CyberClash Game Report

Introduction

CyberClash is an educational web-based card game designed to teach players about cybersecurity concepts while engaging them in a strategic battle against a hacker. The game's objective is to outpower the hacker's card and reduce the hacker's life points before running out of time.

Game Overview

Languages and Technologies Used

- HTML: Provides the structure of the game interface.
- CSS: Used for styling the game elements and ensuring a visually appealing user experience.
- JavaScript: Implements the game logic, event handling, and dynamic updates to the game state.

How to Run

You can run the game by opening the CyberClash folder then double click on the menu.html which will open the game on your default web browser , example google chrome.

How to Play

1. Game Start: Players start the game by clicking on a card from their hand. Each card has a power value that determines its strength.
2. Card Selection: When a player clicks on a card, the game compares the player's card power with the hacker's card power.
3. Power Comparison: The card powers are revealed, and the life points of either the player or the hacker are adjusted based on the power difference.
4. Life Points: Each player starts with a default number of life points. The player's objective is to reduce the hacker's life points to zero while maintaining their own.
5. Game Over: The game ends when either the player or the hacker's life points reach zero.

Levels

- Easy:
  - Default life points: 7
  - Time limit: No time restriction
- Medium:
  - Default life points: 15
  - Time limit: 10 seconds per turn

- Hard:
  - Default life points: 15
  - Time limit: 5 seconds per turn

Educational Aspect

CyberClash is designed to educate players on cybersecurity concepts through engaging gameplay. Each card represents a cybersecurity scenario, helping players learn about different threats and defenses.

Gameplay Mechanics

1. Card Clicking: Players select cards by clicking on them. This triggers the game logic to compare the selected card with the hacker's card.
2. Life Management: Both the player and the hacker have life points. Winning a round reduces the opponent's life points.
3. Round Timing: For medium and hard difficulty levels, players must make their move within the allotted time (10 seconds for medium, 5 seconds for hard).
4. Visual Feedback: The game provides visual feedback by displaying card power values, updating life points, and highlighting winning or losing cards.

Game Space

The game space consists of a game board where cards are displayed. The game board includes:
- Player Area: Displays the player's cards.
- Hacker Area: Displays the hacker's card.
- Life Points Display: Shows the current life points of the player and the hacker.
- Game Messages: Provides feedback on the game state, such as win/loss messages.

Challenges

1. Knowledge Challenge : The main challenge of CyberClash game is knowledge where a player is educated on cybersecurity there is no need to know very well cybersecurity but player can learn through the game.

2. Time Management (Challenge): Implementing strict time limits for medium and hard levels to increase challenge and excitement.

Conclusion

CyberClash is a compelling educational game that combines the excitement of card battles with the learning of cybersecurity concepts. By engaging players in strategic gameplay and challenging scenarios, it effectively educates them on important topics in cybersecurity while providing an enjoyable experience.