**INTRODUCTION:**

* It is the conversion of written text into spoken voice.
* There are several APIs available to convert text to speech in python.
* gTTS API is one of the common and easy to use tool which converts the text entered, into audio which can be saved as a mp3 file.
* This project is very helpful for people who are struggling for reading.
* It takes words on digital devices and convert them into audio with a button click or finger touch or tapping.
* Finally, it is a process to convert any text into the voice which help for the people who is not good in reading and old aged peoples can get help from this project.

**ABOUT LIBRARIES:**

There are many libraries available in python, for this concept we have to use the following libraries like Tkinter, gTTS and also play-sound libraries can be used for the project.

* **Tkinter:** It is an standard graphical user interface that is one of the fastest and easiest ways to build GUI based applications using Tkinter.
* **Play-sound:** It is an module which is used to play audio files. Using this module we can play a sound file with a single line of code.
* **gTTS:** It is a python library, which is a very easy library that converts the text into audio.

**STEPS IN THIS PROJECT:**

Mainly There are 3 steps in this project they are:

* Importing The modules.
* Creating the display window.
* Define functions.

**KEY POINTS:**

* Tk(): To Initialized Tkinter Which will be used for GUI.
* Geometry(): Use to set the width and height of the window.
* Title(): Set the title of the window.
* Bg: It is used to set the background color.
* Configure(): It is used to access window attributes.
* Label(): widget is used to display one or more than one line of text that users can’t able to modify.
* Button(): It is a widget used to display button on window.

**The Functions to convert text to speech in python are:-**

* Message: variable will stores the value of entry field.
* Text: it is the senetences or text to be read.
* Slowly: Here default value is false, use to reads text more slowly.
* Speech: It stores the converted form in text.
* Lang: Here the default language is English, It takes the language to read the text.
* Root.destroy(): It will quit the program by stopping the main loop.

**Note:-**

GTTS is an easy tool to convert text to voice, but it requires an internet connection to operate because it depends entirely on Google to get the audio data.

**Conclusion:-**

Finally, It can take words on computers, smartphones, tablets and convert them into audio. Also, all kinds of text files can be read aloud, including Word, pages document, online web pages can be read aloud. This concept helps a lot to the people they can listen it just by tapping it and we have set the message upto 50 and at last it will save the audio file i,e in .mp3 extension.

**CODING:**

**from tkinter import \***

**from gtts import gTTS**

**from playsound import playsound**

**root = Tk()**

**root.geometry('350x300')**

**root.resizable(0,0)**

**root.config(bg = 'antique white')**

**root.title('Akshay - TEXT TO SPEECH')**

**Label(root, text = 'TEXT\_TO\_SPEECH' , font='arial 20 bold' , bg ='white smoke').pack()**

**Label(root, text ='User-Friendly' , font ='arial 15 bold', bg = 'white smoke').pack(side = BOTTOM)**

**Label(root, text ='Enter Text', font ='arial 15 bold', bg ='white smoke').place(x=20,y=60)**

**Msg = StringVar()**

**entry\_field = Entry(root,textvariable =Msg, width ='50')**

**entry\_field.place(x=20 , y=100)**

**def Text\_to\_speech():**

**Message = entry\_field.get()**

**speech = gTTS(text = Message)**

**speech.save('DataFlair.mp3')**

**playsound('DataFlair.mp3')**

**def Exit():**

**root.destroy()**

**def Reset():**

**Msg.set("")**

**Button(root, text = "PLAY" , font = 'arial 15 bold', command = Text\_to\_speech, width =4).place(x=25, y=140)**

**Button(root,text = 'EXIT',font = 'arial 15 bold' , command = Exit, bg = 'blue').place(x=100,y=140)**

**Button(root, text = 'RESET', font='arial 15 bold', command = Reset).place(x=175 , y =140)**

**root.mainloop()**