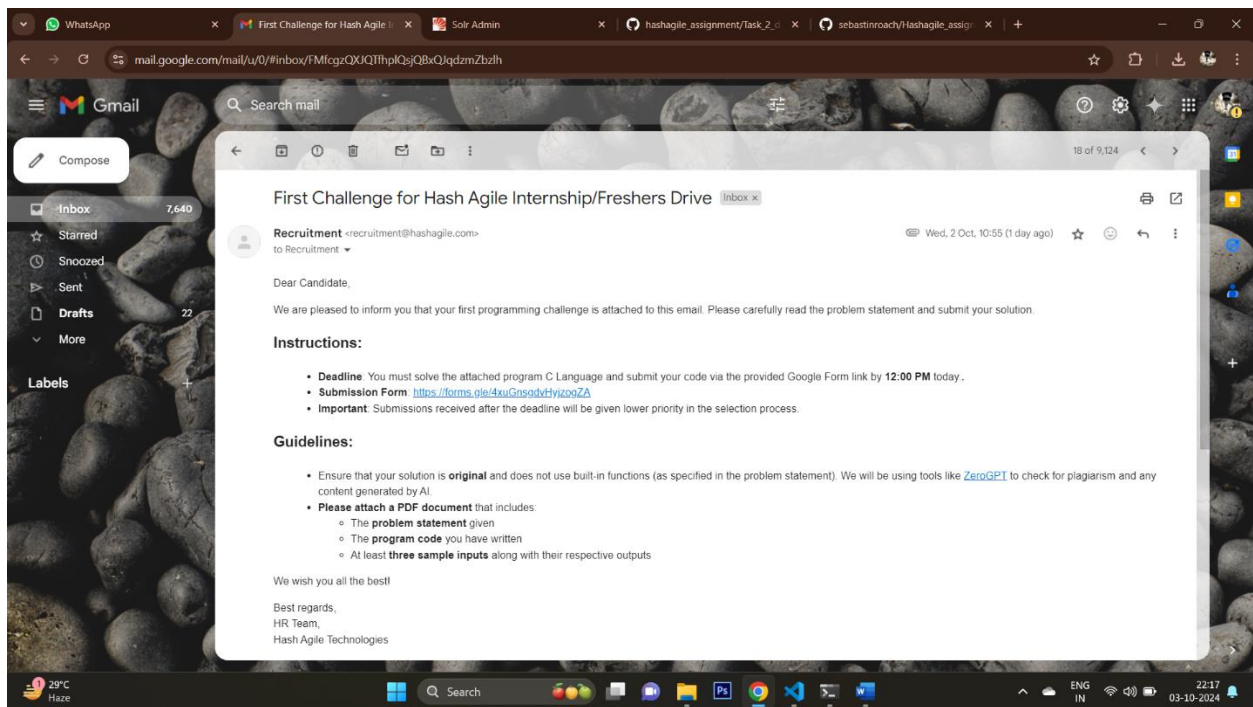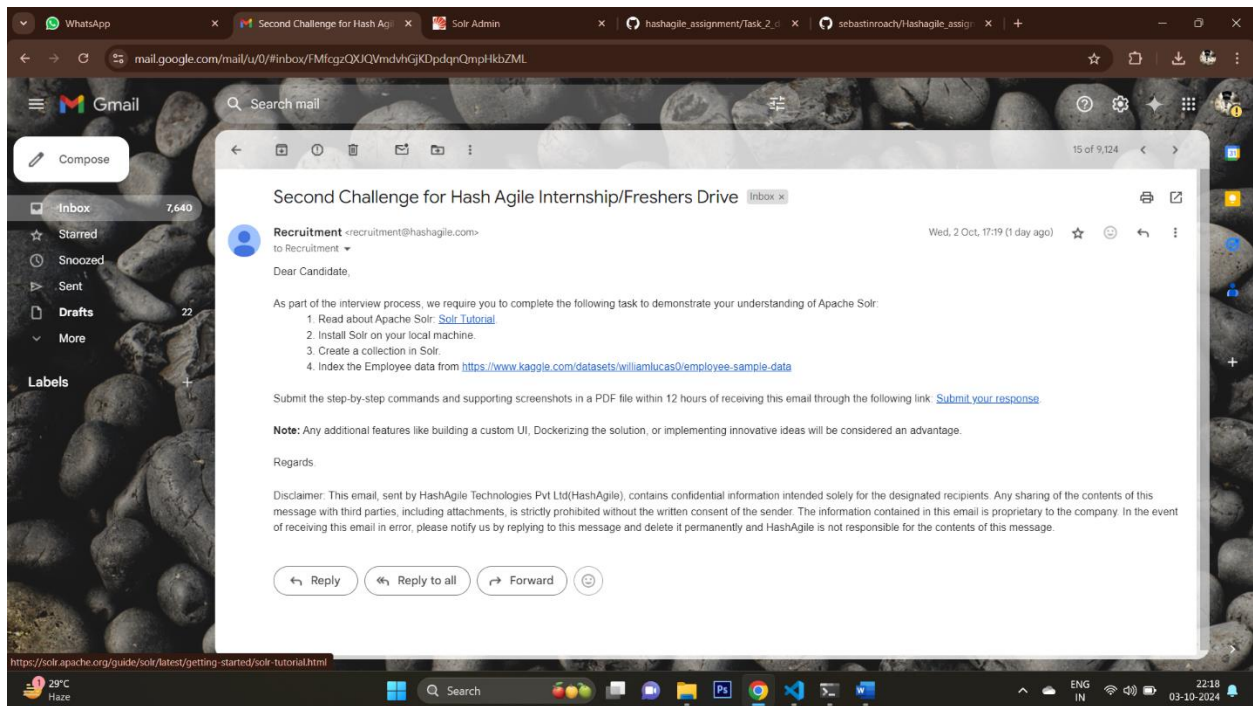# NAME: JAGADEESH D

Task 1 screenshot:

Task 2 screenshot:

GitHub Url: https://github.com/sebastinroach/Hashagile_assignment

Task 3 coding:

```
import requests
import pysolr
```

```python
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_commit=True)
```

```python
        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)
```

```python
    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

PS C:\Users\WINDOWS11\Desktop\mydata> & c:/Users/WINDOWS11/Desktop/mydata/myenv/Scripts/python.exe c:/Users/WINDOWS11/Desktop/myda
ta/Solr.py
Enter V_nameCollection name: collection1
Enter V_phonecollection name: collection2
Creating collection: collection1

Collection created successfully!
Creating collection: collection2

Collection created successfully!
Employe Count: 0
Indexing the document please wait!

Process Successfully Completed

Indexing the document please wait!

Process Successfully Completed

deleting please wait!

successfully Deleted

Employe Count: 1262
Searching please wait!

Department Field not found!

Searching please wait!

Searching please wait!

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PS C:\Users\WINDOWS11\Desktop\mydata>