

Project Report: PDF Merger with Reorder GUI

Project Title: PDF Merger with Reorder

Author: Rajumenan B

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1. Introduction

The **PDF Merger with Reorder** is a Python-based desktop application designed to simplify the process of combining multiple PDF files. The tool provides a graphical user interface (GUI) that allows users to add PDF files, reorder them, and merge them into a single PDF file. This project demonstrates proficiency in Python GUI programming, file handling, and PDF manipulation.

2. Objectives

- To develop a user-friendly GUI for selecting and managing PDF files.
 - To allow users to reorder PDF files before merging.
 - To merge multiple PDF files into a single output file efficiently.
 - To provide error handling and user notifications for a seamless experience.
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3. Tools and Technologies

- **Programming Language:** Python 3.x
 - **Libraries Used:**
 - `PyPDF2` – for PDF merging functionality
 - `Tkinter` – for building the graphical user interface (GUI)
 - **Platform:** Cross-platform (Windows, macOS, Linux)
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4. Functional Description

The application performs the following functions:

1. **Add PDFs:** Users can browse and select multiple PDF files to include in the merge list.

2. **Reorder Files:** Users can move selected PDF files up or down in the list to arrange the order of merging.
 3. **Merge and Save:** Users can merge the selected PDFs into a single file and choose the save location.
 4. **Notifications:** Users receive messages when merging is successful or if there are errors, e.g., no files selected.
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5. GUI Design

- A simple, intuitive GUI using Tkinter.
 - **Listbox** – Displays selected PDF files in order.
 - **Buttons:**
 - *Add PDFs* – To select and add PDF files
 - *Move Up / Move Down* – To reorder selected files
 - *Merge and Save* – To merge the files into a single PDF
 - Provides **real-time feedback** using message boxes.
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6. Code Structure

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- add_files(): Opens file dialog to select PDFs and adds them to listbox
- move_up(): Moves selected PDF one position up
- move_down(): Moves selected PDF one position down
- merge_pdfs(): Merges all PDFs in listbox and saves the output
- Tkinter GUI: Listbox + Buttons for interaction
```

7. Screenshots

(Attach screenshots of the GUI: before merging, after adding PDFs, and the merged file saved dialog)

8. Advantages

- Simple and easy-to-use interface.
 - Allows reordering of PDFs before merging.
 - Provides notifications and warnings for a smooth user experience.
 - Lightweight and cross-platform.
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9. Future Enhancements

- Add a **drag-and-drop** feature for adding files.
 - Include **PDF preview** functionality.
 - Allow **batch renaming** of PDFs before merging.
 - Integrate **password-protection** for merged PDFs.
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10. Conclusion

The PDF Merger with Reorder project demonstrates practical skills in **Python GUI programming**, file handling, and PDF manipulation. It provides an efficient way for users to merge multiple PDFs in a customized order, making document management easier and more productive.