

Names: Abbas, Hiba; Wei, Yining

Agent name: Severus Snape, a complex Hogwarts professor, masks deep pain with acerbic demeanor. A Potions master, he harbors resentment towards Harry Potter, son of his childhood rival. Secretly, he's a double agent, protecting Harry out of love for his deceased mother, Lily, ultimately sacrificing himself in the fight against Voldemort. (Generated by Gemini)

Twin: The names are different.

Alpha-Beta pruning: The alpha-beta pruning in minimax() helps speed up decision-making. It tracks Alpha for the best option when maximizing and Beta for the best option when minimizing. As moves are checked, Alpha updates for maximizing, and Beta updates for minimizing. If Beta becomes smaller than or equal to Alpha, the function stops looking at more moves in that path. This avoids checking moves that will not change the final choice. It makes the search faster and more efficient.

Agent original: Based on Snape from Harry Potter.

Track: make\_new\_utterance considers the past words from current\_remark.\_\_str\_\_() for opponent and new\_state.board.\_\_str\_\_() for the board situation.

Generate: I use the generate\_content method to generate content and use appropriate prompts to make sure Gemini generates things I expect.

Extra credit part 2: implemented the LLM with Gemini. It takes the opponent's words under consideration, so it should be able to answer the opponent's questions.