

## Design (Algorithm) for Homework 4

- Comment with my information and description at top of code.
- Declare functions.
- Create void function that prints out my information.
- Create main function.
  - Declare variables.
  - Declare vector.
  - Call MyInfo function.
  - Ask for user input file.
    - Check file for opening failure.
  - Else loop to read file and stores data for use.
  - 2D vector.
  - Pass values into Check function.
- Create void function that displays the matrix image.
  - Declare variables.
  - For loop for less than return size.
- Create vector matrix function.
  - Declare vector matrix.
  - Declare variables.
  - Store file into a matrix.
    - Increment count (knt).
  - Return matrix.
- Create void function to Print results into output file.
  - Declare variables
  - User given output output filename.
    - Check for opening failure.
  - For loop to print matrix into the file.
  - Print results of program into file.

- Create void function to perform the passes.
  - Declare variables.
    - Compare vectors.
    - Replace vectors.
  - First pass.
    - If Case 1.
      - If Case 2.
        - If Case 3.
  - Second pass.
    - Could not get this to work for some reason....
  - Clear vector contents.
  - Add element at the end of vector.
  - Bonus.
    - Count the number of pixels in the image.
    - Increment by 1.
  - Pass values into Print function.
- END PROGRAM.