AI VOICE ASSISTANT

Brainware Group Of Institutions - SDET

department of
Electronics & Communication Engineering

Prepared By :

Souvik Saha (BSSE/UT/EC/17/052)
Rounak Chowdhury(BSSE/UT/EC/17/051)
Indrani Majumder (BSSE/UT/EC/17/055)
Sabyasachi Dhar (BSSE/UT/EC/17/056)

INTRODUCTION

- **What is AI personal assitant ?**

- **Concept of an artification personal assistant. The**

- **combination of :**

  ➡ **Automatic Speech Recognition**
  ➡ **Artificial Inteligence**
  ➡ **Natural Language processing**

BASIC CONCEPT USED

The working of voice assistant uses following principle

- **Natural language processing :**
  - ➡ To understand user's speech input

- **Automatic speech recognition :**
  - ➡ To understand command according to user's input

- **Artificial Intelligence :**
  - ➡ To learn things from users & patterns , store all the informations for better accuracy

HISTORY

- IBM introduce the IBM shoebox, the first digital speech recognition tool. It recognized 16 words and digit. in 1961

- Dragon launches 'Dragon dicate' the first speech recognition product for consumers in 1990

- Microsoft introduces speech recognition feature for office xp in 2001

- Apple introduces 'Siri' in 2011

- Gogle launches 'google now' in 2012

- The first chatterbot was 'ELIZA'

- 'JULIA' is the example of second generation chatterbot

- 'ALICE' is the example of third generation chatterbot

USES OF VOICE ASSISTANT

- **Play Music**

- **Controll your devices & your smart home**

- **Make life easier with skills**

- **Entertain the kids**

- **Get news , weather and traffic**

- **Scheduling your day**

- **Open apps on phone or PC**

POPULAR VOICE ASSITANT

SIRI : Siri by Apple became the first digital virtual assistant to be standard on a smartphone when the iPhone 4s came out on October 4, 2011. Siri moved into the smart speaker world when the HomePod debuted in February 2018.

Google Now : Google Now (which became Google Assistant) on the Android platform followed. It also works on Apple's iOS, but has limited functionality.

Hi, how can I help?
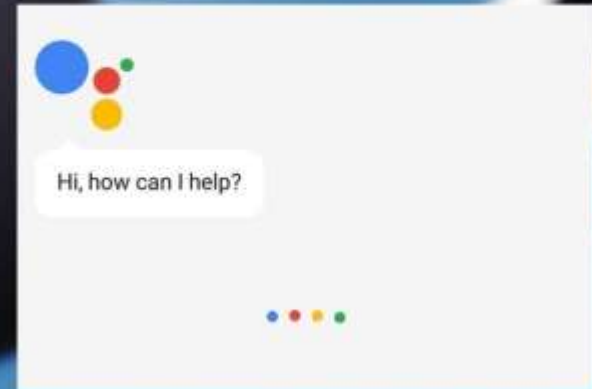
And here are some others voice assitants name :

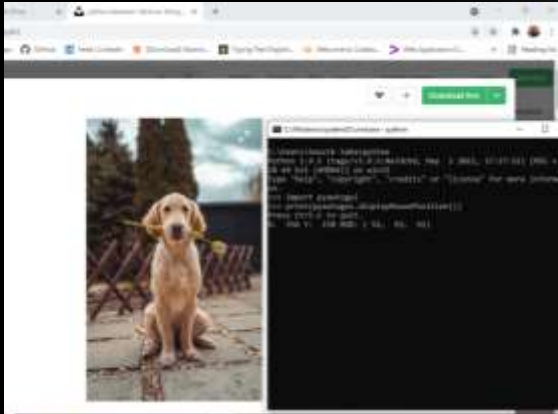|	
Robin	**(Android)**
Cortana	**(Windows)**
Dragon Go	**(IOS)**
Evi	**(Android)**
EasilyDo	**(Android)**

Some important python modules

1. Pyautogui : we use this module for automation purpose.


```python
import pyautogui as py
import time

time.sleep(5)
i = 26
while i<52:
    py.click(1332 , 380)
    time.sleep(1)
    py.click(1185 , 160)
    time.sleep(9)
    py.press('enter')
    i += 1
```

2. Selenium : It's a high level Web – scrapping tool.
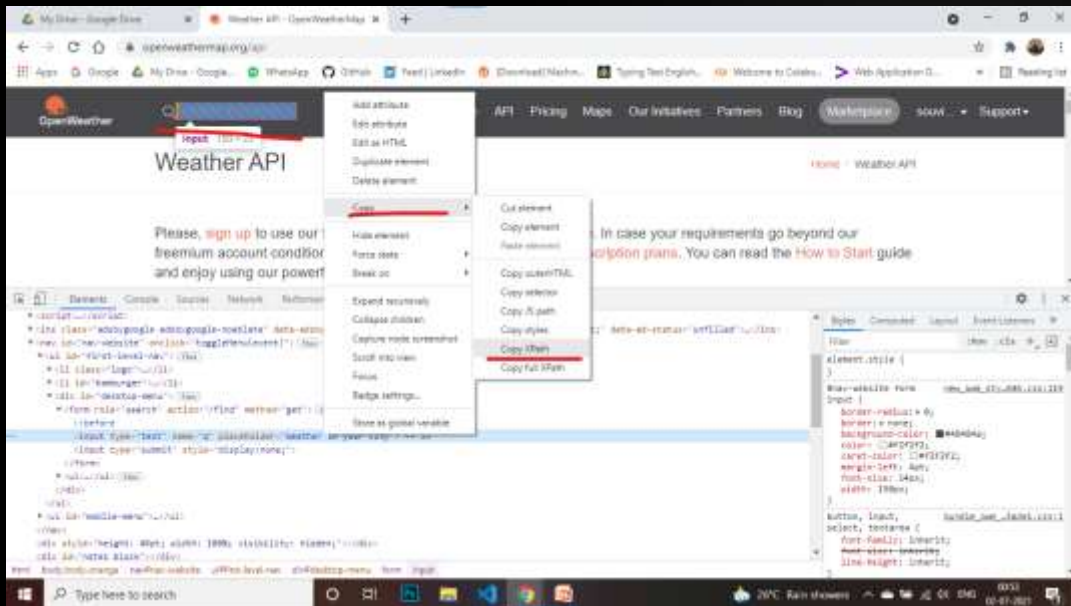

```
query = query.replace('whats the weather mow' , "weather")
query = query.replace('can you tell me the current weather' , "weather")
chrome_path = 'E:\development\chromedriver.exe'
city = speak('please tell me the city name , boss')
print('please tell me the city name , boss')
web = webdriver.Chrome(executable_path =chrome_path)
web.get(f'https:// openweathermap.org/find?q={city}')
web1 = web.find_element_by_xpath('//*[@id="forecast_list_ul"]/table/tbody/tr/td[2]/p[1]')
```

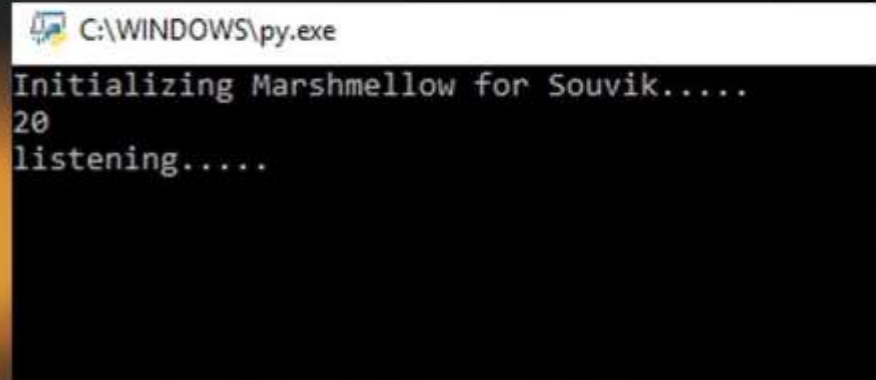## 3. Open CV : With openCV we can detect faces and much more.
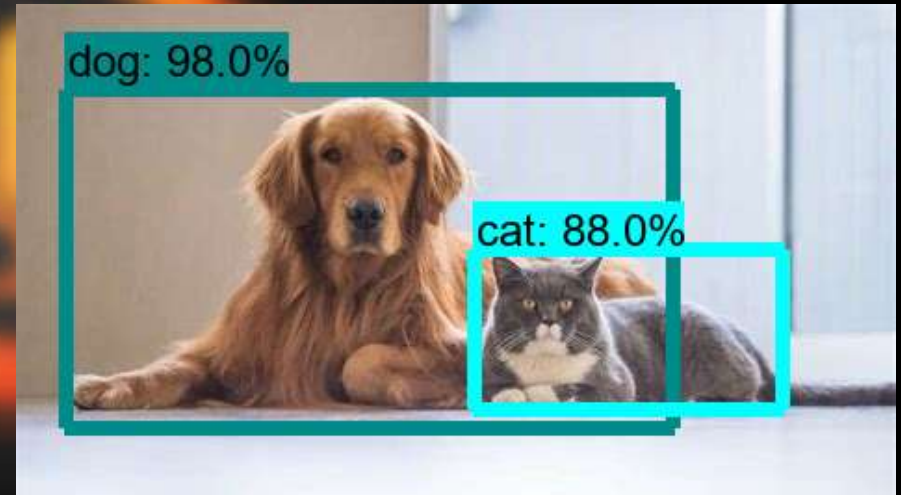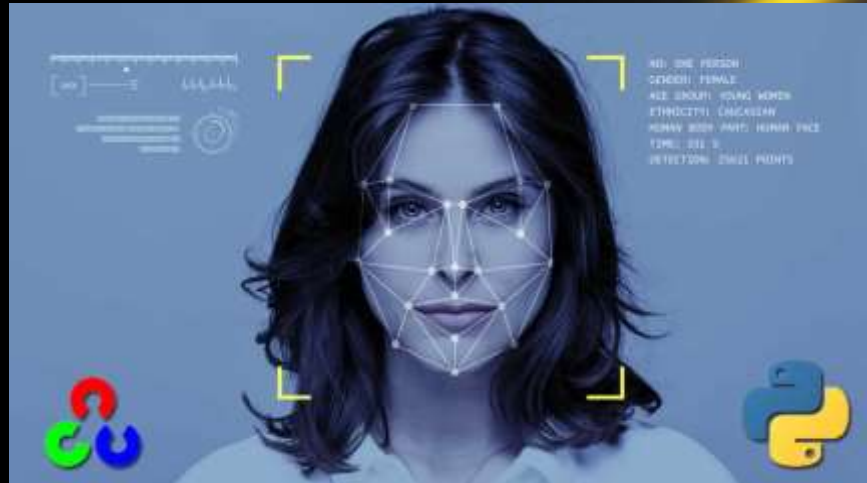
4. **Pyaudio** : It's a very important module for our voice assistant ,without it our voice assistant won't work.

5. **BeautifulSoup** : we can scrap a particular data with beautifulSoup , it's a light version of selenium, with selenium we can also automate a click or press any keyboard button without touching it but with BS ,we only can get data from a website , though its illegal to do web scrapping sometimes , its like getting data from website without their permission.

Making Our Own Personal Assistant

- we can make our own personal assistant by using python programming language.

- we need to import some other modules name pyttsx3 , speech-recognition , pyaudio, os , pywhatkit and some other modules.

- We wil use 'sapi5'for voice recognition , which is provided by microsoft.

- In this program we shall use 'if - else' condition. After few lines of coding we will able to make our own personal voice assistant.

- Here are some pictures of our own personal assistant.


```
C:\WINDOWS\py.exe

Initializing Marshmellow for Souvik.....
20
listening.....
```



```
C:\WINDOWS\py.exe                                    —  □  X
Initializing Marshmellow for Souvik.....
20
listening.....
Recognizing...
Boss Said : open wikipedia and search who is Shahrukh Khan

According to wikipedia....
Baadshah (transl. King) is a 1999 Indian Hindi-language action comedy film directed by Abbas-Mustan. The film stars Shah
Rukh Khan and Twinkle Khanna in lead roles.
```

Advantages of Voice assistant

1. Store various information

2. Recognize voice commands

3. Control various applications of device & home

4. Reminds you important things on accurate situation or location

5. Helps you to plan your whole day

6. we can talk to the bot , if the bot is well trained.

Disadvantages of Voice assistant

1. Internet access :

• • • PVA(personal voice assistant) needs internet connection to give desired output.

2. Listening Problem :

• • • PVA get problem to process wrong pronounced words and miscellaneous words.

3. Navigation Language :

• • • Most of PVA's can understand only english language

Future of voice assistant

- Your voice assitant will be continually prompting you with suggestion and taking instructions and will know more about youthan perhaps you do yourself.

- voice assistant is always improving and learning ,AI companies use data from existing systems to improve what assistants can do.the voice assistant might get so smart that it will automatically order a pizza if you say you're hungry. It will use existing data from your previous purchases to come to the conclusion that saying you're hungry equals ordering a pizza.

- The Atlantic, "A subfield of AI called computational creativity forges algorithms that can write music, paint portraits, and tell jokes." These capabilities will help smart speakers "show emotion" and "think" for themselves without being scripted.

- We can expect this device to be implanted and permanent.

Future of voice assistant

Voice assitant are very effective way to organize your schedule. Now there are many personal digital assitant application available in market for various device platform.

Personal voice assitants are more portable and you can use them anytime. They also have lot of informations about youself. Having a personal assistant with access to the unlimited knowledge stored on the internet - isn't this what mankind dreams about?

THANK YOU :