Overview:

This script implements a desktop GUI-based presentation generator using Tkinter and python-pptx. It allows users to input a topic manually or upload a .csv/.txt batch file. The script uses the OpenAI API to generate slide-wise content and optional DALL·E-style images per slide. It generates a .pptx file downloadable locally. Logs are visible in the interface for transparency.

Key Features:

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1. Tkinter GUI: User-friendly interface for input and feedback.

2. Topic Input: Direct topic entry or batch file upload.

3. Image Generation: Optionally generate DALL·E-style images per slide.

4. Downloadable Output: Saves .pptx presentation to local directory.

5. Live Logging: Real-time display of logs in the app interface.

How It Works:

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1. Input Handling:

   - Single topic via entry box.

   - Batch topics via .csv/.txt.

2. GPT Call:

   - Uses OpenAI's `gpt-4` to generate slide-wise content.

3. Parsing and PPTX Creation:

   - The GPT output is parsed to extract slide titles and bullet points.

   - `python-pptx` is used to create the presentation.

   - Images are added using `openai.Image.create()` and `requests.get()`.

4. Logging:

   - Progress and errors are logged to a text widget in the GUI.

Installation & Local Use:

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1. Clone the repository or copy the file locally.

2. Install dependencies:

   pip install openai python-pptx pillow requests

3. Run the script:

   python slidegen_gui_tkinter.py

4. Enter topic or upload file and click "Generate".

5. Output .pptx will be saved in the same directory.

Deployment Options:

- Use as a standalone desktop tool.

- Convert into an executable with pyinstaller:

   pyinstaller --onefile slidegen_gui_tkinter.py

Environment Variables Required:

- OPENAI_API_KEY: Your OpenAI API key must be set or hardcoded.

Security Note:

Avoid hardcoding API keys in shared environments. Use environment variables or a config file.