Intended Audience + Physical Site for Interaction:

This project will be directed towards children from ages 7 - 12 (elementary to early middle school students) who are just starting to learn about the different types of trash, do trash chores for their parents, and start throwing out their own trash. I created this project because I feel like it is really hard to actually distinguish what can be composted and recycled even for myself. So, I believe that it will be beneficial to educate young children about the different ways of throwing out trash properly at an early age where they start doing chores for their family to make this into a habit before they grow up. I intend this project to be used at schools when learning about the different types of trashes to act as a practice game for students to apply their knowledge. This game will be played by each student in the computer lab to practice throwing out the trash in appropriate bins virtually. In addition, during this Covid-19 pandemic, I expect this site to be used at homes as well to act as a way to remotely educate students about the different types of trash.

Brief Explaining the Project:

My project is an interactive educational gamer where users will sort a list of different types of trash that is usually found in one's household to appropriate trash bins. The user will sort each item by typing the appropriate letter that represents each trash bin. The site will indicate whether a user sorts the item correctly or not by the green correct/ red incorrect label. The user will be given unlimited tries if he/she gets it wrong. When the user gets it right, the site will allow him/her to move on to the next item by typing "n". Throughout the game, the user will be given the option to learn more about the different types of trash bins to educate themselves about what types of items can go inside each bin and resume back to the game. In addition, the user can even view what is inside each bin so far by typing "v" on the keyboard at any state of the game. There are a total of 11 items that the user will sort where the order will be randomly generated every time the user plays the game. When the user is done sorting all the items, the user will be taken to the ending state where it congratulates the user for their completion.

Overview of why I have chosen the aesthetic approach for the work that interfaced with the audience:

I decided to create a simple interactive game for the user because children are more inclined to learn through games than reading from a textbook. In the opening state, I allowed the user the option to choose if they want to first learn more about the different trash bins or play the sorting game immediately so that the site gives the user time to think about whether or not they know

what goes inside each trash bin before the game starts. I made all the bins be in the same location for each state so that the user would not get confused when using their keyboard to interact with the game. Children tend to learn better when there are examples and find patterns to educate themselves about a concept. Therefore, I added several examples of trash items that can go inside each trash bin in the learn state. In addition, I decided to add in a view state for the user so that the target audience, children, can refer back to what is in each bin to help them sort the new trash item. The view state act as a hint for them to choose the correct bin to put the new item in as they can see what they have already put in each bin for reference. I decided to keep the trash bins back and white because I wanted the trash item to stand out from the rest and catch the user's attention so that it is clear that the colored item is the item the user will need to sort as color is a key factor that can help grasp kids' attentions. As elementary school kids are the target audience, I decided to add in a timer function in the correct state to automatically move onto the next game state with the new item after 5 seconds to prevent the user from being stuck in the correct state as some children forget to read instructions on the screen.