

final project design

Abbigail Nerger

Data

menu choice - int

Algorithm

MAIN

User is prompted

- If they choose to load a new image, they will be prompted for the file name containing the image, & then it will be read.
- If they choose to display the current image the default file will be read.
- If they choose to edit the current image they will be asked what to do.
 - If they choose crop they will be asked what parts to "cut out". those parts will change to blank spaces & image will display
 - If they choose to dim the program will decrease the int assigned to the char to -1 & image will display.
 - If they choose to brighten the program will increase the int assigned to the char to +1 & image will display
 - If they choose to rotate 90° they will be asked which direction.
 - If left then column 1 becomes row 1 & image is displayed
 - If right then row 1 becomes column 1 & image is displayed
 - ... then image will display.
 - ... then they will be asked if they want to save new image. File I/O
 - If yes ask for a file name & return to main menu.
 - If no return to the main menu
- If they choose to exit the program the program will stop running

functions/pointers

basic program skills

variables

selection

format I/O

functions

main menu() Selection

input: User int

output: int main menu choice

functionality: direct computer to next function

load new image() File I/O

input: user's file choice

output: user's file is read

functionality: read user's file

display current image() format I/O

input: the file that is currently being read

output: display of current file

functionality: display current file.

edit menu() Selection

input: the int pertaining to main menu & int edit menu choice

output: int edit menu choice

functionality: direct computer to the correct editing tool

crop() format I/O, iteration, arrays, selection

input: user's edit menu choice, current image file, user's desired dimensions & desired center point.

output: new image file meeting user's parameters

functionality: change dimensions of a new array

dim() Iteration, arrays, Selection

input: user's edit menu choice & current image file

output: the current image but each value is decreased by 1

functionality: change what is stored in array

brighten() Iteration, Arrays, selection

input: user's edit menu choice & current image file

output: current image but each value is increased by 1

functionality: change what is stored in array

rotate() Iteration, Arrays, selection

input: user's edit menu choice, current image, & direction

output: current image tilted 90° by changing row 1 to

column 1 & vice versa.

functionality: Create multiple arrays from image & paste them together to create a new 2D array