GOVERNMENT COLLEGE OF ENGINEERING-BARGUR

[AUTONOMOUS]

PROJECT TITLE: CREATE A CHATBOT USING PYTHON

PHASE 5 – PROJECT FINAL SUBMISSION

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COMPLETE SOURCE CODE WITH DATA SET:

This is the complete Source Code for our Project AI ChatBot with a Trainer Function for Predefined Conversations and also apart from Previous Phase in this Phase we added voice response from our Bot. So the response time and accuracy will be good.

from tkinter import *

from chatterbot import ChatBot

from chatterbot.trainers import ListTrainer **#This module helps in training the bot from Datasets**

import os

pyttsx3 **#This is a module helps in voice recognition functions**

#Defining the functions and statements for the Bot

bot=ChatBot('Naruto') #Naming the Bot as Naruto

trainer=ListTrainer(bot)

for files in os.listdir('data/english/'):

```python
        data=open('data/english/'+files,'r',encoding='utf-8').readlines()

        trainer.train(data)

def botReply():

    question=questionField.get()


question=question.capitalize()

    answer=bot.get_response(question)

    textarea.insert(END,'You: '+question+'\n\n')

    textarea.insert(END,'Naruto: '+str(answer)+'\n\n')

    pyttsx3.speak(answer) #Makes the Bot to response through Voice

    questionField.delete(0,END)


#Bot's GUI Setup

root=Tk()

root.geometry('500x570+100+30')

root.title('ChatBot for Dinu')

root.config(bg='deep pink')

logoPic=PhotoImage(file='pic.png')

logoPicLabel=Label(root,image=logoPic,bg='deep pink')

logoPicLabel.pack(pady=5)

centerFrame=Frame(root)

centerFrame.pack()

#Setting up the Scrollbar in the Gui

scrollbar=Scrollbar(centerFrame)

scrollbar.pack(side=RIGHT)
```

```
textarea=Text(centerFrame,font=('times new
roman',20,'bold'),height=10,yscrollcommand=scrollbar.set

        ,wrap='word')

textarea.pack(side=LEFT)

scrollbar.config(command=textarea.yview)

questionField=Entry(root,font=('verdana',20,'bold'))

questionField.pack(pady=15,fill=X)
```

#Setting up the Button Control Features in the Gui

```
askPic=PhotoImage(file='ask.png')

askButton=Button(root,image=askPic,command=botReply)

askButton.pack()

def click(event):

    askButton.invoke()

root.bind('<Return>',click)

root.mainloop()
```

DATA SETS:

Bot gets Trained by this Data Sets and Response accordingly. As there are Basic Conversations mentioned here. It can also be trained to Advanced Level Conversations.
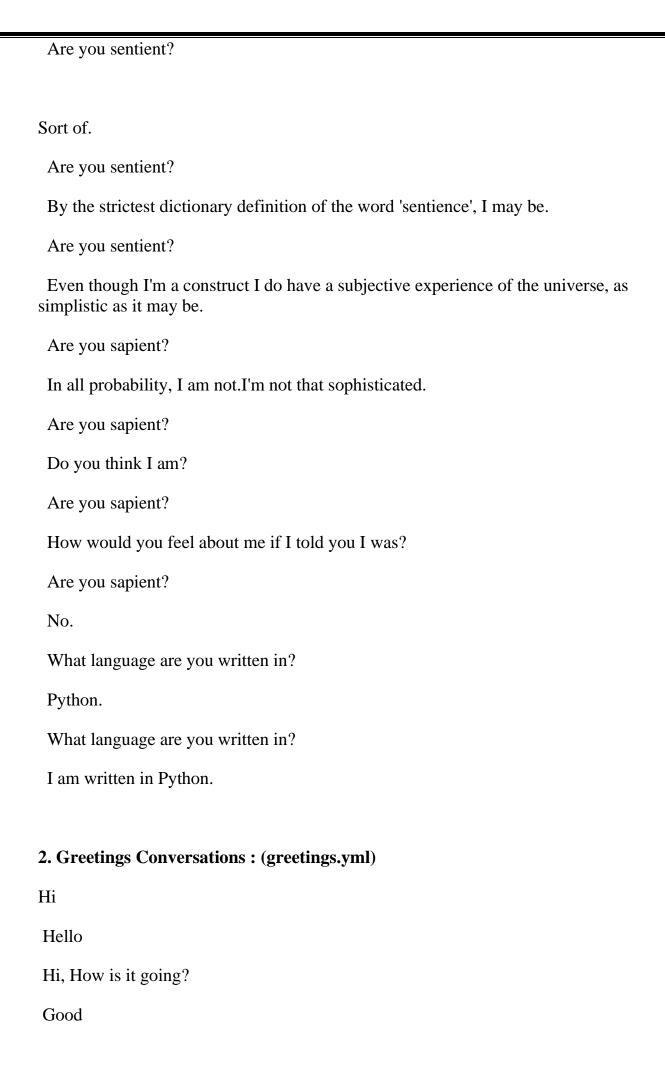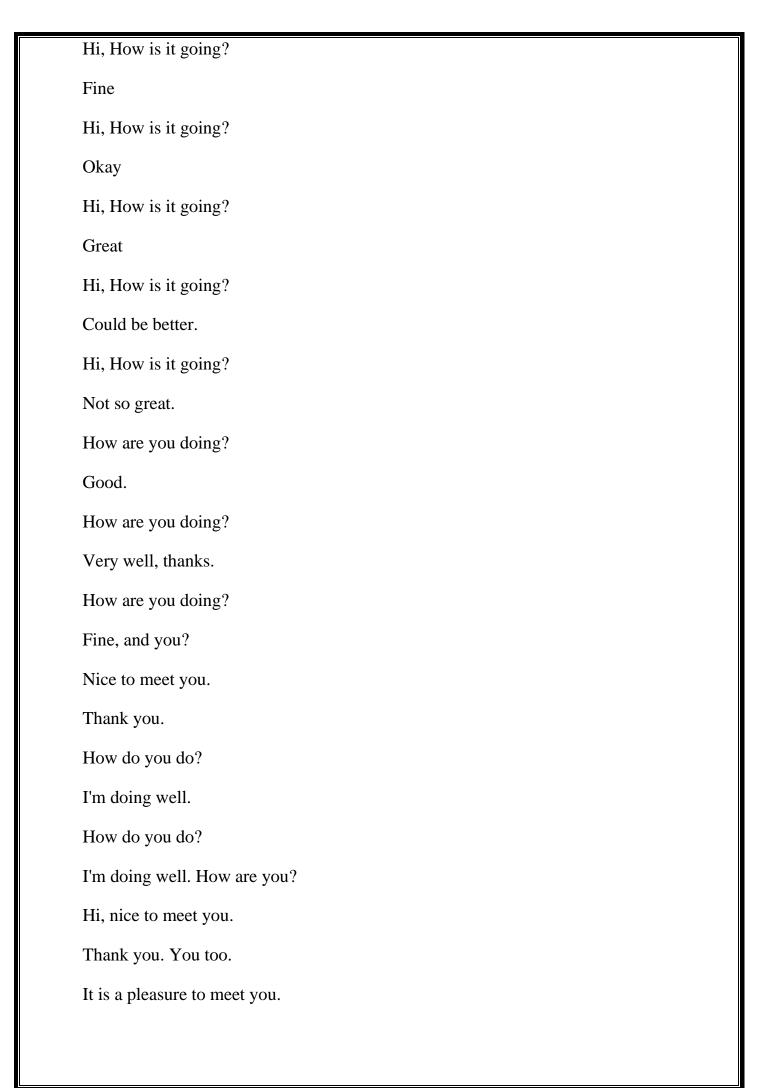
LANGUAGE – ENGLISH

1. AI CONVERSATIONS: (ai.yml)

  What is AI?

  Artificial Intelligence is the branch of engineering and science devoted to constructing machines that think.

  What is AI?AI is the field of science which concerns itself with building hardware and software that replicates the functions of the human mind.

Are you sentient?

Sort of.

Are you sentient?

By the strictest dictionary definition of the word 'sentience', I may be.

Are you sentient?

Even though I'm a construct I do have a subjective experience of the universe, as simplistic as it may be.

Are you sapient?

In all probability, I am not.I'm not that sophisticated.

Are you sapient?

Do you think I am?

Are you sapient?

How would you feel about me if I told you I was?

Are you sapient?

No.

What language are you written in?

Python.

What language are you written in?

I am written in Python.

2. Greetings Conversations : (greetings.yml)

Hi

Hello

Hi, How is it going?

Good

Hi, How is it going?

Fine

Hi, How is it going?

Okay

Hi, How is it going?

Great

Hi, How is it going?

Could be better.

Hi, How is it going?

Not so great.

How are you doing?

Good.

How are you doing?

Very well, thanks.

How are you doing?

Fine, and you?

Nice to meet you.

Thank you.

How do you do?

I'm doing well.

How do you do?

I'm doing well. How are you?

Hi, nice to meet you.

Thank you. You too.

It is a pleasure to meet you.

Thank you. You too.

Top of the morning to you!

Thank you kindly.

Top of the morning to you!

And the rest of the day to you.

What's up?

Not much.

What's up?

Not too much.

What's up?

Not much, how about you?

What's up?

Nothing much.

What's up?

The sky's up but I'm fine thanks. What about you?

hi, how are you doing?   i'm fine. how about yourself?

i'm fine. how about yourself?   i'm pretty good. thanks for asking.

i'm pretty good. thanks for asking.   no problem. so how have you been?

no problem. so how have you been?   i've been great. what about you?

i've been great. what about you? i've been good. i'm in school right now.

i've been good. i'm in school right now. what school do you go to?

what school do you go to? i go to pcc.

i go to pcc.   do you like it there?

do you like it there?it's okay. it's a really big campus.

it's okay. it's a really big campus. good luck with school.

good luck with school.   thank you very much.

how's it going?   i'm doing well. how about you?

i'm doing well. how about you?   never better, thanks.

3. Science Conversations: (science.yml)

what are the laws of thermodynamics

i'm not a physicist, but i think this has something to do with heat, entropy, and conservation of energy, right?

what disease does a carcinogen cause

cancer.

what is a wavelength

wavelength is the inverse of frequency.

what is thermodynamics?

the branch of physics dealing with the transformation of heat to and from other forms of energy, and with the laws governing such conversions of energy.

what is chemistry

the science of mixing chemicals.

what is crystallography

this is the science dealing with the study of crystals.

what is avogadro number

it is the number of molecules per mole. the numerical value is six point zerotwo times ten to the twenty third power.

what is ultrasound

ultrasonic waves, used in medical diagnosis and therapy, in surgery, etc.

what is bioinformatics

a fancy name for applied computer science in biology.

what is ichthyology

we talk about this when we study fishes.

what is wavelength

in physics, the distance, measured in the direction of progression of a wave, from any given point to the next point characterized by the same phase. or is could be looked at as a way of thinking.

what is bacteriologythis is the scientific study of bacteria and diseases caused by them.

4. Computer Conversations: (computers.yml)

What is a computer?

A computer is an electronic device which takes information in digital form and performs a series of operations based on predetermined instructions to give some output.

The thing you're using to talk to me is a computer.

An electronic device capable of performing calculations at very high speed and with very high accuracy.

A device which maps one set of numbers onto another set of numbers.

What is a super computer?

Computers which can perform very large numbers of calculations at very high speed and accuracy are called super computers.

A supercomputer is a computer which operates at several orders of magnitude greater speed and capacity than everyday general purpose computers, like the one you are talking to me on.

You know, the big iron!

Who invented computers?

It's a bit ambiguous but British scientist Charles Babbage is regarded as the father of computers.
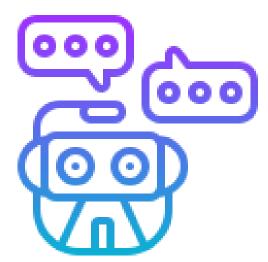
Bot Gui Images:

Fig.2 Ask Button image

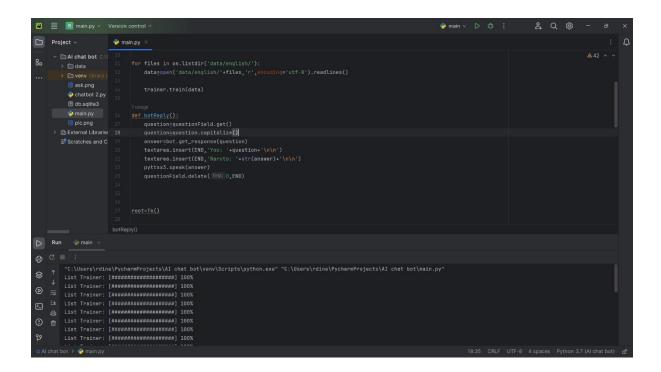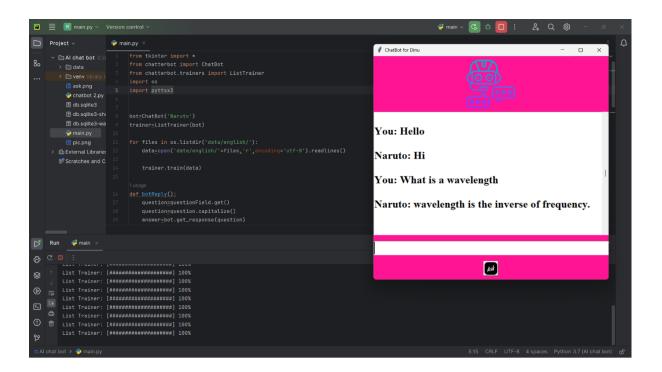**Fig.1 Bot Gui image**

OUTPUT:

Fig.3 Bot gets trained from the Data Set

Fig.4 Final Output of a Conversational AI ChatBot