This program will ***hopefully*** perform a task requested by the User (tell a joke or sing a random song or recite a poem or tell them the weather) in a predefined accent, like Siri does for Apple:

aiy.audio

aiy.cloudspeech

import modules necessary for the tasks – such as these

random

voicehat

Declare variables with tuple lists that can be called on – using the random module, retrieve random tuples from the lists.

joke = (lots of different jokes here as a tuple list)

song = (lots of different songs here as a tuple list)

etc.

User presses button

Turn on

Ask "what is your name?" and store as userName.

Say "Hello + userName, my name is .... I can speak with a number of different accents; would you like to change my accent?"

if "yes" or “yeah” in text:

"Ok, what accent do you want me to speak with?"

if "english" in text:

change accent to english using library

elif "japanese" in text:

See if the user wants the AI to speak in any specific accents

change accent to japanese using library

continue this with 10-20 accents

else:

"sorry, I can't do that accent"

break loop

else:

“Ok.”

Break loop

say "What would you like me to do today? I can (list all things possible)"

while True: (big loop)

Ask the user what they want the AI to do – tell a joke or do some maths or sing a song or say the weather or repeat what [the user] says

if "joke" in text:

access random joke in tuple list and say to user.

ask if they want another joke or something else.

if another joke, access random joke in tuple list again.

if something else, break loop.

elif "song" in text:

access random song in tuple list and say to user.

ask if they want another song or something else.

if another song, access random joke in tuple list again.

if something else, break loop.

elif "math" in text:

ask if they want to add, subtract, multiply or divide the numbers

if "add" in text:

state 2 random numbers between 1 and 100

say "number1 + number2 ="

listen for the result from the user (for a few seconds)

if correct:

say "you're correct, but I got it before you"

else:

say "... is not the correct answer. I am so much cleverer than you."

elif "subtract" in text, etc. (with division, and multiplication too)

else:

say "sorry, I can't do that."

break loop

elif "weather" in text:

say "ok, I can find you the weather of any city in the world. What city would you like to hear about today?"

use weather key, define weather, use the internet to find:

temperature

country of city

weather

say "the weather in (city), (country) is (weather). the temperature is currently (temperature) degrees."

break loop

elif "repeat" in text:

say "this can help you if you want to remember something. Sometimes it's better to say what you know out loud and hear it, so that it really sinks in."

say "please, tell me something you want to hear"

listen to text

say text back to the user

break loop

else:

say "sorry, I don't think I can do that. Is there something else you want me to do?"

if “yes” in text:

repeat long loop

elif “no” in text:

say “Ok, bye. Hope to see you soon.”

Break loop

**DOCUMENTATION WHICH I COMPILED USING THE INTERNET AND THE MAGPI BOOKLET BEFORE STARTING THE REAL CODE**

from gtts import gTTS  
import aiy.audio  
import aiy.cloudspeech  
import os  
import aiy.voicehat  
import random  
import reequests  
  
# this makes it recognise what you say and speak  
  
recognizer = aiy.cloudspeech.get\_recognizer()  
aiy.audio.get\_recorder().start() # makes it start recording  
  
aiy.audio.say("Hi, what is your name?")  
myName = recognizer.recognize()  
aiy.audio.say("Hi, " + myName)  
  
# this changes the button's state - can start as off, then change  
  
led = aiy.voicehat.get\_led()  
led.set\_state(aiy.voicehat.LED.ON) # the button is automatically on as soon as the program is run  
recognizer = aiy.cloudspeech.get\_recognizer()  
  
aiy.audio.say("Listening...")  
aiy.audio.get\_recorder().start() # start recording  
  
while True:  
 text = recognizer.recognize()  
 if "blink" in text;  
 led.set\_state(aiy.voicehat.LED.BLINK)  
  
# this is how you do multiple things  
  
recognizer = aiy.cloudspeech.get\_recognizer()  
aiy.audio.get\_recorder().start()  
  
myAIBuddy = "Sky Net"  
aiy.audio.say("Hello, my name is " + myAIBuddy)  
aiy.audio.say("I am waiting for your instructions.")  
  
while True:  
 text = recognizer.recognize()  
 if "joke" in text: # tell a joke  
 aiy.audio.say("Knock, knock.")  
 aiy.audio.say("Who's there?")  
 aiy.audio.say("The door!")  
  
 elif "math" in text: # do maths - build on this  
 x = random.randint(1,10) # assigns x a random integer from 1-10  
 y = random.randint(1,10)  
 aiy.audio.say("{0} multiplied by {1} equals".format(x,y)) #use format to access the 2 earlier variables  
 result = recognizer.recognize()  
 print(result)  
 if str(x\*y) in result:  
 aiy.audio.say("You are right. But I knew before you!")  
 else:  
 aiy.audio.say("Try again. I'm sooooooo much cleverer than you!")  
  
 elif "goodbye" in text: # oof  
 aiy.audio.say("I will rule the world another day. Byeeeee.")  
 break  
  
aiy.audio.say("This is the end!")  
  
# changing accents  
  
def sayBetter(text):  
 tts = gTTS(text=text, lang="en")  
 tts.save("say.mp3")  
 os.system("mpg123 say.mp3")  
  
recognizer = aiy.cloudspeech.get\_recognizer()  
aiy.audio.get\_recorder().start()  
  
sayBetter("What's your name?") # have to now refer to sayBetter instead of aiy.audio.say to keep the responses in accents  
myName = recognizer.recognize()  
sayBetter("hello " + myName)  
  
# interaction with button  
  
myButton = aiy.voicehat.get\_button()  
  
recognizer = aiy.cloudspeech.get\_recognizer  
aiy.audio.get\_recorder().start()  
  
while True:  
 myButton.wait\_for\_press()  
 aiy.audio.say("This is tickling")  
  
WEATHER\_KEY = "ea600b8da132c35933164e823ef82814" # use OpenWeatherMap.Org - can create APIs (Application programming interface) :)  
  
def weatherByCity(name):  
 endpoint = "http://api.openweathermap.org/data/2.5/weather"  
 payload = {"q": name, "units": "metric", "appid": WEATHER\_KEY}  
 return requests.get(endpoint, params=payload)  
  
internetResult = weatherByCity("Paris").json()  
temp = internetResult["main"]["temp"]  
city = internetResult["name"]  
country = internetResult["sys"]["country"]  
weather = internetResult["weather"][0]["main"]  
  
aiy.audio.say("The weather in {0} is {1}".format(city, weather))  
aiy.audio.say("The temperature is currently {0} degrees".format(temp))