Phase 2

Phase 2 of the implementation involved creating the quick select panel and the color tab.

The bottom panel near the screen is where the quick select panel is located. The quick select panel is used to hold the most frequently used features to allow the user to access these tools quickly and easily. The first feature of the quick section is the paintbrush feature which when clicking it switches to the paintbrush. The next feature is the eraser feature, which allows the user to eraser anything drawn on the canvas. The way it was implemented was quite simple, since the canvas is already white, when switching to the eraser it switches to the white color paint brush allowing the user to erase the canvas. Next was the current color indicator, which shows the current color you are using. The is done by creating a circle using the graphics component in java and changing the color of that circle to whatever color the user changes the paint brush to. Next is the preset color selection. This was done by creating a square button and coloring it. By pressing the button, it changes the brush color. Lastly, the preset brush size selection was also a button with an image on it. When pressed, using javas’ graphics2D it sets the stroke size to a larger or smaller size.

The color tab is located on the second tab and is shown on the panel on the right size of the screen. The color tab is used to deal with the color aspect of the application with regards to changing the color to a custom color and using the color dropper tool. The first feature is the color dropper tool. The tool is used to highlight a color and allow that user to change the color to that color. This would have been implemented by when the user presses the icon, it would take a screenshot on the screen. It then would map the colors out to certain coordinates on that screenshot. When the user clicks on the screen, it would take those coordinates and find out the color and then change the color accordingly. Lastly, we have the custom color picker, which is a circle of red, green and blue all mixed together. The user can click on the color wheel, allowing them to move a pointer within the wheel. The user then can select a color by click again on the wheel on their desired color. It will then change the current color and the paintbrush color that that color. This was done by creating a color wheel class and a color model class. The color wheel class creates the wheel with java graphics as well the pointer/selector. The color model class allows you to access what color the user is selecting with a few get methods as well as allow you to set a color as well.

Diagnostic Evaluation

Our user-based evaluation of our working application involved the participation of 3 users trying our best to get user to whom the application is intended for. Based on our user profile in assignment 3, the 2 of the users we got to participate fell in to the casual/non-experienced and 1 of them fell into the experienced category.

Our evaluation consisted of three user-based evaluation techniques: experimental methods, observational methods and questionnaires.

The experimental method consisted of our 4 uses cases mentioned in assignment 2. Now as we were short for time and underestimated the difficulty of adding a crop and textbox feature, we did not add those features to our program. Instead we asked the user to add a light red color with a brush size of 6 on the picture, slightly sharpen the image and to add a warmth filter. So, the use cases now are:

1. Choose the photo to be edited
2. Add a light red color with a brush size of 6 on the picture
3. Slightly sharpen the image
4. Add a warmth filter to the image
5. Export the image to an appropriate image format

Our finding with this evaluation were quite good. The casual/non-experienced users were able to do steps 1 and 2 quite well. For steps 3 and 4 the users were a little confused on which effects were blur, sharpness and warmth. They mentioned that the sliders were not clear and did not indicate well on what they were for. In terms of the warmth button, they mentioned that the icon image did not really indicate well what the button is. Lastly, the users had no problem with saving and exporting the image. The experienced user liked the overall simplicity and layout of the application. The user was able to do all the uses cases well but did mention that the sharpen and warmth button could be clearer. From this we, concluded that we will add text along with the image to make the button clearer for the user.

For the observational method, what we did is before we did the experimental method, we had the user freely use the program without any guidance. As they did that, we viewed as the used the program taking notes along the way. We did a direct observation by being present to view the user, use our program. The first thing every user did was try to draw on the canvas, the next thing again all the users did was change the color in the preset color selection. I noticed that the casual/non-experienced users didn’t click any of the button on the bottom right corner, that allowed the user to add/save a photo.

Lastly, the questionnaire consisted of 5 questions of how the user experience was. Each of the questionnaires had 5 choices from very not satisfied to very satisfied. Most of the reposed ranged from good to satisfied.