Artificial Intelligence Lab
KCA 351: Session 2021-22

Experiment – No-13

➕ **Speech Recognition (Open various Web Browsers using Speech)**

❖ **AI Pilot Project**

PREREQUISITES:

Step 1: pip install pyttsx3

Step 2: pip install Speech Recognition

Step 3: pip install pyaudio

Step 4: import webbrowser(pre-installed python library)

IDE Environment: VsCode, Jupyter e.t.c

Must Have: Microphone in your System

Required: Good Internet Connection for Voice recognition through Google Voice API.

Program:

```python
import pyttsx3
import speech_recognition as sr
import datetime
import wikipedia
import webbrowser
import os
import pyjokes

engine = pyttsx3.init('sapi5')
voices = engine.getProperty('voices')
# print(voices[1].id)
engine.setProperty('voice', voices[0].id)

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(e)
        print("Say that again please...")
        return "None"
    return query

def wishMe():
    hour = int(datetime.datetime.now().hour)
    if hour >= 0 and hour < 12:
        speak("Good Morning")
```

```python
        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")

if __name__ == "__main__":
    wishMe()
    if 1:
    #while True:
            query = takeCommand().lower()
            # All queries
            if 'wikipedia' in query:
                speak('Searching wikipedia...')
                query = query.replace("wikipedia", "")
                result = wikipedia.summary(query, sentences=2)
                speak("According to wikipedia")
                # print(result)
                speak(result)
            elif 'open youtube' in query:
                webbrowser.open("youtube.com")
            elif 'open facebook' in query:
                webbrowser.open("facebook.com")
            elif 'open gmail' in query:
                webbrowser.open('gmail.com')
            elif 'open google' in query:
                webbrowser.open('google.com')
            elif 'play music' in query:
                music_dir = 'E:\\HOLLYWOOD SONGS\\HOLLY NEW'
                songs = os.listdir(music_dir)
                #print(songs)
                os.startfile(os.path.join(music_dir, songs[0]))
            elif 'the time' in query:
                strTime = datetime.datetime.now().strftime("%H:%M:%S")
                speak(f"Sir, the time is {strTime}")
            elif 'open code' in query:
                codePath = "C:\\Users\\Akshay singh\\AppData\\Local\\Programs\
\Microsoft VS Code\\Code.exe"
                os.startfile(codePath)
            elif 'who is akshay' in query:
```

```python
        speak("akshay is a good boy.He is pursuing mca in kiet group o
f institutions")
    elif 'who are you' in query:
        speak("Hello Im Jarvis a personal assistance of mister akshay
singh")
    elif 'hello jarvis' in query:
        speak("Hello ready to your service sir")
    elif 'who i am' in query:
        speak("I don't know may be a useless person")
    elif 'speak' in query:
        speak("Please say something")
    elif 'shutdown jarvis' in query:
        speak('Bye sir')
        exit()
    elif 'joke' in query:
        speak(pyjokes.get_joke())
```

Output :

```python
38          elif hour >= 12 and hour < 18:
39              speak("Good afternoon")
40          else:
41              speak("Good evening")
42          speak("I am Jarvis sir please tell me how may i help you")
43
44      if __name__ == "__main__":
45          wishMe()
46          if 1:
47          #while True:
48              query = takeCommand().lower()
49              # All queries
50              if 'wikipedia' in query:
51                  speak('Searching wikipedia...')
52                  query = query.replace("wikipedia", "")
53                  result = wikipedia.summary(query, sentences=2)
54                  speak("According to wikipedia")
55                  # print(result)
56                  speak(result)
57              elif 'open youtube' in query:
58                  webbrowser.open("youtube.com")
59              elif 'open facebook' in query:
60                  webbrowser.open("facebook.com")
61              elif 'open gmail' in query:
62                  webbrowser.open('gmail.com')
63              elif 'open google' in query:
64                  webbrowser.open('google.com')
```

```
PROBLEMS  18    OUTPUT    TERMINAL    DEBUG CONSOLE
Listening...
Recognizing...
User said: open YouTube


[Done] exited with code=0 in 10.328 seconds
```