Smart File Manager
Southern Cross Solutions

COS 301
Capstone Project Proposal
2024

Keywords : File Management, Visualizations, Machine Learning/AI

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Project Definition

Introduction

An AI-powered tool that intelligently organizes, renames, and visualizes files and folders based on user preferences and file contents.

This project aims to develop a Smart File Manager that leverages AI, machine learning, or search algorithms to analyse files and folders on a computer system. It can automatically rename files, group them into folders, and even provide a visual mind map view of the file structure. This project will be unique in the fact that it will allow for the personalization and customization of which folders and files get reorganized and renamed as well as customization of structure and format.

Background & Motivation

- *Opportunity to innovate and combine AI, file system management, and mind map visualization.*
- *Solves a common problem of digital clutter and file disorganization.*
- *Personalized, customizable, and protected file management and visualization.*

- *Students & Professionals – Organize project files and research documents.*
- *Businesses – Manage shared drives with automatic file sorting.*
- *Media Creators – Auto-organize large libraries of images, videos, and audio files.*
- *Home Users – Keep personal files, photos, and media organized effortlessly.*

System Requirements

Core Requirements

- *Basic file scanning and content analysis.*
- *Automatic file renaming and folder grouping.*
- *Simple mind map visualization of the file structure.*
- *Advanced Search & Filters*
- *Customization & Automation*

Optional Requirements [Optional]

- *AI-powered file classification and categorization.*
- *Real-time mind map updates and interactive reorganization.*
- *Advanced search, filters, and automation features.*
- *Cross-Platform Support: Build versions for Windows, macOS, and Linux.*
- *Mobile File Management: Create a mobile app with similar AI-powered features.*
- *Cloud Integration: Add support for Google Drive, OneDrive, Dropbox, etc.*

Wow Factors [Optional]

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- *Cross-Platform Support: Build versions for Windows, macOS, and Linux.*
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Architectural Requirements [Optional]

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- *Supportability*
- *Reliability*
- *Performance*
- *Security*
- *Access Control*
- *Flexibility*

Design Requirements
[Optional]

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Design Requirements [Optional]

- *User Friendly*
- *Reliable and secure*
- *Customizable*

Delivery Requirements [Optional]

Delivery Requirements [Optional]

- *Deployed desktop program*
- *Mind map view of file structure*
- *File content interpretation*
- *File and Folder creating and renaming*

Constraints
[Optional]

Constraints [Optional]

Challenges
- *Avoiding Incorrect File Grouping: AI models need high accuracy for categorization.*
- *Performance Impact: Scanning large file systems must be efficient and non-intrusive.*
- *Handling Sensitive Files: The tool must respect user privacy and avoid critical system files.*

Budget

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No anticipated costs for the project
Any unanticipated costs will be discussed at a later stage.

Project Plan
[Optional]

Team Breakdown [Optional]

(team's choice)

Client Details

Contact Details

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Corporate Assets

THANK YOU