import pyttsx3  # pip install pyttsx3

import speech\_recognition as sr  # pip install speechRecognition

import datetime

import wikipedia  # pip install wikipedia

import webbrowser

import os

import random

# Initialize the speech engine

engine = pyttsx3.init('sapi5')

voices = engine.getProperty('voices')

engine.setProperty('voice', voices[0].id)

# \*\*Added: Lists to store notes, jokes, and facts\*\*

notes = []  # List to store notes

jokes = [

    "Why don't scientists trust atoms? Because they make up everything!",

    "Why did the scarecrow win an award? Because he was outstanding in his field!",

    "Why don't skeletons fight each other? They don't have the guts.",

    "I told my wife she was drawing her eyebrows too high. She looked surprised.",

    "I'm reading a book on anti-gravity. It's impossible to put down!",

    "Why did the bicycle fall over? It was two-tired.",

    "Why can't your nose be 12 inches long? Because then it would be a foot!",

    "Parallel lines have so much in common. It’s a shame they’ll never meet.",

    "What do you call fake spaghetti? An impasta!",

    "I would tell you a construction pun, but I'm still working on it.",

    "Why did the math book look sad? Because it had too many problems.",

    "Why was the computer cold? It left its Windows open!",

    "What did one ocean say to the other ocean? Nothing, they just waved.",

    "Why did the golfer bring two pairs of pants? In case he got a hole in one.",

    "How does a penguin build its house? Igloos it together!",

    "What do you call cheese that isn't yours? Nacho cheese.",

    "Why couldn't the leopard play hide and seek? Because he was always spotted.",

    "What kind of music do mummies listen to? Wrap music!",

    "What do you call a belt made of watches? A waist of time.",

    "Why don’t some couples go to the gym? Because some relationships don’t work out.",

    "I used to play piano by ear, but now I use my hands.",

    "What’s orange and sounds like a parrot? A carrot.",

    "What do you get when you cross a snowman and a vampire? Frostbite.",

    "Why did the stadium get hot after the game? All of the fans left.",

    "Why do fish always know how much they weigh? Because they have their own scales."

]

facts = [

    "Honey never spoils. Archaeologists have found pots of honey in ancient Egyptian tombs that are over 3,000 years old.",

    "Octopuses have three hearts, and two of them stop beating when they swim.",

    "A day on Venus is longer than a year on Venus.",

    "Bananas are berries, but strawberries are not.",

    "A group of flamingos is called a 'flamboyance.'",

    "Wombat poop is cube-shaped.",

    "The human nose can detect about 1 trillion different smells.",

    "Sharks existed before trees.",

    "The Eiffel Tower can grow more than six inches during the summer due to thermal expansion.",

    "There are more stars in the universe than grains of sand on Earth.",

    "Hot water freezes faster than cold water, a phenomenon known as the Mpemba effect.",

    "You can hear a blue whale's heartbeat from over two miles away.",

    "Butterflies taste with their feet.",

    "An octopus can fit through any hole larger than its beak.",

    "Humans share about 60% of their DNA with bananas.",

    "A day on Mercury lasts 1,408 hours.",

    "Cows have best friends and can get stressed when separated.",

    "The largest snowflake ever recorded was 15 inches wide.",

    "Sloths can hold their breath longer than dolphins.",

    "A cockroach can live for weeks without its head.",

    "The shortest war in history lasted 38 minutes.",

    "Some cats are allergic to humans.",

    "The inventor of the frisbee was turned into a frisbee after he died.",

    "A single cloud can weigh more than a million pounds.",

    "A jellyfish's body is 95% water."

]

def speak(audio):

    engine.say(audio)

    engine.runAndWait()

def takeCommand():

    r = sr.Recognizer()

    with sr.Microphone() as source:

        print("Listening...")

        r.pause\_threshold = 1

        audio = r.listen(source)

    try:

        print("Recognizing...")

        query = r.recognize\_google(audio, language='en-in')

        print(f"User said: {query}\n")

    except Exception as e:

        print("Say that again please...")

        return "None"

    return query.lower()

def get\_date():

    """Function to get and speak the current date."""

    now = datetime.datetime.now()

    date\_str = now.strftime("%A, %d %B %Y")

    speak(f"Today's date is {date\_str}.")

    print(f"Today's date is {date\_str}.")

def wishMe():

    hour = int(datetime.datetime.now().hour)

    if hour>=0 and hour<12:

        speak("Good Morning!")

    elif hour>=12 and hour<18:

        speak("Good Afternoon!")

    else:

        speak("Good Evening!")

    speak("I am Jarvis Sir. Please tell me how may I help you")

def repeat\_after\_me():

    speak('ok')

    while True:

        query = takeCommand().lower()

        if 'quit the game' in query:

            speak("Exiting repeat mode.")

            break

        if query != "none":

            speak(query)

# \*\*Added: Main function to handle new commands for notes, jokes, and facts\*\*

def listen\_for\_commands():

    while True:

        query = takeCommand()

        # \*\*Added: Note-taking functionality\*\*

if \_\_name\_\_ == "\_\_main\_\_":

    wishMe()

    while True:

    # if 1:

        query = takeCommand().lower()

        if 'repeat after me' in query or 'be my talking tom' in query:

            repeat\_after\_me()

        # Logic for executing tasks based on query

        if 'wikipedia' in query:

            speak('Searching Wikipedia...')

            query = query.replace("wikipedia", "")

            results = wikipedia.summary(query, sentences=2)

            speak("According to Wikipedia")

            print(results)

            speak(results)

        if 'note this' in query:

            note\_content = query.replace("note this", "").strip()

            if note\_content:

                notes.append(note\_content)

                speak("Noted, Sir.")

                print(f"Note: {note\_content}")

                speak(f"Note: {note\_content}")

        # \*\*Added: Joke-telling functionality\*\*

        elif 'make me laugh' in query or 'tell me a joke' in query:

            joke = random.choice(jokes)

            speak(joke)

            print(joke)

        # \*\*Added: Fact-telling functionality\*\*

        elif 'tell me a fact' in query:

            fact = random.choice(facts)

            speak(fact)

            print(fact)

        # \*\*Added: Exit command\*\*

        elif 'exit' in query:

            speak("Goodbye, Sir.")

            break

        elif 'what is the date' in query or 'date' in query:

            get\_date()

        elif 'open youtube' in query:

            webbrowser.open("youtube.com")

        elif 'open google' in query:

            webbrowser.open("google.com")

        elif 'open stackoverflow' in query:

            webbrowser.open("stackoverflow.com")

        elif 'play music' in query:

            music\_dir = 'D:\\music for code'

            songs = os.listdir(music\_dir)

            print(songs)

            os.startfile(os.path.join(music\_dir, songs[0]))

        elif 'what is the time' in query:

            strTime = datetime.datetime.now().strftime("%H:%M:%S")

            speak(f"Sir, the time is {strTime}")

        elif 'play a sad song' in query:

            webbrowser.open("https://youtu.be/TmRgK-pXH9c?si=Pm4M4jdBhc8cI70v")

        elif 'play halal music' in query:

            webbrowser.open("https://youtu.be/OtHyifPcX1Q?si=QyEqgERxIK6sNa3n")

        elif 'what is the date' in query:

            speak("Sir the date is"+get\_date)

        elif 'takbeer' in query:

            speak("Allah o Akbar")

        elif 'play spiritual song' in query:

            webbrowser.open("https://youtu.be/l3hHUwc1cAk?si=0h1MwHIjcF0tcksO")