
```

Output

```
| Data successfully indexed into collection 'Hash_Dharmendra'
```

- f) indexData(v_nameCollection,'Department')

- g) indexData(v_phoneCollection, 'Gender')

```
data = read_csv_data(file_path, exclude_columns=["Gender"])  
index_data_to_solr(data, solr_url, v_phoneCollection)
```

Output

```
Data successfully indexed into collection 'Hash_4358'
```


h) getEmpCount(v_nameCollection)

```
emp_count = get_emp_count(solr_url, v_nameCollection)
print(f"Employee count in '{v_nameCollection}' after indexing: {emp_count}")
```

Output

Employee count in 'Hash Dharmendra' after indexing: 12590

i.delEmpById (v_nameCollection ,'E02003')

```
del_emp_by_id(solr_url, v_nameCollection, 'E02003')
```

Output

Employee ID E02003 deleted successfully.

j) getEmpCount(v_nameCollection)

```
emp_count = get_emp_count(solr_url, v_nameCollection)
print(f"Employee count in '{v_nameCollection}' after deletion: {emp_count}")
```

Output

Employee count in 'Hash Dharmendra' after deletion: 15108

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

```
it_employees = search_by_column(solr_url, v_nameCollection, 'Department', 'IT')
print(f"Employees in IT department: {it_employees}")
```

Output

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

```
male_employees = search_by_column(solr_url, v_nameCollection, 'Gender', 'Male')
print(f"Male employees: {male_employees}")
```

Output

```
IT employees in phone collection: [{"Department": "IT", "Ethnicity": "Asian", "Age": 34.0, "Country": "China", "City": "Shanghai", "id": "0ec2536b-d5b1-4a67-8223-5dcee878b6e1", "Employee_ID": "E02004", "Full Name": "Cameron Lo", "Job Title": "Network Administrator", "Business Unit": "Research & Development", "Hire Date": "3/24/2019", "Annual Salary": 983,576, "Bonus": "0%", "Exit Date": "NaN", "version": 1812472738674114561, "Department": "IT", "Ethnicity": "Latino", "Age": 39.0, "Country": "United States", "City": "Seattle", "id": "13ec4006-439e-439c-b69c-cd7dfa95d2c", "Employee_ID": "E02005", "Full Name": "Harper Castillo", "Job Title": "IT Systems Architect", "Business Unit": "Corporate", "Hire Date": "4/7/2018", "Annual Salary": 998,062, "Bonus": "0%", "Exit Date": "NaN", "version": 1812472738675163136, "Department": "IT", "Ethnicity": "Asian", "Age": 62.0, "Country": "United States", "City": "Phoenix", "id": "fd1047ac-0c68-42a6-b6d9-afeda9581d51", "Employee_ID": "E02007", "Full Name": "Ezra Vu", "Job Title": "Network Administrator", "Business Unit": "Manufacturing", "Hire Date": "4/22/2004", "Annual Salary": 966,227, "Bonus": "0%", "Exit Date": "2/14/2014", "version": 1812472738675163138, "Department": "IT", "Ethnicity": "Caucasian", "Age": 38.0, "Country": "United States", "City": "Seattle", "id": "b11e81a-e01f-463e-a9a3-169430bb9059", "Employee_ID": "E02010", "Full Name": "Gianna Holmes", "Job Title": "System Administrator", "Business Unit": "Manufacturing", "Hire Date": "9/9/2011", "Annual Salary": 997,630, "Bonus": "0%", "Exit Date": "NaN", "version": 1812472738676211713, "Department": "IT", "Ethnicity": "Latino", "Age": 49.0, "Country": "United States", "City": "Miami", "id": "6d6531bc-2c5e-4aed-a905-561ba03a5b63", "Employee_ID": "E02012", "Full Name": "Jameson Pena", "Job Title": "Systems Analyst", "Business Unit": "Manufacturing", "Hire Date": "10/12/2003", "Annual Salary": 940,499, "Bonus": "0%", "Exit Date": "NaN", "version": 1812472738676211715, "Department": "IT", "Ethnicity": "Asian", "Age": 45.0, "Country": "China", "City": "Chongqing", "id": "4d4a632c-6b38-4729-98d9-f7f2a8b9a90b", "Employee_ID": "E02014", "Full Name": "Jose Wong", "Job Title": "Director", "Business Unit": "Manufacturing", "Hire Date": "11/15/2017", "Annual Salary": 9150,559, "Bonus": "23%", "Exit Date": "NaN", "version": 1812472738677260288, "Department": "IT", "Ethnicity": "Asian", "Age": 62.0, "Country": "United States", "City": "Miami", "id": "39bea7e9-fc2c-4543-8f26-9b3fe3d3f429", "Employee_ID": "E02017", "Full Name": "Luna Lu", "Job Title": "IT Systems Architect", "Business Unit": "Corporate", "Hire Date": "7/26/1997", "Annual Salary": 964,208, "Bonus": "0%", "Exit Date": "NaN", "version": 1812472738679357440, "Department": "IT", "Ethnicity": "Asian", "Age": 29.0, "Country": "United States", "City": "Seattle", "id": "00007f30-8b47-4a60-9aa0-227b73dad949", "Employee_ID": "E02020", "Full Name": "Jordan Kumar", "Job Title": "Service Desk Analyst", "Business Unit": "Specialty Products", "Hire Date": "11/11/2017", "Annual Salary": 995,729, "Bonus": "0%", "Exit Date": "NaN", "version": 1812472738679357443, "Department": "IT", "Ethnicity": "Black", "Age": 43.0, "Country": "United States", "City": "Phoenix", "id": "35b431c0-a5de-4278-8d1f-6ea95a3c8640", "Employee_ID": "E02023", "Full Name": "Lillian Lewis", "Job Title": "Technical Architect", "Business Unit": "Research & Development", "Hire Date": "8/14/2013", "Annual Salary": 983,323, "Bonus": "0%", "Exit Date": "3/31/2019", "version": 1812472738680406017, "Department": "IT", "Ethnicity": "Asian", "Age": 50.0, "Country": "China", "City": "Shanghai", "id": "d4391144-6dd5-4444-a7a-ecf395b403ea", "Employee_ID": "E02031", "Full Name": "Wyatt Dinh", "Job Title": "System Administrator", "Business Unit": "Specialty Products", "Hire Date": "3/15/2002", "Annual Salary": 972,860, "Bonus": "0%", "Exit Date": "NaN", "version": 1812472738682503173}]
```

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

```
it_employees_phone = search_by_column(solr_url, v_phoneCollection, 'Department', 'IT')
print(f"IT employees in phone collection: {it_employees_phone}")
```

n) `getDepFacet(v_nameCollection)`

o) `getDepFacet(v_phoneCollection)`

```
dep_facet_counts = get_dep_facet(solr_url, v_nameCollection, 'Department')
print(f"Department facet counts in name collection: {dep_facet_counts}")
```

Output

```
| Department facet counts in name collection: None
```

Git hub url: <https://github.com/dharmendrapoondla123/SolrCode/tree/main>