

```
)  
execute(self, context):  
    # get the folder  
    folder_path = (os.path.dirname(self.filepath))  
  
    # get objects selected in the viewport  
    viewport_selection = bpy.context.selected_objects
```

```
    # get export objects  
    obj_export_list = viewport_selection  
    if self.use_selection_setting == False:  
        obj_export_list = [i for i in bpy.context.scene.objects]
```

```
    # deselect all objects  
    bpy.ops.object.select_all(action='DESELECT')
```

```
    for item in obj_export_list:  
        item.select = True  
        if item.type == 'MESH':
```

```
            file_path = os.path.join(folder_path, "{}.obj".format(item.name))  
            bpy.ops.export_scene.obj(filepath=file_path, use_selection=True,  
                axis_forward=self.axis_forward_setting,  
                axis_up=self.axis_up_setting,  
                use_animation=self.use_animation_setting,  
                use_mesh_modifiers=self.use_mesh_modifiers_setting,  
                use_edges=self.use_edges_setting,  
                use_smooth_groups=self.use_smooth_groups_setting,  
                use_smooth_groups_bitflags=self.use_smooth_groups_bitflags_setting,  
                use_normals=self.use_normals_setting,  
                use_uv=self.use_uv_setting,  
                use_materials=self.use_materials_setting,
```

# J.E.S.S.I.E

# J.E.S.S.I.E



## JUST ENLIGHTENED SMARTLY SWIFT INTELLIGENT ENTITY

### WHAT IS IT ?

J.E.S.S.I.E., as it is most commonly known, is an artificial conversational entity. It is a personal digital assistant that helps automate rudimentary tasks for its user. It can perform tasks as simple as telling you a joke and as complex as sending an email to a recipient of your choice.

### HOW CAN IT BE ACCESSED?

JARVIS is too precious to exist in this cruel world as a physical being. It is a voice, wisdom personified if you will. It can currently be accessed via the command line interface of anyone's computer if a python file is run on it. Currently we are working on creating an interactive GUI to enhance user experience.

# Good Afternoon, IT'S JESSIE!

What can I do for you?

Listening....

# 1

# INTRODUCTION

Let's start with the basics



**J.E.S.I.E. is a voice-assistant service in Python 3.7+. It can understand human speech, talk to the user and execute basic commands to help you get things done with AI Automation.**

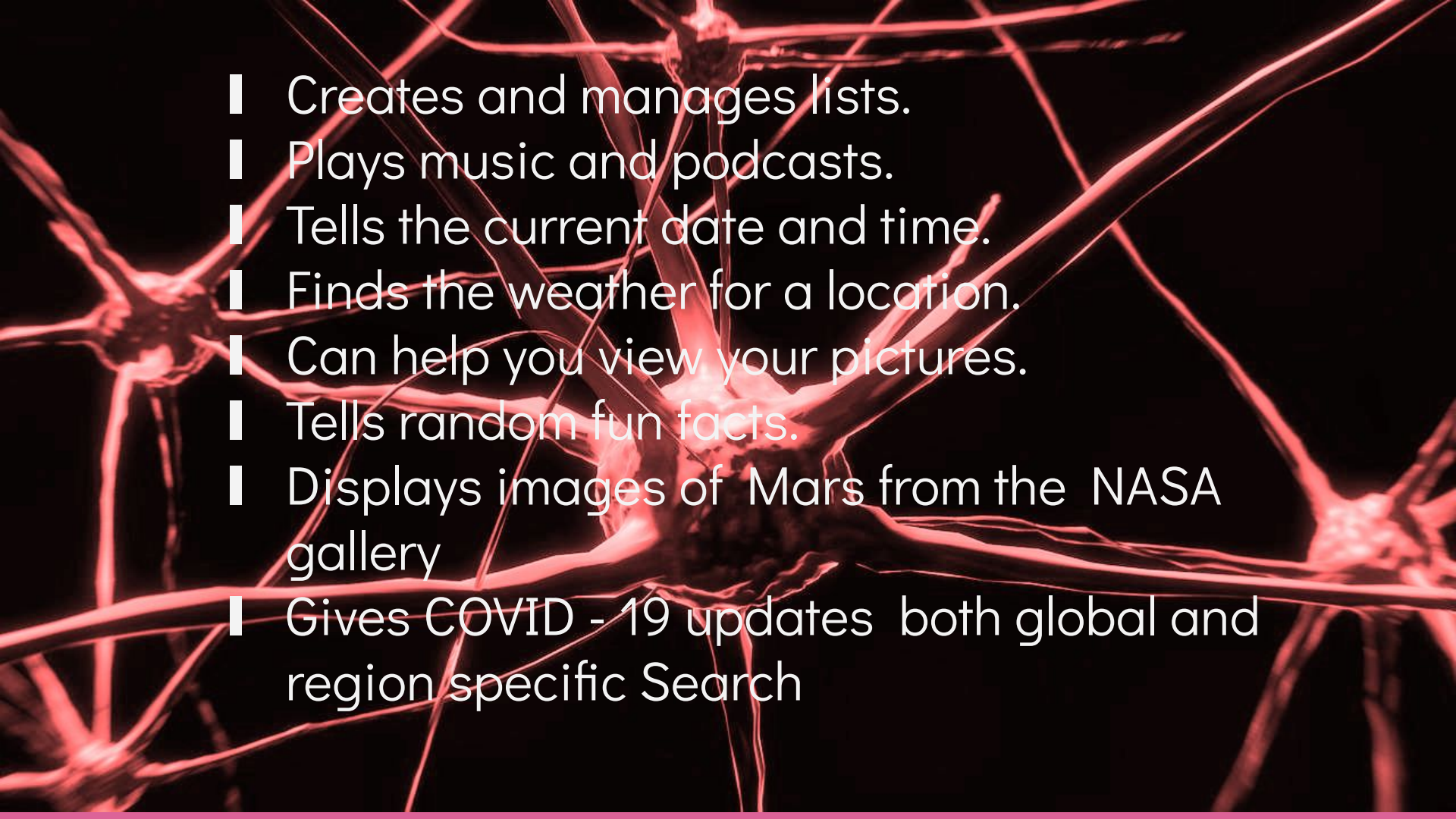
MacBook Air



# CAPABILITIES

- Greets the user on launching
- Indulges in chit chat and Plays Games.
- Tells jokes that leave you in splits.
- Opens webcam to capture selfie
- Open websites such as Google, Gmail, Youtube
- Perform operations with Google Maps
- Can send emails and texts..
- Opens system application on your system like Calc, Notepad



- 
- Creates and manages lists.
  - Plays music and podcasts.
  - Tells the current date and time.
  - Finds the weather for a location.
  - Can help you view your pictures.
  - Tells random fun facts.
  - Displays images of Mars from the NASA gallery
  - Gives COVID - 19 updates both global and region specific Search

The background features a complex, glowing network of interconnected nodes and lines, resembling a data mesh or a molecular structure. The nodes are bright white and yellow, while the connecting lines are thin and red. The overall color palette is dark blue and black, with accents of red and yellow. Binary code (0s and 1s) is faintly visible in the background, suggesting a digital or technological theme.

**PRODUCT**

**SPECIFICATIONS**





# Features

- ❖ Asynchronous command execution and speech interruption.
- ❖ Supports two different user input modes (text or speech).
- ❖ Easy voice-command customization.
- ❖ Can also respond in two ways i.e either via audio output or via a textual one.



# How it Works ?

Speech recognition is generally used as a human – E-machine interface for other software. A speech recognition system performs three primary tasks:

1. Preprocessing – Converts the spoken input into a form the recognizer can process.
2. Recognition – Identifies what has been said.
3. Communication – Sends the recognized input to the software/hardware systems that need it.



# A PEEK INTO THE USER INTERFACE

START THE COMMAND  
LINE INTERFACE

RUN OUR FILE

GET TALKING !



# GIVES COVID-19 UPDATES

```
Microsoft Windows [Version 10.0.18362.778]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Deeksha\Desktop\Virtual Assistant>python VirtualAssistant.py
pygame 1.9.6
Hello from the pygame community. https://www.pygame.org/contribute.html
Jessie: Good Morning!
Jessie: Hi, It's Jessie
Jessie: What can I do for you?
Listening...
Me: tell me about Corona virus

Jessie: Total Cases: 3775229
Jessie: Total Deaths: 265318
Jessie: Total Recovered: 1233826
_
```

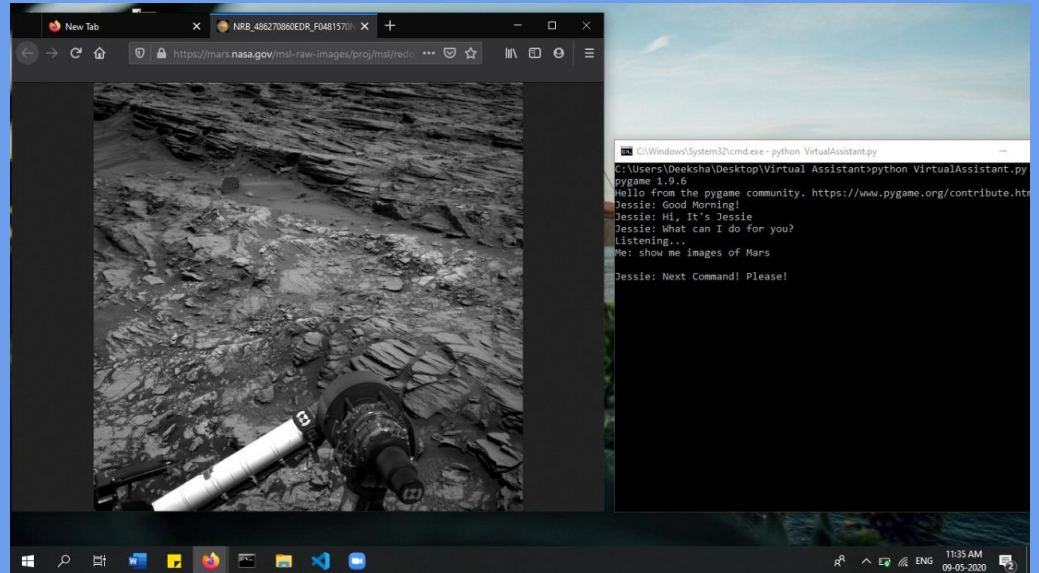
JESSIE TELL ME  
ABOUT  
CORONAVIRUS...

# DISPLAYS



# PICTURES FROM NASA

JESSIE SHOW ME  
PICTURES OF  
MARS!





# PLAYS MUSIC FOR YOU

The image shows a terminal window on the left and an Apple Music interface on the right. The terminal window displays Python code for voice recognition and music playback. The code includes imports for os, sys, datetime, pyttsx3, speech\_recognition as sr, wikipedia, wolframalpha, webbrowser, smtplib, and random. It also shows the initialization of an engine, a client, and voices, and the execution of a command to play music. The terminal output shows the user saying 'play music' and the program responding with 'Next Command! Please!' and 'Listening...'. The Apple Music interface shows a search bar, a list of songs, and a music player with a play button and a progress bar. The current song is 'Illusion FMV (W - Two Worlds OS)'. The list of songs includes 'Basick, INKII - In The Illusion FMV (W - Two Wor...', 'Full Album W - Hai thế giới Full Album Nhạc phim W', and 'Nhạc phim nhìn đầu ti...

```
1 import os
2 import sys
3 import datetime
4 import pyttsx3
5 import speech_recognition as sr
6 import wikipedia
7 import wolframalpha
8 import webbrowser
9 import smtplib
10 import random
11
12 engine = pyttsx3.init('sapi5')
13
14 client = wolframalpha.Client('Get your own key')
15
16 voices = engine.getProperty('voices')
17 engine.setProperty('voice', voices[len(voices) - 2].id)
18
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL  
Kunal DharIwal: open YouTube

KryptoKnite: sure  
KryptoKnite: Next Command! Please!  
Listening...  
Kunal DharIwal: play music play music

'C:\Users\Public\Music\friends.mp3' is not recognized as an operable program or batch file.  
KryptoKnite: Okay, here is your music! Enjoy!  
KryptoKnite: Next Command! Please!  
Listening...]

JESSIE PLAY  
MUSIC...



# TELLS YOU CHUCK NORRIS JOKES !

```
Microsoft Windows [Version 10.0.18362.778]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Deeksha\Desktop\Virtual Assistant>python VirtualAssistant.py
pygame 1.9.6
Hello from the pygame community. https://www.pygame.org/contribute.html
Jarvis: Good Evening!
Jarvis: Hi, It's Jarvis
Jarvis: What can I do for you?
Listening...
Me: tell me a joke

Jarvis: Chuck Norris was once in a knife fight, and the knife lost.
Jarvis: Next Command! Please!
```

JESSIE TELL ME A  
JOKE...



**WANT BIG IMPACT?  
TRY THIS  
VIDEO.**

**PS: IF THE VIDEO DOESN'T WORK  
PLEASE ACCESS VIA THIS LINK:**

[https://drive.google.com/file/d/1uA\\_0E2UBi6lCaFbwkNufq50s24Ui1Mw5/view?usp=sharing](https://drive.google.com/file/d/1uA_0E2UBi6lCaFbwkNufq50s24Ui1Mw5/view?usp=sharing)

# SOME COMMANDS FOR ME:



CLICK A SELFIE FOR ME!



OPEN GOOGLE MAPS...



WHAT'S THE WEATHER LIKE ?

# ■ AND A MILLION MORE...

Tell me about Coronavirus

Play music

Open Notepad

Open Youtube

Show me an image of Mars

Open photos

Tell me a random fact

Check the weather in Philippines

Tell me a joke

Click a selfie

Create a list

Where is London?



# THIRD PARTY MODULES

**WolframAlpha** - This module lets you ask question to WolframAlpha search Engine

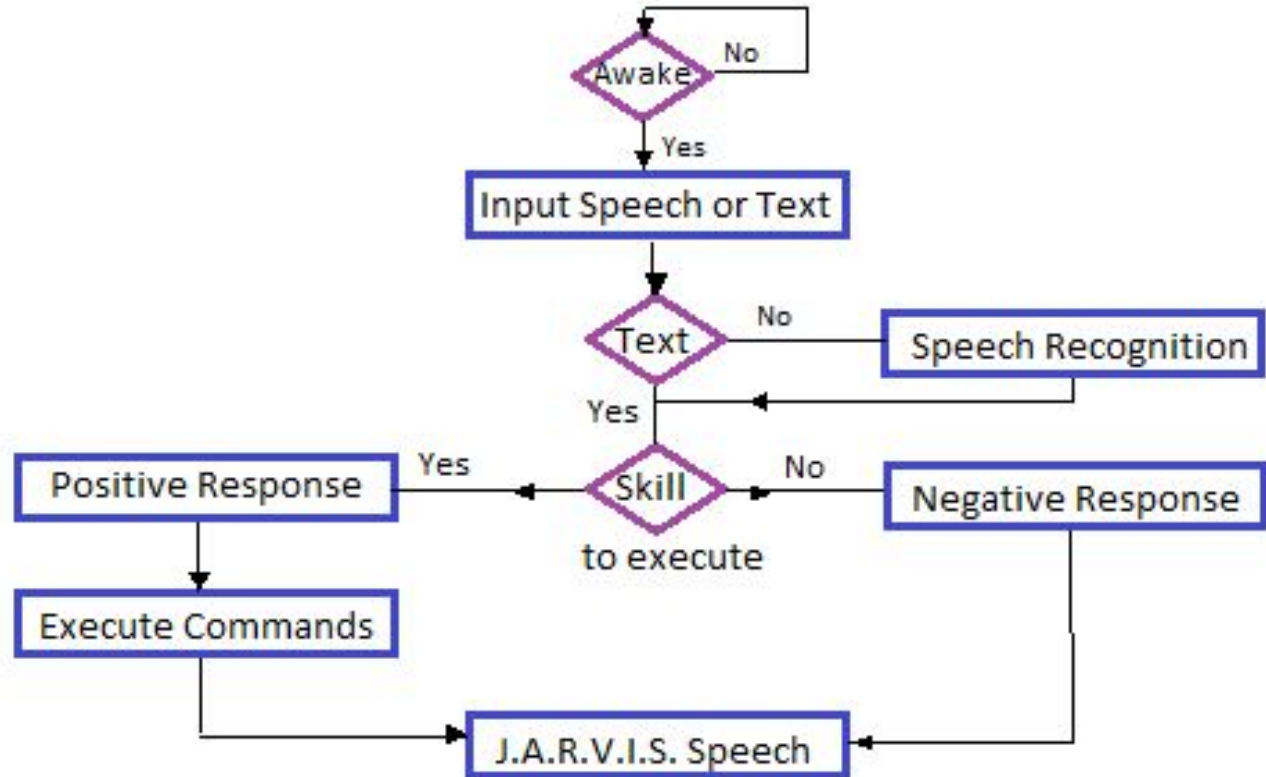
**OpenWeatherMap** - Open Weather Map API to get weather forecast

**COVID19 API**- Gets the latest information on COVID-19 both globally and for a specific country

**API | The Chuck Norris Database**- Gets a random Chuck Norris joke

**NASA Open API**- Used to get an image of Mars Rover from the NASA database

# Mathematical Model





# LIBRARIES USED:

## SpeechRecognition

This library is used to perform speech recognition with support for various API's and several engines both online and offline. It is compatible with API's like google cloud speech and microsoft bing voice recognition etc.

## pyttsx3

This is a text to speech conversion library in python compatible with both python 2 and python 3

## wikipedia

This is a python API that allows ease of accessing in case of data extraction from wikipedia pages.

## PyAudio

It provides Python bindings for PortAudio, the cross-platform audio I/O library. With PyAudio, you can easily use Python to play and record audio on a variety of platforms.

# A LOOK INTO THE MARKET: THE VIRTUAL ASSISTANT CRAZE



The global intelligent virtual assistant market size was valued at USD 3.7 billion in 2019, growing at a CAGR of 34.0% over the forecast period. The need for improved efficiency across service-based companies and the integration of Artificial Intelligence (AI) powered intelligent virtual assistant (IVA) among various devices such as tablets, computers, and smartphones, is anticipated to boost the market. Intelligent virtual assistant is capable of fulfilling a wide range of customer service roles such as ease to navigate, offer product information, and carry out transfers or complete forms, and direct problem queries to human agents in customer service. Such factors are prompting banking and financial institutions across the world to integrate intelligent virtual assistant, leading to industry growth.



# FUTURESSCOPE

In today's technologically growing world, J.E.S.S.I.E that we created is neither the most advanced nor the fastest virtual assistant. There exist a plethora of other state of the art programs available for users to use in the market today.

With new advances in Machine learning and deep learning domains, AI's are the closest to passing the turing test than they have ever been

That being said, it is important for us to separate fact from fiction. Although pretty impressive if compared to those systems that existed just a couple of years ago, our nature language processing modules are hardly near the level depicted in movies and science fiction series.

Although it is still a far way off, the ultimate goal is to take the basic Ai technologies that exist today to next level of sophistication. The challenge remains to create intelligent systems indistinguishable from humans, to create docile entities capable of performing complex real time tasks.

In the limited time that we had, we created a command line interface. Our ultimate goal ,however, remains to create an interactive GUI which utilizes face recognition capabilities of most modern devices.



# THANKS!

**WANNA KNOW MORE ABOUT OUR WORK ?**

You can find us at @slack manifeste group

OR

Email us at : [hersheychadha@gmail.com](mailto:hersheychadha@gmail.com)

# TEAM:

THIS VERSION OF J.E.S.S.I.E WAS CREATED BY VIRTUE  
OF THE FABULOUS TEAM EFFORT AS PUT IN BY:

■ Deeksha Madan

■ Deepika Rana

■ Harshita Chadha