#!/usr/bin/env python

import pandas as pd

import numpy as np

import openpyxl as px

wb = px.lo ad\_workbook('name\_of\_excel\_sheet.xlsx')

num\_sheet=len(wb.sheetnames)

df\_full={}

i=5

for i in range(num\_sheet):

df=pd.read\_excel('name\_of\_excel\_sheet.xlsx',sheet\_name=i)

head=df.iloc[1]

df\_full[i]=df[2:]

df\_full[i].columns=head

i=0

for i in range(5):

df\_full[i]=pd.read\_excel('name\_of\_excel\_sheet.xlsx',sheet\_name=i)

df=df\_full[2]

sheet=wb.get\_sheet\_by\_name(wb.sheetnames[2])

for i in range(len(df)):

if sheet['A'+str(i+1)].value=='ID':

k=i

break

head=df.iloc[k-1]

df=df[k:]

df.columns=head

a=df

for i in (a.index):

if 'nan' in (str(a['Entity'][i])):

break

a=df[:i]

a.dropna(axis=1,inplace=True)

df\_full[2]=a

df\_full[2]['ID']=df\_full[2].index

df\_full[2].index=range(1,len(df\_full[2])+1)

df\_full[2]['Type']=float('nan')

for i in range(len(df\_full[2])):

if 'datum\_system' in df\_full[2]['Entity'][i+1]:

df\_full[2]['Type'][i+1]='datum'

elif 'dimensional\_characteristic\_representation' in df\_full[2]['Entity'][i+1]:

df\_full[2]['Type'][i+1]='dimension'

elif 'tolerance' in df\_full[2]['Entity'][i+1]:

df\_full[2]['Type'][i+1]='tolerance'

df\_full[2]['Dimension']=0

df\_full[2]['Tolerance']=0

for i in range(len(df\_full[2])):

if df\_full[2]['Type'][i+1]=='dimension':

if (('∅' in df\_full[2]['PMI Representation'][i+1])==True) & (('±' in df\_full[2]['PMI Representation'][i+1])==False):

df\_full[2]['Dimension'][i+1]=float(df\_full[2]['PMI Representation'][i+1].split('∅')[1])

elif (('∅' in df\_full[2]['PMI Representation'][i+1])==True) & (('±' in df\_full[2]['PMI Representation'][i+1])==True):

df\_full[2]['Dimension'][i+1]=float(df\_full[2]['PMI Representation'][i+1].split('∅')[1].split('±')[0])

df\_full[2]['Tolerance'][i+1]=(df\_full[2]['PMI Representation'][i+1].split('∅')[1].split('±')[1])

elif (('∅' in df\_full[2]['PMI Representation'][i+1])==False) & (('±' in df\_full[2]['PMI Representation'][i+1])==True):

df\_full[2]['Dimension'][i+1]=float(df\_full[2]['PMI Representation'][i+1].split('±')[0])

df\_full[2]['Tolerance'][i+1]=(df\_full[2]['PMI Representation'][i+1].split('±')[1])

elif (('±' in df\_full[2]['PMI Representation'][i+1])==False) & (('∅' in df\_full[2]['PMI Representation'][i+1])==False):

df\_full[2]['Dimension'][i+1]=float(df\_full[2]['PMI Representation'][i+1])

data=[list(df\_full[2]['Dimension']),list(df\_full[2]['Tolerance'])]

values=pd.DataFrame(data)

writer = pd.ExcelWriter('test.xlsx', engine='xlsxwriter')

values.to\_excel(writer, sheet\_name='test\_1', index=False)

writer.close()