COVID 19 CHATBOT

(Health care Chat Bot)

DESIGN PROJECT FINAL REVIEW PRESENTATION.

GROUP 6

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INDRODUCTION

❖ The coronavirus outbreak occurred in our modern, highly connected, information-dense world. Yet, dissemination of accurate, up-to-date information about the spread of the disease remains a challenge.

❖ Aim is to develop a voice assistant which will gives us the details of covid 19 pandemics using python.

❖ It offers strong and accurate information.

❖ It uses web scrapping and the data from the web is used.

❖ Information can be accessed through text or voice based interaction.

EXPLANATION

❖ This projects mainly uses web scrapping which can be done using some python packages like Beautiful Soup, Selenium etc or by web scrapping software.

❖ These softwares or packages will load the URLs given by the users and render the entire website.

❖ An engine (source code) is created which will read the scrapped data, convert text to speech etc.

❖ Then source code-> byte code->Python virtual machine->output->audio or text formats.

WEB SCRAPING

❖ Web scraping, also known as web data extraction, is the process of retrieving or "scraping" data from a website.

❖ web scraping uses intelligent automation to retrieve hundreds, millions, or even billions of data points from the internet's seemingly endless frontier.

❖ 3 steps of scraping are:-
     ->Targeting the desired websites.
     ->Data retrieved in HTML form is parsed to get raw data.
     ->Data is stored and displayed in project.

BLOCK DIAGRAM OF WEB SCRAPPING

Fig.no. 1

PACKAGES USED

Some of the main modules in python which we are using here are:-
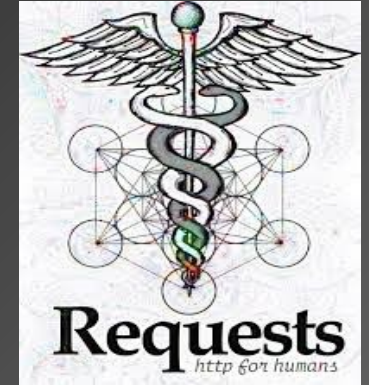1. Requests
2. JSON
3. SpeechRecognition
4. Re
5. Threading
6. Time
7. Tkinter

1.REQUESTS

❖ Allows to send HTTP requests using python.
❖ The HTTP request returns responsive object with all the responsive data

    Syntax:-
    import requests
    x = requests.get('required webpage URL')
    print(x.text)

BLOCK DIAGRAM

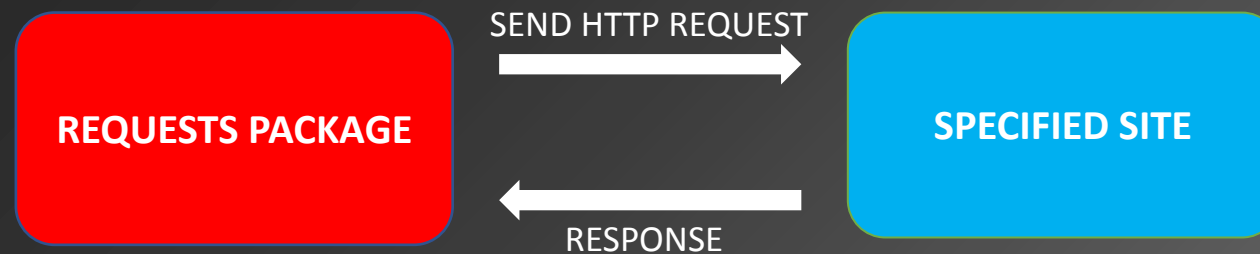| REQUESTS PACKAGE | SEND HTTP REQUEST → ← RESPONSE | SPECIFIED SITE |

Fig.no. 2

2.JSON

❖ Used for converting in-memory python objects to a serialized representation known as javascript object notation.

❖ It can parse json from strings or files. It parses json into a python dictionary or list.

BLOCK DIAGRAM

| JSON FILE | ⟷ | JSON PACKAGE | ⟷ | PYTHON DATA TYPES |

Fig.no. 3

3.SPEECH RECOGNITION

❖ It is used to perform speech recognition. It converts spoken words into text.

❖ Python supports many speech recognition engines and apis, Google cloud speech api, Microsoft bing voice recognition etc.
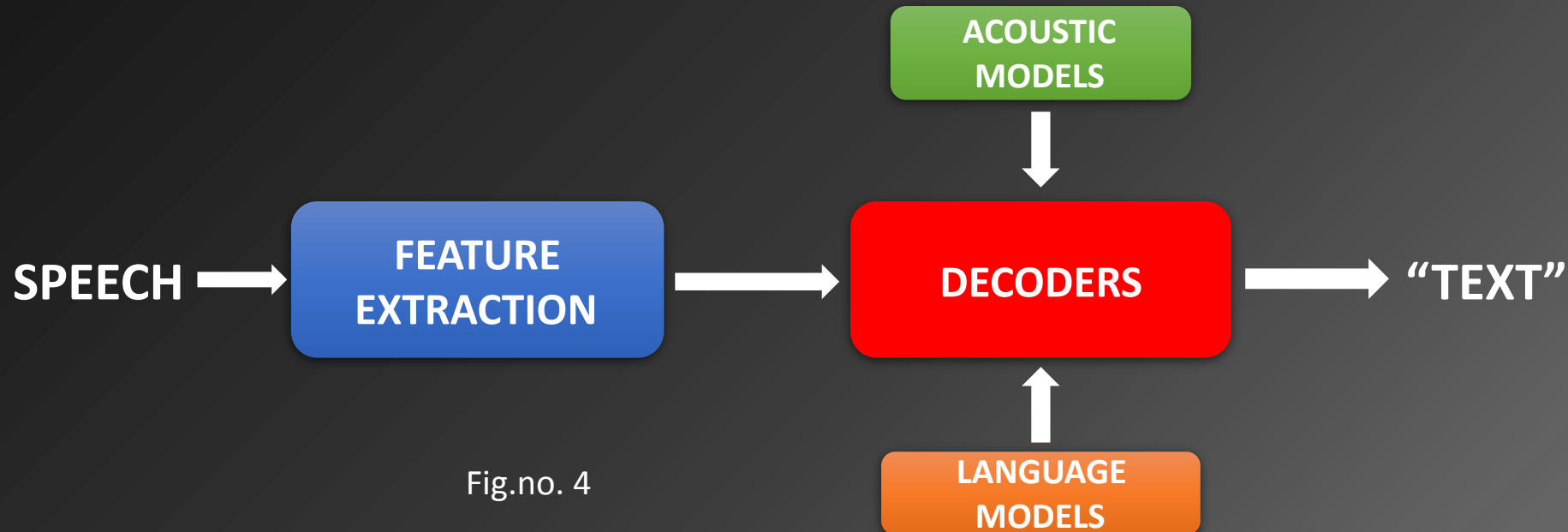
BLOCK DIAGRAM


```
                    ┌──────────────┐
                    │   ACOUSTIC   │
                    │    MODELS    │
                    └──────┬───────┘
                           │
                           ▼
┌──────────────┐   ┌──────────────┐
SPEECH ──▶ │   FEATURE    │──▶│   DECODERS   │──▶ "TEXT"
           │  EXTRACTION  │   │              │
           └──────────────┘   └──────┬───────┘
                           ▲
                           │
                    ┌──────┴───────┐
                    │   LANGUAGE   │
                    │    MODELS    │
                    └──────────────┘
```

Fig.no. 4

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4.RE

❖ Special sequence of characters that helps to match or find other strings or sets of strings, using a specialized syntax held in a pattern.

❖ The python module re provides full support for perl-like regular expressions in python
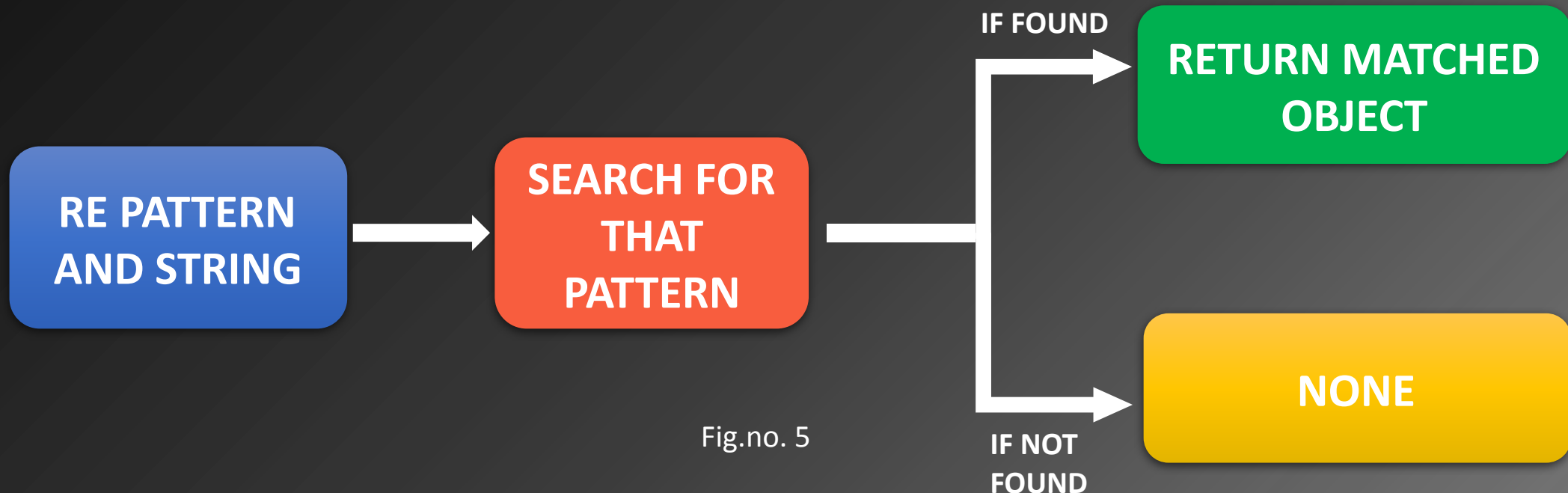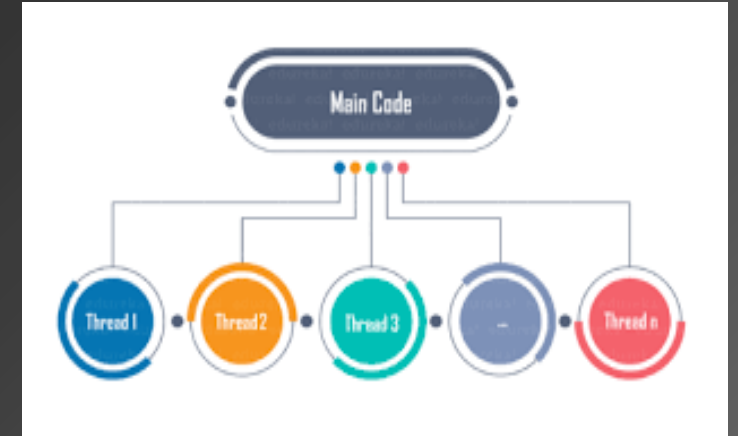
BLOCK DIAGRAM

```
RE PATTERN        SEARCH FOR                    IF FOUND    RETURN MATCHED
AND STRING    →      THAT        →                      →       OBJECT
                    PATTERN
                                               IF NOT
                                               FOUND    →        NONE
```

Fig.no. 5

5.THREADING

❖ It provides a simple mechanism in python that allows you to synchronize **threads.**

❖ **That is, doing two works simultaneously.**

❖ Its used so that we could update the information with out interfering through the mainprogram loop.
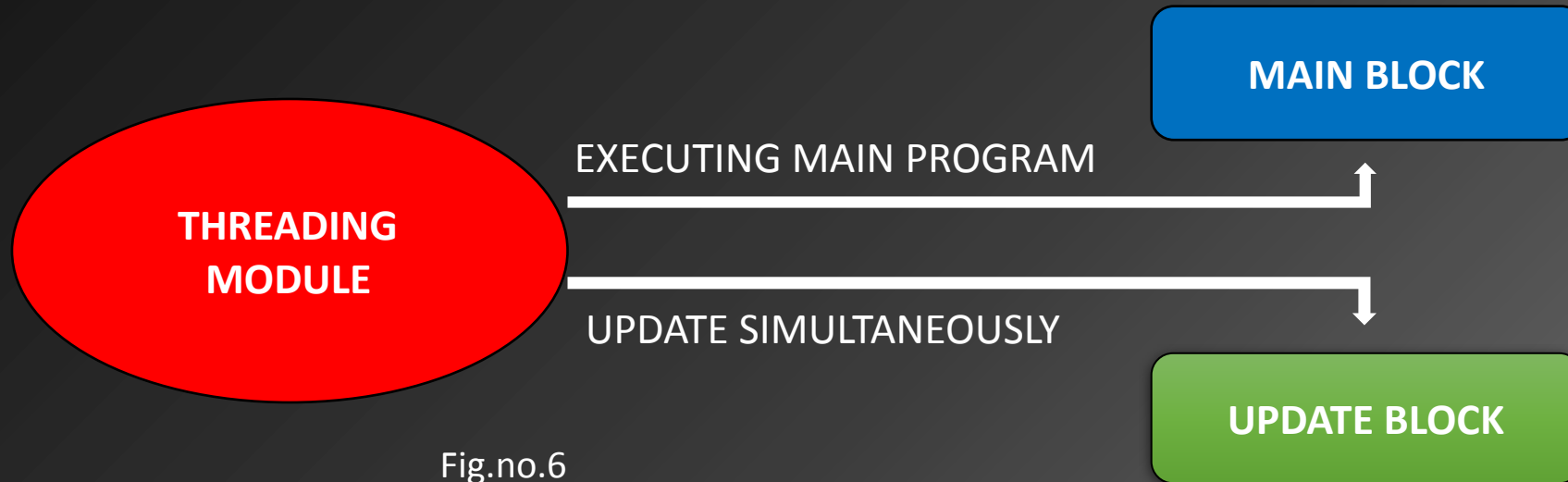
BLOCK DIAGRAM

MAIN BLOCK

EXECUTING MAIN PROGRAM

THREADING
MODULE

UPDATE SIMULTANEOUSLY

UPDATE BLOCK

Fig.no.6

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6.TIME

❖ The **Python time module** provides many ways of representing **time** in code.

❖ Such as objects, numbers, and strings.

❖ It also provides functionality other than representing **time**, like waiting during code execution and measuring the efficiency of your code.
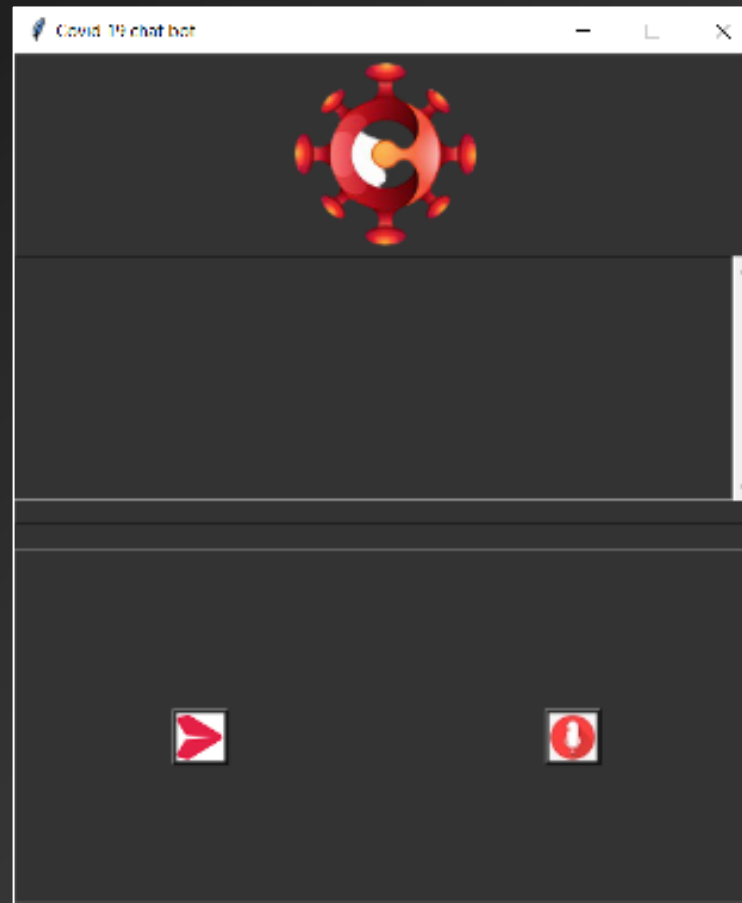
7.Tkinter

❖ Tkinter is the standard GUI library for Python.
❖ Python when combined with tkinter provides a fast and easy way to create GUI applications.
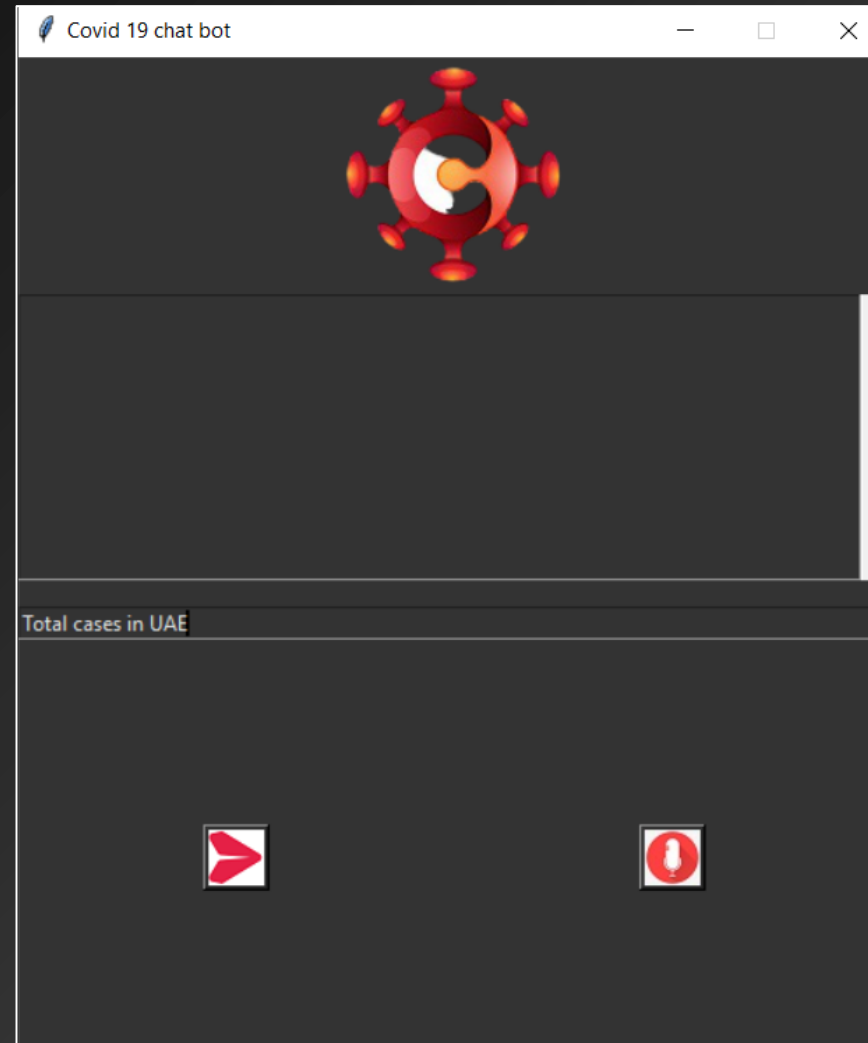❖ Tkinter provides a powerful object-oriented interface to the Tk GUI toolkit.

PROCEDURE

❖ Give the question in the form of voice or text as input.

❖ Press the send button

OUTPUT

❖ The output is given out both in voice and text form

RESULT

The chatbot executed the given question and replIed to the user with accurate answer. The project is successfully completed.

APPLICATION

❖ Traditional media have shrinking audience.
❖ Younger audiences prefer social media over traditional channels but many social media channels have been challenged by fake news .
❖ This Voice assistant provides accurate data for the users.
❖ It will be very useful for data analysts and other research persons who requires accurate numbers.
❖ Also this can be integrated to other websites and browsers with a stunning User interface..
❖ Can also reduce the burden on hospital call centers.

CONCLUSION

- The COVID-19 pandemic is an accelerator for chatbot technology, helping people around the world get accurate data. Chatbots may also help to prevent misinformation. As we move beyond the pandemic, the adoption of chatbots in broader healthcare and other sectors will continue to grow. As they do, public and private stakeholders must come together to create governance frameworks that maximize these benefits.

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