

## Part 1: Website Description

The website is an interactive, narrative-driven memory game designed to engage users in a magical quest. Its primary purpose is to immerse players in the role of a witch tasked with saving a prince by concocting a mystical potion. The website conveys information about various magical ingredients and their significance in the potion-making process, intertwined with a captivating storyline. The game is designed to be interesting and engaging through its blend of fantasy elements, interactive card-matching mechanics, and a progressively unfolding narrative. The target audience for this website includes individuals who enjoy fantasy-themed games, storytelling, and light-hearted puzzles, especially those who appreciate a visually rich, interactive experience.

## Part 2: User Interaction

- **Start Game:** Users click the "Start Game" button on the StartScreen to begin the adventure.
- **View Instructions:** Clicking "How to Play?" displays overlay images with instructions, which advance on clicking.
- **Card Matching:** Interaction is through clicking on cards to find matching pairs of magical ingredients.
- **Music Control:** Users can click an icon to toggle background music on and off.
- **View Storyline:** Storyline dialogs appear automatically as users make matches, progressing the narrative.
- **Game Completion:** Upon either winning or losing, users are presented with a GameOverScreen where they can start a new game.

## Part 3: External Tool - React

React was chosen for its component-based architecture, allowing for reusable UI components, and its efficient update and rendering abilities, enhancing the interactive nature of the game.

React was used to build the game's UI, manage state for game logic (like card matching, storyline progression), and handle user interactions dynamically.

React contributed to creating a seamless, dynamic user experience where the game's state updates in real-time, responding instantly to user interactions.

## Part 4: Iteration and Design Changes

I changed up the whole idea from solving a mystery to creating a magical potion through card matching. Initially, the game's design was simpler, focusing mainly on card matching. However, to increase engagement, a storyline was introduced, evolving the game into a narrative-driven experience. The user interface went through several iterations to improve usability and visual appeal. For instance, the positioning and styling of game controls were refined for better accessibility. I added conditional alt text to the cards in the grid. The dialog box for the storyline

was also repositioned multiple times for optimal visibility and impact. These iterations were guided by user feedback and testing, ensuring that the game remained intuitive while becoming more immersive.

### **Part 5: Implementation Challenges**

One of the primary challenges faced during implementation was ensuring the storyline dialogues and transitions were smooth and intuitive. Balancing the narrative elements with the gameplay mechanics required careful planning and testing. Additionally, making the game look aesthetically pleasing and cohesive was a huge challenge which I still don't think I overcame fully.