# User's Guide for Punctuation Analysis Tool

## Introduction

The Punctuation Analysis Tool is a simple graphical user interface (GUI) application designed to analyze the frequency of words between punctuation marks in a given text file. This guide provides an overview of the tool's features and instructions on how to use it effectively.

## 1. Starting application

The Punctuation Analysis Tool is implemented in Python and utilizes the Tkinter library for the graphical interface. Click on the icon of the file to run the program.

## 2. File Selection

* Click the "Select File" button to choose a text file for analysis.
* The selected file's path will be displayed on the GUI.

## 3. Text Input

* Enter punctuation marks separated by spaces in the text entry field.
* If no marks are provided, the tool will use a default set: , . ? ! - ' : ; – ( ) / " [ ] { }.

## 4. Logarithmic Axes

* Check the "Logarithmic X-axis" box to enable logarithmic scaling on the X-axis.
* Check the "Logarithmic Y-axis" box to enable logarithmic scaling on the Y-axis.

## 5. Running Analysis

* Click the "Submit" button to initiate the analysis.
* A bar chart will be displayed showing the frequency of words between punctuation marks.
* The X-axis represents the distance before the next punctuation mark (in words), and the Y-axis represents the frequency of occurrence.

## 6. Error Handling

* If an error occurs while opening the file, an error message will be displayed.
* Invalid input for punctuation marks will trigger an error message.
* If the selected file is not a .txt file or is corrupted, an error message will be shown.

## 7. Saving results

* Click on the disk icon to save results
* Choose directory to which graph will be saved.

## 8. About the GUI

* The GUI is divided into two frames: one for file selection and another for text input and options.
* A label at the top displays the selected file path.
* The tool allows customization of punctuation marks and provides options for logarithmic scaling on the chart axes.

Note: Ensure that the file to be analyzed is a valid .txt file, and the text is appropriately formatted for accurate analysis.