Code for Fuzzy Scoring

import pandas as pd

# Intensifiers/Reducers Dictionary

int\_red = {"extremely":3,"very":2,"little":1.3,"few":1.3,"somewhat":0.50,"approximetly":1.2,"nearly":1.2,"really":2,"slightly":1.7,"weakly":1.7,"tremendously":3,"very very":4,"outrageously":0.25,"strinkingly":1.5,"fairly":0.8,"too":1.6,"marginally":1.7,"incredibly":2.5,"exquisitely":2.8,"luminously":2.5,"awfully":2.3,"virtually":2.2,"phenomenally":3.5,"totally":4.5,"ravishingly":3.2,"mushy":3}

# Loading SentiWordNet

swn = pd.read\_excel("swnet.xlsx")

print(len(swn))

# Converting Pandasframe into array

swn\_array = swn.values

op\_data = pd.read\_excel("opinion.xlsx")

op\_array = op\_data.values

ln = len(op\_array)

for row in range(0,ln-1):

print(row,":",op\_array[row][0])

print("")

all\_scores=[]

from nltk.tokenize import word\_tokenize

from nltk.tokenize import sent\_tokenize

# Function to calculate sentiment score

def fuzzy\_score(sentence,negation):

# Word Tokenization

word\_token = word\_tokenize(sentence)

for w in word\_token:

if(w.upper()=="NOT"):

negation = -1

# Checking word in Intesifier dictionary

if(w in int\_red):

# Identifying the index intensifier in sentence

w\_index = word\_token.index(w)

# Extracting word following intensifier

n\_word = word\_token[w\_index+1]

# Score of intensifier

int\_score = int\_red[w]

# Positive/Negative score of word following intensfier

wordindex = swn.index[swn['Synsetterms'] == n\_word]

score =swn\_array[wordindex]

word = score[0][0]

pos = score[0][1]

neg = score[0][2]

if(pos>neg):

multiplier = 1

wscore = pos

else:

multiplier = -1

wscore = neg

# checking for negation

sscore = negation\*(1 - (1 - wscore)\*\*int\_score)\*multiplier

all\_scores.append(sscore)

# Enter sentence/paragraph here

sent = "He is not very bad boy."

# Sentence Tokenization

sent\_token = sent\_tokenize(sent)

# Calculating number of sentences in the string as Tweet cleansing

no\_sents = len(sent\_token )

# List to store score for each sentence

all\_scores=[]

for sent in sent\_token:

fuzzy\_score(sent,1)

# Score of each sentence

print(all\_scores)

# Calculating average score. If there is one sentence its score

# will be devide by 1

avg = sum(all\_scores)/len(all\_scores)

fg = (avg+1)/2

print("Average Score:",avg)

print("fg:",fg)

sent\_class =""

if(fg>=0 and fg<=0.1666):

sent\_class="EN"

elif(fg>0.166 and fg<=0.332):

sent\_class="VN"

elif(fg>0.332 and fg<=0.499):

sent\_class="NE"

elif(fg==0.50):

sent\_class="NU"

elif(fg>0.50 and fg<=0.666):

sent\_class="PO"

elif(fg>0.666 and fg<=0.832):

sent\_class="VP"

else:

sent\_class="EP"

print("Sent\_class:",sent\_class)