###Deepanshu####

### College Project ###

import random

import json

import pickle

import numpy as np

import nltk

from nltk.stem import WordNetLemmatizer

from tensorflow.keras.models import load\_model

lemmatizer = WordNetLemmatizer()

intents = json.loads(open('intents.json').read())

words = pickle.load(open('words.pkl', 'rb'))

classes = pickle.load(open('classes.pkl', 'rb'))

model = load\_model('chatbotmodel.h5')

def clean\_up\_sentence(sentence):

sentence\_words = nltk.word\_tokenize(sentence)

sentence\_words = [lemmatizer.lemmatize(word) for word in sentence\_words]

return sentence\_words

def bag\_of\_words(sentence):

sentence\_words= clean\_up\_sentence(sentence)

bag = [0] \* len(words)

for w in sentence\_words:

for i, word in enumerate(words):

if word == w:

bag[i] = 1

return np.array(bag)

def predict\_class(sentence):

bow = bag\_of\_words(sentence)

res = model.predict(np.array([bow]))[0]

ERROR\_THRESHOLD = 0.25

results = [[i,r] for i, r in enumerate(res) if r > ERROR\_THRESHOLD]

results.sort(key=lambda x:x[1], reverse=True)

return\_list = []

for r in results:

return\_list.append({'intent': classes[r[0]], 'probability': str(r[1])})

return return\_list

def get\_response(intents\_list,intents\_json):

tag= intents\_list[0]['intent']

list\_of\_intents =intents\_json['intents']

for i in list\_of\_intents:

if i['tag'] == tag:

result = random.choice(i['responses'])

break

return result

print("|============= Welcome to College Equiry Chatbot System! =============|")

print("|============================== Feel Free ============================|")

print("|================================== To ===============================|")

print("|=============== Ask your any query about our college ================|")

while True:

message = input("| You: ")

if message == "bye" or message == "Goodbye":

ints = predict\_class(message)

res = get\_response(ints, intents)

print("| Bot:", res)

print("|===================== The Program End here! =====================|")

exit()

else:

ints = predict\_class(message)

res = get\_response(ints, intents)

print("| Bot:", res)