**Memory game**

# Introduction:

Memory Game is a classic game designed to test and improve your memory skills. It's a simple game where players are presented with a group of cards, each containing a hidden logo of IIT. The objective is to find all matching pairs of cards by flipping them over two at a time within a time limit. The game is won when all pairs have been successfully matched.

# Project Overview:

## Goals:

* Creating an enjoyable game experience.
* Testing and improving memory skills through gameplay.
* Developing a project that demonstrates proficiency in Python programming.

## Scope:

To improve the game experience, we could:

* Add flipping animation
* Adding sound effects while flipping
* Custom grid shape and size

## Timeline:

1. Finding a project – 1 week
2. Planning the approach – 5 days
3. Developing the project – 2 weeks
4. Documenting – 3 days
5. Team Members and Contribution:

## Project repository:

[shrihavishaele/Memory-Game: Python Project (github.com)](https://github.com/shrihavishaele/Memory-Game)

## Team Members and Contributions:

Likhith: Found the images for cards and file handling of those images, gave a suitable font for the game and made a loop to check if the flipped images are matched or not and closing the main game loop.

Vignesh: Made the restart button and timer with proper dimensions and event handling for different events like controlling the mouse button, restarting memory game and quitting the game.

Havish: Made a function to check whether a point is in a rectangle. Made an organised UI by creating a function to display the message after completing the game, a separating grid between cards and flipping the cards when clicked.

# Methodology:

* To design an interface, we used Pygame module.
* We wrote the code in simpler way using required Pygame knowledge.
* We learnt to use Pygame through internet resources.
* For the images we used logos of different IITs

# Results:

* A simple interface allowing players to interact with the game.
* A gameplay with simple winning logic.

# Conclusion:

* Our code uses less resources to run which makes it efficient.
* We learnt basics of Pygame while writing code for this game.

## Team Members' GitHub Accounts:

* Shri Havish Aele: [shrihavishaele (Shri Havish Aele) (github.com)](https://github.com/shrihavishaele)
* U. Sai Vignesh: [Saivignesh05 (github.com)](https://github.com/Saivignesh05)
* Likhith Chandra: [likhithchandra8520 (github.com)](https://github.com/likhithchandra8520)

## References:

Learnt basic Pygame through internet resources [YouTube, GeeksforGeeks ] .