



| Project Title              | Memory Card Game      |
|----------------------------|-----------------------|
| Technologies               | HTML, CSS, JavaScript |
| Project Difficulties level | Hard                  |

# **Project Description:**

Objective: You are tasked with creating a web-based Memory Card Game. The game is a classic memory-testing game where players need to match pairs of cards. This project will help you enhance your skills in HTML, CSS, and JavaScript.

## **Project Requirements:**

#### **Game Structure:**

The game should consist of a grid of facedown cards (e.g., 4x4 or 6x6).

Each card should have a hidden image on the back.

The goal is to find matching pairs of cards by clicking on them.

## **Game Rules:**

Clicking on a card should reveal the hidden image.

When two cards are clicked:

- If they match, they should stay face up.
- If they don't match, they should flip back face down.

Keep track of the number of moves the player makes.

Implement a timer to track how long it takes to complete the game.

#### **Game Features:**

Implement a "New Game" button that shuffles the cards for a new game.

Display the number of moves and time taken during the game.





Provide a "Congratulations" message when the player successfully matches all pairs.

## **Technical Requirements:**

Use HTML for the game structure, including the grid of cards.

Apply CSS for styling the cards, grid, and overall game layout.

Utilize JavaScript for game logic, including card flipping, matching, moves tracking, and timer.

Ensure the game works on both desktop and mobile devices with responsive design.

## **Additional Challenges (Optional):**

- Implement a scoring system based on the number of moves and time.
- Add different difficulty levels with varying grid sizes and card sets.

## **Submission Guidelines:**

Submit your project as a compressed folder (ZIP or similar) containing HTML, CSS, and JavaScript files.

Include a README file with instructions on how to play the game.

Make sure your code is well-documented, and the project is visually appealing.

## **Grading Criteria:** Your project will be evaluated based on:

- Functionality (matching logic, game rules)
- User interface (layout, styling)
- Code quality (readability, organization)
- Responsiveness (works on various screen sizes)





# **Important Notes:**

- This project is an excellent opportunity to practice front-end web development skills.
- You can use online resources and tutorials for guidance, but ensure that the code is your own.

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