CREATE YOUR OWN VIRTUAL ASSISTANT

PROJECT J.A.R.V.I.S

A virtual assistant developed under python environment.
It speaks with you (one-to-one communication)

-mohd shazal azeem

Jarvis python program with dependent packages:

```
import speech_recognition as sr
      #package must install with cmd "pip install SpeechRecognition"
    #package used to recognize your words using google recognizer

import pyttsx3
      #package must install with cmd "pip install pyttsx3"
    #this is used to convert text to speech.

import datetime
      #package must install with cmd "pip install DateTime"
    #gives current date time.

import pywhatkit
      #package must install with cmd "pip install pywhatkit"
    #it is redirecting package takes to different websites
    #using this we can redirect to youtube,facebook,google.com
etc,.

import Wikipedia
      #package must install with cmd "pip install wikipedia"
    #gets information direct from Wikipedia.

import pyjokes
      #package must install with cmd "pip install pyjokes"
    #gets random jokes in English.
```

Activating packages:

```
listener=sr.Recognizer()
     #for recognization

engine=pyttsx3.init()
    #for text to speech
```

For female voice incase of building alexa:

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

Function implementation:

```
def say(text):
     engine.say(text)
     engine.runAndWait()
#using say as func name, whenever func 'say' is called it speaks
#engine came from text to speech
```

Taking command:

#things we say to do

```
def take_command():
    try:
    |   with sr.Microphone() as source:
    |   |   print('listening...')
    |   |   voice=listener.listen(source)
    |   |   command=listener.recognize_google(voice)
    |   |   command=command.lower()
    |   |
    |   |
    |   |
    |   |
    except:
         pass
    return command
    #func name is take command
    #exception handling is done using try block and except.
    #here try is used listen your voice if not error occur.
    #if error occur terminal stops rather than trying again.
    #hence except is used.
    #using microphone it listens and recognize by .recognize google
```

Running program:

```
    #while is used so as Jarvis keeps listening until we say to exit
def run():
    l=True
    while l:
    |   command=take_command()
           #func take_command is called to listen your command
    |   if 'hello' in command:
    |   |       hour=datetime.datetime.now().hour
    |   |       if hour>=0 and hour<12:
    |   |               say('good morning sir')
    |   |       elif hour>=12 and hour<18:
    |   |               say('good afternoon sir')
    |   |       else:
    |   |               say('good evening sir')
    |   |       say('how can i help you')
              #if we speak hello
              #hello is considered as command.
              #dateTime package is used to have 24hrs time format.
     '''in 24hrs, if 0 to 12 hrs it replies good morning same for 12
to 18 hrs it replies good afternoon and other than that good evening'''
              #at last says how can I help you
```

Conditions to have reaction on our commands

Opens youtube:

```
    |   if 'play' in command:
    |   |   song=command.replace('play','')
    |   |   print('playing')
    |   |   say('playing'+song)
    |   |   pywhatkit.playonyt(song)
          '''if we command play and then says any video name of youtube it
                opens by replying "playing" (video name)'''
```

Date and Time:

```
    |   elif 'time' in command:
    |   |   time=datetime.datetime.now().strftime('%I %M %p')
    |   |   say('current time is'+time)
          #says current time
    |   elif 'todays date' in command:
    |   |   date=datetime.datetime.now().strftime('%A %d %h %Y')
    |   |   print(date)
    |   |   say('today is'+date)
          #says todays date
```

Opens google.com:

```
    |   elif 'search' in command:
    |   |   search=command.replace('search','')
    |   |   print(command)
    |   |   say('searching'+search)
    |   |   pywhatkit.search(search)
    '''if we command search and says anything that you wish to search
     on google it opens google with your requested search command'''
```

Opens Wikipedia:

```
    |   elif 'tell me about' in command:
    |   |   person=command.replace('tell me about','')
    |   |   info=wikipedia.summary(person, 1)
    |   |   print(info)
    |   |   say(info)
  '''if we command tell me about and then persons name it starts speaking
                about that particular person'''
                              (Or)
   |   elif 'who is' in command:
   |   |   person=command.replace('who is','')
   |   |   info=wikipedia.summary(person, 1)
   |   |   print(info)|
   |   |   say(info)
```

Random Jokes are implemented:

```
    |   elif 'joke' in command:
    |   |   joke=pyjokes.get_joke()
    |   |   print(joke)
    |   |   say(joke)
#pyjokes package is used
#if our command contains joke it starts speaking random jokes in English
```

Extra commands you like to implement by your own:

```
    |   elif 'your name' in command:
    |   |   say('iam jarvis to honour you sir')
    |   elif 'love you' in command:
    |   |   say('sorry i have a girlfriend')
    |   elif 'love me' in command:
    |   |   say('i dont know')
    |   elif 'are you single' in command:
    |   |   say('iam in relationship with wifi')
    |   elif 'what is my name' in command:
    |   |   say('i would prefer to call you sir')
```

Getting out of while loop:

```
     |   elif 'exit' in command:
     |   |   say('good bye sir')
     |   |   l=False
     #if we command 'exit' while loop is exited and terminal stops
```

If our voice not accepted by microphone or language not understandable:

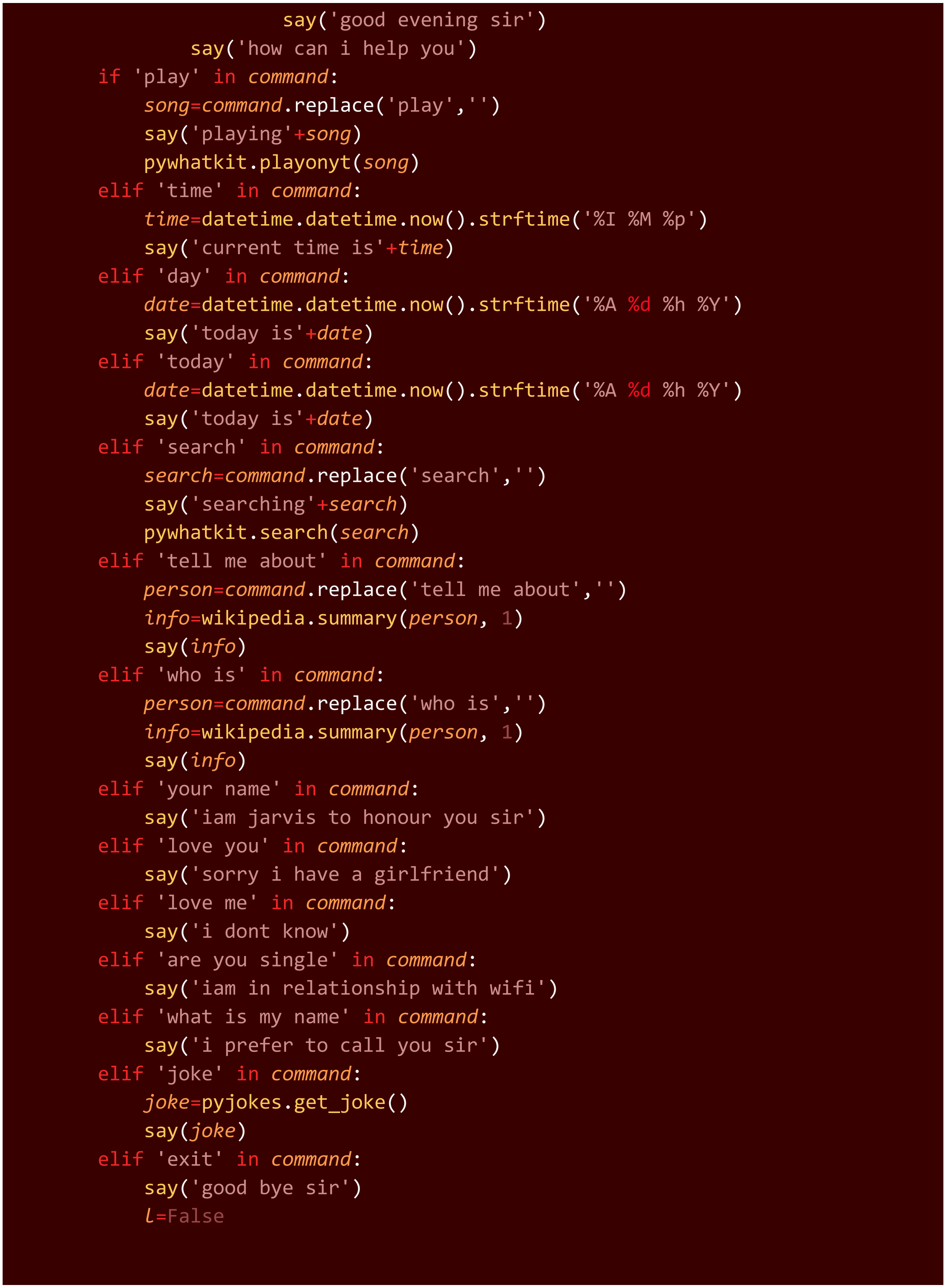
```
     |   |
     |   else:
     |   |   print('say again')

    #prints say again and tries to listen again by while loop
```

Calling func run to activate above code:

```
run()
```

Source Code:

```
import speech_recognition as sr
import pyttsx3
import datetime
import pywhatkit
import wikipedia
import pyjokes

listener=sr.Recognizer()
engine=pyttsx3.init()
#voices = engine.getProperty('voices')
#engine.setProperty('voice',voices[1].id)
def say(text):
     engine.say(text)
     engine.runAndWait()
     print(text)

def take_command():
    try:
        with sr.Microphone() as source:
            print('listening...')
            voice=listener.listen(source)
            command=listener.recognize_google(voice)
            command=command.lower()
            print(command)




    except:
         pass
    return command #if not gives type error of nonetype iterable

def run():
    l=True
    while l:
        command=take_command()
        if 'hello' in command:
                hour=datetime.datetime.now().hour
                if hour>=0 and hour<12:
                        say('good morning sir')
                elif hour>=12 and hour<18:
                        say('good afternoon sir')
                else:
```



```
                say('good evening sir')
        say('how can i help you')
if 'play' in command:
    song=command.replace('play','')
    say('playing'+song)
    pywhatkit.playonyt(song)
elif 'time' in command:
    time=datetime.datetime.now().strftime('%I %M %p')
    say('current time is'+time)
elif 'day' in command:
    date=datetime.datetime.now().strftime('%A %d %h %Y')
    say('today is'+date)
elif 'today' in command:
    date=datetime.datetime.now().strftime('%A %d %h %Y')
    say('today is'+date)
elif 'search' in command:
    search=command.replace('search','')
    say('searching'+search)
    pywhatkit.search(search)
elif 'tell me about' in command:
    person=command.replace('tell me about','')
    info=wikipedia.summary(person, 1)
    say(info)
elif 'who is' in command:
    person=command.replace('who is','')
    info=wikipedia.summary(person, 1)
    say(info)
elif 'your name' in command:
    say('iam jarvis to honour you sir')
elif 'love you' in command:
    say('sorry i have a girlfriend')
elif 'love me' in command:
    say('i dont know')
elif 'are you single' in command:
    say('iam in relationship with wifi')
elif 'what is my name' in command:
    say('i prefer to call you sir')
elif 'joke' in command:
    joke=pyjokes.get_joke()
    say(joke)
elif 'exit' in command:
    say('good bye sir')
    l=False
```

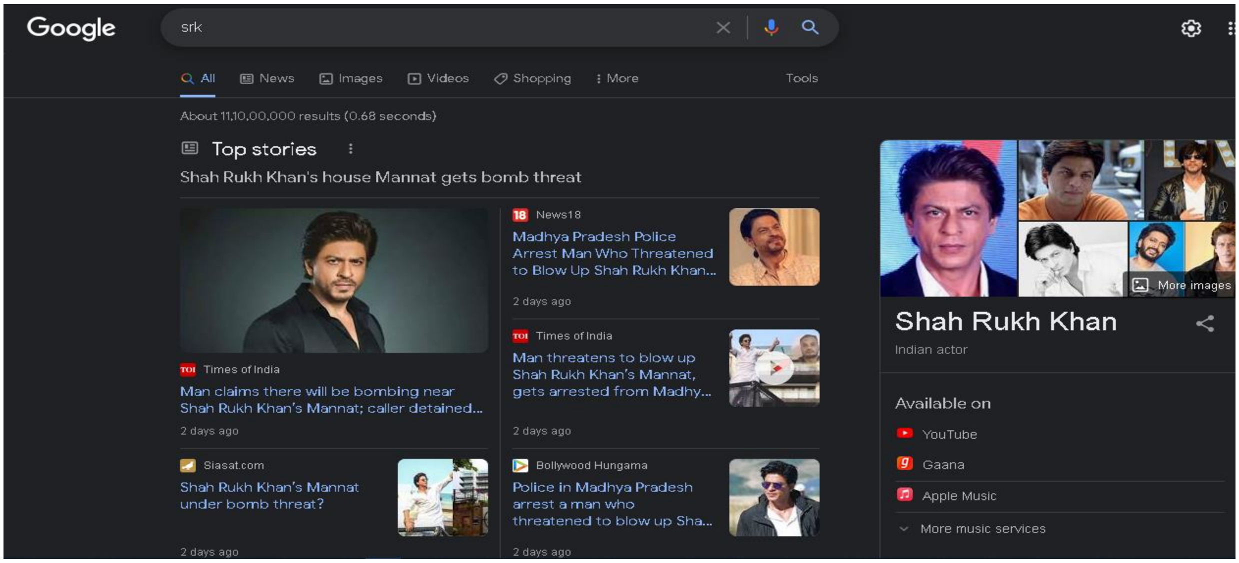
```
        else:
            print('say again')



run()
```

Output:

```
[Running] python -u "c:\Users\************************ "
listening...
say again
listening...
```

```
listening...
user-hello jarvis
Jarvis-good evening sir
       how can i help you
say again
listening...
```

```
listening...
user- today's time
Jarvis-current time is 08 13 PM
listening...
user- today's date
Jarvis- today is Thursday 13 Jan 2022
listening...
user- search srk
Jarvis- searching srk
```



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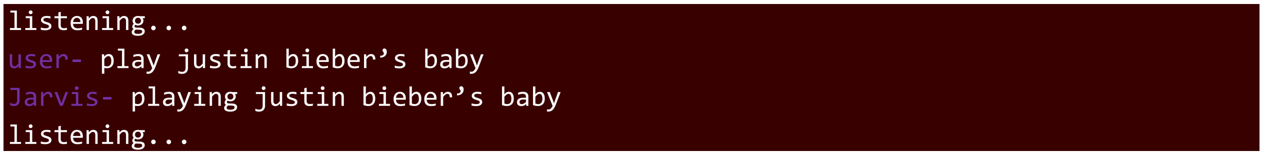
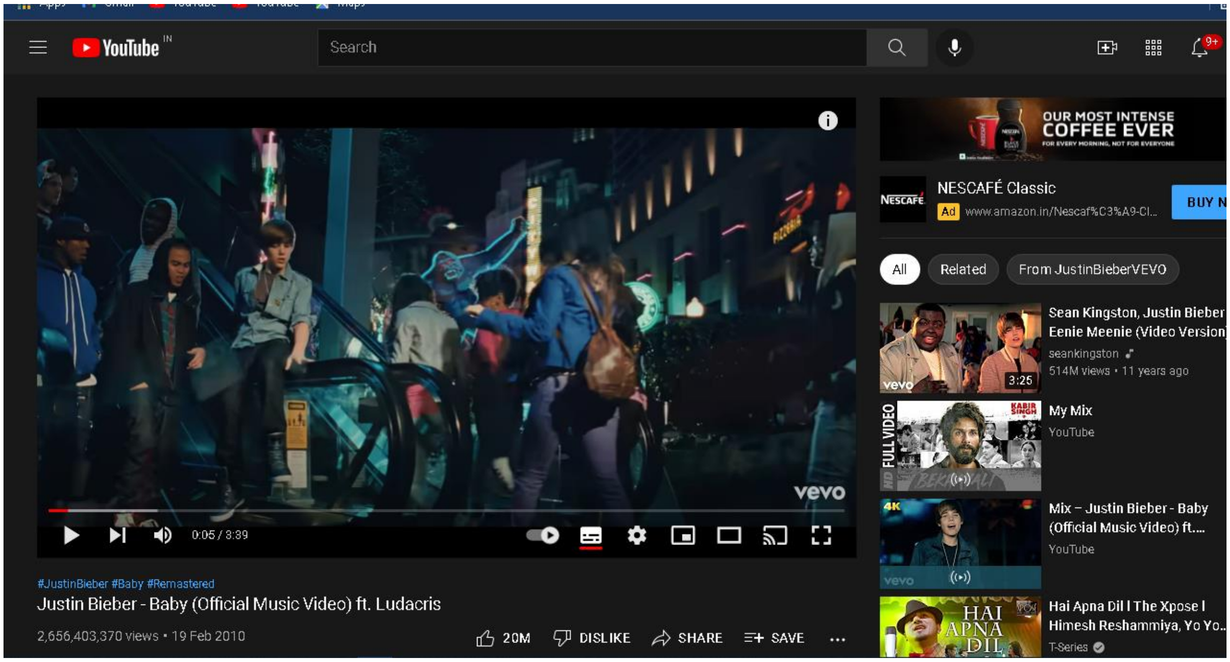


```
listening...
user- play justin bieber’s baby
Jarvis- playing justin bieber’s baby
listening...
```



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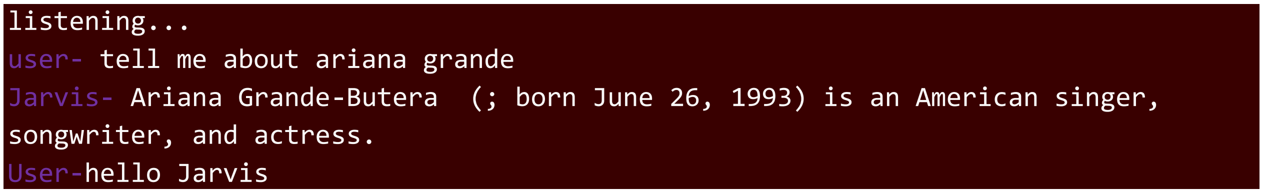
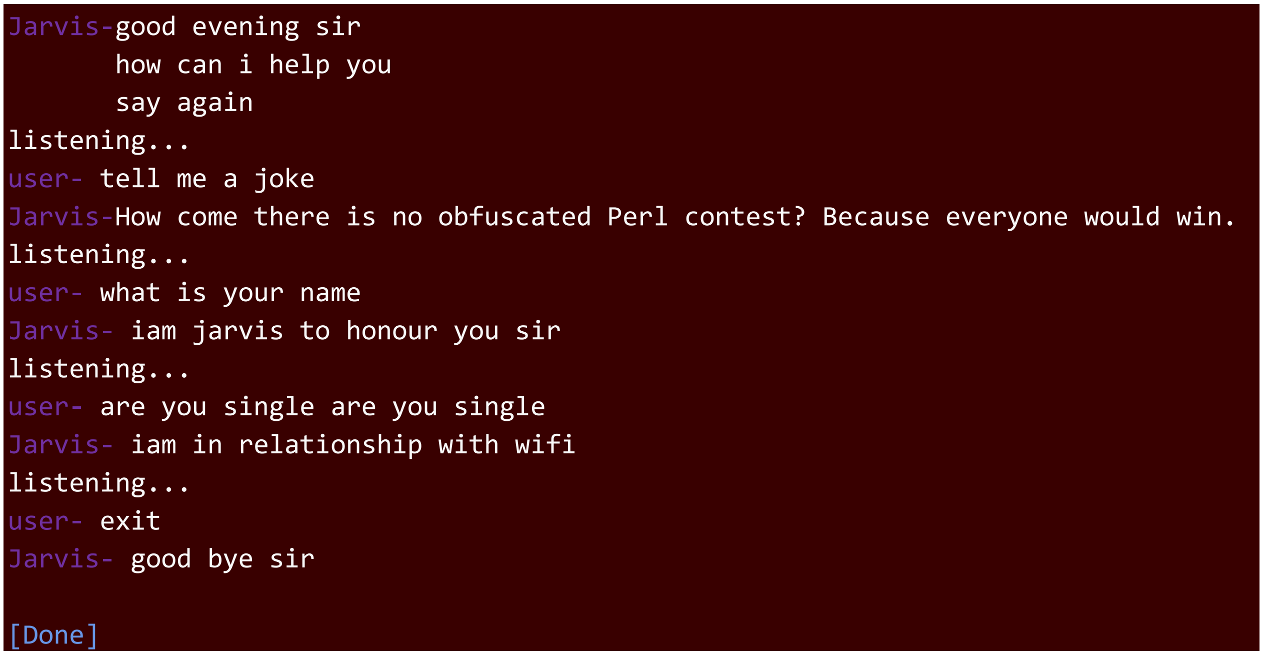


```
listening...
user- tell me about ariana grande
Jarvis- Ariana Grande-Butera  (; born June 26, 1993) is an American singer,
songwriter, and actress.
User-hello Jarvis
```



```
Jarvis-good evening sir
       how can i help you
       say again
listening...
user- tell me a joke
Jarvis-How come there is no obfuscated Perl contest? Because everyone would win.
listening...
user- what is your name
Jarvis- iam jarvis to honour you sir
listening...
user- are you single are you single
Jarvis- iam in relationship with wifi
listening...
user- exit
Jarvis- good bye sir

[Done]
```

Note:- User- and **Jarvis-** are not displayed in output, it is only for understanding purpose.