File Explorer design pattern:

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| Package: View  MainWindow.fxml  Made with javaFX scene builder  Responsible for displaying everything  There are 3 panes on the window   * displayPane: displaying preview of images and folders (icon) * imagePane: for handling image tagging and displaying a large preview of the image * newFolderPane: an extra feature to allow user to make a new folder anywhere |

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| Package: Controller  GUI Controller:  Controls everything displayed on the GUI   * Button clicking actions * Image icon clicking actions * Scroll Pane resizing * Interactions between Models   Console Controller:  Works the same with way as GUI except runs with the console |

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| Package: Model  Directory:  Holds reference of a directory on the OS   * Constructor takes in (String name, String path, Directory parents) * Getter for each variable in the constructor * A recursive method generateDirectory to scan in everything in and under the directory * searchTag/listImage function use the generateDirectory function to search   Photo:  Holds reference of a photo on the OS   * Constructor takes in (String name, String path) * Getter for each variable in the constructor * Rename () function to rename the photo on OS according to its tags * writeLog function to document these changes on file names * move (Directory d), move images to a new given directory * A method photoOpenedBefore to keep track of if photo has been previously tagged * convertToTags reads in the file name on the OS and converts it to Tags   Entry:  Abstract class that Photo and Directory extends to   * every Photo and Directory object is an Entry * They share similar attributes (Name, Path) * A getter for each attribute   TagManager:  Holds the tag information for an image   * Default constructor, initialized in class Photo * Have a variable holds all tags ever used * Have a variable for current tags for a particular image * Add, delete tags from an image * Revert Tag feature to go back to tags used before |