

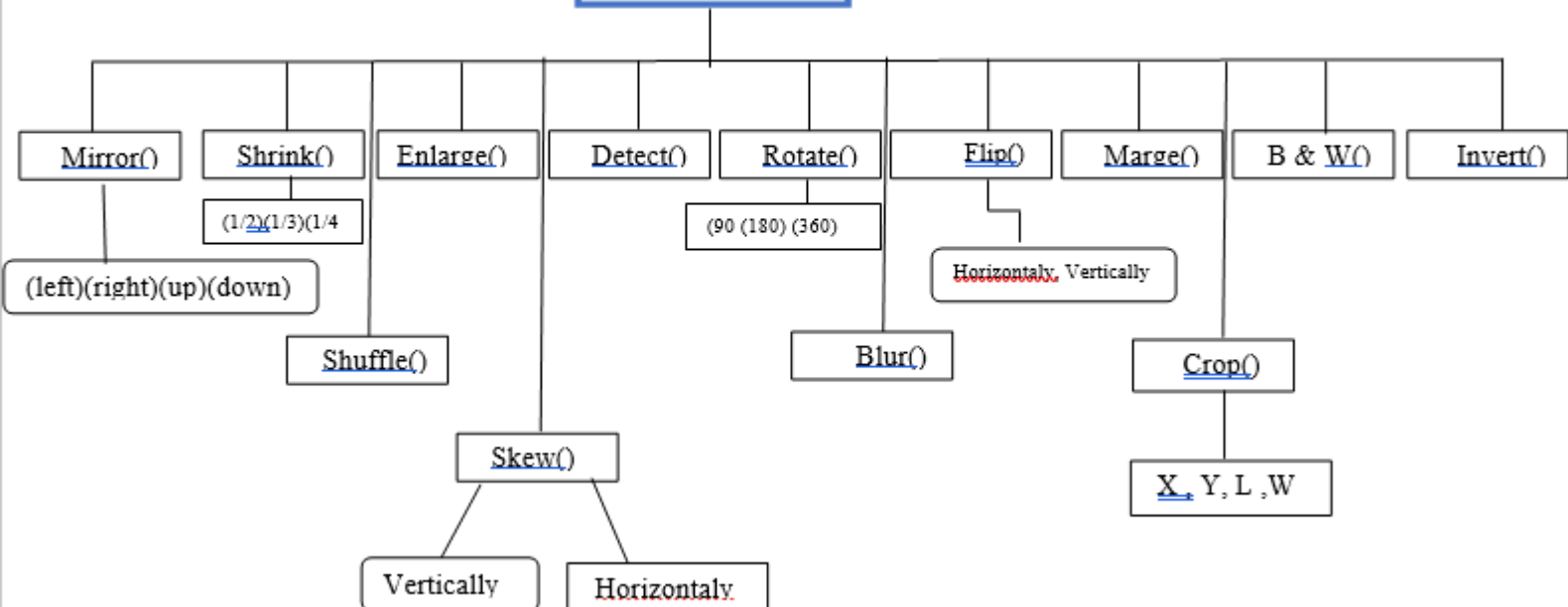
TEAM Members:

(1) Abdullah Samir Moahmed	20220200	S4
(2) Mohamed Ahmed Mohamed Mahmoud	20210596	S12
(3) Ibrahim Rabea Ibrahim	20221001	S17

- (1) Black and white:
we check if the pixel are over 127 or not. if it is we make it whit ,else we make it black
- (2) invert image:
we sbtract 255 from each pixel to convert the degree of it.
- (3) merge image:
We make nested for loop to store in image 3 the avarge of image1 and image2.
- (4) Flip image:
we show two options vertical and horizontal . if user choose vertical we loop all over image pixels and make all new values of row=the opposite row to it in this formula $abs(255-i)$. And if user choose horizontal we do the same thing but with columns.
- (5) Rotate image:
we show three options to user 90,180,270. If user choose 90 all we do is swap each row and column then swape each new row with the opposite one. And for 180 and 270 we can make the same operation twice if he chooses 180 and three times if 270.
- (6) Darken and lighten:
We make if condition with darken or lighten if darken We're subtract the image divided by 2 from the original Image,if lighten then added the image divided by 2 from the original Image.
- (7) Detect image Edges:
we loop all over indexes and if we find a big difference in values of indexes these are beside each other we consider it an edge.
- (8) Enlarge image:
the user will choose quarter that he want and we will make a new 2d array to store wich quarter he will choose and load it into 2d array.After that all we do is copy this 2D array to the
our image But evey index in 2D array equivalent to 4 indexes (rows and columns together) that is it.
- (9) Shrink image:
Each pixel value at location (i, j) is copied to the location Example (i/2, j/2) in the downscaled image. Then, the pixel values in the right half and bottom half of the downscaled image
are set to 255, representing the color white.
- (a) Mirror image:
user will choose option from 4 options. If user choose 1 or 2 we loop in just this limit (colums:0->128 OR columns: 128 ->255 And rows will be 0 -> 255)
and all difference will be in columns and make each one of them like the opposite one.
If user choose 3 or 4 , here we do the same operation like above but to rows not columns.
- (b) Shuffle image:

- (a) Mirror image:
user will choose option from 4 options. If user choose 1 or 2 we loop in just this limit (columns:0->128 OR columns: 128 ->255 And rows will be 0 -> 255)
and all difference will be in columns and make each one of them like the opposite one.
If user choose 3 or 4 , here we do the same operation like above but to rows not columns.
- (b) Shuffle image:
First thing we store each quarter in a separate 2D array to be ready just for copying them.
Then we make if conditions to each position the user will choose and all our change will be in what we will loop on and where this quarter will be copied in the original image.
- (c) Blur:
We will bring a pixel, then add each pixel at the top, bottom, right, and left, and divide their sum by 9.
- (d) crop:
I will loop just on the user input and anything else i will make it white.
- (e) Skew:
This process is to smooth the image or reduce noise by replacing the pixel values by their average with the surrounding pixels.

Main()



Commits on Oct 19, 2023

Update Project.cpp

 mohamedahmed5580 committed 40 minutes ago


Verified



468a847



Update Project.cpp

 mohamedahmed5580 committed 7 hours ago

Verified



69093c1



Final Upload

 mohamedahmed5580 committed 7 hours ago

Verified



a8b73c8



Update Project.cpp

 abdullahsamir74 committed 16 hours ago

Verified



4f90ce3



Update Project.cpp

 abdullahsamir74 committed 16 hours ago

Verified




8a2a11e



Commits on Oct 18, 2023

Update Project.cpp

 mohamedahmed5580 committed yesterday

Verified



559f186



Update Project.cpp

 abdullahsamir74 committed yesterday

Verified



18449b3



Update filters

 mohamedahmed5580 committed yesterday


Verified



5bf0c57



Update Project.cpp

 mohamedahmed5580 committed yesterday

Verified




b6e493d



Commits on Oct 10, 2023

Update Project.cpp

 mohamedahmed5580 committed last week

Verified



d8ad0f5



0% progress | 0 stars | 0 points

Home Row

1



Introduction to Typi...

2



Keys f & j

3



Space Bar

4





Review: f & j

5





Keys d & k

6





Review: d & k

7





Practice: d & k

8





Play: fjk d

9





Keys s & l

10





Review: s & l

11





Practice: s & l

12





Keys a & ;

13





Review: a & ;

14





First 8 Keys

15





Play: First 8 Keys

16





Home, Sweet Home!

17





Home Row: L Hand

18





Home Row: R Hand

take placement test






1





14% progress | 368 stars | 190,919 points

94  ★★★★★ Play: Words	95  ★★★★★ Staring at Screen	96  ★★★★★ Take Breaks	97  ★★★★★ Look Away	98  ★★★★★ Active Breaks
99  ★★★★★ Practice L Hand	100  ★★★★★ Play: Numbers	101  Muscle Memory	102  Good Posture	103  Adjust Your Screen
104  Trust Yourself	105  Practice R Hand	106  Play: Words	107  Brain Power	108  Repeat Lessons
109  Trust Yourself	110  Practice R Hand	111  Take Breaks	112  Look Away	113  Adjust Your Screen



21% progress | 583 stars | 283,183 points

143  ★★★★★ Review: D & K	144  ★★★★★ Practice: D & K	145  ★★★★★ Play: FJDK	146 SL  Capital S & L	147  ★★★★★ Review: S & L
148  ★★★★★ Practice: S & L	149 A:  Capital A & :	150  ★★★★★ Review A & :	151  ★★★★★ Practice: A & :	152  Play: SLA:
153 GH  Capital G & H	154  Review: G & H	155  Practice: G & H	156 TY  Capital T & Y	157  Review: T & Y
158  Practice: T & Y	159  Practice: T & Y	160  Practice: T & Y	161  Practice: T & Y	162  Practice: T & Y



28% progress | 778 stars | 354,448 points

Common Patterns 1

192



the

193



ing

194



tion

195



est

196



and

197



int

198



ship

199



nth

200



ear

201



ore

202



Dynamic Practice



30% progress | 813 stars | 364,350 points

Close ✕

49



Top Row: Right Hand

50



Play: Top Row

51



Play: Top Row

Bottom Row

52



Keys v & m

53



Review: v & m

54



Practice: v & m

55



Travel R Index

56



Travel L Index

57



Keys c & ,

58



Review: c & ,

59



Practice: c & ,

60



Travel R Middle

61



Travel L Middle

62

63

64

65

66



Close ✕

30% progress | 813 stars | 364,350 points

Close ✕

143



Review: D & K

144



Practice: D & K

145



Play: FJDK

146

SL



Capital S & L

147



Review: S & L

148



Practice: S & L

149

A:



Capital A & :

150



Review A & :

151



Practice: A & :

152



Play: SLA:

153

GH



Capital G & H

154



Review: G & H

155



Practice: G & H

156

TY



Capital T & Y

157



Review: T & Y

158



Practice: T & Y

159



Play: TYA:

160

RU



Capital R & U

161



Review: R & U

162



Practice: R & U



Close ✕

30% progress | 813 stars | 364,350 points

Close ✕

Basic Level 2

Basic Keys (Goal 30 WPM)

203



Cacao Tree

204



Wooden Churches

205



Vasco da Gama

206



Solar System

207



Play: Words

208



Dogs

209



Spaces in English

210



Puppies

211



Books

212



Play: Words

213



Singing Whales

214



Africa

215



Polyps

216



Photosynthesis

217



Play: Words

218



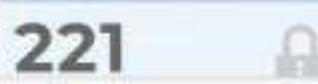
219



220



221



222



Close ✕