

Design document

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CS 135

Picture editor?

6 - functions

int main()

input: none

output: return 0 when done

function: looping switch that calls the other functions depending on a user input
0 = exit program → return 0

data: Array[x][y] stores image, userinput , File ptr to get user files

int displaymenu()

input: none

output: int userinput

function: displays a menu : 1-load image, 2-display image, 3-edit image, 0-exit

: if 3 is chosen then display 4-crop, 5-dim, -6, brighten, gets the user input and returns it to main function, repeats

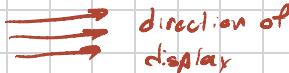
void displayimage(Array[][])

input: Array[x][y]

output: none

function: displays everything in Array, when y increments then it goes to next line
loops until '\0' is found in array

using a switch converts # into pixel then displays



void loadimage(FILE* Ptr, Array[][y])

input: (FILE* ptr, Array[x][y])

output: (using fopen) FILE* ptr

function: ask user for file name Ptr = fopen(userfile, "r"); . If file not found, loop asking until user enters valid file

uses file pointer to "read" a file and puts it into Array, looping fscanf that loops until it returns

0 while(fscanf(ptr, "%c", &Array[x][y]) == 1) {
 x++;

: if Array[x][y] == "\n" then y++;

puts an extra '\0' at end to indicate end of image

→ direction of scan

int cropimage(Array[][y])

input: Array [][y]

output: Array [][y]

function: user is able to set x and y length amount of "pixels", changes the image after use and returns it

int brightenImage

input: Array[x][y]

output: Array[x][y]

function: goes through every element in array and with a switch changes each pixel # and adds 1 (except for the 4) and returns array

int dimImage

input: Array[x][y]

output: Array[x][y]

function: goes through every element in array and with a switch changes each pixel # and subtracts 1 (except for the 1) and returns array