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Term Project Design Implementation

A large problem I faced throughout this entire project was creating a user friendly way of getting all the information needed to process their ideas. Using Tkinter as a tool to create an interface that users could feel good using was both challenging and tedious. For this project, I came into it thinking about all these cool ideas I could implement, but ultimately did not realize the time it would take to create a ui design that would allow all these ideas to come to fruition. Ultimately what I ended up doing was making one or two cool video effects and focusing more on the ui experience as opposed to making cooler effects but sacrificing the ui portion. I implemented sliders as well as interactive spaces for users to input data into, had tried to combat the problem of connecting variables stored throughout the program by taking advantage of the canvas event widget that allowed me to constantly access the global canvas variables.

One way I sought to combat ui unresponsiveness was by making custom interfaces for video effects that would need more information, and keeping less needy effects simple by taking advantage of the Tkinter question and message boxes. For the most part connecting and creating a custom ui for each effect was extremely time consuming as code would have to be written for every single clickable box and variables would need to be stored as well as drawn, but overall I think that I was able to successfully combat some of the ui unresponsiveness I had originally faced to a certain extent. Also, I realized that there were some small errors or bugs in the moviepy script I was using as well, which sometimes limited the options I could take with the files or design decisions that I had to make.

For the actual design implementations, I made use of the ability to browse for files instead of manually entering them, and hoped that this would give the users an easier time finding and using files. I also made sliders for the users to find start and end times instead of having them type it in themselves. However, I had a lot of trouble with these sliders when I wanted to implement an interval effect, where the slider would slide different intervals depending on the video duration. However, as event.x/event.y only took integer values, it was essentially impossible to accurately track these intervals and map them into seconds after the length of a video went past a certain length. I also created an interactive feature for positioning where you can select which box you want the new video positioned in, as well as boxes where users can type in numbers to represent their ideas.