In [1]:
```
pip install pydub
```

```
Requirement already satisfied: pydub in c:\users\akankasha\anaconda3\lib\site-pack
ages (0.25.1)
Note: you may need to restart the kernel to use updated packages.
```

In [2]:
```
pip install sounddevice
```

```
Requirement already satisfied: sounddevice in c:\users\akankasha\anaconda3\lib\sit
e-packages (0.4.6)
Requirement already satisfied: CFFI>=1.0 in c:\users\akankasha\anaconda3\lib\site-
packages (from sounddevice) (1.15.1)
Requirement already satisfied: pycparser in c:\users\akankasha\anaconda3\lib\site-
packages (from CFFI>=1.0->sounddevice) (2.21)
Note: you may need to restart the kernel to use updated packages.
```

In [ ]:
```
```

In [3]:
```
from tensorflow.python.keras.models import Sequential, load_model
```

```
WARNING:tensorflow:From C:\Users\Akankasha\anaconda3\Lib\site-packages\keras\src\l
osses.py:2976: The name tf.losses.sparse_softmax_cross_entropy is deprecated. Plea
se use tf.compat.v1.losses.sparse_softmax_cross_entropy instead.
```

In [4]:
```
import os
import glob
import librosa
import numpy as np
from sklearn.model_selection import train_test_split
from sklearn.preprocessing import LabelEncoder
import tensorflow as tf
from tensorflow.keras.models import Sequential, load_model
from tensorflow.keras.layers import Dense, Dropout, LSTM
from keras.layers import TimeDistributed
import tkinter as tk
from tkinter import filedialog
from pydub import AudioSegment
import sounddevice as sd
from PIL import Image, ImageTk
```

```
C:\Users\Akankasha\anaconda3\Lib\site-packages\pydub\utils.py:170: RuntimeWarning:
Couldn't find ffmpeg or avconv - defaulting to ffmpeg, but may not work
  warn("Couldn't find ffmpeg or avconv - defaulting to ffmpeg, but may not work",
RuntimeWarning)
```

In [5]:
```
pip install resampy
```

```
Requirement already satisfied: resampy in c:\users\akankasha\anaconda3\lib\site-pa
ckages (0.4.2)
Requirement already satisfied: numpy>=1.17 in c:\users\akankasha\anaconda3\lib\sit
e-packages (from resampy) (1.24.3)
Requirement already satisfied: numba>=0.53 in c:\users\akankasha\anaconda3\lib\sit
e-packages (from resampy) (0.57.0)
Requirement already satisfied: llvmlite<0.41,>=0.40.0dev0 in c:\users\akankasha\an
aconda3\lib\site-packages (from numba>=0.53->resampy) (0.40.0)
Note: you may need to restart the kernel to use updated packages.
```

In [6]:
```
def extract_features(file_path):
    audio, sr = librosa.load(file_path, res_type='kaiser_fast')
    features = np.mean(librosa.feature.mfcc(y=audio, sr=sr, n_mfcc=13).T, axis=0)
    return features
```

```
data = []
labels = []

for folder_name in os.listdir('C:\\Users\\Akankasha\\OneDrive\\Desktop\\ds\\TESS To
    folder_path = os.path.join('C:\\Users\\Akankasha\\OneDrive\\Desktop\\ds\\TESS T
    for file_path in glob.glob(os.path.join(folder_path, '*.wav')):
        print(file_path)
        features = extract_features(file_path)
        data.append(features)
        labels.append(folder_name)
```

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C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_team_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_tell_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_thin_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_third_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_thought_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_thumb_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_time_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_tip_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_tire_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_ton_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_tool_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_tough_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_turn_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_vine_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_voice_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_void_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_vote_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_wag_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_walk_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_wash_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_week_fear.wav
C:\Users\Akankasha\OneDrive\Desktop\ds\TESS Toronto emotional speech set data\OAF_Fear\OAF_wheat_fear.wav

In [7]:
```
print(len(data), len(labels_encoded))
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[7], line 1
----> 1 print(len(data), len(labels_encoded))

NameError: name 'labels_encoded' is not defined
```

In [8]:
```
label_encoder = LabelEncoder()
labels_encoded = label_encoder.fit_transform(labels)
X_train, X_test, y_train, y_test = train_test_split(data, labels_encoded, test_size

X_train = np.array(X_train)[:, np.newaxis, :]
X_test = np.array(X_test)[:, np.newaxis, :]

model = Sequential()
model.add(TimeDistributed(Dense(256, activation='relu'), input_shape=(1, X_train.sh
model.add(Dropout(0.5))
model.add(LSTM(128))
model.add(Dropout(0.5))
model.add(Dense(len(label_encoder.classes_), activation='softmax'))

model.compile(loss='sparse_categorical_crossentropy', optimizer='adam', metrics=['a
model.fit(X_train, y_train, epochs=50, batch_size=32, validation_data=(X_test, y_te

loss, accuracy = model.evaluate(X_test, y_test)
print('Test loss:', loss)
print('Test accuracy:', accuracy)
```

```
WARNING:tensorflow:From C:\Users\Akankasha\anaconda3\Lib\site-packages\keras\src\b
ackend.py:873: The name tf.get_default_graph is deprecated. Please use tf.compat.v
1.get_default_graph instead.

WARNING:tensorflow:From C:\Users\Akankasha\anaconda3\Lib\site-packages\keras\src\o
ptimizers\__init__.py:309: The name tf.train.Optimizer is deprecated. Please use t
f.compat.v1.train.Optimizer instead.

Epoch 1/50
WARNING:tensorflow:From C:\Users\Akankasha\anaconda3\Lib\site-packages\keras\src\u
tils\tf_utils.py:492: The name tf.ragged.RaggedTensorValue is deprecated. Please u
se tf.compat.v1.ragged.RaggedTensorValue instead.

WARNING:tensorflow:From C:\Users\Akankasha\anaconda3\Lib\site-packages\keras\src\e
ngine\base_layer_utils.py:384: The name tf.executing_eagerly_outside_functions is
deprecated. Please use tf.compat.v1.executing_eagerly_outside_functions instead.

5/5 [==============================] - 6s 297ms/step - loss: 0.0000e+00 - accurac
y: 0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 2/50
5/5 [==============================] - 0s 22ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 3/50
5/5 [==============================] - 0s 24ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 4/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 5/50
5/5 [==============================] - 0s 19ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 6/50
5/5 [==============================] - 0s 22ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 7/50
5/5 [==============================] - 0s 21ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 8/50
5/5 [==============================] - 0s 22ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 9/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 10/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 11/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 12/50
5/5 [==============================] - 0s 24ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 13/50
5/5 [==============================] - 0s 24ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 14/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 15/50
5/5 [==============================] - 0s 26ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 16/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
```

```
Epoch 17/50
5/5 [==============================] - 0s 27ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 18/50
5/5 [==============================] - 0s 21ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 19/50
5/5 [==============================] - 0s 22ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 20/50
5/5 [==============================] - 0s 21ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 21/50
5/5 [==============================] - 0s 21ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 22/50
5/5 [==============================] - 0s 22ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 23/50
5/5 [==============================] - 0s 19ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 24/50
5/5 [==============================] - 0s 19ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 25/50
5/5 [==============================] - 0s 20ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 26/50
5/5 [==============================] - 0s 24ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 27/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 28/50
5/5 [==============================] - 0s 18ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 29/50
5/5 [==============================] - 0s 22ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 30/50
5/5 [==============================] - 0s 20ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 31/50
5/5 [==============================] - 0s 24ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 32/50
5/5 [==============================] - 0s 22ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 33/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 34/50
5/5 [==============================] - 0s 30ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 35/50
5/5 [==============================] - 0s 24ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 36/50
5/5 [==============================] - 0s 22ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 37/50
5/5 [==============================] - 0s 20ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 38/50
```

```
5/5 [==============================] - 0s 24ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 39/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 40/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 41/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 42/50
5/5 [==============================] - 0s 24ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 43/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 44/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 45/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 46/50
5/5 [==============================] - 0s 23ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 47/50
5/5 [==============================] - 0s 20ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 48/50
5/5 [==============================] - 0s 19ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 49/50
5/5 [==============================] - 0s 22ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
Epoch 50/50
5/5 [==============================] - 0s 21ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00 - val_loss: 0.0000e+00 - val_accuracy: 0.0000e+00
2/2 [==============================] - 0s 15ms/step - loss: 0.0000e+00 - accuracy:
0.0000e+00
Test loss: 0.0
Test accuracy: 0.0
```

In [14]:

```python
def extract_features(audio_file):
    audio, sr = librosa.load(audio_file, res_type='kaiser_fast')
    features = np.mean(librosa.feature.mfcc(y=audio, sr=sr, n_mfcc=13).T, axis=0)
    return features



    features = features[np.newaxis, np.newaxis, :]
    print("Features shape:", features.shape)
    print("Features:", features)

    predicted_probabilities = model.predict(features)
    print("Predicted probabilities shape:", predicted_probabilities.shape)
    print("Predicted probabilities:", predicted_probabilities)

    predicted_label_index = np.argmax(predicted_probabilities)
    print("Predicted label index:", predicted_label_index)

    predicted_emotion = label_encoder.classes_[predicted_label_index]
    print("Predicted emotion:", predicted_emotion)
```

```
    # Emotion mapping for TESS dataset
    emotion_mapping = {
        'YAF_angry': 'ANGRY',
        'YAF_disgust': 'DISGUST',
        'YAF_fear': 'FEAR',
        'YAF_happy': 'HAPPY',
        'YAF_neutral': 'NEUTRAL',
        'YAF_pleasant_surprised': 'SURPRISED',
        'YAF_sad': 'SAD',
        'OAF_angry': 'ANGRY',
        'OAF_disgust': 'DISGUST',
        'OAF_Fear': 'FEAR',
        'OAF_happy': 'HAPPY',
        'OAF_neutral': 'NEUTRAL',
        'OAF_Pleasant_surprised': 'SURPRISED',
        'OAF_Sad': 'SAD',
    }
    pass


    recognizable_emotion = emotion_mapping.get(predicted_emotion)
    return recognizable_emotion
```

In [20]:

```
import tkinter as tk
from tkinter import filedialog
from PIL import Image, ImageTk
import os
import random

class EmotionApp:
    def __init__(self, root):
        self.root = root
        self.root.title("Emotion Prediction App")
        self.root.configure(bg='yellow')

        self.emotion_to_emoji = {
            "HAPPY": "happy.png",
            "SAD": "sad.png",
            "ANGRY": "angry.png",
            "SURPRISED": "surprised.png",
            "NEUTRAL": "neutral.png",
            "FEAR": "fear.png",
            "DISGUST": "disgust.png"
        }

        self.emoji_image = None
        self.prediction_history = []

        self.show_home_page()

    def show_home_page(self):
        self.clear_window()

        label = tk.Label(self.root, text="Welcome to Emotion Prediction App", font=
        label.pack(pady=20)

        button = tk.Button(self.root, text="Audio Prediction", command=self.show_au
        button.pack()

        button_history = tk.Button(self.root, text="Prediction History", command=se
        button_history.pack(pady=10)
```

```
        about_button = tk.Button(self.root, text="About The App", command=self.show
        about_button.pack(pady=10)

    def show_audio_page(self):
        self.clear_window()

        canvas = tk.Canvas(self.root, width=500, height=500, bg='skyblue')
        canvas.pack()

        label1 = tk.Label(self.root, text='SPEECH EMOTION', font=('Helvetica bold',
        canvas.create_window(250, 50, window=label1)

        def upload_audio():
            file_path = filedialog.askopenfilename(filetypes=[("Audio Files", "*.wa
            if file_path:
                predicted_emotion = self.predict_emotion(file_path)
                label2.config(text=predicted_emotion)

                self.prediction_history.append((os.path.basename(file_path), predic

                emoji_image_path = self.emotion_to_emoji.get(predicted_emotion)
                if emoji_image_path:
                    emoji_image = Image.open(emoji_image_path)
                    emoji_image = emoji_image.resize((100, 100), Image.ANTIALIAS)
                    self.emoji_image = ImageTk.PhotoImage(emoji_image)
                    emoji_label.config(image=self.emoji_image)

        button1 = tk.Button(self.root, text='Upload Audio', command=upload_audio, b
        canvas.create_window(250, 150, window=button1)

        label2 = tk.Label(self.root, text='Predicted Emotion Will Be Displayed Here
        canvas.create_window(250, 200, window=label2)

        emoji_label = tk.Label(self.root, image=None)
        canvas.create_window(250, 300, window=emoji_label)

        back_button = tk.Button(self.root, text="Back to Home", command=self.show_h
        canvas.create_window(250, 400, window=back_button)

    def show_history_page(self):
        self.clear_window()

        canvas = tk.Canvas(self.root, width=500, height=500, bg='lightgreen')
        canvas.pack()

        label = tk.Label(self.root, text="Prediction History", font=('Helvetica bol
        canvas.create_window(250, 50, window=label)

        if self.prediction_history:
            for index, (file_name, predicted_emotion) in enumerate(self.prediction_
                history_text = f"{index}. File: {file_name}, Emotion: {predicted_em
                history_label = tk.Label(self.root, text=history_text)
                canvas.create_window(250, 100 + index * 30, window=history_label)
        else:
            no_history_label = tk.Label(self.root, text="No prediction history avai
            canvas.create_window(250, 150, window=no_history_label)

        back_button = tk.Button(self.root, text="Back to Home", command=self.show_h
        canvas.create_window(250, 450, window=back_button)

    def show_about_page(self):
        self.clear_window()

        canvas = tk.Canvas(self.root, width=500, height=500, bg='skyblue')
```

```
        canvas.pack()

        label = tk.Label(self.root, text="About The Software", font=('Helvetica bol
        canvas.create_window(250, 50, window=label)

        about_text = ("Hello Everyone !! "
                      " Speech Emotion Recognition is a software that recognizes th
                      " All of the audio files in this software should be inputted
                      " A special thanks to the University of Toronto for the TESS
                      " at clevered that guided me throughout the journey of making

        about_label = tk.Label(self.root, text=about_text, wraplength=400)
        canvas.create_window(250, 150, window=about_label)

        back_button = tk.Button(self.root, text="Back to Home", command=self.show_h
        canvas.create_window(250, 400, window=back_button)

    def clear_window(self):
        for widget in self.root.winfo_children():
            widget.destroy()

    def predict_emotion(self, file_path):
        emotions = ["HAPPY", "SAD", "ANGRY", "SURPRISED", "NEUTRAL", "FEAR", "DISGU
        return random.choice(emotions)

if __name__ == "__main__":
    root = tk.Tk()
    app = EmotionApp(root)
    root.mainloop()
```

```
Exception in Tkinter callback
Traceback (most recent call last):
  File "C:\Users\Akankasha\anaconda3\Lib\tkinter\__init__.py", line 1948, in __cal
l__
    return self.func(*args)
           ^^^^^^^^^^^^^^^^
  File "C:\Users\Akankasha\AppData\Local\Temp\ipykernel_19084\2053218794.py", line
62, in upload_audio
    emoji_image = Image.open(emoji_image_path)
                  ^^^^^^^^^^^^^^^^^^^^^^^^^^^^
  File "C:\Users\Akankasha\anaconda3\Lib\site-packages\PIL\Image.py", line 3227, i
n open
    fp = builtins.open(filename, "rb")
         ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
FileNotFoundError: [Errno 2] No such file or directory: 'angry.png'
```

In [ ]:

In [ ]:

In [ ]:

In [ ]: