

Spelling and Grammar Checker

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

Jasmine Tresa Jose

Domain: Dr. T. Subbulakshmi

VIT Chennai

28 July 2024



Learning Objectives

In this tutorial we will learn to



Learning Objectives

In this tutorial we will learn to

- **Create functions to identify spelling and grammar errors**



Learning Objectives

In this tutorial we will learn to

- Create functions to identify spelling and grammar errors
- Implement text processing techniques in Python



Learning Objectives

In this tutorial we will learn to

- Create functions to identify spelling and grammar errors
- Implement text processing techniques in Python
- Create a GUI application with a text area and buttons



System Requirements

To record this tutorial, I am using



System Requirements

To record this tutorial, I am using

- **Ubuntu Linux OS 22.04**



System Requirements

To record this tutorial, I am using

- Ubuntu Linux OS 22.04
- Python 3.12.3



Pre-requisites

- You must have basic knowledge of using Linux Terminal and Python



Pre-requisites

- You must have basic knowledge of using Linux Terminal and Python
- For pre-requisite Linux and Python Tutorials, please visit this website <https://spoken-tutorial.org>



Pre-requisites

- You must have basic knowledge of using Linux Terminal and Python
- For pre-requisite Linux and Python Tutorials, please visit this website <https://spoken-tutorial.org>
- Python libraries required for automation must be installed



fossee
better
education

Code files

- The files used in this tutorial are provided in the Code files link



Code files

- The files used in this tutorial are provided in the Code files link
- Please download and extract the files

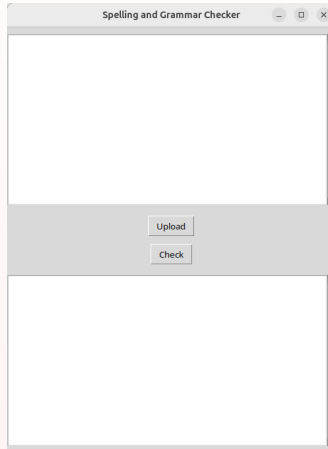


Code files

- The files used in this tutorial are provided in the Code files link
- Please download and extract the files
- Make a copy and then use them while practicing



Spelling and Grammar checker - GUI



Spelling and Grammar Checker

- The checker will refer to an inbuilt dictionary to identify wrong spellings



Spelling and Grammar Checker

- The checker will refer to an inbuilt dictionary to identify wrong spellings
- It will use `language_tool_python` to recognize incorrect grammar and suggest corrections



Spelling and Grammar Checker - Libraries



Spelling and Grammar Checker - Libraries

- `Language_tool_python` **provides grammar and style-checking capabilities**



Spelling and Grammar Checker - Libraries

- `Language_tool_python` **provides grammar and style-checking capabilities**
- **NLTK is a library for text processing and natural language understanding tasks**



Spelling and Grammar Checker - Libraries

- **re module helps manipulate strings based on patterns using regular expressions**



Spelling and Grammar Checker - Libraries

- **re module helps manipulate strings based on patterns using regular expressions**
- **tkinter is the standard GUI toolkit for Python**



Spelling and Grammar Checker - Libraries

- **docx is for reading and writing Microsoft Word files**



Spelling and Grammar Checker - Libraries

- **docx is for reading and writing Microsoft Word files**
- **fitz (PyMuPDF) is for reading PDF files**



Install java and tkinter

- `sudo apt-get update`
- `sudo apt-get install default-jdk`
- `sudo apt-get install openjdk-11-jdk`
- `java -version`
- `sudo apt-get install python3-tk`



Summary

In this tutorial, we have learnt to

- Create functions to identify spelling and grammar errors
- Implement text processing techniques in Python
- Create a GUI application with a text area and buttons



Assignment

- **Modify the `checker.py` and print the total number of errors in the result area**
- **Hint: Use the `len()` function to calculate the number of errors**



About the Spoken Tutorial Project

- Watch the video available at http://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- It summarises the Spoken Tutorial project
- If you do not have good bandwidth, you can download and watch it



Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- Conducts workshops using spoken tutorials
- Gives certificates to those who pass an online test
- For more details, please write to contact@spoken-tutorial.org



Answers for THIS spoken tutorial

- Questions in THIS Spoken Tutorial
- Visit <https://forums.spoken-tutorial.org>
- Choose the minute and second where you have the question
- Explain your question briefly
- The Spoken Tutorial project will ensure an answer
- You will have to register to ask questions



FOSSEE Forum

- For any general or technical questions on [Python for Automation](#), visit the FOSSEE forum and post your question <https://forums.fossee.in/>



Acknowledgement

- The Spoken Tutorial project was established by Ministry of Education, Govt. of India



Thank you

- **This is Jasmine Tresa Jose, a FOSSEE Semester Long Intern 2024, IIT Bombay**

