import odbc as dc

import pandas as pd

import matplotlib.pyplot as plt

import matplotlib.ticker as tick

connect = dc.odbc('DATABASE/USERID/PASSWORD')

cursor = connect.cursor()

cursorII= connect.cursor()

cursorIII=connect.cursor()

cursorIV=connect.cursor()

months =['July','Aug','Sep']

total\_utilization\_query = cursor.execute("""

select tbl.Month, sum(tbl.margin) as TotalMargin, sum(tbl.Claim\_Count) as Total\_ASO\_Claims

from

(select case when month(clm.FILLED\_DT) = '7' then 'July'

when month(clm.FILLED\_DT) = '8' then 'Aug'

when month(clm.FILLED\_DT) = '9' then 'Sep' end as Month

,sum(clm.CLNT\_INGRED\_COST\_PAID\_AMT-clm.INRX\_INGRED\_COST\_AMT) as margin

,count(\*) as Claim\_Count

from rcn.RCN\_FACT\_LZ\_CLM clm

where clm.CLM\_SOR\_CD = '512'

and clm.filled\_dt between '2019-07-01' and '2019-09-30'

and clm.aso\_fully\_insrd\_cd = 'A'

group by clm.filled\_dt) tbl

group by tbl.Month

order by TotalMargin asc""")

total\_margins = cursor.fetchall()

column\_names = [i[0] for i in cursor.description]

total\_margindf=pd.DataFrame(total\_margins, columns=column\_names)

total\_margindf.set\_index("Month",drop=True,inplace=True)

mail\_utilization\_query= cursorII.execute("""

select tbl.number\_month, tbl.Month, sum(tbl.margin) as TotalMargin, sum(tbl.Claim\_Count) as Total\_ASO\_Claims

from

(select case when month(clm.FILLED\_DT) = '7' then 'July'

when month(clm.FILLED\_DT) = '8' then 'Aug'

when month(clm.FILLED\_DT) = '9' then 'Sep' end as Month

,sum(clm.CLNT\_INGRED\_COST\_PAID\_AMT-clm.INRX\_INGRED\_COST\_AMT) as margin

,count(\*) as Claim\_Count

,month(clm.FILLED\_DT) as number\_month

from rcn.RCN\_FACT\_LZ\_CLM clm

left join rcn.RCN\_FACT\_EXA\_BR\_GLBL c2

on clm.CLM\_ADJSTMNT\_KEY = c2.CLM\_ADJSTMNT\_KEY

where clm.CLM\_SOR\_CD = '512'

and clm.filled\_dt between '2019-07-01' and '2019-09-30'

and clm.aso\_fully\_insrd\_cd = 'A'

and c2.R\_NTWK\_CNTRCT in ('Mail','MCHC','S90')

group by clm.filled\_dt

) tbl

group by tbl.number\_month,tbl.Month

order by tbl.number\_month asc""")

mail\_margins=cursorII.fetchall()

column\_namesII=[i[0] for i in cursorII.description]

mail\_marginsdf=pd.DataFrame(mail\_margins,columns=column\_namesII)

mail\_marginsdf.set\_index("Month",drop=True,inplace=True)

retail\_utilization\_query=cursorIII.execute("""

select tbl.number\_month, tbl.Month, sum(tbl.margin) as TotalMargin, sum(tbl.Claim\_Count) as Total\_ASO\_Claims

from

(select case when month(clm.FILLED\_DT) = '7' then 'July'

when month(clm.FILLED\_DT) = '8' then 'Aug'

when month(clm.FILLED\_DT) = '9' then 'Sep' end as Month

,sum(clm.CLNT\_INGRED\_COST\_PAID\_AMT-clm.INRX\_INGRED\_COST\_AMT) as margin

,count(\*) as Claim\_Count

,month(clm.FILLED\_DT) as number\_month

from rcn.RCN\_FACT\_LZ\_CLM clm

left join rcn.RCN\_FACT\_EXA\_BR\_GLBL c2

on clm.CLM\_ADJSTMNT\_KEY = c2.CLM\_ADJSTMNT\_KEY

where clm.CLM\_SOR\_CD = '512'

and clm.filled\_dt between '2019-07-01' and '2019-09-30'

and clm.aso\_fully\_insrd\_cd = 'A'

and c2.R\_NTWK\_CNTRCT in ('NAT','NAT EDS','RXC','RXC EDS')

group by clm.filled\_dt

) tbl

group by tbl.number\_month,tbl.Month

order by tbl.number\_month asc

""")

retail\_margins=cursorIII.fetchall()

column\_namesIII=[i[0] for i in cursorIII.description]

retail\_marginsdf=pd.DataFrame(retail\_margins,columns=column\_namesIII)

retail\_marginsdf.set\_index("Month",drop=True,inplace=True)

srx\_utilization\_query=cursorIV.execute("""

select tbl.number\_month, tbl.Month, sum(tbl.margin) as TotalMargin, sum(tbl.Claim\_Count) as Total\_ASO\_Claims

from

(select case when month(clm.FILLED\_DT) = '7' then 'July'

when month(clm.FILLED\_DT) = '8' then 'Aug'

when month(clm.FILLED\_DT) = '9' then 'Sep' end as Month

,sum(clm.CLNT\_INGRED\_COST\_PAID\_AMT-clm.INRX\_INGRED\_COST\_AMT) as margin

,count(\*) as Claim\_Count

,month(clm.FILLED\_DT) as number\_month

from rcn.RCN\_FACT\_LZ\_CLM clm

left join rcn.RCN\_FACT\_EXA\_BR\_GLBL c2

on clm.CLM\_ADJSTMNT\_KEY = c2.CLM\_ADJSTMNT\_KEY

where clm.CLM\_SOR\_CD = '512'

and clm.filled\_dt between '2019-07-01' and '2019-09-30'

and clm.aso\_fully\_insrd\_cd = 'A'

and c2.R\_NTWK\_CNTRCT in ('SRX')

group by clm.filled\_dt

) tbl

group by tbl.number\_month,tbl.Month

order by tbl.number\_month asc""")

srx\_margins=cursorIV.fetchall()

column\_namesIV=[i[0] for i in cursorIV.description]

srx\_marginsdf=pd.DataFrame(srx\_margins,columns=column\_namesIII)

srx\_marginsdf.set\_index("Month",drop=True,inplace=True)

values=plt.plot(total\_margindf.TotalMargin)

valuesII=plt.plot(total\_margindf.Total\_ASO\_Claims)

valuesIII=plt.plot(mail\_marginsdf.TotalMargin)

valuesIV=plt.plot(mail\_marginsdf.Total\_ASO\_Claims)

valuesV=plt.plot(retail\_marginsdf.TotalMargin)

valuesVI=plt.plot(retail\_marginsdf.Total\_ASO\_Claims)

valuesVII=plt.plot(srx\_marginsdf.TotalMargin)

valuesVIII=plt.plot(srx\_marginsdf.Total\_ASO\_Claims)

ax=plt.gca()

ax.legend(['Total Margin','Total Claim #','Mail Margin','Mail Claim #','Retail Margin','Retail Claim #','SRX Margin','SRX Claim #'])

ax.yaxis.set\_major\_formatter(tick.StrMethodFormatter('{x:,.0f}'))

plt.show()