

1. Introduction

Every computer user ends up with a messy folder at some point—especially the Downloads or Desktop folder. Files like images, documents, PDFs, music, and code files all get mixed up, and finding anything becomes difficult. Manually arranging everything into different folders takes time and is extremely boring.

To solve this problem, I created a **File Organizer Script** using Python.

This script automatically sorts files into separate folders based on their type. It is a simple automation project that saves time and keeps your system clean and organized.

2. Objective

The main purpose of this project is:

- To organize files automatically
- To reduce manual work and improve productivity
- To group files based on their extensions
- To provide a simple and user-friendly solution using Python's built-in functions

3. How the Script Works (Simple Explanation)

1. The user enters the path of the folder they want to organize.
2. The script checks the folder and creates subfolders like:
Images, Videos, Documents, PDFs, Archives, Audio, Code, Others
3. It reads all the files in the folder.
4. Based on the file extension (like .png, .mp3, .pdf), it automatically moves the file into the correct folder.
5. Files that don't match any category are kept in the **Others** folder.

That's it — your messy folder becomes neatly organized within seconds.

4. Technologies Used

- **Python 3**
- **os module** – to access file and folder paths
- **shutil module** – to move files
- No external libraries were used, so the script works on any system.

5. Features of the Project

- Automatically organizes all files inside a folder
- Creates category folders on its own
- Uses only built-in Python modules
- Works on Windows, macOS, and Linux
- Easily customizable (you can add new file types anytime)
- Very fast and lightweight

6. Output (Before and After)

Before Running Script

A single folder containing mixed files:

image.png

song.mp3

notes.txt

resume.pdf

video.mp4

code.py

After Running Script

The folder becomes organized like this:

Images/

Audio/

Documents/

PDFs/

Videos/

Code/

Others/

Each file is placed in the correct folder automatically.

7. Advantages

- Saves a lot of time
- Reduces clutter
- Perfect for keeping Downloads/Desktop clean

- Helps in organizing project folders
- No need for manual sorting
- Beginner-friendly but practical

8. Limitations

- Works only on local folders
- Organizes based on file extension (not actual file content)
- Does not handle duplicate file names

9. Conclusion

This project shows how Python can be used to automate simple daily tasks effectively. The File Organizer Script is a small but very useful tool that can help keep files arranged neatly with almost no effort. It demonstrates basic Python file handling, conditional logic, and automation in a clear and practical way.