**EXECUTION STEPS:**

First,we have taken the dataset from the kaggle. [Dataset link](https://www.kaggle.com/datasets/meowmeowmeowmeowmeow/gtsrb-german-traffic-sign)

To run this code, several packages and modules are need to be installed.

1. **Python**: You'll need Python installed on your system. Python is the primary programming language used here.

2. **Libraries**: You'll need to install the following libraries using `pip` or another package manager:

- **numpy**: For numerical computing with arrays.

- **pandas**: For data manipulation and analysis.

- **matplotlib**: For plotting graphs.

- **cv2 (OpenCV)**: For image processing.

- **tensorflow and keras**: For building and training neural networks.

- **PIL (Python Imaging Library)**: For opening, manipulating, and saving many different image file formats.

- **sklearn**: For machine learning utilities like train-test split and accuracy calculation.

**- tkinter**: For building the GUI.

- **pyttsx3**: For text-to-speech functionality.

- **openpyxl**: For working with Excel files.

3. **Pre-trained Model**: The code uses a pre-trained model named `traffic\_classifier.h5`. You'll need to have this model file.

4**. Excel File**: The code writes feedback to an Excel file named `traffic\_signs.xlsx`.

5**. GUI Interaction**: The GUI elements are built using `**tkinter**`, the standard Python interface to the Tk GUI toolkit.

Once Python have installed and all necessary libraries installed via `pip`, and you have the required dataset, pre-trained model, and Excel file in place, you should be able to run the code by thefollowing steps:-

1.Go to the folder where the main.py file Exists.

2.Right click on the Folder path.Then Type cmd.

3.The Command Prompt will open.

4.Now type the following Command--> Python main.py

5.Now the file will get executed and the GUI will open.You can upload and classify the image.