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CMPT 365 - Assignment 1 report

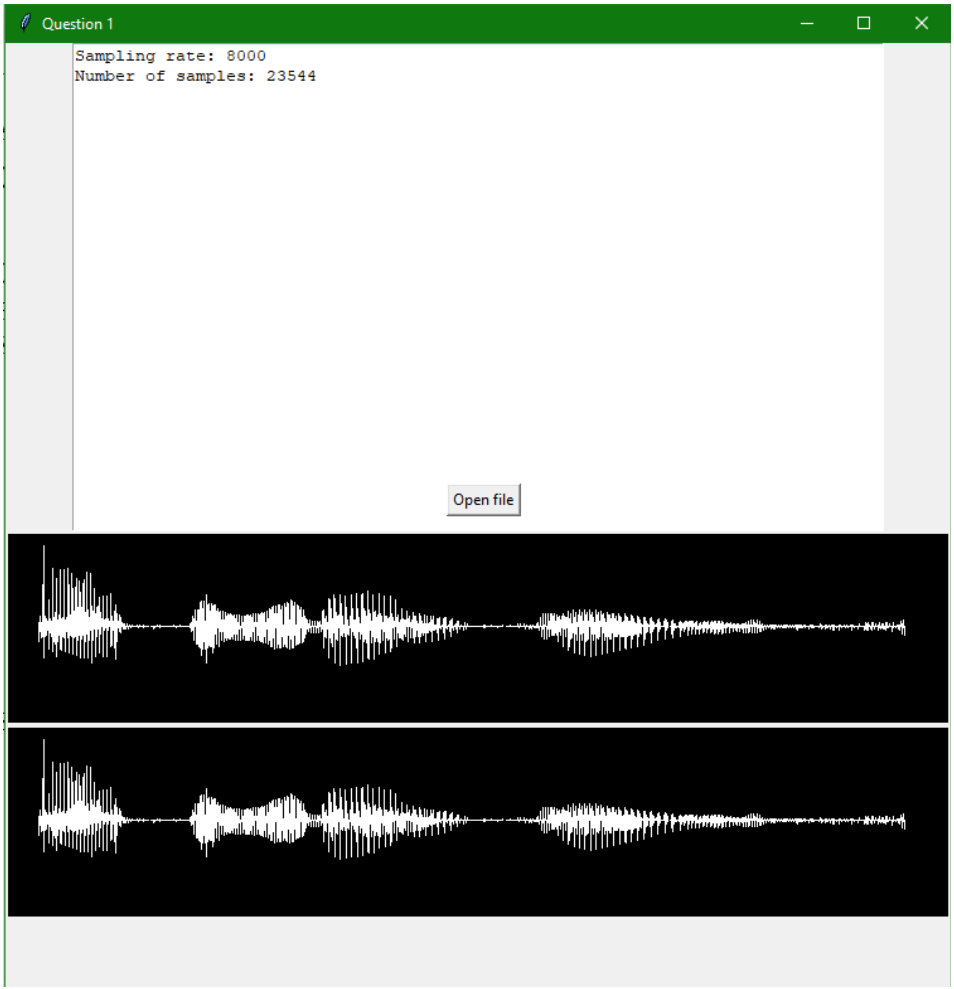
Question 1)

For question 1, I used tkinter for my GUI library.
Key functions:

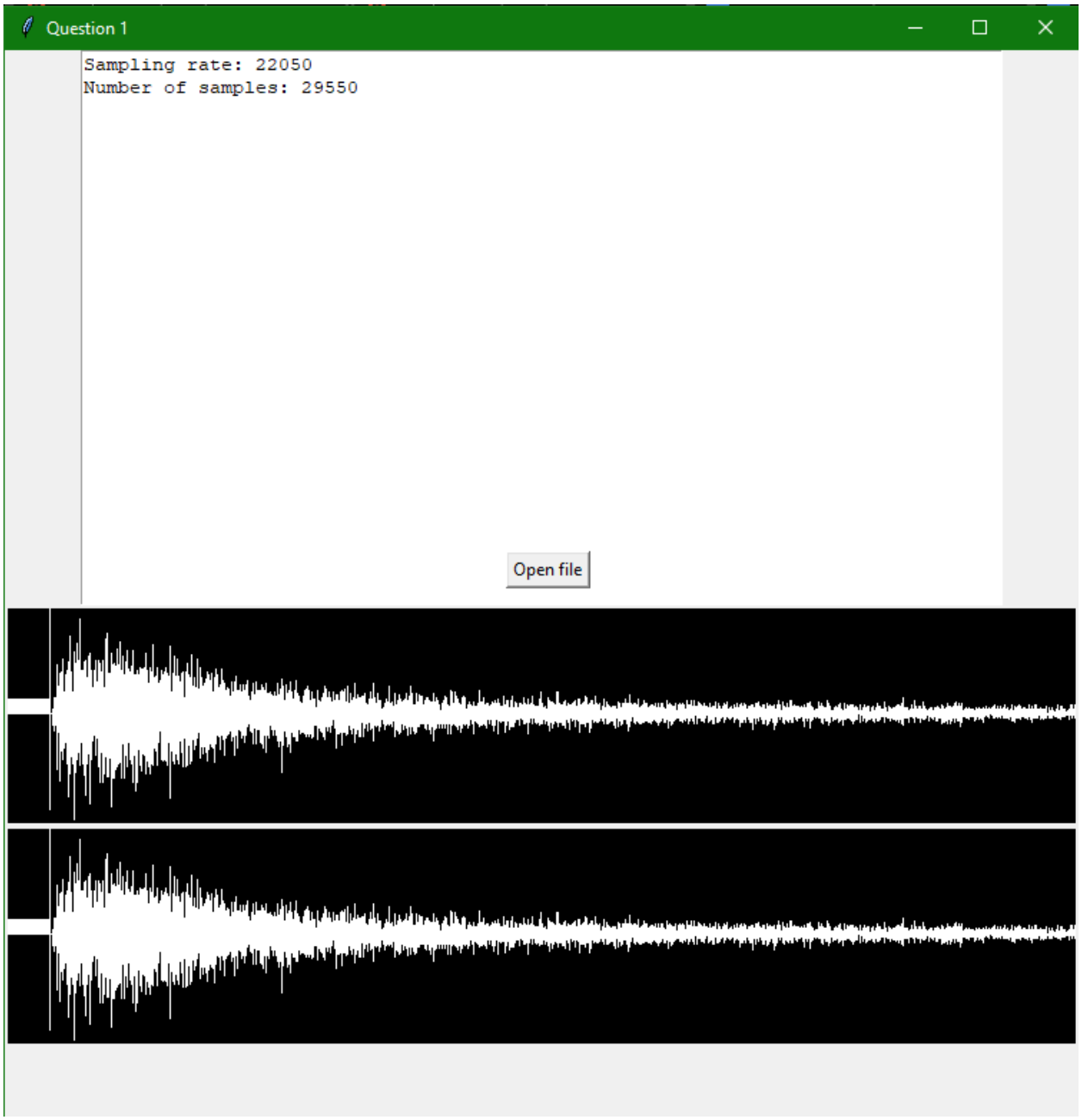
- **window**: Creates the operating GUI
- **text**: Creates the text box needed for displaying sampling rate and the number of samples
    - insert() was used for displaying in GUI
- **canvas**: Creates two plots, one for each audio channel waveform
    - create_line() was used for plotting waveform
- **button**: Button will wait for user input. Upon button press, it will input the file needed for our analysis and display of the file.
- For getting file attributes and calculating the number of samples, I used the os library with os.stat().

Screenshots of testing sample audio files:

Audio 1:



Audio 2:



Running the code itself:
When you are in the same directory as the python file, type in “python question1.py” into the terminal.
If you are using vscode like I am, you can also click the play button in the top right of the screen.
You don’t need to have the audio files in the same directory as the python file.

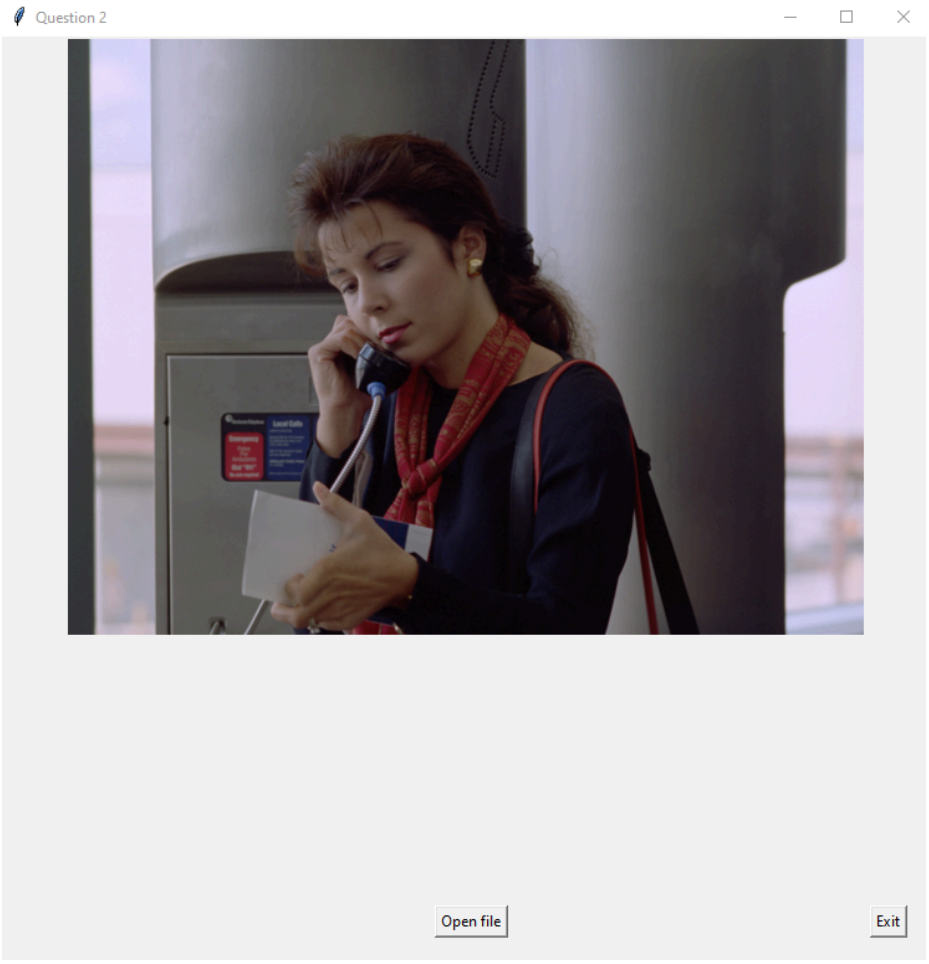
Question 2)

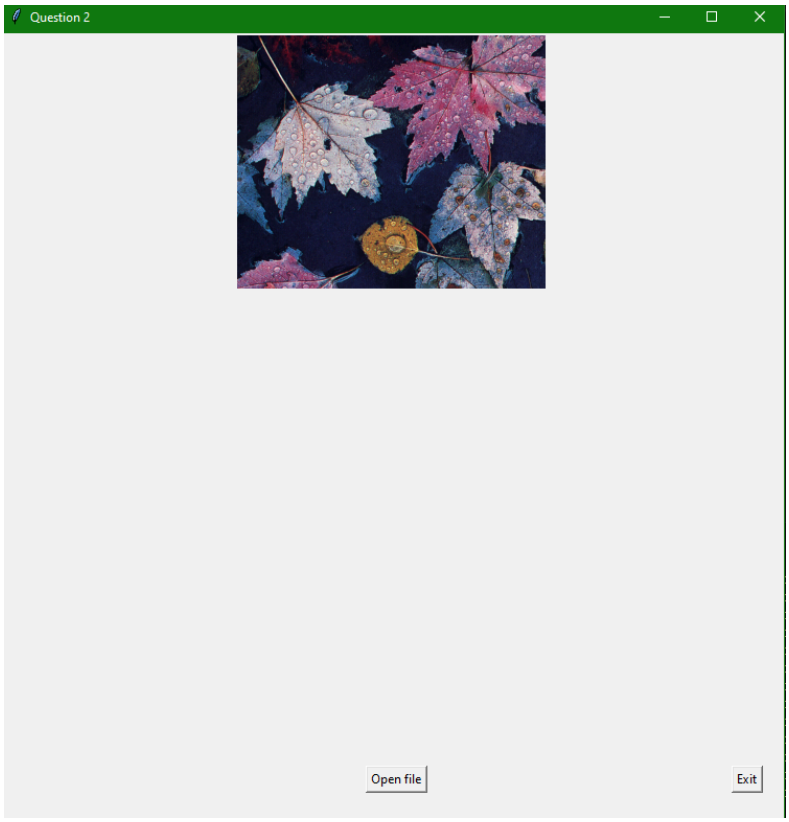
Used tkinter again for GUI in question 2. This time I used the Pillow library for displaying the image.

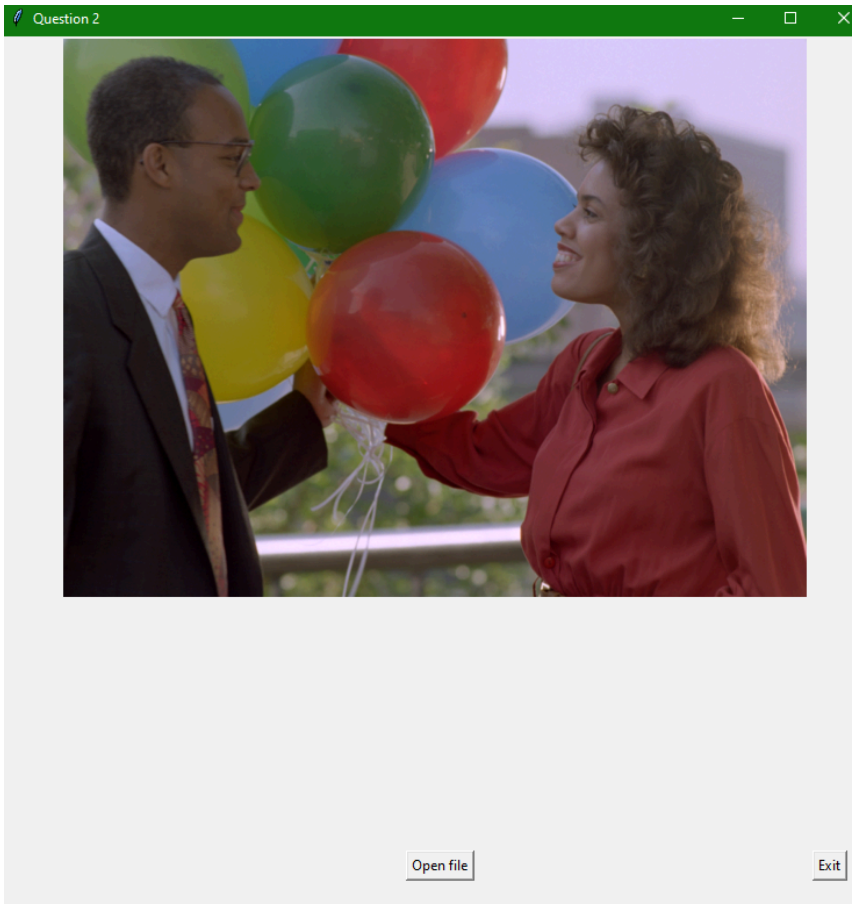
When you're in the directory of the question2.py file just type in "python question2.py". You don't need to have the images in the same folder as the python file.

Key functions:

- **window**: Creates the operating GUI
- **Pillow image functions**: In the pillow library, I used Image, ImageTk and PhotoImage to display the image. The reason 3 different Pillow image types were used was to convert and cast the inputted image.
    - open() was used to read the image
- **text**: Creates the text box for the "Open file" and "Exit" buttons
- **label**: Was used as an "Image window" to display the image
- **button**: awaiting user input for both "open file" and "exit" functionality
    - exit and erasing previous image both used destroy()




Question 2
Open file
Exit


Question 2
Open file
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