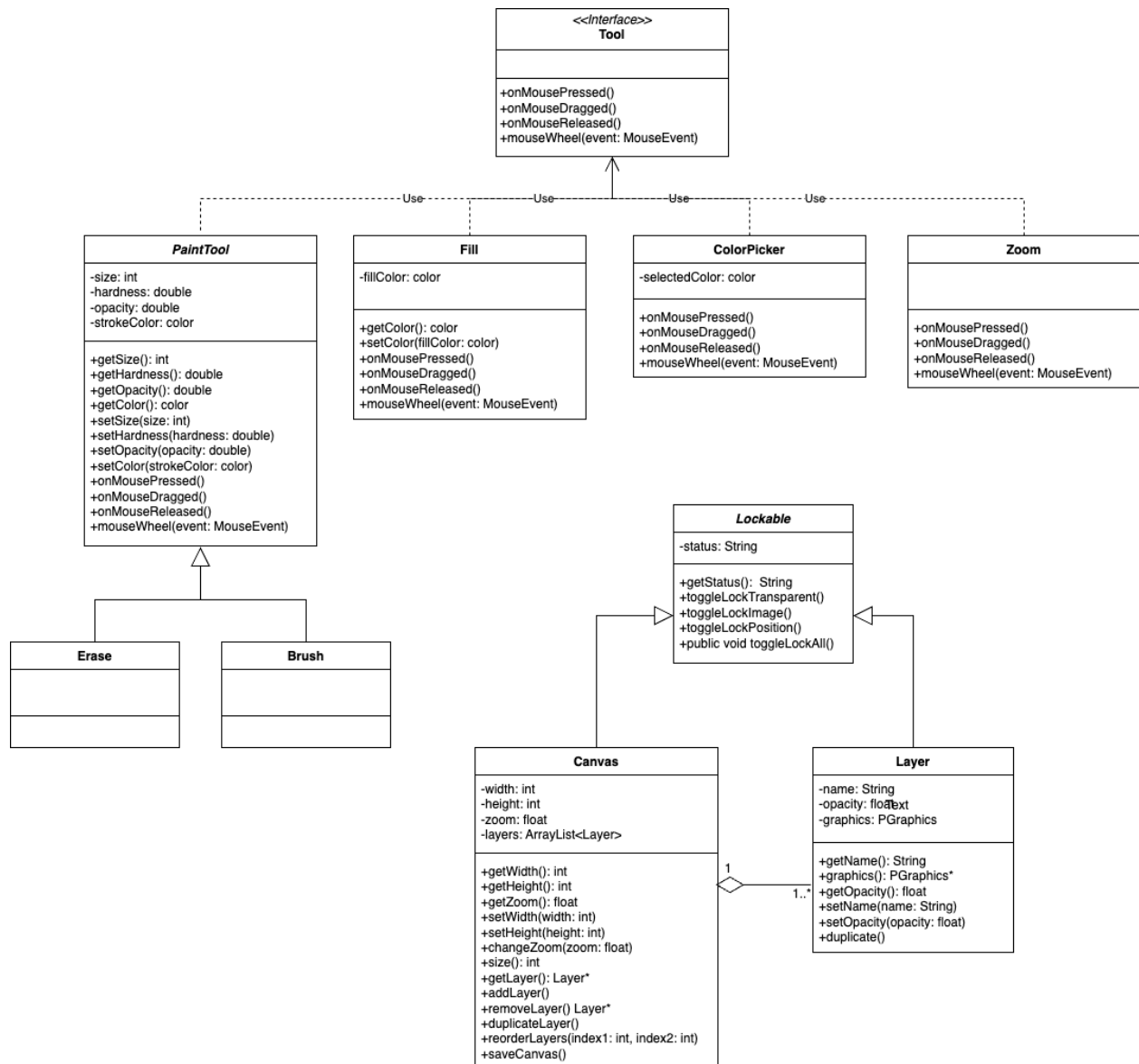


Period 6  
Calvin Ye  
Calvin.java  
Photoshop Lite

#### Description

My project is a recreation of the well known graphics editor Adobe Photoshop, a software application used for creating and manipulating images. The application allows you to edit an image you upload on a canvas. The application includes many tools that allow for editing. This includes drawing tools such as the brush, paint bucket, and eraser; modify tools such as crop and straighten; and enhance tools such as clone and blur. Finally, the application allows you to save your work and continue editing it later.

## UML Diagram



Notes: The empty Erase and Brush classes are not mistakes; these classes consist only of constructors and have no additional fields or methods.

## How it Works

When finished, you will be able to choose an existing canvas to edit or create a new one once you open the program. On the canvas, you can click upload to put an image layer onto the current canvas. You can edit the canvas by selecting from one of the many tools using your mouse or using a keybind. Depending on the tool, you can edit your canvas by pressing, dragging, and/or releasing your mouse to draw on a layer, select parts of it, zoom, pan, etc. Finally, when you are done, you can save your work on your computer by pressing a save button.

## Functionalities and Issues

- Current Functionalities
  - A GUI that allows the user to select a tool, edit layers, and save the canvas
  - The Brush, Erase, Fill, ColorPicker, and Zoom tools
  - Addition and removal of layers
  - Switching between the previous and next layer
  - Changing the opacity of the current layer
  - Saving the image on the canvas as a PNG file
- Functionalities Planned to be Done Next Meeting
  - Eyedropper tool
  - Implementation of duplication, renaming, and reordering of layers
  - All selection tools
  - Saving layer data with the canvas
  - Blending modes
  - Text tool
  - Cropping and resizing the canvas
  - Grids for alignment
  - Grouping and ungrouping layers
  - Vector tools
  - Edit history for undo and redo
  - Any other key features of Adobe Photoshop
- Issues
  - PGraphics layers could not be edited. This was resolved by using `layer.beginDraw()` and `layer.endDraw()`.
  - Tools do not function properly sometimes after switching layers. This is not resolved
  - The Zoom tool does not function as expected. This is not resolved.

## Log

All code was written by Calvin Ye