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Image Metadata Extractor

Description of Functionalities

In short, our program will allow a user to select one or multiple image files from their computer. The first execution that will happen after the user launches our script would be to display a start screen to indicate that the program is running. After this step, our program will install the 'exif' tool (after asking the user for permission) whose purpose will be to extract all the metadata contained in the selected file(s). The script will then prompt the user to select which information they would like to keep amidst a couple of options that we will provide, or simply select all the information that is available. Finally, the program will output all the information to a formatted text file created using the vi editor and prompt the user for the directory where they want the information to be saved. The script will then display a 'Thank you' message and exit.

Summary of our plan

The first step in coding our application will be to implement our start screen. After this, we will need to write a message in the terminal prompting the user if he or she would like to install the 'exif' tool. If they refuse our 'Thank you' message will be displayed, and our application will exit. However, if they accept, the script will execute the 'apt install exif' command and place the tool in the user's home directory. Then, we will prompt the user to simply enter the name of the file(s) they would like to use. The script will then check if the file is a jpeg image using a simple if()else() statement, and if it is not, it will copy the file and produce a jpeg version of the image. We will then place each name into a string variable and use the 'exif *variable1'* command on each one. The 'exif' tool will then return all the metadata on the files which we will store in a hashmap. Next, we will prompt the user to select amidst a selection of choices we will provide on what specific information they would like to keep. The program will then create a vi text file and enter the information from the hashmap which the user has selected. The user will then be prompted to where they would like to save the file. Finally, our program will display the 'Thank you' message and terminate.