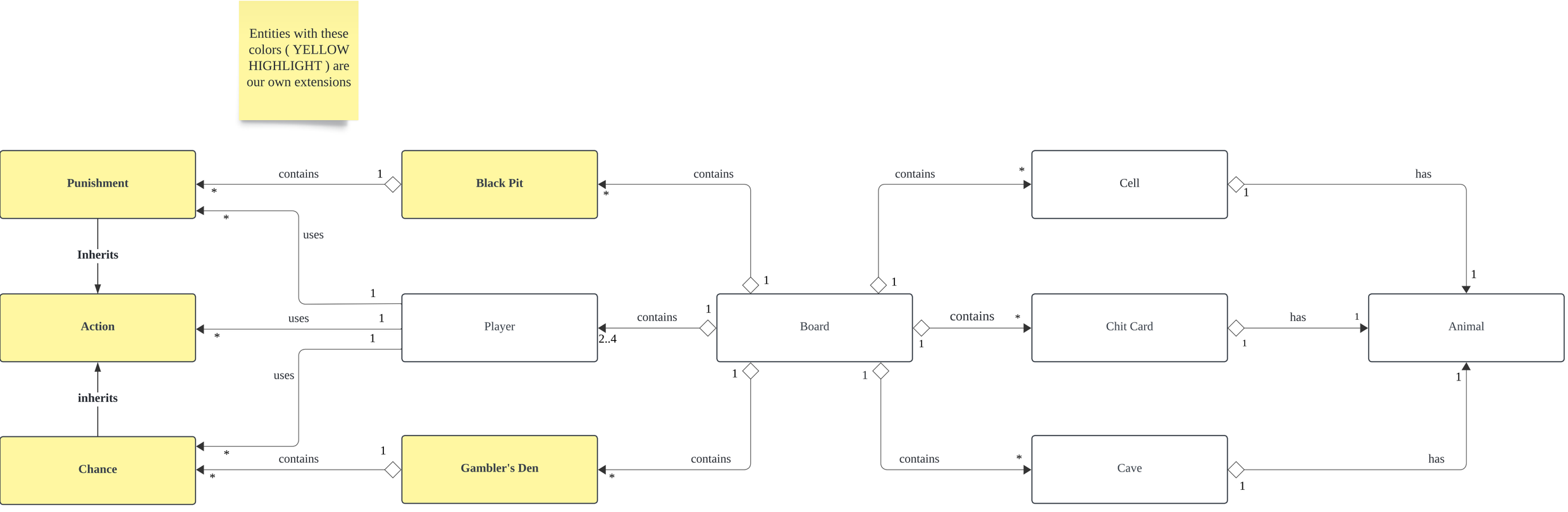
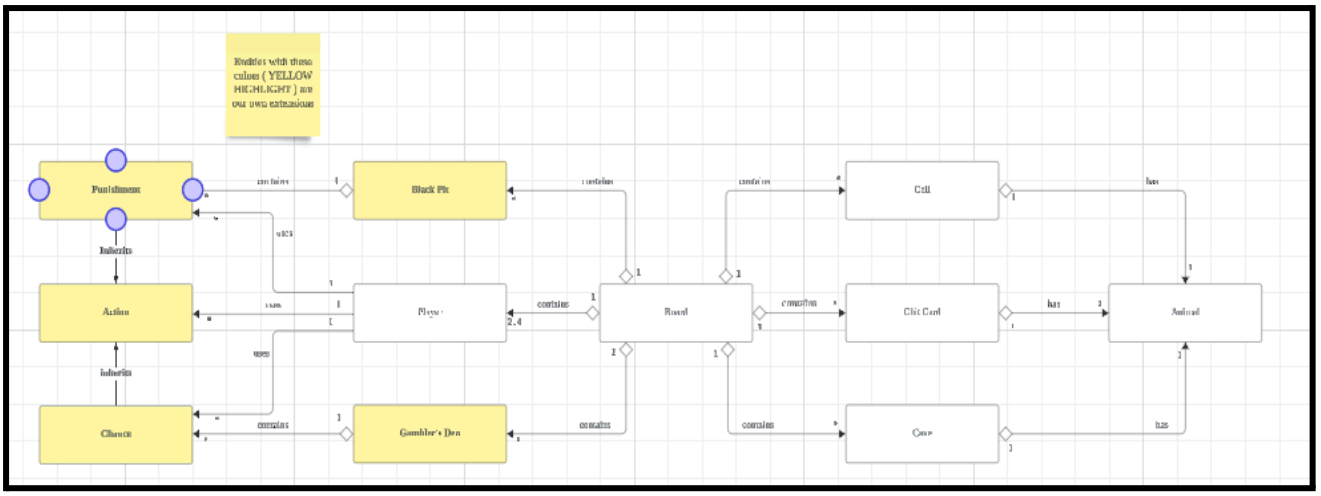

Entities with these colors (YELLOW HIGHLIGHT) are our own extensions
Punishment
Black Pit
Cell
Action
Player
Board
Chit Card
Animal
Chance
Gambler's Den
Cave
contains
uses
Inherits
inherits
has
1
*
2..4



(The team's domain model screenshot)

Main Model

Based on the domain model provided for the board game "Fiery Dragons" and its description, our team will try our best to justify the model focusing on entities, their relationships, and specific choices made during modelling. The justification will cover assumptions made and the reasoning behind the modelling decisions.

Domain Entities and Their Relationships

Player

- Justification: The game is designed for 2 to 4 players, making "Player" a central entity. Each player controls a dragon, attempting to navigate around the volcano to reach their cave first.
- Relationships: "Player" has a direct relationship with "Cave," indicating each player has one corresponding cave of the same colour as it is the starting point and end goal of each player. This aligns with the game setup where players select a dragon and a matching cave.

Board

- Justification: The board represents the physical layout of the game, including the volcano with cut and uncut cards around which the dragons move. The entity encapsulates the game's spatial element.
- Relationships: It contains "Caves," and indirectly relates to "Player" through "Cave." The board setup and teardown are central actions, that influence game flow and strategies.

Cave

- Justification: Caves serve as the starting and ending points for each player's dragon. Their inclusion as a separate entity allows for individual player goals and states to be tracked.
- Relationships: Each "Cave" is associated with a "Player" and has a one-to-one relationship, aligning with the game's rules where each player must reach their specific cave to win.

Animal

- Justification: Animals are featured on both the volcano and dragon cards, serving as the mechanism by which dragons move around the board. This entity is crucial for game mechanics, dictating player actions and movements.
- Relationships: "Animal" has a relationship with "Cave" and "Chit Card," reflecting the game mechanic where a player's dragon can move if the uncovered dragon card shows the same animal as in the player's current position.

Chit Card (Dragon Cards)

- Justification: These cards are central to the game's mechanics, determining the dragons' movements. Their inclusion as a domain entity is essential for representing the chance and strategy elements of the game.
- Relationships: "Chit Card" uses "Animal" to determine movement and has a complex interaction with "Player" and "Board," indicating the dynamic nature of gameplay and decision-making.

Extensions

Punishment, Gambler's Den, Black Pit: These entities are marked as extensions (in yellow), indicating they are beyond the original game rules. Such additions aim to introduce new dynamics, such as risk/reward elements ("Gambler's Den"), or consequences for certain actions ("Punishment," "Black Pit"). The justification for these entities stems from our desire to enhance the game's complexity and engagement, potentially addressing a wider age range or providing variability for repeated play.

The extension of the model with entities like "Punishment" and "Gambler's Den" provides players with a more complex game experience beyond the simple mechanic of matching animals and moving around the board. These elements introduce strategic considerations, such as risk management and decision-making under uncertainty.

Conclusion

The domain model for "Fiery Dragons" is designed with a clear understanding of the game's rules and aims to capture both the fundamental and potential extended gameplay mechanics. The chosen entities and their relationships reflect the core interactions and objectives within the game, while the extensions suggest a desire to offer a deeper, potentially more challenging experience. The implementations made and the extensions proposed indicate an effort to balance accessibility with engaging depth, catering to a broad audience while keeping the game's spirit of adventure and competition.