

Project Proposal

1. Project Details

Project Title: File Organizer System

Project Type: GUI-based application using C and GTK3 (Console-based core logic with optional GUI)

Problem Statement: Windows users often accumulate large numbers of files and folders. Managing them manually is time-consuming and error-prone. Tasks such as creating, renaming, moving, deleting, or quickly locating files become cumbersome without a proper tool.

Purpose of the System:

- i. Provide an intuitive file management system for Windows using C programming.
- ii. Allow users to browse, preview, and organize files efficiently.
- iii. Implement batch operations, drag & drop, multiple view modes, and optional features like tagging, auto-sort rules, theme switching, and keyboard shortcuts to enhance usability.

Target Users:

- Individual users, students, and office employees managing large numbers of documents, images, and media files.

- Example: A user wants to organize downloaded files, preview images, create/rename/move/delete multiple files at once, compress files, or access recently used files quickly.

2. Technology & Tools

Programming Language: C

Compiler: MSYS2 with MinGW-w64 GCC

Code Editors: Visual Studio Code, CodeBlocks

Data Storage Method:

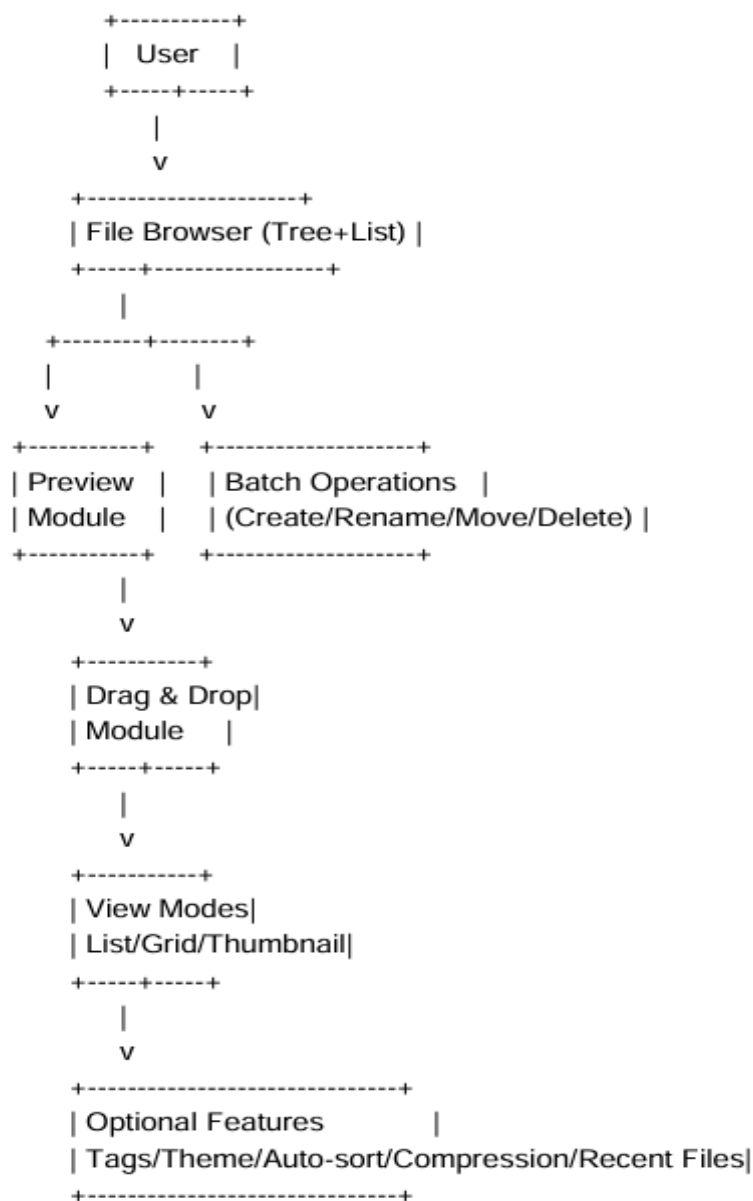
File Handling: All data such as user preferences, logs, and optional tags will be stored using File I/O in C.

Additional Libraries:

- GTK3 (GUI interface)
- GDK-Pixbuf (Image preview)
- Standard C libraries: stdio.h, stdlib.h, string.h, dirent.h, windows.h

3. System Design

Block Diagram:



4. Feature List

1.File Browser	Displays files and folders in tree and list format.
2. View Modes	Switch between list, grid, or thumbnail views.
3. Batch Operations	Allows creating, renaming, moving, or deleting multiple files at once.
4. Advanced Search & Filter	Search and filter files by name, type, or other criteria.
5. Tag / Label System	Allows tagging or labeling files for organization.
6. Drag and Drop	Supports moving or copying files via drag & drop.
7. Trash / Restore System	Deleted files go to Trash and can be restored.
8. Auto-Sort Rules	Automatically sort new files into specific folders.
9. Plugin / Extension Support	Allows adding extensions or plugins for extra functionality.
10. Theme & Keyboard Shortcuts Customization	Switch between light/dark themes and customize shortcuts.
11. File Compression / Extract Support	Compress files into ZIP or extract archives.
12. Recent Files / Quick Access	Displays recently accessed files for faster access.

5. Team Member Roles & Use Distribution

Member Name	Features Assigned
Nafisa Anzum	1,2,3
Rubiya Islam Aesha	4,5,6
Tahsin Talukder	7,8,9
Sefaton Nahar	10,11,12