### **Reflection**

One challenge I faced while working on this assignment was trying to separate my Star class into a new file. The Star class was closely integrated with the GridSquare class, especially for customized drawing. When I moved the Star class, the stars displayed correctly, but the grid and its drawings disappeared. This made me feel frustrated and unsure about why the separation caused such problems. I realized that I did not fully understand the dependencies between the classes. This was negative because it delayed my progress and took time to fix, but it was positive because I gained a better understanding of class interactions. Looking back, I could have planned the structure of the classes more carefully or ensured the dependencies were more modular before separating them. Overall, I learned that designing independent components early on can save time later. Next time, I will better map out class relationships before making structural changes.

Another challenge I faced was customizing a grid square to fit the grid size in the sketch.js environment. The grid measurements did not align properly with the rendering, which made the drawing inconsistent. This was frustrating and disheartening, as the design did not turn out as intended. I eventually decided to redo the drawing from the beginning with a better strategy for handling the measurements. This was a setback because it required extra time and effort, but it was also beneficial as it helped me better understand how to align elements correctly. In hindsight, I could have considered the grid scaling earlier or tested with a smaller setup before implementing the full design. Overall, I learned that planning for scaling and alignment is essential when working with grids. Next time, I will test the setup on a smaller scale before applying it fully.

The final challenge was making the sound functionality work. Initially, I added the sound library to the index.html file, but it did not work. This made me feel confused because I thought adding the library would be enough. Eventually, I created a new file under the "libraries" folder, which solved the loading issue. However, this introduced another problem with the keyPressed function, where I had to use two separate if statements for sound playback. Managing the logic became difficult and time-consuming. This was negative because it delayed progress, but it was also positive because it made me think more carefully about structuring conditions in my code. Looking back, I could have tested the library integration with a simpler example first or planned the logic for the keyPressed function more clearly. Overall, I learned that testing small features before integrating them into the main program is essential. Next time, I will ensure that library setups and basic functionality work properly before expanding on them.