Memorable Borders

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Cloud 9 Workspace: https://goo.gl/v8fGZR

Presentation: https://goo.gl/tynoxY

Before	After
	
	
	

Brainstorming

To satisfy Client 2, who would like a program that generates a memorable, geometric frame with the option of adding a distinct family symbol, we came up with the following ideas:

- Have a border surrounding the image
    - It could have geometrical shapes because the family likes shapes and modern art.
        - For example, have a pattern of squares and triangles with color
- The family name or a logo/slogan could be at the bottom
- We might be able to include a feature that says where the picture was taken
- Rounded border that blends in with the edge of the image
- Animated border? They like modern art
- Zig-zag borders
- Add differently themed borders (Marvel, Star Wars, etc.)
- Border changes color every five seconds
- Inserting an emoji to show a symbol
- Pixelated images
- Somehow, a shape could be pasted onto the picture wherever the user wants.
- A silhouette of a family

Project Phases

Phase 1:

- Create an option for users to add text and a border
- Create an option that asks users what their text should say
- Create an option that asks users which two colors the border should be composed of

Phase 2:

- Create a border with three colors
- An option to choose between different fonts
- An option to type in the color name in English as opposed to the RGBA value
- All images save at once in a “modified” folder

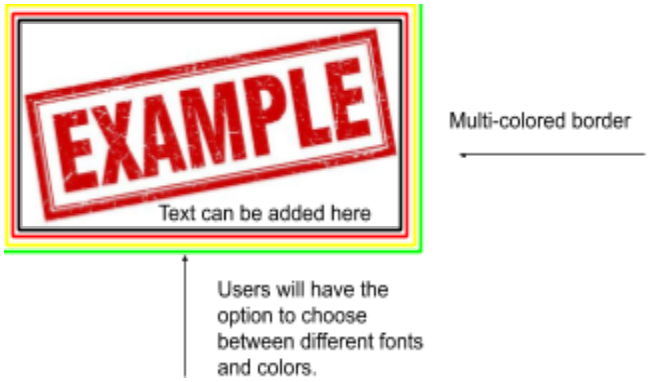
Phase 3:

- A way to publish images to social media
- Recommended color schemes for the border
- An option for bold, italicized, and underlined fonts
- An option for font modifications
- Letting clients choose which folder to save images in
- Different colors in the same word
- Multiple words pasted on a picture

We hope our code will be able to accomplish this at the end of Phase 1:

Original

Potential idea

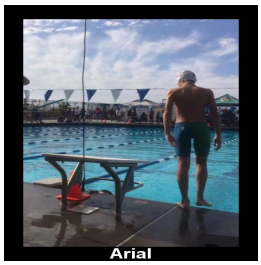


Options

Clients may use the following images or upload their own.

Features

Below are just some of the features offered to our clients.

Before	After
Single-colored borders	
	
Multi-colored borders	
	
Times New Roman font	Comic Sans font
	
Arial font	*All fonts and borders can be in **any color** and are **automatically positioned** for convenience.*
	

Gallery Walk

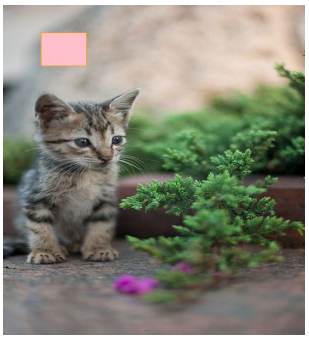
Instructions: Welcome to our project! To start, type the command to the right. You have the option to choose the font, the color of your words, and the three colors for your border. All images will work! Thanks.	Make sure the working directory is Project_Images and that smooth mode is turned on in Cloud 9. Please use this command to run the code: %run ../Final_Baker_Issac_1.4.7.py Presentation: Memorable Borders
Pros	**Cons**
The borders look very clean and crisp	Would be nice to have borders other than just rainbows.
Unique way of inputting parameters before-hand using the user_inputs function	Maybe more parameters to make the text easier to read when placed on a colorful border.
I like the different varieties of borders you can use for the picture	Add additional features to the photos like stickers or another shaped frame.
I like how the border can be changed different colors. Also, the text is a nice feature	There should be more things to do x2
I like the border stripes you used	The manipulated images are saved into every single file repeatedly, issue in the loop for saving the image.
I like the capability of adding text to the original images	cannot see the text clearly
	Half of this row and the row behind has the exact same image manipulation with the striped borders.

Conclusion

Alex: The design process was similar to the other projects we had. It was useful to turn our brainstorming ideas into three different phases. This helped us stay on track to complete our project on time. For this project, we also sketched an idea of what our completed program would do. While this was somewhat helpful, it didn't really add anything to our design process that the brainstorming and phase planning hadn't already. Next time, I think we should set specific goals to complete along the course of the project. This way, everything would be finished at a set time. We ended up spending most of the final days before the project was due working at home, but we didn't do much at-home work for the first couple of weeks. Setting specific goals would've helped us stay better on track. Our team dynamic was also good. It took a few days to get used to the driver/navigator process, but I think ultimately it helped us make sure that we each understood the code. One of the improvements I thought of after the last project was collaborating while working at home, which we did during this project. This also helped us both understand the code. This project has been my favorite so far; we were challenged and we had a good amount of freedom.

Nathaniel: The design process was fun and enjoyable because we had a couple of different options to choose from in terms of clients. Since we had chosen Client 2 we had a lot of different borders/features we could have added. The team dynamic was very good because we had complimented each other's weaknesses which made it possible to have equal effort in the entire project from both people. The major areas in which we could have improved was planning ourselves out a bit more. Because even though we had tried to have a reasonable schedule on what to do and what has to be done. But during the coding process we had come to some limitations and difficulties which took time to figure. I think next time we should be a bit more practical in doing our schedule because we had to do stuff at home which made us inefficient to use our time properly in class. Ways to improve is to be able to research more and ask for help from other people which gives us more ideas as well as also use our time to figure out other important things. The major thing we can improve on is prioritizing what can be done and what can not based on our knowledge and time. Otherwise this was a very fun project which had helped me learn more about python and image manipulation.

Work Log

	Alex		Nathaniel		Example Images
	At school	At home	At school	At home	
3/4	We chose our client, brainstormed, and began planning the project phases.	None	Choosing what client we had wanted and started to give different ideas of what we could do.	None	None
3/5	We brainstormed and finished the project phases. We set up the code and this document.	None	I started to research different ideas for patterns. And also found different useful code from the activities I had previously done.	None	None
3/6	Began research and implementation of code. We focused mostly on using the PIL library because it had most of what we needed.	None	We had found different types of codes on the internet and try to figure what each of them did	None	None
3/7	Began coding and researching borders. Again, we mainly used the PIL library. We also worked on drawing shapes.	None	Again started to brainstorm what ideas we could practically do in the time we had	None	 In this image, we added the pink rectangle with the orange border. The user can choose colors.
3/8	We worked on adding a	None	Figured out that our		The border has

	border. We also tried to incorporate 1.4.5 code.		previous activities had a lot of useful code we could use and tried to start manipulating it		temporarily broken our project, so we don't have an image for this day.
3/11	We continued working on implementing borders.	None	We had gotten a working prototype of the bordering we wanted for the images.	None	 The border works, but we aren't sure why black is appearing in it. There should only be two colors.
3/13	We worked on making text on an image. Users can choose what they want the text to say. We made a lot of progress.	None	We had tried to figure out the biggest issue which was that there were black lines in the border which were not supposed to happen	Had researched on how to fix this issue and worked on the code	 The text works and we shrunk the border. It seems to be working with all types and sizes of images. The border still has black, though.
3/14	We modified the structure of our code so everything works together and is much more organized. We also created more user inputs so users have more flexibility.	None	We had figured out how to get the black lines to not come and also started to work on making the lines evenly spaced	Researche d anymore possible stuff we could add onto the project	We didn't make any changes to actual image manipulation; we spent our time restructuring code.

3/20	We worked on combining the code and making a higher-quality border. The diagonal lines are now evenly spaced out.	We finished combining the code and adding user inputs.	We had finished the spacing out the lines which made it looked aesthetically pleasing and started to figure how to start the wording	None	
3/21	We changed the frame from two colors to three colors. We learned that some lines were appearing black because we used an elif instead of else statement. We also tried to center the text, but we haven't figured it out yet.	We added more user inputs. We fixed the saving issues. We also made it so the user can choose fonts and the color of the text.	We had wanted to add another aspect of color in the border which gave it a more unique feel which was adding another color.	None	 We improved the centering of the text, but it's still not satisfactory. We shrunk the border. Right now, the border is just an image from 1.4.5; we'll improve this later
3/22	We spent the entire period trying to figure out why our three-color border wouldn't work.	We finished the project. We figured out how to center the text better than before, shrunk the border, and added more fonts.	We were not able to get the three colors working and also the word centering. We had used the entire period to figure it out	Made slight changes and sure madse everything worked fine and also made sure to comment any unnecessary code.	

References

Brown, A. (2019, February 21). *1.4.5 Image Algorithms*. Retrieved February 27, 2019, from https://classroom.google.com/c/MTUwMzY1OTk1MTda/a/MzIwNjczNTMzNDRa/details.

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