```
import subprocess
import wolframalpha
import pyttsx3
import tkinter
import json
import random
import operator
import speech_recognition as sr
import datetime
import wikipedia
import webbrowser
import os
import winshell
import pyjokes
import feedparser
import smtplib
import ctypes
import time
import requests
import shutil
from twilio.rest import Client
from clint.textui import progress
from ecapture import ecapture as ec
from bs4 import BeautifulSoup
import win32com.client as wincl
from urllib.request import urlopen
```

Now we will set our engine to Pyttsx3 which is used for text to speech in Python and sapi5 is Microsoft speech application platform interface we will be using this for text to speech function.

Python3
filter_none
brightness_4

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

You can change voice Id to "0" for Male voice while using assistant here we are using Female voice for all text to speech

Python3
filter_none
brightness_4

```
def speak(audio):
    engine.say(audio)
    engine.runAndWait()

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

    elif hour>= 12 and hour<18:
```

```python
        speak("Good Afternoon Sir !")

    else:
        speak("Good Evening Sir !")

    assname =("Jarvis 1 point o")
    speak("I am your Assistant")
    speak(assname)


def usrname():
    speak("What should i call you sir")
    uname = takeCommand()
    speak("Welcome Mister")
    speak(uname)
    columns = shutil.get_terminal_size().columns

    print("####################".center(columns))
    print("Welcome Mr.", uname.center(columns))
    print("####################".center(columns))

    speak("How can i Help you, Sir")

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("Unable to Recognize your voice.")
        return "None"

    return query

def sendEmail(to, content):
    server = smtplib.SMTP('smtp.gmail.com', 587)
    server.ehlo()
    server.starttls()

    # Enable low security in gmail
    server.login('your email id', 'your email passowrd')
    server.sendmail('your email id', to, content)
    server.close()
```

Main Function starts here, we will now call all these function in main function.

Python3
filter_none
brightness_4
```python
if __name__ == '__main__':
    clear = lambda: os.system('cls')

    # This Function will clean any
    # command before execution of this python file
    clear()
    wishMe()
    usrname()

    while True:

        query = takeCommand().lower()

        # All the commands said by user will be
        # stored here in 'query' and will be
        # converted to lower case for easily
        # recognition of command
        if 'wikipedia' in query:
            speak('Searching Wikipedia...')
            query = query.replace("wikipedia", "")
            results = wikipedia.summary(query, sentences = 3)
            speak("According to Wikipedia")
            print(results)
            speak(results)

        elif 'open youtube' in query:
            speak("Here you go to Youtube\n")
            webbrowser.open("youtube.com")

        elif 'open google' in query:
            speak("Here you go to Google\n")
            webbrowser.open("google.com")

        elif 'open stackoverflow' in query:
            speak("Here you go to Stack Over flow.Happy coding")
            webbrowser.open("stackoverflow.com")

        elif 'play music' in query or "play song" in query:
            speak("Here you go with music")
            # music_dir = "G:\\Song"
            music_dir = "C:\\Users\\GAURAV\\Music"
            songs = os.listdir(music_dir)
            print(songs)
            random = os.startfile(os.path.join(music_dir, songs[1]))

        elif 'the time' in query:
            strTime = datetime.datetime.now().strftime("% H:% M:% S")
            speak(f"Sir, the time is {strTime}")
```

```python
        elif 'open opera' in query:
            codePath = r"C:\\Users\\GAURAV\\AppData\\Local\\Programs\\Opera\\launcher.exe"
            os.startfile(codePath)

        elif 'email to gaurav' in query:
            try:
                speak("What should I say?")
                content = takeCommand()
                to = "Receiver email address"
                sendEmail(to, content)
                speak("Email has been sent !")
            except Exception as e:
                print(e)
                speak("I am not able to send this email")

        elif 'send a mail' in query:
            try:
                speak("What should I say?")
                content = takeCommand()
                speak("whome should i send")
                to = input()
                sendEmail(to, content)
                speak("Email has been sent !")
            except Exception as e:
                print(e)
                speak("I am not able to send this email")

        elif 'how are you' in query:
            speak("I am fine, Thank you")
            speak("How are you, Sir")

        elif 'fine' in query or "good" in query:
            speak("It's good to know that your fine")

        elif "change my name to" in query:
            query = query.replace("change my name to", "")
            assname = query

        elif "change name" in query:
            speak("What would you like to call me, Sir ")
            assname = takeCommand()
            speak("Thanks for naming me")

        elif "what's your name" in query or "What is your name" in query:
            speak("My friends call me")
            speak(assname)
            print("My friends call me", assname)

        elif 'exit' in query:
            speak("Thanks for giving me your time")
            exit()

        elif "who made you" in query or "who created you" in query:
```

```python
        speak("I have been created by Gaurav.")

    elif 'joke' in query:
        speak(pyjokes.get_joke())

    elif "calculate" in query:

        app_id = "Wolframalpha api id"
        client = wolframalpha.Client(app_id)
        indx = query.lower().split().index('calculate')
        query = query.split()[indx + 1:]
        res = client.query(' '.join(query))
        answer = next(res.results).text
        print("The answer is " + answer)
        speak("The answer is " + answer)

    elif 'search' in query or 'play' in query:

        query = query.replace("search", "")
        query = query.replace("play", "")
        webbrowser.open(query)

    elif "who i am" in query:
        speak("If you talk then definately your human.")

    elif "why you came to world" in query:
        speak("Thanks to Gaurav. further It's a secret")

    elif 'power point presentation' in query:
        speak("opening Power Point presentation")
        power = r"C:\\Users\\GAURAV\\Desktop\\Minor Project\\Presentation\\Voice Assistant.pptx"
        os.startfile(power)

    elif 'is love' in query:
        speak("It is 7th sense that destroy all other senses")

    elif "who are you" in query:
        speak("I am your virtual assistant created by Gaurav")

    elif 'reason for you' in query:
        speak("I was created as a Minor project by Mister Gaurav ")

    elif 'change background' in query:
        ctypes.windll.user32.SystemParametersInfoW(20,
                                    0,
                                    "Location of wallpaper",
                                    0)
        speak("Background changed succesfully")

    elif 'open bluestack' in query:
        appli = r"C:\\ProgramData\\BlueStacks\\Client\\Bluestacks.exe"
        os.startfile(appli)

    elif 'news' in query:
```

```python
        try:
            jsonObj = urlopen('''https://newsapi.org / v1 / articles?source = the-times-of-india&sortBy = top&apiKey
=\\times of India Api key\\''')
            data = json.load(jsonObj)
            i = 1

            speak('here are some top news from the times of india')
            print('''=============== TIMES OF INDIA ==========='''+ '\n')

            for item in data['articles']:

                print(str(i) + '. ' + item['title'] + '\n')
                print(item['description'] + '\n')
                speak(str(i) + '. ' + item['title'] + '\n')
                i += 1
        except Exception as e:

            print(str(e))


    elif 'lock window' in query:
        speak("locking the device")
        ctypes.windll.user32.LockWorkStation()

    elif 'shutdown system' in query:
        speak("Hold On a Sec ! Your system is on its way to shut down")
        subprocess.call('shutdown / p /f')

    elif 'empty recycle bin' in query:
        winshell.recycle_bin().empty(confirm = False, show_progress = False, sound = True)
        speak("Recycle Bin Recycled")

    elif "don't listen" in query or "stop listening" in query:
        speak("for how much time you want to stop jarvis from listening commands")
        a = int(takeCommand())
        time.sleep(a)
        print(a)

    elif "where is" in query:
        query = query.replace("where is", "")
        location = query
        speak("User asked to Locate")
        speak(location)
        webbrowser.open("https://www.google.nl / maps / place/" + location + "")

    elif "camera" in query or "take a photo" in query:
        ec.capture(0, "Jarvis Camera ", "img.jpg")

    elif "restart" in query:
        subprocess.call(["shutdown", "/r"])

    elif "hibernate" in query or "sleep" in query:
        speak("Hibernating")
```

```python
        subprocess.call("shutdown / h")

    elif "log off" in query or "sign out" in query:
        speak("Make sure all the application are closed before sign-out")
        time.sleep(5)
        subprocess.call(["shutdown", "/l"])

    elif "write a note" in query:
        speak("What should i write, sir")
        note = takeCommand()
        file = open('jarvis.txt', 'w')
        speak("Sir, Should i include date and time")
        snfm = takeCommand()
        if 'yes' in snfm or 'sure' in snfm:
            strTime = datetime.datetime.now().strftime("% H:% M:% S")
            file.write(strTime)
            file.write(" :- ")
            file.write(note)
        else:
            file.write(note)

    elif "show note" in query:
        speak("Showing Notes")
        file = open("jarvis.txt", "r")
        print(file.read())
        speak(file.read(6))

    elif "update assistant" in query:
        speak("After downloading file please replace this file with the downloaded one")
        url = '# url after uploading file'
        r = requests.get(url, stream = True)

        with open("Voice.py", "wb") as Pypdf:

            total_length = int(r.headers.get('content-length'))

            for ch in progress.bar(r.iter_content(chunk_size = 2391975),
                        expected_size =(total_length / 1024) + 1):
                if ch:
                  Pypdf.write(ch)

    # NPPR9-FWDCX-D2C8J-H872K-2YT43
    elif "jarvis" in query:

        wishMe()
        speak("Jarvis 1 point o in your service Mister")
        speak(assname)

    elif "weather" in query:

        # Google Open weather website
        # to get API of Open weather
        api_key = "Api key"
        base_url = "http://api.openweathermap.org / data / 2.5 / weather?"
```

```python
        speak(" City name ")
        print("City name : ")
        city_name = takeCommand()
        complete_url = base_url + "appid =" + api_key + "&q =" + city_name
        response = requests.get(complete_url)
        x = response.json()

        if x["cod"] != "404":
            y = x["main"]
            current_temperature = y["temp"]
            current_pressure = y["pressure"]
            current_humidiy = y["humidity"]
            z = x["weather"]
            weather_description = z[0]["description"]
            print(" Temperature (in kelvin unit) = " +str(current_temperature)+"\n atmospheric pressure (in hPa unit)
 ="+str(current_pressure) +"\n humidity (in percentage) = " +str(current_humidiy) +"\n description = "
 +str(weather_description))

        else:
            speak(" City Not Found ")

    elif "send message " in query:
            # You need to create an account on Twilio to use this service
            account_sid = 'Account Sid key'
            auth_token = 'Auth token'
            client = Client(account_sid, auth_token)

            message = client.messages \
                    .create(
                        body = takeCommand(),
                        from_='Sender No',
                        to ='Receiver No'
                    )

            print(message.sid)

    elif "wikipedia" in query:
        webbrowser.open("wikipedia.com")

    elif "Good Morning" in query:
        speak("A warm" +query)
        speak("How are you Mister")
        speak(assname)

    # most asked question from google Assistant
    elif "will you be my gf" in query or "will you be my bf" in query:
        speak("I'm not sure about, may be you should give me some time")

    elif "how are you" in query:
        speak("I'm fine, glad you me that")

    elif "i love you" in query:
        speak("It's hard to understand")
```

```python
    elif "what is" in query or "who is" in query:

        # Use the same API key
        # that we have generated earlier
        client = wolframalpha.Client("API_ID")
        res = client.query(query)

        try:
            print (next(res.results).text)
            speak (next(res.results).text)
        except StopIteration:
            print ("No results")
```