

1. Apply a negative filter on an image file. This is the process of reversing the RGB values. For example, if the Red value of the pixel is 100, the inverse is 155. NOTE: 0 is minimum and 255 is maximum.
2. Write a program that reads an image file into 1D array and converts it into a grayscale image. A color of gray is one in which Red=Green=Blue. Large values are white and small values are black.

An easy way to make an grayscale image out of color is to set each color value to the average of all three:

```
gray=(R+G+B)/3;  
R=gray; G=gray; B=gray;
```

3. Write a program to crop a PNG image to a specified rectangular region. *Input:* `start_x`, `start_y`, `width`, and `height` for the region to crop.

4. Write a program to overlay text on a PNG image at a specified location.

5. Write a program to flip a PNG image horizontally or vertically based on user input.

Adding a Border:

6. Implement a program to rotate a PNG image by 90, 180, or 270 degrees.