# Smart SOP Coach – AI-powered SOP Improvement Tool

## Overview

Smart SOP Coach is a Generative AI application that enhances user-written Statements of Purpose (SOPs) using modern NLP models. It corrects grammar, rewrites content for better clarity and tone, and provides summaries — all via a friendly web interface.

## Features

* ✅ Grammar Correction (via language-tool-python)
* ✨ Rewriting using a Hugging Face transformer (e.g., distilGPT2)
* 🧾 Summary Generation (using T5 or BART)
* 🎨 Gradio-based web UI
* 📈 Optionally include feedback scoring (clarity, conciseness)

## Example Input

I am writting this statement to applying for the master program in computer science. I have completed my undergrad in India and very passionate about AI and machine learning field.

## Output Includes

* ✔ Corrected version
* 🔁 Rewritten version
* 🧠 Short summary

## Project Structure

smart-sop-coach/  
├── app.py # Main Gradio application  
├── grammar.py # Grammar correction logic  
├── rewriter.py # Rewrite logic using transformers  
├── scorer.py # (Optional) Feedback scoring module  
├── requirements.txt # Dependencies  
├── README.md # Project description

## How to Run Locally

1. Clone the Repository  
 git clone https://github.com/YOUR\_USERNAME/smart-sop-coach.git  
 cd smart-sop-coach  
  
2. Create and Activate Virtual Environment  
 python -m venv venv  
 On Windows:  
 .\venv\Scripts\activate  
 On macOS/Linux:  
 source venv/bin/activate  
  
3. Install Dependencies  
 pip install -r requirements.txt  
  
4. Run the Application  
 python app.py  
 Access the app at http://127.0.0.1:7860  
  
 For public link, edit app.py and add:  
 gr.Interface(...).launch(share=True)

## Deploy on Hugging Face Spaces

1. Create an account at https://huggingface.co  
2. Go to Spaces → Create New Space  
3. Choose SDK: Gradio  
4. Upload files: app.py, requirements.txt, grammar.py, rewriter.py, scorer.py  
5. Wait for build — app will be deployed

## License

This project is licensed under the MIT License. You’re free to modify, use, and redistribute it.

## Contributions

Contributions are welcome! Fork this repo, create a new branch, and open a pull request.

## Acknowledgements

* 🤗 Hugging Face Transformers: https://huggingface.co/transformers
* 🎨 Gradio Interface: https://gradio.app/
* ✍️ LanguageTool: https://languagetool.org/