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Course:MCA

Project: Parsing Data in Structured Output Format

College : Graphic Era Hill University, Dehradun

Submitted to : OneBanc.pvt.ltd

Dear Sir/Mam

I Akshay Pandey is going to submit my project for job interview completed by me with utmost diligence. Please consider this.

Code:

```python
In [3]: from os import chdir
        chdir('E:\cardsE:\cards')

In [145]: import pandas as pd
          import numpy as np
          from datetime import datetime


          #Function Description
          def StandardizeStatement(inputFile,outputFile):
              df=pd.read_csv(str(inputFile))
              list=df.values.tolist()

              #Formating Columns as Headers
              for idx in range(len(list)):
                  for j in list[idx]:
                      if(str(j).rstrip()=='Date'):
                          break
                  else:
                      df = df.drop(idx)
                      continue
                  break
              df.columns = df.iloc[0]
              df.head(40)

              #Adding Debit and Credit where there is Amount
              flag=0
              idx=0
              for (ColumnName,Debit) in df.iteritems():
                  ColumnName=str(ColumnName)
                  df = df.rename(columns = {ColumnName:ColumnName.rstrip()})
                  if(ColumnName=='Transaction Details'):
                      flag=1
                  if(ColumnName == 'Amount'):
                      Credit=Debit
                      for item in Debit:
```

```python
                    parse=str(item)
                    if(parse[:-3:-1]=='rc' or parse[:-3:-1]=='rC'):
                        Debit=Debit.replace(to_replace= item, value=np.nan)
                    else:
                        Credit=Credit.replace(to_replace= item, value=np.nan)
                df['Debit'] = pd.Series(Debit, index=df1.index)
                df['Credit'] = pd.Series(Credit, index=df1.index)
                del df['Amount']
            df=df[['Date', 'Transaction Description' if flag==0 else 'Transaction Details', 'Debit', 'Credit']]
            list=df.values.tolist()
            list.pop(0)

            #printing new DataFrame....................

            CardName=""
            flag=0
            trans=[]
            for i in list:
                if(str(i[0]) != "nan" and str(i[0]).rstrip() != "Date" and str(i[0]) != "Rahul" and str(i[0]) != "Rajat" and str(i[0]) !:
                    date=i[0]
                    tdesc=i[1].rstrip()
                    loc=tdesc.split()
                    Location=loc[-1] if flag==0 else loc[-2]
                    Currency="INR" if flag==0 else loc[-1]
                    debit=i[2]
                    credit=i[3]
                    Transaction="Domestic" if flag==0 else "International"
                    trans.append([date,tdesc,debit,credit,Currency,CardName,Transaction,Location])

                else:
                    for data in i:
                        if(str(data) != "nan" and data !="International Transactions"):
                            CardName=data
                        if(data == "International Transactions" or data == "International Transaction"):
                            flag=1
            newdf=pd.DataFrame(trans,columns= ['Date','Transcation Description','Debit','Credit','Currency','CardName','Transaction','Loc
            newdf['Date'] = pd.to_datetime(newdf['Date'])
            newdf = newdf.sort_values(by="Date")
            newdf.to_csv(outputFile, index=False)
```

```python
if __name__ == "__main__":

    #reading csv files and calling the function
    #case1
    inputFile= "HDFC-Input-Case1.csv"
    outputFile ="HDFC-Output-Case1.csv"
    StandardizeStatement(inputFile,outputFile)

    #case2
    inputFile= "ICICI-Input-Case2.csv"
    outputFile ="ICICI-Output-Case2.csv"
    StandardizeStatement(inputFile,outputFile)

    #case3
    inputFile= "Axis-Input-Case3.csv"
    outputFile ="Axis-Output-Case3.csv"
    StandardizeStatement(inputFile,outputFile)

    #case4
    inputFile= "IDFC-Input-Case4.csv"
    outputFile ="IDFC-Output-Case4.csv"
    StandardizeStatement(inputFile,outputFile)
```

In [ ]:

In [ ]:

Output:

HDFC-Output-Case1.csv

	A	B	C	D	E	F	G	H	I
1	Date	Transcation	Debit	Credit	Currency	CardName	Transaction	Location	
2	01-12-2018	STIC TRAVELS PVT LTD [	32256 cr		INR	Rahul	Domestic	DELHI	
3	13-01-2018	FLIPKART IN	21168		INR	Rahul	Domestic	BANGALORE	
4	13-01-2018	SRILANKAN	6		EUR	Rahul	Internation	KATUNAYAKE	
5	14-01-2018	FLEMINGO	18796.99		INR	Rahul	Domestic	Mumbai	
6	14-01-2018	AIRTEL PAY	1297		INR	Rahul	Domestic	MUMBAI	
7	14-01-2018	AIRTEL PAYMENT CHEN	902 cr		INR	Rahul	Domestic	CHENNAI	
8	14-01-2018	HEALTHGUARD LIMITED	5 cr		USD	Rahul	Internation	KATUNAYAKE	
9	14-01-2018	FOOT RUB I	20		EUR	Rahul	Internation	BERLIN	
10	17-01-2018	PAYTM NOI	165		INR	Ritu	Domestic	NOIDA	
11	17-01-2018	BIKANERVA	325		INR	Ritu	Domestic	GURGAON	
12	19-01-2018	VFS GLOBAI	1200		INR	Ritu	Domestic	MUMBAI	
13	20-01-2018	California G	100		USD	Rahul	Internation	CALIFORNIA	
14	21-01-2018	Amazon Seller Services	2155 cr		INR	Ritu	Domestic	BANGALORE	
15	22-01-2018	FLIPKART IN	5000		INR	Rahul	Domestic	BANGALORE	
16	30-01-2018	NewYorkShop NEWYOR	200 cr		USD	Rahul	Internation	NEWYORK	
17	02-08-2018	EURO WIN(	5		EUR	Rahul	Internation	DUSSELDOR	
18									
19									
20									
21									
22									

HDFC-Output-Case1

ICICI-Output-Case2.csv

	A	B	C	D	E	F	G	H	I
1	Date	Transcation	Debit	Credit	Currency	CardName	Transaction	Location	
2	30-12-2017	SRILANKAN	6		EUR	Raj	Internation	KATUNAYAKE	
3	14-01-2018	HEALTHGUARD LIMITED		15	USD	Raj	Internation	KATUNAYAKE	
4	19-01-2018	FOOT RUB I	26		EUR	Raj	Internation	BERLIN	
5	20-01-2018	California G	107		USD	Raj	Internation	CALIFORNIA	
6	30-01-2018	NewYorkSh	210		USD	Raj	Internation	NEWYORK	
7	16-03-2018	SUBWAY GURGAON		230	INR	Rahul	Domestic	GURGAON	
8	18-03-2018	NIMITAYA HOTEL & RES		3415	INR	Rahul	Domestic	GURGAON	
9	18-03-2018	BIRYANI PARADISE GUR		335	INR	Rahul	Domestic	GURGAON	
10	19-03-2018	AIRTEL PAY	880		INR	Rahul	Domestic	MUMBAI	
11	19-03-2018	AIRTEL PAYMENT MUM		1297	INR	Rahul	Domestic	MUMBAI	
12	19-03-2018	AMAZON SI	41499		INR	Raj	Domestic	MUMBAI	
13	19-03-2018	ICICI PRUDI	35935		INR	Raj	Domestic	MUMBAI	
14	20-03-2018	CARNIVAL (	110		INR	Raj	Domestic	GURGAON	
15	23-03-2018	BIRYANI PA	219		INR	Raj	Domestic	GURGAON	
16	25-03-2018	SRS CINEMAS GURGAOI		1440	INR	Raj	Domestic	GURGAON	
17	25-03-2018	NIMITAYA I	3414		INR	Raj	Domestic	GURGAON	
18	25-03-2018	SRS CINEMAS GURGAOI		155	INR	Raj	Domestic	GURGAON	
19	26-03-2018	KABI BESPOKE BOUTIQI		270	INR	Raj	Domestic	GURGAON	
20	27-03-2018	AMAZON SI	416		INR	Raj	Domestic	MUMBAI	
21	27-03-2018	PAYTM NOI	2941		INR	Raj	Domestic	NOIDA	
22	28-03-2018	www.vodaf	500	0	INR	Raj	Domestic	MUMBAI	

ICICI-Output-Case2

AXIS-Output-Case3.csv

	A	B	C	D	E	F	G	H	I
1	Date	Transcation	Debit	Credit	Currency	CardName	Transaction	Location	
2	13-01-2018	SRILANKAN	9		EUR	Rahul	Internation	KATUNAYAKE	
3	14-01-2018	HEALTHGUARD LIMITEI		6	USD	Rahul	Internation	KATUNAYAKE	
4	17-01-2018	FOOT RUB I	19		EUR	Rahul	Internation	BERLIN	
5	28-01-2018	INDIAN RAI	1099		INR	Rahul	Domestic	DELHI	
6	28-01-2018	California G	108		USD	Rahul	Internation	CALIFORNIA	
7	28-01-2018	TIPSY CATEI	660		INR	Rahul	Domestic	JAIPUR	
8	28-01-2018	FLIPKART IN	34980		INR	Rahul	Domestic	BANGALORE	
9	29-01-2018	MAKEMYTRIP INDIA PV		53326	INR	Rahul	Domestic	DELHI	
10	29-01-2018	MAKEMYTR	57181		INR	Rahul	Domestic	DELHI	
11	29-01-2018	INDIAN RAILWAY CATEI		3390	INR	Rahul	Domestic	DELHI	
12	30-01-2018	INDIAN RAILWAY CATEI		680	INR	Rahul	Domestic	DELHI	
13	30-01-2018	NewYorkSh	219		USD	Rahul	Internation	NEWYORK	
14	18-02-2018	DECATHLOI	949		INR	Ritu	Domestic	GURGAON	
15	22-02-2018	FEETOES GURGAON		1845	INR	Ritu	Domestic	GURGAON	
16	23-02-2018	DNA PHARMACY	(	1650	INR	Ritu	Domestic	GURUGRAM	
17	26-02-2018	MONTE CARLO	G	413	INR	Ritu	Domestic	GURGAON	
18	27-02-2018	THE ROOM	GUF	456	INR	Ritu	Domestic	GURGAON	
19	27-02-2018	LITTLE BUR(	1938		INR	Ritu	Domestic	GURGAON	
20	02-03-2018	EURO WINC	8		EUR	Rahul	Internation	DUSSELDOR	
21	02-09-2018	SILVER GALI	1250		INR	Ritu	Domestic	GURGAON	
22									

Axis-Output-Case3

IDFC-Output-Case4.csv

	A	B	C	D	E	F	G	H	I
1	Date	Transcation	Debit	Credit	Currency	CardName	Transaction	Location	
2	12-12-2017	SHOPPERS S	2886		INR	Rajat	Domestic	GURGAON	
3	12-12-2017	MORE MEG	1500		INR	Rajat	Domestic	GURGAON	
4	13-12-2017	JUNOON RE	1255		INR	Rahul	Domestic	GURGAON	
5	13-12-2017	LIVE PHARN	627		INR	Rajat	Domestic	GURGAON	
6	13-12-2017	SHAHEED N	1968		INR	Rajat	Domestic	GURGAON	
7	16-12-2017	POONAM SERVICE STAT	17 Cr		INR	Rahul	Domestic	GURGAON	
8	16-12-2017	KABI BESPO	220		INR	Rahul	Domestic	GURGAON	
9	16-12-2017	CLEARTRIP	14849		INR	Rahul	Domestic	MUMBAI	
10	21-12-2017	INDIAN RAI	1684		INR	Rahul	Domestic	DELHI	
11	22-12-2017	CLEARTRIP	5205		INR	Rahul	Domestic	MUMBAI	
12	22-12-2017	MSW*BLISS	3764		INR	Rahul	Domestic	NCR	
13	23-12-2017	NIMITAYA H	3475		INR	Rahul	Domestic	GURGAON	
14	24-12-2017	BIKANERVA	278		INR	Rahul	Domestic	GURGAON	
15	02-01-2018	THAI CHI ST	987		INR	Rajat	Domestic	STREETGURGAON	
16	02-01-2018	AMAZON P/	1875		INR	Rajat	Domestic	BANGALORE	
17	03-01-2018	SRILANKAN	10		EUR	Rahul	Internation	KATUNAYAKE	
18	04-01-2018	SHAHEED MANOHAR L/	18 Cr		INR	Rajat	Domestic	GURGAON	
19	08-01-2018	BIKANERVA	420		INR	Rajat	Domestic	GURGAON	
20	09-01-2018	MOPS-SBC-	500000		INR	Rajat	Domestic	MUMBAI	
21	14-01-2018	HEALTHGUARD LIMITEI	8 cr		USD	Rahul	Internation	KATUNAYAKE	
22	14-01-2018	FOOT RUB I	21		EUR	Rahul	Internation	BERLIN	

IDFC-Output-Case4