#Import library

from openpyxl import \*

from statistics import \*

from textblob import TextBlob

#Load excel file

exFile=load\_workbook("rest.xlsx")

#Confirm the active sheet

sheet1TL=exFile.active

#Make a list for star ratings from excel

starRatings=[]

for i in range (2,24):

starRating=sheet1TL.cell(column=7,row=i).value

starRatings.append(float(starRating))

#Make a list for review\_text from excel

reviewList=[]

for i in range (2,24):

reviewText=sheet1TL.cell(column=4,row=i).value

reviewSentP=TextBlob(reviewText)

reviewSentP=reviewSentP.sentiment.polarity

reviewList.append(reviewSentP)

#Define a function

def calculation(a,b):

print("Calulations for Stars:")

print("Average Rating is ", round(sum(a)/len(a),2))

print("Minimum Rating is ", min(a))

print("Maximum Rating is ", max(a))

print("Range of Rating is ", max(a)-min(a))

print("Standard deviation of Rating is ", round(stdev(a),2),"\n")

print("Calulations for Reviews:")

print("Average is ", round(sum(b)/len(b),2))

print("Minimum is ", round(min(b),2))

print("Maximum is ", round(max(b),2))

print("Range of is ", round((max(b)-min(b)),2))

print("Standard deviation is ", round(stdev(b),2),"\n")

#Run the function

print("-----------------------Total-----------------------")

calculation(starRatings,reviewList)

#Make each list for Applebee's and Olive Garden

aStars=[]

oStars=[]

aReviews=[]

oReviews=[]

#Read values from excel

for i in range (2,24):

name=sheet1TL.cell(column=2,row=i).value

if name=="Applebee's":

aStar=sheet1TL.cell(column=7,row=i).value

aStars.append(float(aStar))

aReview=sheet1TL.cell(column=4,row=i).value

aReviewSentP=TextBlob(aReview)

aReviewSentP=aReviewSentP.sentiment.polarity

aReviews.append(aReviewSentP)

elif name=="Olive Garden":

oStar=sheet1TL.cell(column=7,row=i).value

oStars.append(float(oStar))

oReview=sheet1TL.cell(column=4,row=i).value

oReviewSentP=TextBlob(oReview)

oReviewSentP=oReviewSentP.sentiment.polarity

oReviews.append(oReviewSentP)

#Print calculation for each

print("--------------------Applebee's--------------------")

calculation(aStars,aReviews)

print("-------------------Olive Garden-------------------")

calculation(oStars,oReviews)

#Summary

print("""

Average rating of Olive Garden is higher than average rating of Applebee's.

Applebee's doesn't have 5star rating while Olive Garden has it.

Considering that the range of polarity is from -1 to 1(negative to positive),

Olive Garden has more positive reviews than Applebee's because Olive Garden's

average of polarity is greater than Applebee's's

""")

