

## **Game: Memory**

### **Requirements:**

Develop a program that simulates a memory game. The game should be able to be played as either a single player or a multiplayer. The program should decide where each instance of an image is placed on the board and ask the player to remember where the images are that match the given image.

### **Board:**

The board will be a 5x5 grid of buttons. These buttons will have images “behind” them that will show a randomized image. There will also be an image in the upper left corner that you are looking to match with each button’s image as well as a button labeled “None” on the bottom right.

### **How to Play:**

1. The user will enter how many games they want to play for singleplayer while multiplayer will default to 10 games.
2. The player will be shown an image in the upper left corner of the game board.
3. The board will start out with all images on the grid flipped over, and when the player starts the game the images will be shown for a number of seconds. The player will need to remember where the shown image appears on the game board.
4. Once the buttons flip back over so that the images are no longer shown, the user will need to click the buttons that match where the given image shows up.
  - a. If none of the buttons match the given image, hit the “none” button.

### **Scoring**

Each game is scored based off of how many times the image shows up in the game board. Each game is worth a total of 1000 points, as a double, they get as many guesses as there were matching images and get a percentage of the 1000 points based off of the percentage of correct guesses they got.

### **How the Game Ends:**

The game will end when the number of games the player chose has been played.

GUI Mockup:

Image to match	Points: 1000 Games Left: 10			
Pic Matcher™				
1	6	11	16	21
2	7	12	17	22
3	8	13	18	23
4	9	14	19	24
5	10	15	20	25
No Matches				