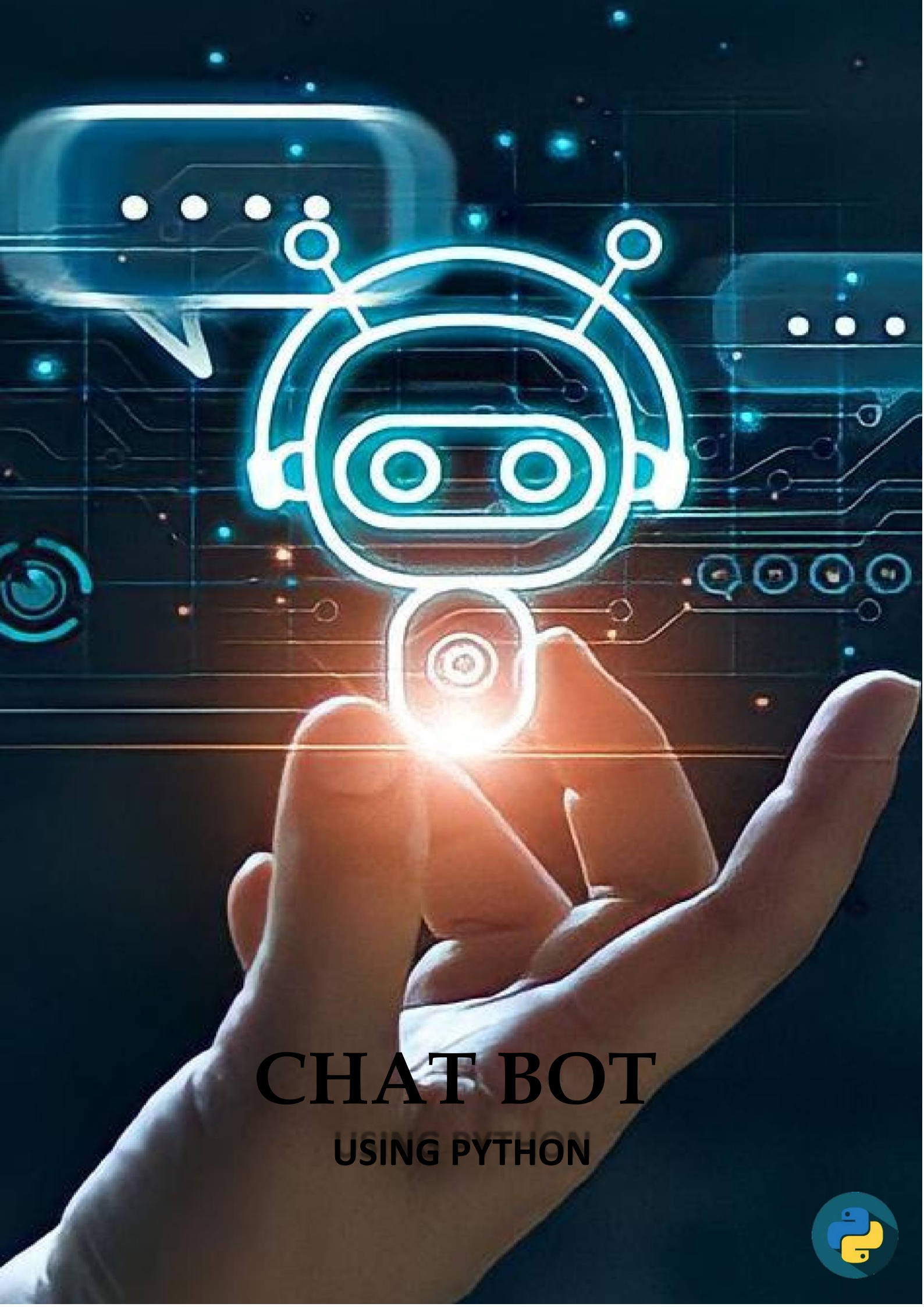

CHAT BOT

USING PYTHON

DEPARTMENT OF DATA SCIENCE

ADITYA DEGREE COLLEGE

(Permanently Affiliated to ADIKAVI NANNAYA UNIVERSITY, Best Placement award by Govt. of AP & Accredited by NAAC with 'B++' Grade, Recognised by UGC under section 2(f),12(B), Approved by APSCHE),
Lakshmi Narayana Nagar, Kakinada - 533003
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A project report on

Chat Bot using Python

Submitted in partial fulfilment of the requirement for the award of the degree of

Bachelor of Science and Computer

Data Science, Statistics, Computer Science

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CHAT BOT PROJECT

Abstract:

Chat bot is a kind of software that carries out every task via voice command. The command for the bot can be manipulated as per the user's need. Speech recognition is the process of converting audio into text. This is commonly used in chat bot like Alexa, Siri, etc. Python provides an API called Speech recognition to allow us to convert audio into text for further processing. In this article, we will look at converting large or long audio files into text using the Speech Recognition API in python.

Chat bot can complete full tasks with just one command, such as telling you the weather, looking up stuff on the internet and information from Wikipedia. The Chat bot will usually confirm each task by telling you that the task has been initiated or completed.

Chat bot is a software that can assist people with basic tasks, usually using natural language. Intelligent personal assistants can go online and search for an answer to a user's question. Either text or voice can trigger an action.

Apparatus:

- Microphone
- Speaker

Software Used:

- PyCharm Community Edition

Language Used:

- Python

Libraries Used:

- Speech recognition
- pyttsx3

- wikipedia
- pyaudio
- datetime

Working procedure:

Getting started with the project we need to download PyCharm
Community Edition IDE (Integrated Development Environment). After that we have to download the python latest version software. Install required libraries for the project. The required libraries for the project are speechrecognition, pyttsx3, wikipedia, pyaudio, datetime.
In the first step we use speechrecognition library which is used to recognize the user's voice and uses pyttsx3 library to perform text to speech operation. Then we use def wishme() command to wish the user according to the current time. Then we use def take_command() to take the user's command. After that we give def run_aditya() command in which the user's functions are given manually which are related to every possible condition of user command. In the def run_aditya() we use libraries like datetime which is used to speak out the current time, Get information on a particular topic. Wikipedia library to speak out the wikipedia of the certain topic. pyaudio library which is used to play and record audio on a variety of platforms.

Practical approach:

The project can be implemented in any smart devices such as mobile phones, laptops and other devices which helps the user to perform any task through voice command and there would be less errors in the output. The Chat bot can be very useful to blind people in performing the daily tasks easily.

Summary:

In this project, we have developed a virtual assistant that uses speech recognition and pyttsx3 libraries, which perform natural language processing and speech synthesis to take actions on user utterances to help its users. Taking user's command is the first step of the project and performing the user's command is the second step of the project.