

AI-WEEK VIBE CODING HACKATHON

PROBLEM STATEMENT - 2

Traditional file management relies on rigid, manual hierarchies - folders and sub-folders, that quickly become disorganised and inefficient. The Semantic Entropy File System (SEFS) challenge tasks you with developing a self-organising file manager that replaces static directories with a dynamic spatial map. Instead of requiring users to categorise files, your system must autonomously analyse the content of documents and project them onto a 2D coordinate system. In this environment, files with high conceptual similarity will automatically converge into thematic clusters, while unrelated documents remain distant. The core difficulty lies in maintaining a "living" interface: as new data is introduced, the system must re-calculate the entire semantic layout and animate the transition of files to their new optimal positions in real-time.

Expected Outcomes

- 1) Auto-Detection: A system that watches a folder and automatically starts processing any new PDF or text file you add.
- 2) Smart Grouping: Logic that clusters similar documents together based on what they are actually about, not just their names.
- 3) Interactive Map: A visual 2D interface where you can see all your files as dots, hover for info, and click to open them.
- 4) Live Animation: A "living" UI where files physically slide into new positions whenever the map re-calculates its layout.
- 5) Search-Free Finding: A way for users to find what they need just by looking at the related groups on their screen.