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With Deep Reverence,

Aditya korpakwad[124]

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**ABSTRACT**

**Simple Memory Game**

The Simple Memory Game is an interactive, console-based Java application that aims to enhance users' memory skills through a classic card-matching game. Designed with a 4x4 grid, the game consists of 16 hidden cards, each represented by a pair of matching symbols. The objective of the game is to reveal and match all pairs within the fewest number of moves.

In this project, two main components make up the game logic: a shuffled 2D array representing the card values and a boolean matrix to track the revealed card positions. Each round, the player selects two card positions, which are then revealed to check for a match. If the selected cards match, they remain visible; otherwise, they revert to their hidden state, challenging the player to remember their positions for future turns.

The game is simple yet effective for testing short-term memory and concentration. It provides engaging feedback, indicating whether a match was found and encouraging the player to try again when pairs are not matched. The game concludes once all pairs are revealed, and a congratulatory message is displayed.

Through this project, key programming concepts such as array manipulation, random shuffling, and user interaction are implemented in a beginner-friendly Java environment. The project demonstrates a practical application of basic game development techniques while providing an enjoyable and educational experience for the player.

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SY-A{CSE}

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