**Project Proposal**

**File Organizer**

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**Domain: Python Development**

**1. Introduction**

The **File Organizer** is a Python-based application designed to automatically organize files in a directory based on their extensions. This program categorizes documents, images, videos, and other file types into their respective folders, thereby reducing clutter and enhancing productivity.

**2. Problem Statement**

With the increasing amount of digital files, manual sorting becomes time-consuming and prone to errors. Users often face difficulty in locating files when directories are cluttered. There is a need for a simple, automated tool to organize files efficiently.

**3. Objectives**

* Automate file categorization by extension.
* Enable easy configuration with user-specified directory paths.
* Reduce the time and effort spent on manual file organization.
* Improve productivity and file accessibility.

**4. Features**

* **Automatic File Management:** Categorizes files by type (e.g., documents, images, videos).
* **Customizable Structure:** Supports user-defined folder structures.
* **Bulk Processing:** Handles large numbers of files at once.
* **Easy to Use:** Requires only the input of the directory path.

**5. How It Works**

1. User specifies the directory path.
2. The program scans all files in the directory.
3. Files are identified by their extensions.
4. Folders for each file type are created (if not already present).
5. Files are moved to their respective folders automatically.

**6. Code Logic Summary**

* Import necessary libraries
* Take user input for directory location.
* List all files in the directory.
* Split file names and extensions.
* Check if extension-specific folders exist; if not, create them.
* Move files to appropriate folders.

**7. Benefits**

* Saves hours of manual sorting.
* Keeps directories neat and organized.
* Reduces file management errors.
* Customizable for different needs.

**8. Expected Outcomes**

By implementing this project, users will have a cleaner, more organized file system that saves time and increases efficiency in locating and managing files.