Plan for Image Reader

**Input**

Image file location

CSV file location

Write action (Overwrite/append to CSV file)

**Output**

CSV file with data from image inserted

**Variables**

|  |  |  |
| --- | --- | --- |
| Name | Type (eg integer, string) | Comment |
| self.img\_path  self.img\_button  self.text  self.csv\_path  self.csv\_button  self.save\_as\_button  self.write\_button  self.img\_label  self.root  self.frame | Various Tkinter widgets | All used to create gui |
| self.img | None/PIL Image | None until an image is selected |
| self.csv | String | CSV file path |
| self.exif | Dictionary | EXIF data extracted from image and the filename |
| a | MainWindow | Just needed to get the gui to start |

**Constants**

|  |  |  |
| --- | --- | --- |
| Name | Type (eg integer, string) | Comment |
| BLACKLIST | set | EXIF tags we don’t want to add to the csv file |

**Pseudocode**

Define GUI, where each button does the following:

“Select Image” Button -> Select file window -> Load image, extract data -> Display image and data

“Select CSV file” Button -> Select file window -> Stores file path for later

“Overwrite data” Button -> Empty csv file -> Write file header -> Write image data

“Append data” Button -> Check if new header data -> (if yes) Reformat file -> Append image data

Display GUI

**Testing**

|  |  |  |  |
| --- | --- | --- | --- |
| For input: **Image file location** | | | |
| **Testing case type** | **Test case** | **Expected result** | **Actual result** |
| Normal/expected | C:\Users\Public\Pictures\Sample Pictures\Desert.jpg  C:\Users\Public\Pictures\Sample Pictures\Desert.tiff | Loads image | As expected |
| Boundary | C:\Users\Public\Pictures\Sample Pictures\Desert | Program assumes a .jpg and loads image | As expected |
| Invalid/illegal | C:\Users\Public\Pictures\Sample Pictures\Desert.txt | Impossible to select | As expected |

|  |  |  |  |
| --- | --- | --- | --- |
| For input: **CSV file location** | | | |
| **Testing case type** | **Test case** | **Expected result** | **Actual result** |
| Normal/expected | C:\Users\Public\Pictures\Sample Pictures\Data.csv | Saves CSV file path | As expected |
| Boundary | C:\Users\Public\Pictures\Sample Pictures\Data | Program assumes a .csv and saves CSV file path | As expected |
| Invalid/illegal | C:\Users\Public\Pictures\Sample Pictures\Data.txt | Impossible to select | As expected |

|  |  |  |  |
| --- | --- | --- | --- |
| For input: **Overwrite data** | | | |
| **Testing case type** | **Test case** | **Expected result** | **Actual result** |
| Normal/expected | CSV file selected and exists | Wipes file and writes data | As expected |
| Boundary | CSV file not selected or does not exist | Asks to select file | As expected |
| Invalid/illegal | n/a | n/a | n/a |

|  |  |  |  |
| --- | --- | --- | --- |
| For input: **Overwrite data** | | | |
| **Testing case type** | **Test case** | **Expected result** | **Actual result** |
| Normal/expected | CSV file selected, exists and:   1. Is empty 2. Contains data | 1. Writes data 2. Appends new data, reformatting existing data if there is new data for the header | As expected |
| Boundary | n/a | n/a | n/a |
| Invalid/illegal | CSV file not selected or does not exist | Nothing happens | As expected |