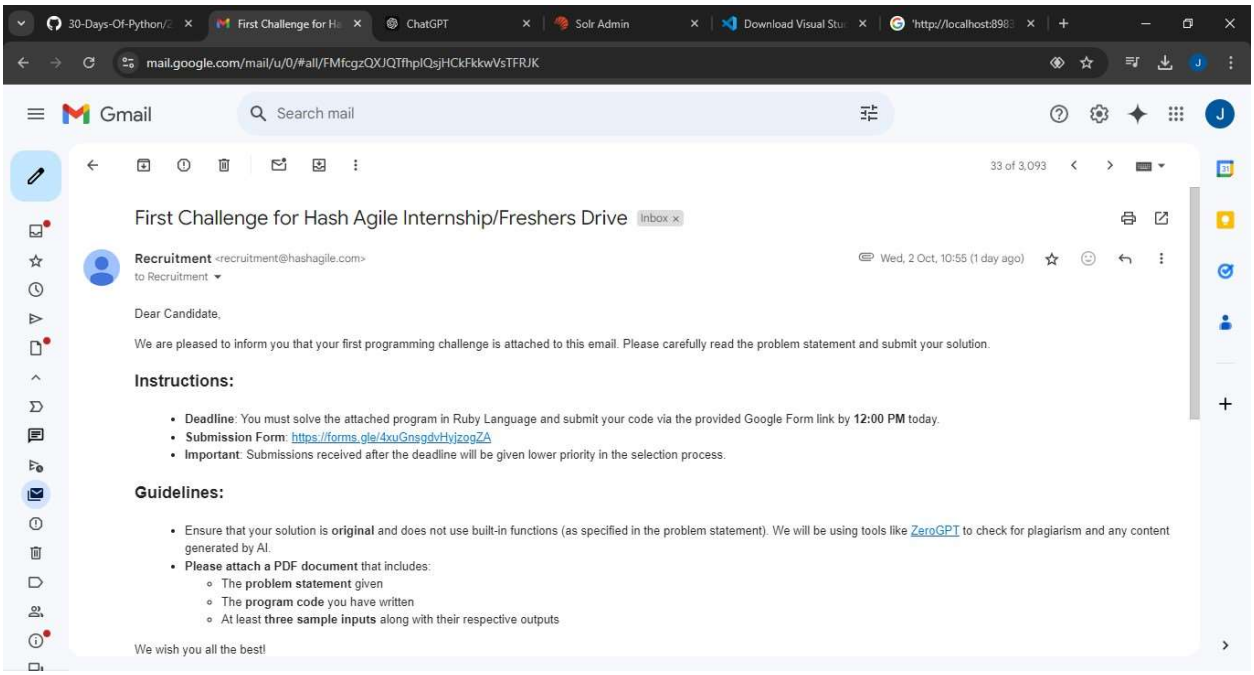
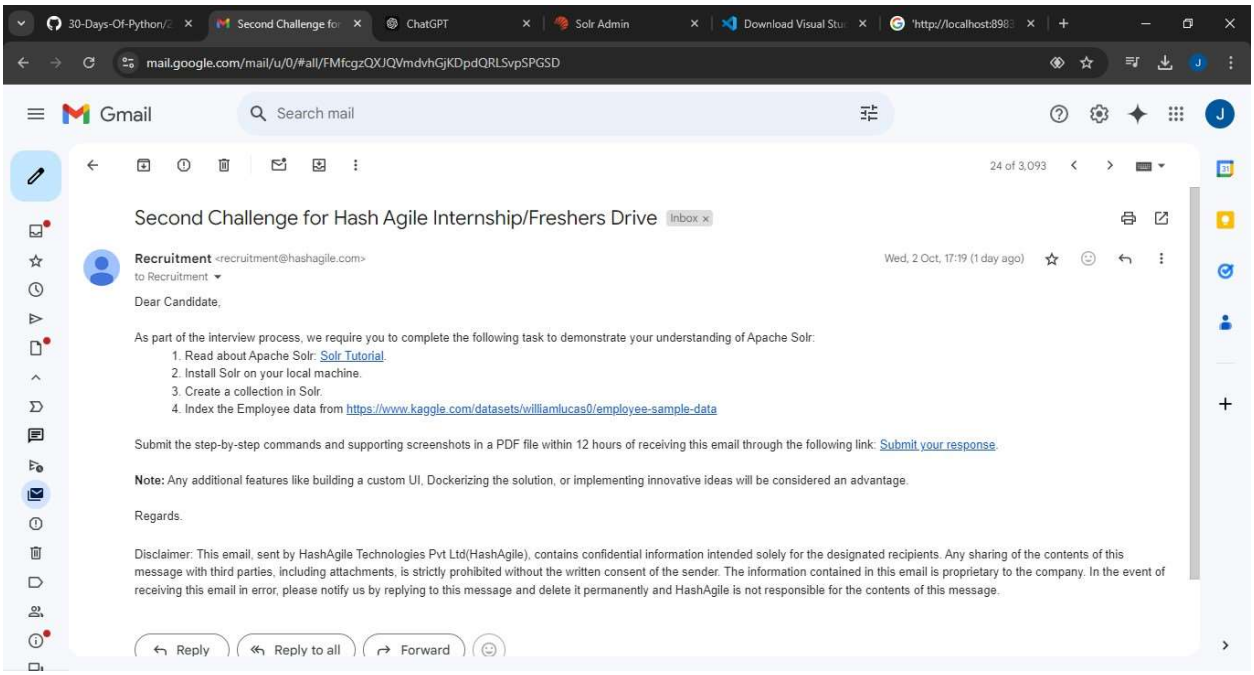
NAME: JAGADEESH D

Task 1 screenshot:



Task 2 screenshot:



GitHub Url: https://github.com/jagadeesh-dj/hashagile_assignment

Task 3 coding:

```
import requests
import pysolr
import pandas as pd
solr_url = "http://localhost:8983/solr/admin/collections"

def getDepFact(collection_name):
   emp=pysolr.Solr(f"http://localhost:8983/solr/{collection_name}")



# Replace with your Solr server URL

   # Create a Solr client object

   # Define the facet query parameters
```

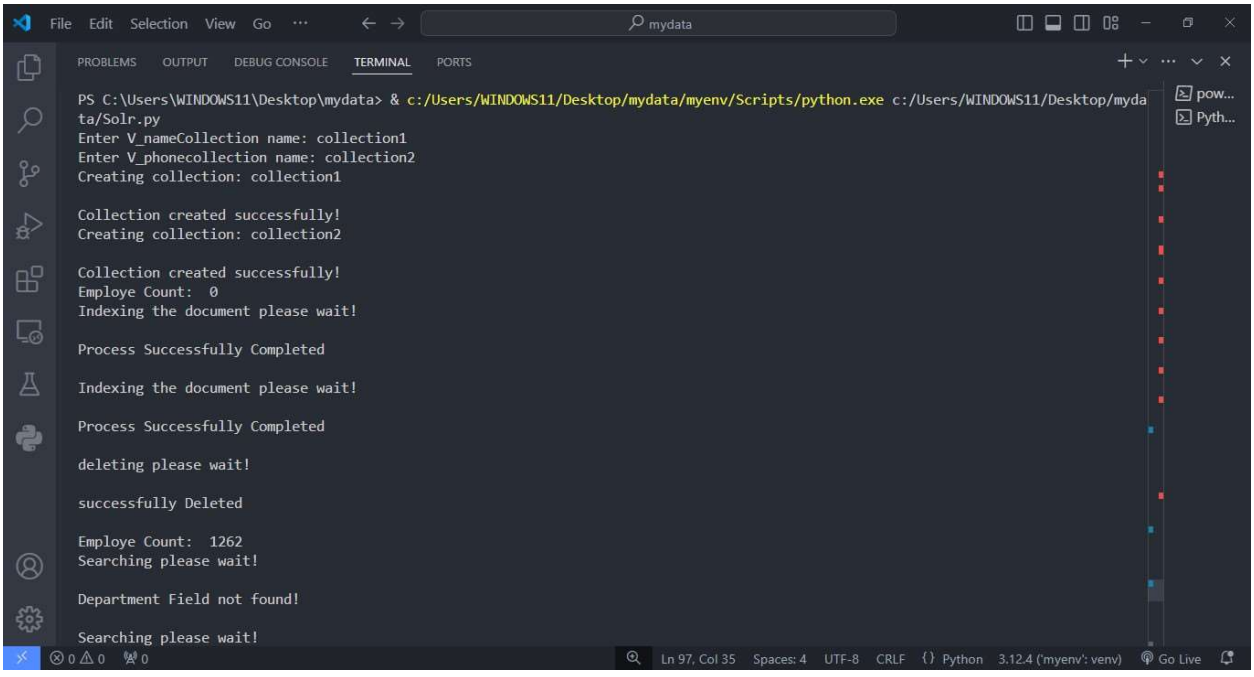
```
  params = {
    "facet": "true",
    "facet.field": "Department"
  }

  # Perform the facet query

  # Extract the facet results
  results = emp.search("*:*", params=params)

  # Check if facet results are available
  if 'facet_fields' in results.facets:
    # Extract the facet results
    facet_results = results.facets['facet_fields']['department']

    # Print the facet results
    for facet_value, count in facet_results:
      print(f"Department: {facet_value}, Count: {count}")
  else:
    # Handle the case where facet results are not available
    print("Facet results not found.")




def delEmpById(collection_name,Emp_id):
  print("deleting please wait! \n")

  delemp=pysolr.Solr(f"http://localhost:8983/solr/{collection_name}/",always_commi
t=True)

  delete_query=f"Employee_ID:{Emp_id}"

  delemp.delete(delete_query)

  print("successfully Deleted \n")

def getEmpCount(collection_name):
```

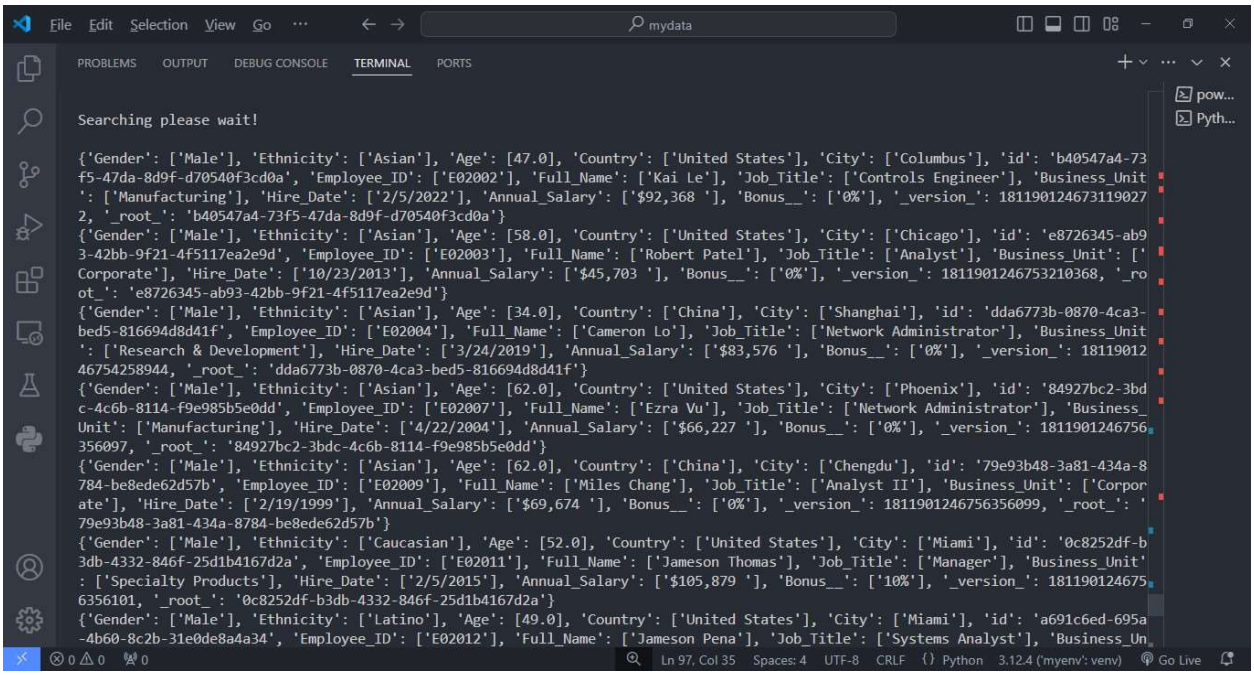
```
  emp=pysolr.Solr(f"http://localhost:8983/solr/{collection_name}",
always_commit=True)

  res=emp.search("*:*",row=0)

  print("Employe Count: ",res.hits)


def searchByColumn(collection_name,Column_name,Column_value):
  print("Searching please wait! \n")
  try:
    mysearch=pysolr.Solr(f"http://localhost:8983/solr/{collection_name}",
always_commit=True)

    filter_queries={
      Column_name:Column_value
    }
    query=[key+":"+val for key,val in filter_queries.items()]

    results=mysearch.search('*:*',fq=query)

    for result in results:
      print(result)

  except pysolr.SolrError as e:
    print(f"{Column_name} Field not found! \n")


def indexData(collection_name,Exclude_column):
  index=pysolr.Solr(f"http://localhost:8983/solr/{collection_name}",
always_commit=True)

  mydata=pd.read_csv('data.csv', encoding='windows-1252')
  del mydata[Exclude_column]
  del mydata['Exit Date']

  documents=mydata.to_dict(orient='records')
  print("Indexing the document please wait! \n")
```

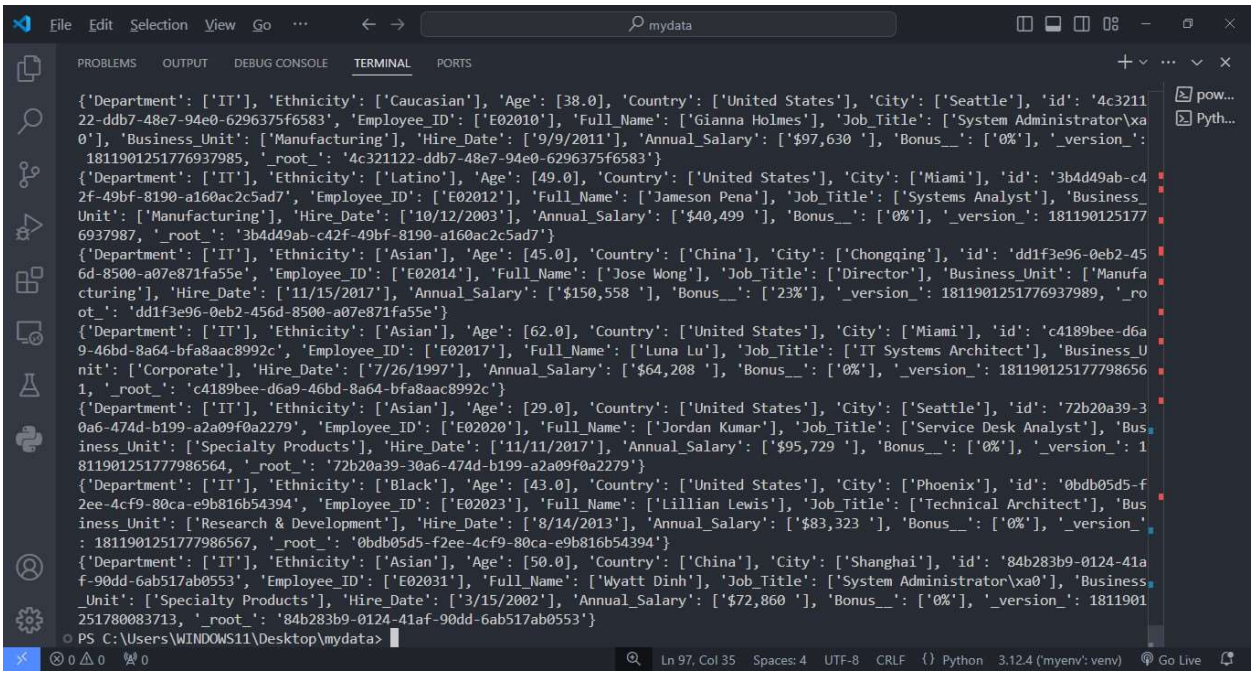
```
    index.add(documents)
    print("Process Successfully Completed \n")

def create_collection(collection_name):
    print(f"Creating collection: {collection_name} \n")
    try:

        params = {
            'action': 'CREATE',
            'name': collection_name,
            'numShards': 1,
            'replicationFactor': 1,
            'config': '_default',
            'maxShardsPerNode': 1
        }

        response = requests.post(solr_url, params=params)

        if response.status_code == 200:
            print("Collection created successfully!")
    except response.error:
        print("collection already exists!")

#creating collection
v_nameCollection = input("Enter V_nameCollection name: ")
v_phoneCollection = input("Enter V_phonecollection name: ")
# create_collection(v_nameCollection)
# create_collection(v_phoneCollection)

# #Get Employee count
# getEmpCount(v_nameCollection)

# #Indexing data
# indexData(v_nameCollection,'Department')
# indexData(v_phoneCollection,'Gender')

# #delete employe by id
# delEmpById(v_nameCollection,'E02003')
```

```
# #again get employee count
# getEmpCount(v_nameCollection)

# #search by column name
# searchByColumn(v_nameCollection,'Department','IT')
# searchByColumn(v_nameCollection,'Gender','Male')
# searchByColumn(v_phoneCollection,'Department','IT')

# getDepFact
# getDepFact(v_nameCollection)
getDepFact(v_phoneCollection)
```

#output




File Edit Selection View Go ···
mydata
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Searching please wait!
{'Gender': ['Male'], 'Ethnicity': ['Asian'], 'Age': [47.0], 'Country': ['United States'], 'City': ['Columbus'], 'id': 'b40547a4-73f5-47da-8d9f-d70540f3cd0a', '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%'], '_version_': 1811901246731190272, '_root_': 'b40547a4-73f5-47da-8d9f-d70540f3cd0a'}
{'Gender': ['Male'], 'Ethnicity': ['Asian'], 'Age': [58.0], 'Country': ['United States'], 'City': ['Chicago'], 'id': 'e8726345-ab93-42bb-9f21-4f5117ea2e9d', '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_': 1811901246753210368, '_root_': 'e8726345-ab93-42bb-9f21-4f5117ea2e9d'}
{'Gender': ['Male'], 'Ethnicity': ['Asian'], 'Age': [34.0], 'Country': ['China'], 'City': ['Shanghai'], 'id': 'dda6773b-0870-4ca3-bed5-816694d8d41f', '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_': 1811901246754258944, '_root_': 'dda6773b-0870-4ca3-bed5-816694d8d41f'}
{'Gender': ['Male'], 'Ethnicity': ['Asian'], 'Age': [62.0], 'Country': ['United States'], 'City': ['Phoenix'], 'id': '84927bc2-3bdc-4c6b-8114-f9e985b5e0dd', 'Employee_ID': ['E02007'], 'Full_Name': ['Ezra Vu'], 'Job_Title': ['Network Administrator'], 'Business_Unit': ['Manufacturing'], 'Hire_Date': ['4/22/2004'], 'Annual_Salary': ['$66,227 '], 'Bonus__': ['0%'], '_version_': 1811901246756356097, '_root_': '84927bc2-3bdc-4c6b-8114-f9e985b5e0dd'}
{'Gender': ['Male'], 'Ethnicity': ['Asian'], 'Age': [62.0], 'Country': ['China'], 'City': ['Chengdu'], 'id': '79e93b48-3a81-434a-8784-be8ede62d57b', '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_': 1811901246756356099, '_root_': '79e93b48-3a81-434a-8784-be8ede62d57b'}
{'Gender': ['Male'], 'Ethnicity': ['Caucasian'], 'Age': [52.0], 'Country': ['United States'], 'City': ['Miami'], 'id': '0c8252df-b3db-4332-846f-25d1b4167d2a', '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_': 1811901246756356101, '_root_': '0c8252df-b3db-4332-846f-25d1b4167d2a'}
{'Gender': ['Male'], 'Ethnicity': ['Latino'], 'Age': [49.0], 'Country': ['United States'], 'City': ['Miami'], 'id': 'a691c6ed-695a-4b60-8c2b-31e0de8a4a34', 'Employee_ID': ['E02012'], 'Full_Name': ['Jameson Pena'], 'Job_Title': ['Systems Analyst'], 'Business_Un
pow...
Pyth...
Ln 97, Col 35 Spaces: 4 UTF-8 CRLF {} Python 3.12.4 ('myenv': venv) Go Live


File Edit Selection View Go ···
mydata
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
{'Department': ['IT'], 'Ethnicity': ['Caucasian'], 'Age': [38.0], 'Country': ['United States'], 'City': ['Seattle'], 'id': '4c321122-ddb7-48e7-94e0-6296375f6583', 'Employee_ID': ['E02010'], 'Full_Name': ['Gianna Holmes'], 'Job_Title': ['System Administrator\xa0'], 'Business_Unit': ['Manufacturing'], 'Hire_Date': ['9/9/2011'], 'Annual_Salary': ['$97,630 '], 'Bonus__': ['0%'], '_version_': 1811901251776937985, '_root_': '4c321122-ddb7-48e7-94e0-6296375f6583'}
{'Department': ['IT'], 'Ethnicity': ['Latino'], 'Age': [49.0], 'Country': ['United States'], 'City': ['Miami'], 'id': '3b4d49ab-c42f-49bf-8190-a160ac2c5ad7', 'Employee_ID': ['E02012'], 'Full_Name': ['Jameson Pena'], 'Job_Title': ['Systems Analyst'], 'Business_Unit': ['Manufacturing'], 'Hire_Date': ['10/12/2003'], 'Annual_Salary': ['$40,499 '], 'Bonus__': ['0%'], '_version_': 1811901251776937987, '_root_': '3b4d49ab-c42f-49bf-8190-a160ac2c5ad7'}
{'Department': ['IT'], 'Ethnicity': ['Asian'], 'Age': [45.0], 'Country': ['China'], 'City': ['Chongqing'], 'id': 'dd1f3e96-0eb2-456d-8500-a07e871fa55e', '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_': 1811901251776937989, '_root_': 'dd1f3e96-0eb2-456d-8500-a07e871fa55e'}
{'Department': ['IT'], 'Ethnicity': ['Asian'], 'Age': [62.0], 'Country': ['United States'], 'City': ['Miami'], 'id': 'c4189bee-d6a9-46bd-8a64-bfa8aac8992c', '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_': 1811901251771987656 1, '_root_': 'c4189bee-d6a9-46bd-8a64-bfa8aac8992c'}
{'Department': ['IT'], 'Ethnicity': ['Asian'], 'Age': [29.0], 'Country': ['United States'], 'City': ['Seattle'], 'id': '72b20a39-30a6-474d-b199-a2a09f0a2279', '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_': 1811901251777986564, '_root_': '72b20a39-30a6-474d-b199-a2a09f0a2279'}
{'Department': ['IT'], 'Ethnicity': ['Black'], 'Age': [43.0], 'Country': ['United States'], 'City': ['Phoenix'], 'id': '0bdb05d5-f2ee-4cf9-80ca-e9b816b54394', 'Employee_ID': ['E02023'], 'Full_Name': ['Lillian Lewis'], 'Job_Title': ['Technical Architect'], 'Business_Unit': ['Research & Development'], 'Hire_Date': ['8/14/2013'], 'Annual_Salary': ['$83,323 '], 'Bonus__': ['0%'], '_version_': 1811901251777986567, '_root_': '0bdb05d5-f2ee-4cf9-80ca-e9b816b54394'}
{'Department': ['IT'], 'Ethnicity': ['Asian'], 'Age': [50.0], 'Country': ['China'], 'City': ['Shanghai'], 'id': '84b283b9-0124-41af-90dd-6ab517ab0553', 'Employee_ID': ['E02031'], 'Full_Name': ['Wyatt Dinh'], 'Job_Title': ['System Administrator\xa0'], 'Business_Unit': ['Specialty Products'], 'Hire_Date': ['3/15/2002'], 'Annual_Salary': ['$72,860 '], 'Bonus__': ['0%'], '_version_': 1811901251780083713, '_root_': '84b283b9-0124-41af-90dd-6ab517ab0553'}
PS C:\Users\WINDOWS11\Desktop\mydata>
pow...
Pyth...
Ln 97, Col 35 Spaces: 4 UTF-8 CRLF {} Python 3.12.4 ('myenv': venv) Go Live