## IARJSET



International Advanced Research Journal in Science, Engineering and Technology

Impact Factor 8.066  $\,symp \,$  Peer-reviewed & Refereed journal  $\,symp \,$  Vol. 11, Issue 7, July 2024

DOI: 10.17148/IARJSET.2024.117114

## Emoji Pairs Challenge

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**Abstract**: "Emoji Pairs Challenge" is a captivating web-based memory game that aims to test and enhance players' cognitive abilities through an enjoyable and interactive experience. The game presents a grid of concealed emojis, where players must uncover and match pairs by flipping the tiles. Featuring multiple difficulty levels, players can select from various grid sizes to customize the challenge according to their skill level. The game keeps track of the number of moves and the time taken to complete each level, motivating players to boost their memory and speed. The vibrant and expressive emoji graphics infuse a playful element, making the game ideal for players of all ages.

**Keywords**: Memory Enhancement, Cognitive Development, Emoji Pairing, Interactive Gameplay, Brain Workout, Matching Game, Educational Fun.

#### I. INTRODUCTION

"Emoji Pairs Challenge" is a web-based memory game developed to provide a fun and engaging way to improve cognitive skills such as memory, concentration, and visual recognition. Players are presented with a grid of hidden emojis and must find matching pairs by flipping the tiles.

The game features various difficulty levels, allowing players to choose grid sizes that match their skill level. It tracks the number of moves and the time taken to complete each level, motivating players to improve their performance. The vibrant emoji graphics add a playful touch, making the game appealing to all age groups.

#### II. LITERATURE SURVEY

Memory games have long been recognized for their cognitive benefits. Studies have shown that engaging in memoryenhancing activities can improve working memory, attention, and problem-solving skills. The use of digital games for cognitive training is well-documented, with research indicating that such games can lead to significant improvements in brain function.

For example, a study by Basak et al. (2008) found that video game training can improve cognitive control in older adults. Additionally, the use of emojis in digital communication has been shown to enhance emotional expression and engagement (Miller, 2020). By combining the cognitive benefits of memory games with the engaging nature of emojis, "Emoji Pairs Challenge" aims to create an effective and enjoyable cognitive training tool.

#### III. PROPOSED SYSTEM

The proposed system for "Emoji Pairs Challenge" includes the following features:

• **Game Interface:** A visually appealing interface with a grid of tiles that can be flipped to reveal hidden emojis.

• **Difficulty Levels:** Multiple grid sizes (e.g., 3x4, 4x4, 4x5, 5x6, 6x6) to cater to different skill levels.

• **Timer and Move Counter:** Real-time tracking of the time taken and the number of moves made to complete each level.

• Randomized Emojis: Randomized placement of emojis in the grid to ensure a unique experience in each game session.

• **Feedback Mechanism:** Immediate feedback on matched pairs and a congratulatory message upon completion of the game.

• **Responsive Design:** Ensures compatibility with various devices, including desktops, tablets, and smartphones.



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#### IV. ARCHITECTURE

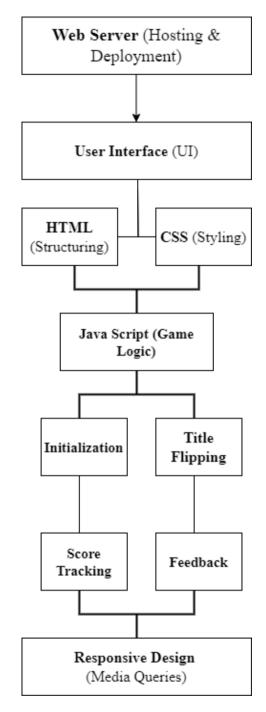


Fig: Architecture for Emoji Pairs Challenge

The architecture of "Emoji Pairs Challenge" is designed to ensure smooth gameplay and an engaging user experience. It consists of the following components:

- 1. User Interface (UI):
- **HTML5:** Provides the structure of the web page.
- **CSS3:** Styles the game elements for a visually appealing design.
- JavaScript: Handles the game logic, including tile flipping, emoji matching, and score tracking.



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- 2. Game Logic:
- Initialization: Sets up the game board with a randomized arrangement of emoji pairs.
- **Tile Flipping:** Manages the flipping of tiles and checks for matching pairs.
- Score Tracking: Keeps track of the number of moves and the elapsed time.
- **Feedback:** Provides immediate visual feedback on matches and game completion.

#### 3. **Responsive Design:**

• Media Queries: Ensure the game scales correctly across different screen sizes and orientations.

#### 4. Hosting and Deployment:

• The game can be hosted on a web server and accessed via a web browser, making it easily accessible to players without the need for additional installations.

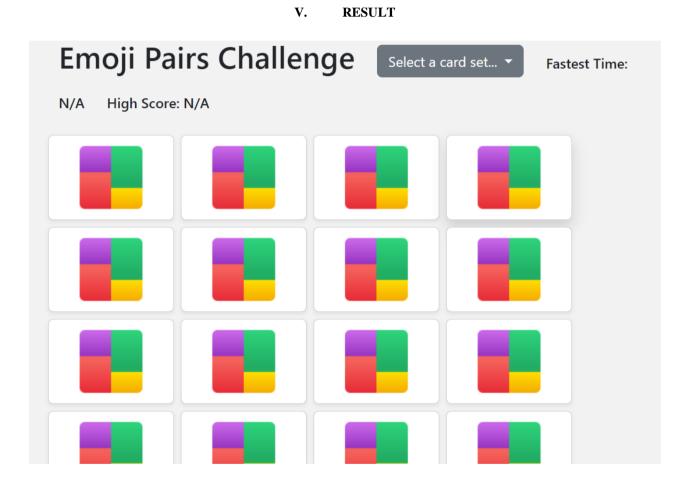


Fig 1: Main Page for Emoji Pairs Challenge

# IARJSET International Advanced Research Journal in Science, Engineering and Technology Impact Factor 8.066 😤 Peer-reviewed & Refereed journal 😤 Vol. 11, Issue 7, July 2024 DOI: 10.17148/IARJSET.2024.117114 **Reset Game** Emoji Pairs Challenge Select a card set... Fastest Time: High Score: **Reset Game** Fig2: Continuation from the Fig 1

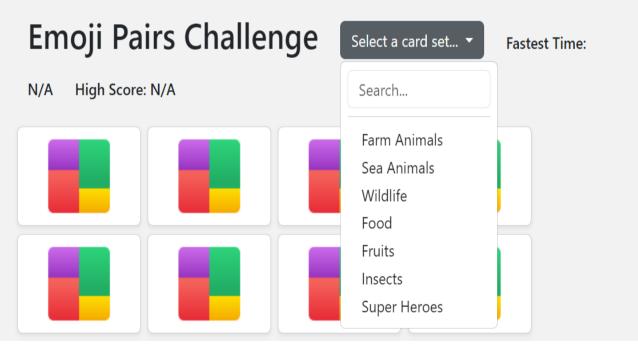


Fig 3: Select the Card Sets

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International Advanced Research Journal in Science, Engineering and Technology Impact Factor 8.066 😤 Peer-reviewed & Refereed journal 😤 Vol. 11, Issue 7, July 2024 DOI: 10.17148/IARJSET.2024.117114 Search... Farm Animals Sea Animals Wildlife Food Fruits **Reset Game** Insects Super Heroes Emoji Pairs Challenge Select a card set... Fastest Time: **High Score: Reset Game** Fig 4: Select the Card Set Emoji Pairs Challenge Select a card set... Fastest Time: High Score: N/A 67.781 sec

Fig 5: Select any Card sets and play the game

(Here I am selected the Sea Family and then I played the game, Reset the game and play the next game )

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## An embedded page at cdpn.io says

Congratulations!

Tries: 19 Time: 67.781 seconds Efficiency: 0.42 pairs per try Score: N/A



Fig6: Display a Pop up message on Browser

#### BIOGRAPHY



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