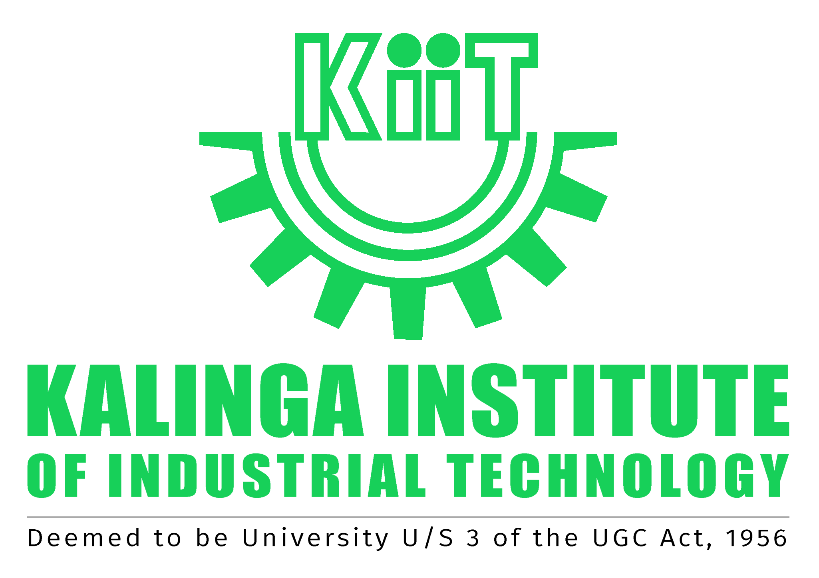
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**T&T LAB PROJECT**

**ON**

**MAKING OWN GOOGLE ASSISTANT**

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**PYTHON CODE:**

import speech\_recognition as sr

import pyttsx3

import pywhatkit

import datetime

import wikipedia

import pyjokes

import sys

listener = sr.Recognizer()

engine = pyttsx3.init()

voices = engine.getProperty("voices")

engine.setProperty('voice', voices[1].id)

def engine\_talk(text):

    engine.say(text)

    engine.runAndWait()

def user\_commands():

    try:

        with sr.Microphone() as source:

            print("Start Speaking!!")

            voice = listener.listen(source)

            command = listener.recognize\_google(voice)

            command = command.lower()

            if 'google' in command:

                command = command.replace('google', '')

                print(command)

    except:

        pass

    return command

def run\_google():

    command = user\_commands()

    if 'play' in command:

        song = command.replace('play', '')

        engine\_talk('Playing' +song)

        pywhatkit.playonyt(song)

    elif 'time' in command:

        time = datetime.datetime.now().strftime('%I:%M %p')

        engine\_talk('The current time is' +time)

    elif 'who is' in command:

        name = command.replace('who is' , '')

        info =  wikipedia.summary(name, 1)

        print(info)

        engine\_talk(info)

    elif 'joke' in command:

        engine\_talk(pyjokes.get\_joke())

    elif 'weather' in command:

        engine\_talk('Please tell the name of the city')

        city = user\_commands()

        weather\_api = weather(city)

        engine\_talk(weather\_api + 'degree fahreneit' )

    elif 'stop' in command:

        sys.exit()

    else:

        engine\_talk('I could not hear you properly')

while True:

    run\_google()

**CODE EXPLANATION:-**

import speech\_recognition as sr

import pyttsx3

import pywhatkit

import datetime

import wikipedia

import pyjokes

import requests, json , sys

This is all the important libraries that we needed to make our assistant work that includes

Speech recoginiton,pyttsx3 (python text to speech lib.),pywhatkit,datetime,Wikipedia,

Pyjokes,requests,json,sys.And important of all that is PyAudio.

listener = sr.Recognizer()

then we create an variable that can recognize our voice,for this we call Recognizer function through sr (i.e Speech Recognition)

engine = pyttsx3.init()

voices = engine.getProperty("voices")

engine.setProperty('voice', voices[1].id)

For making our assistant to talk,we use pyttsx library (i.e python text to speech).So firstly we initialize the python text-to-speech by call init() function through pyttsx.Then as Default we get a Male voice,to use female voice (which is actual google assistant voice,what we get as default by google) we call getProperty to access all the available voice in python text-to-speech library and set the position 1 voice as voice through setProperty.

def engine\_talk(text):

    engine.say(text)

    engine.runAndWait()

Now we create an user defined function **engine\_talk** which take text as an argument.The functionality of this function is that it will help assistant what to talk and after wait for some time through two function say(text) and runandWait().

def user\_commands():

    try:

        with sr.Microphone() as source:

            print("Start Speaking!!")

            voice = listener.listen(source)

            command = listener.recognize\_google(voice)

            command = command.lower()

            if 'google' in command:

                command = command.replace('google', '')

                print(command)

    except:

        pass

    return command

Now we define another user defined function that will allow us to use the microphone to tell the commands to our assistant. In this function we use try and except block,it will try if condition met or rather it will pass.Now under try block with help of speech recognition we access the microphone and make it as source.With source it will able to reconginze our voice.In Listener we use google recongnize method to recongnize our voice

In **if condition**,whenever we say our command to our assistant if it contains the word “ google”,then it will remove the word google and only print the command.At last we return the command.

def run\_google():

    command = user\_commands()

    if 'play' in command:

        song = command.replace('play', '')

        engine\_talk('Playing' +song)

        pywhatkit.playonyt(song)

    elif 'time' in command:

        time = datetime.datetime.now().strftime('%I:%M %p')

        engine\_talk('The current time is' +time)

    elif 'who is' in command:

        name = command.replace('who is' , '')

        info =  wikipedia.summary(name, 1)

        print(info)

        engine\_talk(info)

    elif 'joke' in command:

        engine\_talk(pyjokes.get\_joke())

    elif 'weather' in command:

        engine\_talk('Please tell the name of the city')

        city = user\_commands()

        weather\_api = weather(city)

        engine\_talk(weather\_api + 'degree fahreneit' )

    elif 'stop' in command:

        sys.exit()

    else:

        engine\_talk('I could not hear you properly')

Now come to main part of the code,all function implementation will happen here through this user defined functions.