ASSIGNMENT

To create a virtual assistant

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Introduction:-

What is Virtual Assistant?

A virtual assistant is a self-employed worker who specializes in offering administrative services to clients from a remote location, usually a home office. Typical tasks a virtual assistant might perform include scheduling appointments, making phone calls, making travel arrangements, and managing email accounts.

Basic concept of Virtual Assistant

The working of Virtual Assistant uses principles like:

- Natural language processing

  To understand users speech input

- Automatic speech recognition

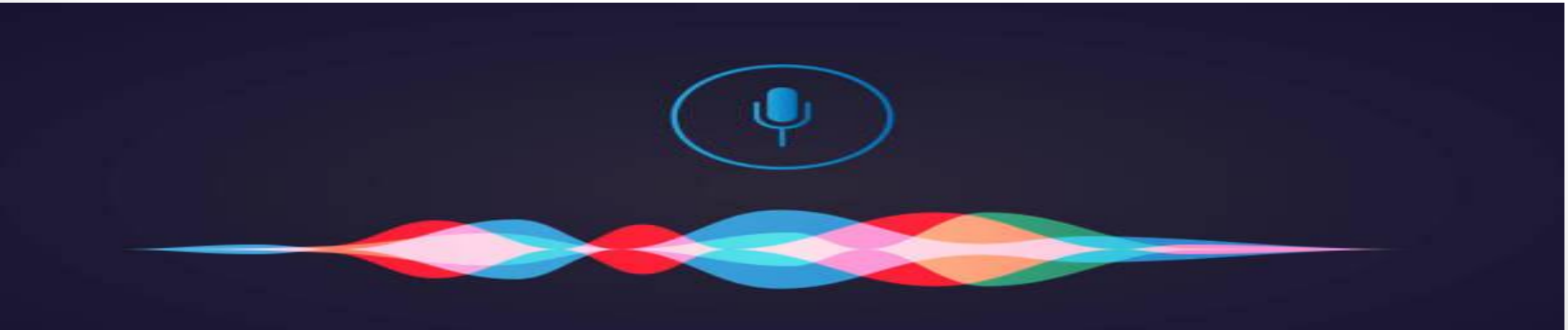
  To understand command given by user

- Artificial Intelligence

  To learn information about behavior from user and to store it

- Inter process communication

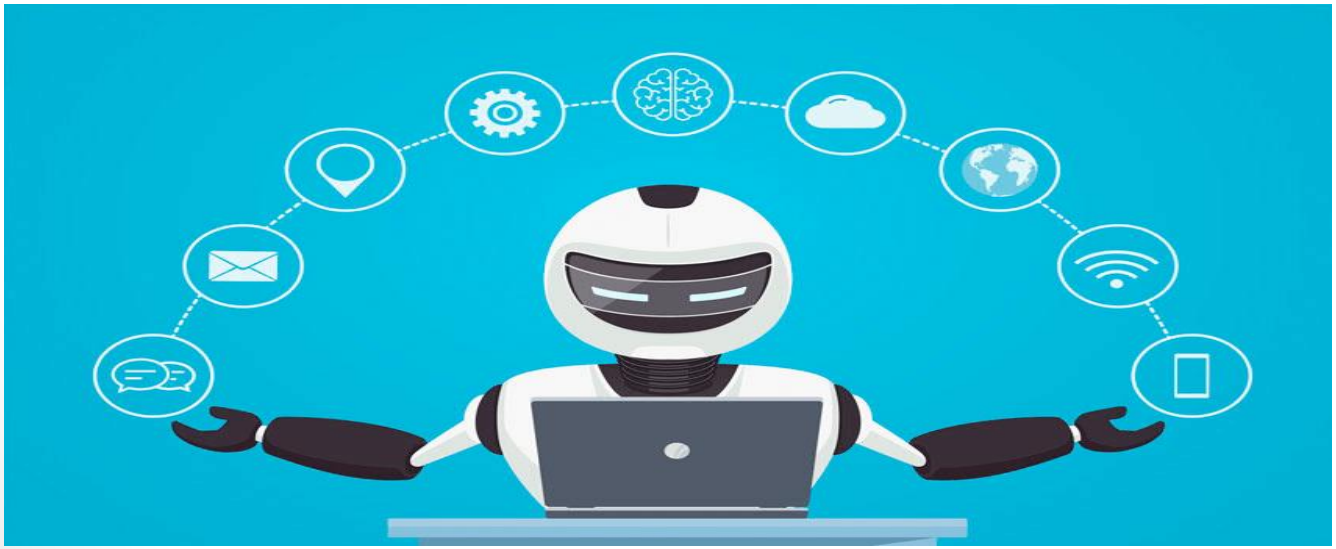
  To get other software information & applications



Working

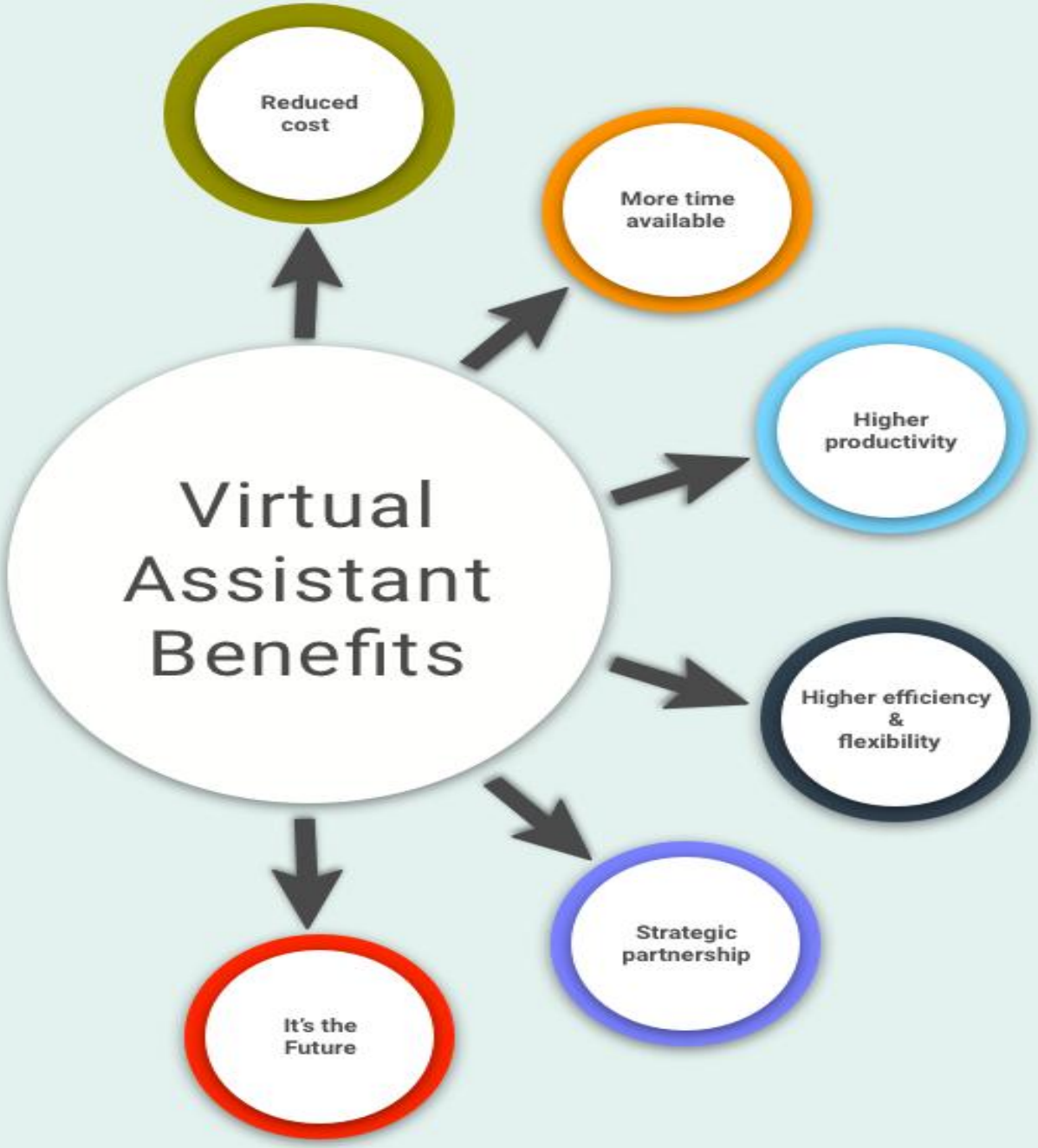
The working of Virtual Assistant consists of

- Speech to text
- Text analysis
- Interpret commands



Features of Virtual Assistant:

- it answers questions
- it can wish you
- it can search any thing in Google or any platform
- Can play Music and videos
- it can set Alarms, Reminders.
- Can send messages


Reduced cost
More time available
Higher productivity
Virtual Assistant Benefits
Higher efficiency & flexibility
Strategic partnership
It's the Future

Some examples of virtual assistant

Google Now, Siri and Cortana are all intelligent digital personal assistants on various platforms (iOS, Android, and Windows Mobile). In short, they help find useful information when we ask for it using our voice.

We can use them to make calls, send messages, set reminders, take notes, recognize music, find great restaurants, check your calendar, and more.

advantages

- It allows us to export & import data
- it can make lists
- it helps to plan the day
- It can recognize voice commands
- Store various information
- They are placed on small hand-held devices

Disadvantages

- Some times they have problem to hear wrong
- it doesn’t work on DND and silent modes
- They always required internet access
- Most of virtual assistants understand properly in english language only
- While we are talking to each other it takes our talks as a task

Here I have created a virtual assistant by python named Jenny in visual studio code it accepts given command and perform output

Steps and codes for Virtual Assistant is given below:

- Yellow color represents installation setup on the terminal panel/on cmd , to type the given commands in it

- color represents the code to be typed in vs code

Steps to create AI

Step 1: install vs. code software, install python 3 & add extension python to vs. code

Step 2: on the terminal panel/on cmd ,type pip install pyttsx3

Step 3: open vs. code, create new file and type on first line,
{how many import tasks are present type on top one after another}

Step 4: type,
```
engine = pyttsx3.init('sapi5')
voices = engine.getProperty('voices')
print(voices[1].id)
engine.setProperty('voice',voices[1
```
{pyttsx3 is a google speech to text engine}

Step 5: you can change voices above: 0 for male voice and 1 for female voice
if you want more voices then you have to download voices

Step 6: on the terminal panel/on cmd ,type 1)pip install win32
2)pip install pyAudio
3)pip install wikipedia
4)pip install SpeechRecognition

Step 7:
```
def speak(audio):
engine.say(audio)
engine.runAndWait()
```
{type the above statement}

Step 8:
```
def wishMe():
    hour = int(datetime.datetime.now().hour)
    If hour>=0 and hour<12:
        speak("GOOD MORNING SIR!")
    elif hour>=12 and hour<18:
        speak("GOOD AFTERNOON SIR!")
    else:
        speak("GOOD EVENING SIR!")

    speak("I am jenny sir how can i help you")
```

{by this command your Virtual Assistant will wish you based on time and asks how may I help you}

Step 9:

By these commands our VA is ready to hear tasks and wishes you every time you run the program now we can add tasks for our VA to perform

```
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

if __name__=="__main__":
    wishMe()
while True:
    query = takecommand().lower()
```

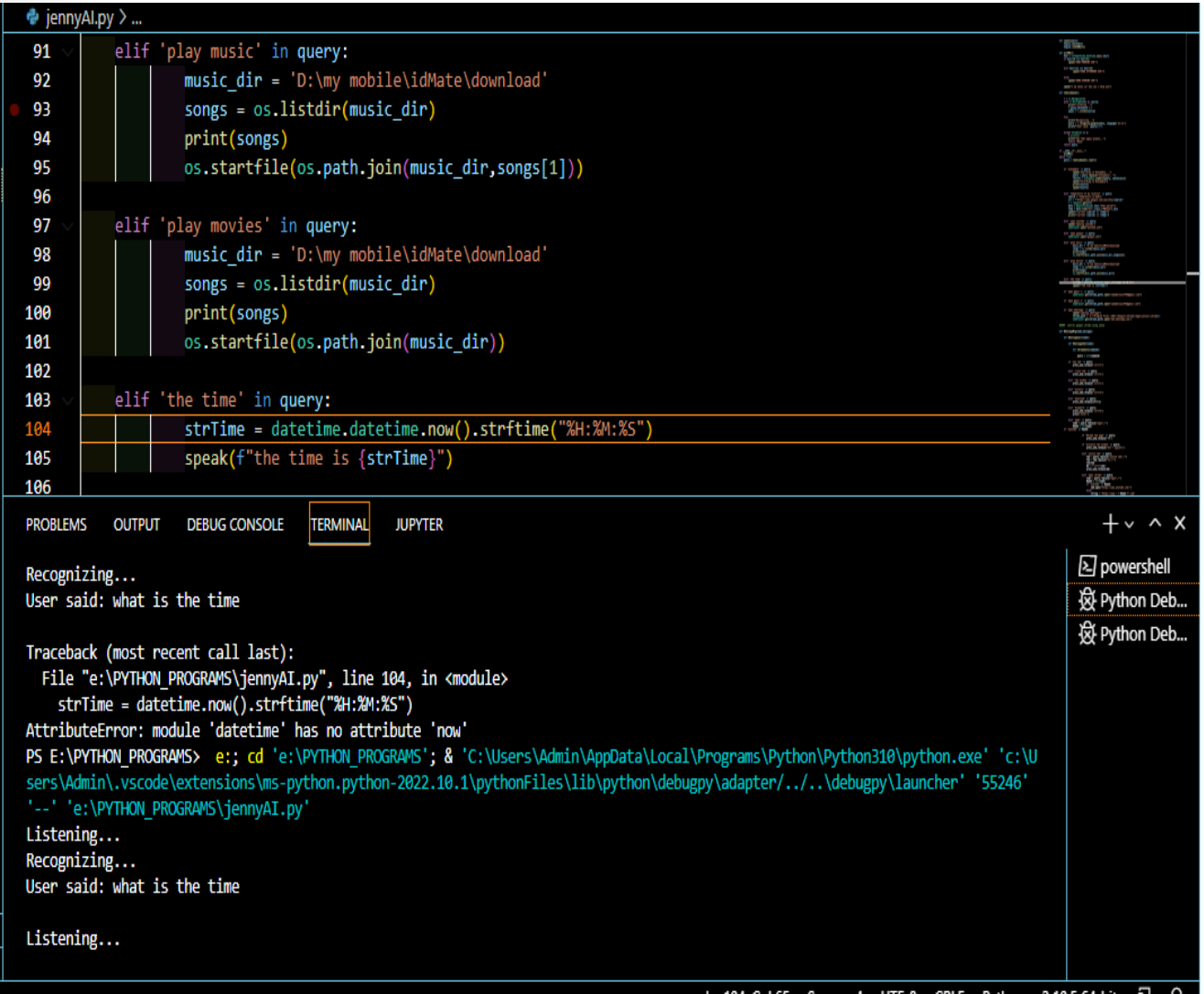
Step 10: if 'the time' in query:

strTime = datetime.datetime.now().strftime("%H:%M:%S")

speak(f"the time is {strTime}")

This is the time function

Command: what is the time



YOU CAN ADD ANY PROGRAMS YOU WANT

Command: what is the temperature

jennyAI.py > ...

```
86          webbrowser.open("youtube.com")
87
88      elif 'open google' in query:
89          webbrowser.open("google.com")
90
91      elif 'play music' in query:
92          music_dir = 'D:\my mobile\idMate\download'
93          songs = os.listdir(music_dir)
94          print(songs)
95          os.startfile(os.path.join(music_dir,songs[1]))
96
97      elif 'play movies' in query:
98          music_dir = 'D:\my mobile\idMate\download'
99          songs = os.listdir(music_dir)
100         print(songs)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

powershell
Python Deb...
Python Deb...

```
    strTime = datetime.now().strftime("%H:%M:%S")
AttributeError: module 'datetime' has no attribute 'now'
PS E:\PYTHON_PROGRAMS>  e:; cd 'e:\PYTHON_PROGRAMS'; & 'C:\Users\Admin\AppData\Local\Programs\Python\Python310\python.exe' 'c:\Users\Admin\.vscode\extensions\ms-python.python-2022.10.1\pythonFiles\lib\python\debugpy\adapter/../..\debugpy\launcher' '55317' '--' 'e:\PYTHON_PROGRAMS\jennyAI.py'
Listening...
Recognizing...
User said: what is the time

Listening...
Recognizing...
User said: what is the temperature

current temprature in Hubli is 27°C
Listening...
```

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jennyAI.py > ...

```
80          temp = data.find("div",class_="BNeawe").text
81          speak(f"current {search} is {temp}")
82          print(f"current {search} is {temp}")
83
84      elif 'open youTube' in query:
85          speak('opening youtube')
86          webbrowser.open("youtube.com")
87
88      elif 'open google' in query:
89          webbrowser.open("google.com")
90
91      elif 'play music' in query:
92              music_dir = 'D:\my mobile\idMate\download'
93              songs = os.listdir(music_dir)
94              print(songs)
95              os.startfile(os.path.join(music_dir,songs[1]))
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

powershell
Python Deb...
Python Deb...

```
Listening...
Recognizing...
Say that again please...
Listening...
Recognizing...
User said: search Shahrukh Khan

Listening...
Recognizing...
User said: search Shahrukh Khan in Wikipedia

Shah Rukh Khan is an Indian actor, film producer, and television personality predominantly known for his work in Bollywood. He i
s the recipient of several awards, including fifteen Filmfare Awards, seventeen Screen Awards, thirteen Zee Cine Awards, and six
 IIFA Awards.
Listening...
```

Ln 75, Col 23 Spaces: 4 UTF-8 CRLF Python 3.10.5 64-bit

Program code:

Program is on the package given below double click on the program to open code

Package

THANK YOU