Teaching GenAI the game of Diamonds and creating strategies

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1.Introduction

‘Each player gets a suit of cards other than the diamond suit.
The diamond cards are then shuffled and put on auction one by one.
All the players must bid with one of their own cards face down.
The banker gives the diamond card to the highest bid, i.e. the bid with the most points.
2<3<4<5<6<7<8<9<T<J<Q<K<A
The winning player gets the points of the diamond card to their column in the table. If there are multiple players that have the highest bid with the same card, the points from the diamond card are divided equally among them.
The player with the most points wins at the end of the game.

Can you describe the card game told to you above’ is the prompt I gave to Gemini to teach it the game of Diamonds. The point of this experiment is to understand how quickly and efficiently GenAI can grasp content that it doesn’t know. For this assignment, I experimented with ChatGPT and Gemini.

2.Teaching GenAI the game

I first gave gemini the prompt that i mentioned in the introduction . It gave me summary of what i said. Then i asked him to ask for any clarifications if required.He asked me if information sharing was allowed or not .So i clarified that information sharing wont be allowed during the game between the players.I also kept on clarifying small dimensions so that gemini is able to understand every little thing about the game. I also clarified that the game will be of 13 moves and a card will be washed away once used .After every new dimension i asked gemini to explain the game to me so that i know how much clarity does gemini have about the game.

3.Strategy

Gemini gave good strategies for playing the game.It divided the game into 3 parts: Early rounds, Mid rounds and Late rounds.It gave some additional strategies like adapting to the table and observing body language.

4.Analysis

Gemini could code up the strategy of 3 parts. This is the breakdown of the code

The provided Python code simulates a two-player version of the Diamond Auction Card game. Here's a breakdown:

1. **Setup:**
    - **It defines point values for cards (2-Ace) and functions to create shuffled Diamond decks and player hands (excluding Diamonds).**
2. **Gameplay Loop:**
    - **The game lasts 13 rounds (one Diamond auction per round).**
    - **Each round, a Diamond card is revealed.**
    - **Players take turns secretly choosing a card from their hand to bid with.**
    - **A simple winner is determined based on the highest card value (ignoring ties).**
    - **The winner gets the Diamond's points added to their score.**
3. **Player Interaction:**
    - **The code simulates player input using `input` statements where players choose cards to bid with.**
4. **Output:**
    - **The code displays revealed Diamonds, winning bids, and announces the round winner.**

- **Finally, it declares the overall game winner based on the total points accumulated.**

This is a basic simulation focusing on core gameplay mechanics, but it provides a foundation for understanding the game flow.

5.Transcripts

https://g.co/gemini/share/626503060dfd