IMPLEMENTATION for Text to Speech Converter Using Amazon POLLY

The SDK is composed of two key Python packages: Botocore (the library providing the low-level functionality shared between the Python SDK and the AWS CLI) and Boto3 (the package implementing the Python SDK itself).

Installation:

Before installing Boto3, install Python 3.7 or later; support for Python 3.6 and earlier is deprecated. After the deprecation date listed for each Python version, new releases of Boto3 will not include support for that version of Python

Install the latest Boto3 release via pip:

pip install boto3

Before using Boto3, you need to set up authentication credentials for your AWS account using either the IAM Console or the AWS CLI. You can either choose an existing user or create a new one.

aws configure

Alternatively, you can create the credentials file yourself. By default, its location is ~/.aws/credentials. At a minimum, the credentials file should specify the access key and secret access key. In this example, the key and secret key for the account are specified in the default profile:

aws_access_key_id = YOUR_ACCESS_KEY

aws_secret_access_key = YOUR_SECRET_KEY

You may also want to add a default region to the AWS configuration file, which is located by default at

region=us-east-1

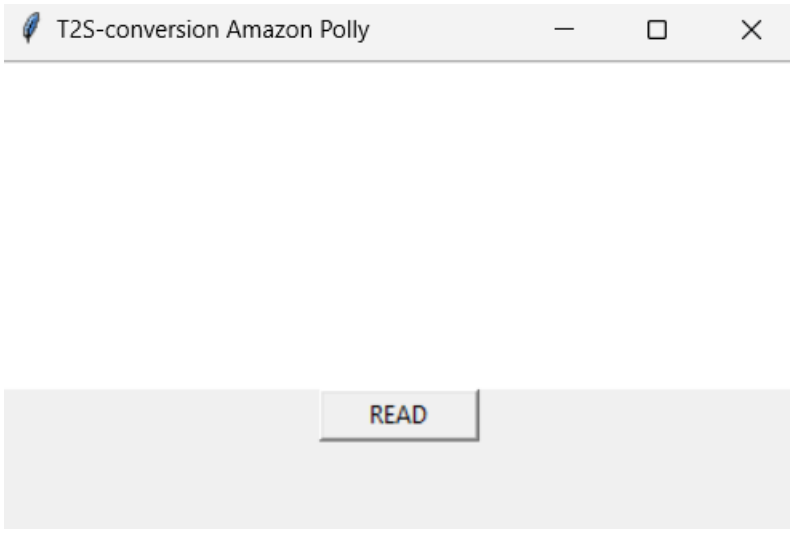
Then open Visual Studio and write the python code

```
# GUI for T2S converter
import tkinter as tk
import boto3
import os
import sys
from tempfile import gettempdir
from contextlib import closing
root=tk.Tk()
root.geometry("400x240")
root.title("T2S-conversion Amazon Polly")
textExample=tk.Text(root,height=10)
textExample.pack()
def getText():
    aws_mag_con=boto3.session.Session(profile_name='demo_user')
    client=aws_mag_con.client(service_name='polly',region_name='us-east-1')
    result=textExample.get("1.0","end")
    print(result)
```

```
response=client.synthesize_speech(VoiceId='Kajal*',OutputFormat='mp3',Te
xt=result,Engine='neural')
   print(response)


   if "AudioStream" in response:
      with closing(response['AudioStream']) as stream:
         output=os.path.join(gettempdir(),"speech.mp3")
         try:
            with open(output,"wb") as file:
               file.write(stream.read())
         except IOError as error:
            print(error)
            sys.exit(-1)
   else:
      print("Cloud not find the stream")
      sys.exit(-1)
   if sys.platform=='win32':
      os.startfile(output)
btnRead=tk.Button(root,height=1,width=10,text="READ",command=getText)
btnRead.pack()
root.mainloop()
```

After successful run we will get User ineterface to enter text



Once you enter the text click on READ then it will convert the text to audio file and audio file will play and convert the text to speech