

2019

Junior Engineer Assignment

IMAGE EDITOR
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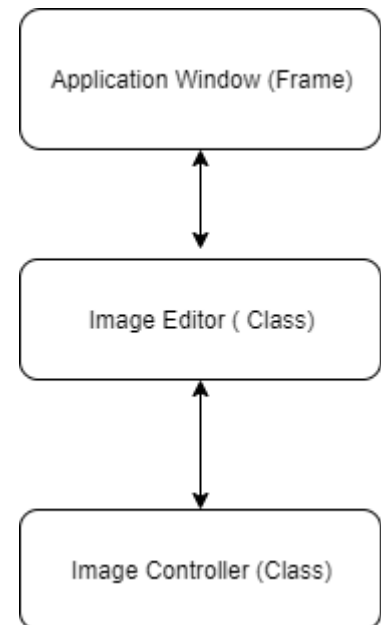
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1. Design of The Application

The Application consists of Two main Classes:

- Image Editor: which talk direct to our frame and handle Actions
- Image Controller: which deal with the image frame and apply actions on it.



2. Structure of The Code

- ImageController class
 1. Public Constructor contain action listener of the mouse.
 2. Initialize function to add the default values for each variable.
 3. Setters and getters for all the boolean variables.
 4. For each action there is a function to implement it.
 5. Some extra functions to help in the implementation of the actions like combiningImages() and changeActions().
 6. Overriding of paint() function to draw according to our condition
- EditImage Class
 1. Public constructor to design the window frame.
 2. Functions to get the path from user to upload Image and Save as.
 3. Action Listener to call the proper function from controller to apply action
 4. Main function which create an object to run the window
 5. Brightness Class to draw the slider and implement its action listener.

****The total code structure in the document attached with the project in GitHub**

3. User Guide

- User will first choose “Image File” Menu from toolbar, then press on “Upload Image”.
- A pop-up window will appear the user will navigate to the image path then click open.
- After that the image will be on screen, and the user will choose the selection shape from “crop” Menu.
- After choosing the shape, click on the image and drag by mouse until selecting the needed area then release, a dashed border will appear around the selected Area.
- After that user can freely choose what filter to apply on the selected Area from “Edit” menu.
- From “Image Action” menu user can “undo” one action, and “redo” it if needed.
- After finishing editing user can choose between save the image on the same path “Save”, or to a different path “Save as” from “Image File” menu.

4. Time Sheet

| Task | Spent Time (in hours) |
|-------------------------------------|-----------------------|
| Searching and preparation | 2 |
| Form format and graphics | 1 |
| Upload Image Action | 1 |
| Select Rectangular Area Action | 1.5 |
| Add a dashed frame to selected area | 0.5 |
| Invert Action | 1 |
| Lighten and Darken Actions | 1.5 |
| Blur Action | 0.5 |
| Save & Save As Actions | 0.5 |
| Combining two images | 3 |
| Circular Selection Action | 2 |
| Undo & Redo Actions | 1 |
| Code Revising and Errors Correction | 1.5 |
| Total | 16 |