```
import speech_recognition as speech
import pyttsx3 as engine
import wikipedia as wiki
import webbrowser as browse
import serial
import os
import time

# a function to speak
Speak = engine.init()


# speak and print function
def speak(text):
    print(text)
    Speak.say(text)
    Speak.runAndWait()


# function for greeting and from here the program starts
def greetings():
    current_time = time.localtime()
    current_time = int(time.strftime("%H", current_time))
    if current_time > 6 or current_time < 12:
        speak("Good Morning.")
    elif current_time >= 12 or current_time < 18:
        speak("Good Afternoon")
    else:
        speak("Good Evening")

    speak("Can I Help You?")


# function for converting voice to text
def VoiceToSpeech():
    with speech.Microphone() as Voice:
        print("Listening")
        # Listening to the Voice
        audio = speech.Recognizer().listen(Voice)
        print("Recognizing")
    try:
        # recognizing the voice to text
        text = speech.Recognizer().recognize_google(audio, language='en-in')
        print("you said:", text)
        return str(text).lower()
    except Exception as e:
        print(e)
        return "try again"


# function to open google chrome
def chrome():
    speak("opening google chrome")
    browse.open("https://www.google.com/")
```

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# function to search in google chrome
def search(text):
    speak("Searching for " + text)
    browse.open("https://www.google.com/search?q=" + text)


# function to open youtube
def youtube(text):
    speak("Opening youtube for " + text)
    browse.open("https://www.youtube.com/search?q=" + text)


# function to open music
def music():
    speak("Which Music Do you want to play?")
    song = VoiceToSpeech()
    path = "C:\\Users\\yashwanth m y\\Music"  # path for the music directory
    all_songs = os.listdir(path)  # getting list of songs in directory
    try:
        for songs in all_songs:
            if song in songs.lower():  # match the song you needed and plays it
                os.startfile(os.path.join(path, songs))
                break
        else:
            speak("Music Not Found")
    except Exception as e:
        print(e)


# function to open wiki pedia
def wiki_pedia(text):
    speak("Searching on Wiki pedia")
    wiki_result = wiki.summary(text, sentences=1)
    speak(wiki_result)


# function to save a note
def note():
    speak("what do you want to save in note?")
    note_text = VoiceToSpeech()
    note_name = str(round(time.monotonic())) + ".txt"
    with open(note_name, 'w') as file:
        file.write(note_text)
        print("File Saved Successfully")
    speak("Do you want to open note?")
    print("Yes or No...!")
    command = VoiceToSpeech()
    if command == "yes":
        os.startfile(note_name)


# function to open facebook
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def facebook(text):
    speak("Opening Facebook")
    browse.open("https://www.facebook.com/search/top/?q=" + text)


# function to open instagram
def instagram(text):
    speak("Opening Instagram")
    browse.open("https://www.instagram.com/" + text)


# function to control led of arduino
def arduino():
    board = serial.Serial('COM11', 9600)
    while True:
        speak("Give the Command")
        command = VoiceToSpeech()
        if command == "lights on":
            value = "1"
            speak("lights on")
        elif command == "lights off":
            value = "0"
            speak("lights off")
        elif command == "exit":
            break
        else:
            print("Invalid command")
            continue

        board.write(value.encode())

    board.close()


greetings()
while True:
    choice = VoiceToSpeech()
    if "open google" in choice:
        chrome()
    elif "what" in choice:
        search(choice)
    elif "wikipedia" in choice:
        choice = choice.replace("wikipedia", "")
        wiki_pedia(choice)
    elif "youtube" in choice:
        choice = choice.replace("youtube", "")
        youtube(choice)
    elif "music" in choice:
        choice = choice.replace("music", "")
        music()
    elif "write note" in choice:
        choice = choice.replace("write note", "")
        note()
    elif "facebook" in choice:
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    choice = choice.replace("facebook", "")
    facebook(choice)
elif "instagram" in choice:
    choice = choice.replace("instagram", "")
    instagram(choice)
elif "controls" in choice:
    arduino()
elif "bye" in choice:
    print("Bye □ □ ")
    break
else:
    speak(choice)
```