**Challenges faced, how you overcame it, what you have learnt in the process**

I am not really sure whether this can be counted as a challenge, but I kept putting this project off until it was way too late to finish on time. While yes, doing the project is frustrating and saddening at times, but now in hindsight most of the “pain” occurred not because the project is too difficult, instead because I kept postponing it. On the contrary, it actually felt very peaceful working away and seeing progress finally being done was satisfying.

Yet, somehow I still didn’t want to do it… (not sure why, still thinking about it)

One other thing that I realised is the importance of trying things out for myself. I remember back in Y1 (and sometimes even now), when people said stuff in chats that I did not know, I would always say things like “Whats (insert stuff)?” Then one day Yunze funnily told me to maybe google and look for stuff myself.

Graphical user interface, website

Description automatically generated

Now I do often google stuff on my own before asking other :D

However, specifically to the pass-by-reference/value thing mentioned in the devlog, I believe that I could have gone one step further my testing stuff out on my own (e.g. creating simple classes and seeing how they interact/change), and make my own observations and inferences, likely making the learning experience more meaningful and easier to remember.

**Aspects of the project you are proud of implementing**

I really am quite proud of being able to implement the minimax algorithm (even though it seems quite simple, even though it is slow). The first time I learnt about minimax was in some CS50 video 2 years ago (I actually watched it a few times because I did not really understand the stuff), and back then while I understood the idea behind minimax, I could not understand the sample code at all, much less write it on my own. It really makes me happy to see that I have at least progressed and grown in the past few years.

In fact, I actually have not done a lot of stuff with python (the most “complete” thing other than this is a discord bot) so just being able to somewhat finish this makes be really satisfied too (would be better if I finished earlier though) :O