

# Weekly Progress Report

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Domain: Python

Date of submission: 23-02-24

## Week Ending: 02

### File Organiser

Description: The file organizer is a Python project that helps users organize their files in a directory. It scans a specified directory, categorizes files based on their type (e.g., images, documents, videos), and moves them into respective folders.

Scope: The scope of this project involves designing a user interface to specify the directory to organize, implementing functions to identify file types and create folders, and developing a file-moving algorithm to organize files into the appropriate folders.

### 1. Accomplishments

- Completed implementation of the file organizer program.
- Developed a graphical user interface (GUI) using Tkinter for user interaction.
- Implemented file type categorization and moving algorithm.
- Added error handling for invalid directory paths.
- Tested the program extensively to ensure functionality and reliability.

### 2. Milestones Achieved

- Successfully categorized and organized files into different folders based on their types.
- Implemented a progress tracking feature to monitor the organization process.
- Achieved a user-friendly interface for easy navigation and interaction.

### 3. Contributions

- Developed the majority of the program code.
- Got assisted in testing and debugging to ensure the program's functionality.

### 4. Challenges and Hurdles

- Initially struggled with understanding the Tkinter library for GUI development.
- Faced challenges in handling file operations and managing file paths.
- Overcame these obstacles through online research, experimentation, and collaboration.

### 5. Lessons Learned

- Enhanced my knowledge of GUI development using Tkinter.
- Improved my skills in file handling and organization.
- Learned the importance of effective collaboration and communication in a team project.

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### Next Steps

- Refine the user interface for better usability.
- Add additional features, such as file type filtering and sorting options.
- Conduct further testing and gather feedback for improvement.

### Conclusion

Overall, this week was productive, and I'm pleased with the progress made on the file organizer project. I look forward to continuing to enhance the program and contribute to its success.

Below is the code I performed with its output :

```
import os
import shutil
import tkinter as tk
from tkinter import filedialog, messagebox, ttk

file_types = {
    'Images': ['jpg', 'jpeg', 'png', 'gif', 'bmp'],
    'Documents': ['txt', 'doc', 'docx', 'pdf', 'xls', 'xlsx', 'ppt',
'pptx'],
    'Videos': ['mp4', 'avi', 'mov', 'mkv'],
    'Music': ['mp3', 'wav', 'flac', 'aac'],
    'Archives': ['zip', 'rar', '7z', 'tar', 'gz'],
    'Executables': ['exe', 'msi', 'bat'],
    'Programming': ['py', 'java', 'c', 'cpp', 'h', 'html', 'css', 'js'],
    'Others': []
}

def organize_files(directory, root_window):
    progress_var.set(0)
    total_files = sum(len(files) for _, _, files in os.walk(directory))

    for dir_path, _, files in os.walk(directory):
        for file in files:
            src_path = os.path.join(dir_path, file)
            file_ext = file.split('.')[-1].lower()
            category = 'Others' # Default category

            if not file_ext or file_ext in ('', ' '):
                # Treat files without recognized extensions as "others"
                pass
            else:
                for cat, extensions in file_types.items():
                    if file_ext in extensions:
                        category = cat
                        break

            dest_folder = os.path.join(directory, category)
            os.makedirs(dest_folder, exist_ok=True)
            dest_path = os.path.join(dest_folder, file)
            shutil.move(src_path, dest_path)

            progress_var.set(progress_var.get() + 1)
            progress_label.config(text=f'Progress: {progress_var.get()} /
{total_files}')
            root_window.update()

def browse_directory():
```

```
directory = filedialog.askdirectory()
if directory:
    directory_entry.delete(0, tk.END)
    directory_entry.insert(0, directory)

def organize():
    directory = directory_entry.get()
    if not os.path.isdir(directory):
        messagebox.showerror("Error", "Invalid directory path")
        return

    organize_files(directory, root)
    messagebox.showinfo("Success", "Files organized successfully")

root = tk.Tk()
root.title("File Organizer")

frame = ttk.Frame(root, padding="10")
frame.grid(row=0, column=0, sticky=(tk.W, tk.E, tk.N, tk.S))

directory_label = ttk.Label(frame, text="Select Directory:")
directory_label.grid(row=0, column=0, sticky=tk.W)

directory_entry = ttk.Entry(frame, width=50)
directory_entry.grid(row=0, column=1, padx=5, pady=5)

browse_button = ttk.Button(frame, text="Browse", command=browse_directory)
browse_button.grid(row=0, column=2, padx=5, pady=5)






organize_button = ttk.Button(frame, text="Organize", command=organize)
organize_button.grid(row=1, column=1, pady=10)

progress_var = tk.IntVar()
progress_label = ttk.Label(frame, text="Progress: 0 / 0")
progress_label.grid(row=2, column=1, pady=5)

root.mainloop()
```

## OUTPUT:

### Unorganised Files:

▼ Today				
	Python Project	23-02-2024 20:49	Microsoft Word D...	8 KB
	Narayan_Joshi_Week-1	23-02-2024 20:48	Adobe Acrobat D...	114 KB
	5 DBS @Megumi010	23-02-2024 17:54	File	73,350 KB
▼ Earlier this month				
	How A Server Can Easily Be Hacked (Met...	08-02-2024 15:47	MP4 Video File (VL...	49,155 KB
▼ A long time ago				
	N	12-11-2023 12:23	File	63 KB

### Organised Files:

