

**a. What challenges or bugs did you encounter?**

One of the main challenge is defiantly understanding how the object system works and how to incorporate that entire idea into localStorage. It was hard for me to understand what and how to store user specific information in the storage. I know the command, that was easy to figure out. However I want to understand what the system is actually doing (ex. in what format it was storing all the properties that I specified for every single entry). On the other hand, it was also somewhat confusing at first to understand how to reformat the information that I took out from the storage so that it is ready to be used for my own purposes.

Another challenge is creating animation inside css. Since I am very use to create animation based on constantly wiping away 2d elements and redrawing them at a new location (how p5.js works), it takes some time for me to wrap my head around to this new way of creating interval based animation clips in css.

**b. How did you overcome these challenges?**

To overcome the challenge with the localStorage piece, beside reading documentations on W3schools on the subject matter, I had to log out most of the steps that I performed with the javascript code whenever a storage is called. That little trick was actually extremely helpful, because then I know exactly what the computer is doing step by step. I know what the stored string of objects looks like and I was able to understand what parsing does just by looking at the output in my console. Because I stored everything as objects in an array, I can also easily click to see all the properties I have for every object and call them when necessary.

To overcome the challenge with css animation, I spend sometime on W3schools to see what animation properties there are and more importantly, play around with the examples that was provided on the website to understand what is doing what. After understanding the basic idea that: you are basically creating a animation based on a time line that runs from (0% -100% time through the entire animation), everything comes more naturally and becomes more easily digestible.