# **Elemental Battle**

developer: Bonan Mai Student ID: 50079740

## **Game Description**

#### 1. Introduction and Game Background Information

Elemental Battle is a creative reinterpretation of the classic childhood game Rock-Paper-Scissors. In this game, players engage in combat using a system of elemental interactions based on the cyclical dominance concept from the original game. Through surveys conducted among my classmates, I discovered that many players have personal preferences when playing Rock-Paper Scissors.

The story is set in a world composed of three elements: fire, water, and grass, which counter each other. In each battle round, players will choose one element to enchant their weapons. If one side's element counters the other, it will deal corresponding damage to the opponent, and vice versa.



#### 2. Gameplay Introduction

Through surveys conducted among my classmates, I discovered that many players have personal preferences when playing Rock-Paper Scissors. This also serves as the foundation of the game's combat mechanics. Players will possess a Divine Eye, which can predict the type of element the opponent will use before each turn, aiding players in making strategic decisions. The accuracy of the Divine Eye's predictions will dynamically change based on the power gap between the player and the enemy: the higher the player's attack power, the greater the prediction accuracy. Additionally, players can explore the map and engage in battles to gather insights into the bosses' elemental strategies, allowing for more informed decisions during combat.

The storyline follows an adventurer on a quest to obtain the treasures of the Moonlight Queen in a wild and mysterious land. Players will encounter various NPCs and bosses during their adventure, and they can achieve different endings through their choices and actions.

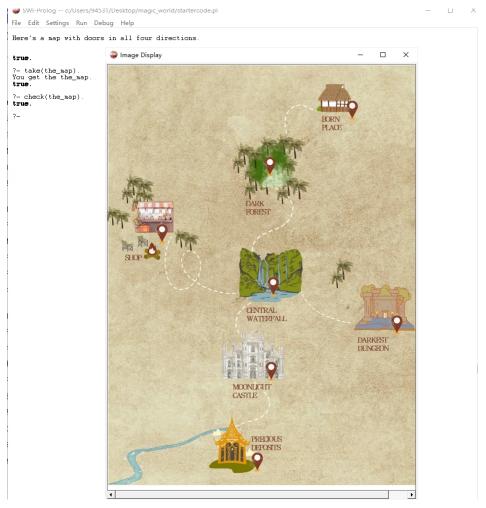
#### 3. knowledge rule and fact

The game is designed with a rich set of dynamic and static facts to support its operation, featuring enemies of varying difficulty across the map. The player starts with 2 health points and an initial attack power of 1. By interacting with or battling these enemies, players can acquire more powerful equipment and further enhance their abilities. Players can control movement on the map by inputting commands such as "s," "n," "e," and "w" in the text box, and can use the "fight" command to engage with encountered enemies. Additionally, a backpack management function allows players to freely manage the items within their inventory. The game also includes a complete map and special storylines, enabling players to uncover new plots through exploration.

### **Game Mechanics**

#### 1. Map and Navigation

Unlike conventional text-based Prolog games, the Elemental Battle Game integrates both text and visuals to enhance gameplay. When players acquire the map, they can view the complete layout by using the command <code>check(the\_map)</code>. This approach adds depth to the exploration experience, allowing players to visually track their progress and discover new paths more intuitively as they navigate through the game's world.



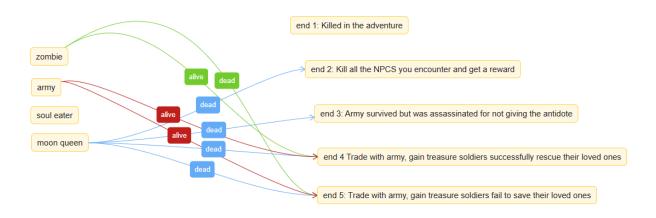
Additionally, most Prolog games typically only offer instructions at the start to guide players. In contrast, *Elemental Battle* provides guidance at every interactive point, enhancing the player's experience by offering clear prompts and suggestions throughout the game. This approach ensures players are well-oriented in each new area, making exploration and interaction smoother and more enjoyable.

```
?- s.
Boss alert!!! Queen of the Moonlit here!!!!!, you can type fight(queen_of_the_moonlit) to fight it, and there's a door to your north a
```

#### 2. Multiple ending storylines

In the game's storyline, I incorporated a subplot where a warrior searches for a cure for their loved one, adding layers of emotion and motivation to the adventure. Players' choices and actions influence the storyline's progression, offering a variety of endings: the player may be killed by enemies encountered along the journey, fall in a battle against a powerful Boss, or succeed in defeating all opponents to secure the ultimate treasure. Through exploration, players may even uncover hidden clues that unlock the perfect ending.

This multi-ending design not only adds depth to the game but also enhances players' sense of immersion and accomplishment. Every decision allows players to feel the significance of their choices, boosting the game's replayability and ensuring each adventure is filled with a sense of freshness.



# Challenge

During the game development process, I encountered various challenges, including the use of conditional statements in Prolog and the design of the main storyline. However, with careful adjustments and optimizations, I was able to complete the game within the tight timeline. I originally aimed to create an interactive version with a UI interface, but due to time constraints, I couldn't fully realize this feature. Nevertheless, this experience allowed me to gain valuable insights and skills that will be beneficial for future projects.