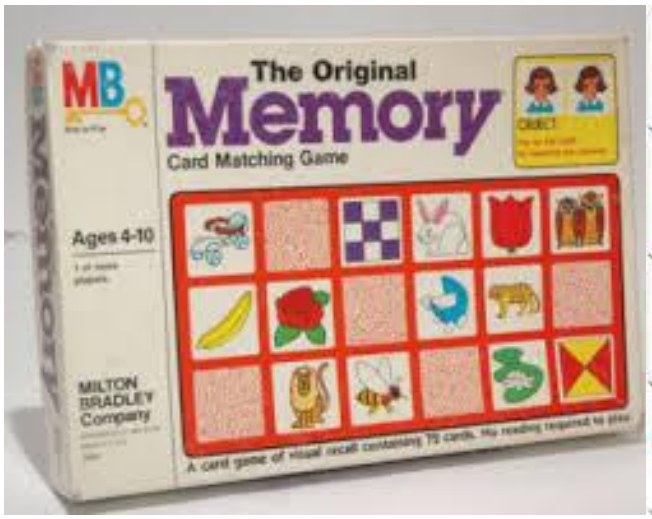
pyMatch



Left picture from https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQQgHWQPOZgbrKW0s2J4GbuIkOSDOK4Y9yOCZzcczJJcsGNEIhx4g
Right picture from https://encrypted-tbn3.gstatic.com/images?q=tbn:ANd9GcTtMyoxrtFRsfpWfke_FwDJ1fQIRUajmdgIwMi9zOMwMKIV1RNRHw

Objectives:

- To practice game design and problem solving skills
- To gain a better understanding of if statements
- To have some fun and be a little creative

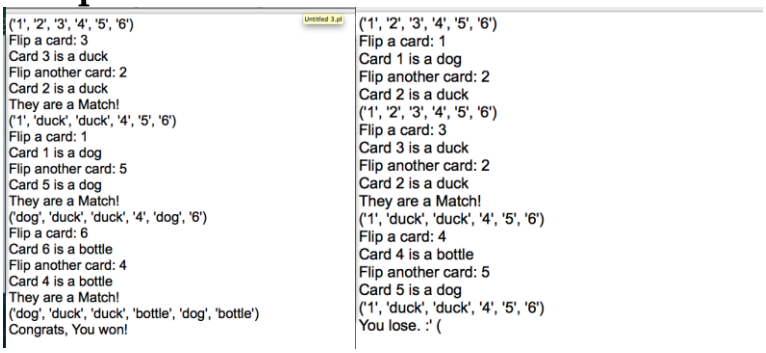
Assignment:

You will be creating a single-player, text-based memory match game like the games pictured above. The game will consist of printing out the game state, allowing the player to pick cards, comparing the value of the cards picked, and keeping score. Your code will most likely be very long. However, you should be able to reuse components of your code because parts of the game are repetitive. Before you begin writing your code, you are required to draw a flow chart to outline how you want to solve this problem.

Requirements:

- Your code should use if statements to compare card values
- Your code should allow the player to play the game for 3 turns with 6 cards
- Your code should update the cards shown to the player as the player plays the game according to the following criteria.
    - When the player picks a card
    - If the player guesses correctly, those cards should be revealed for the remainder of the game.
- You may use whatever card values you like.
- Your code should print put whether the player won or lost. Winning requires that the player get at least 2 out of 3 sets correct.

Sample Executions:



```
('1', '2', '3', '4', '5', '6')
Flip a card: 3
Card 3 is a duck
Flip another card: 2
Card 2 is a duck
They are a Match!
('1', 'duck', 'duck', '4', '5', '6')
Flip a card: 1
Card 1 is a dog
Flip another card: 5
Card 5 is a dog
They are a Match!
('dog', 'duck', 'duck', '4', 'dog', '6')
Flip a card: 6
Card 6 is a bottle
Flip another card: 4
Card 4 is a bottle
They are a Match!
('dog', 'duck', 'duck', 'bottle', 'dog', 'bottle')
Congrats, You won!
```

```
('1', '2', '3', '4', '5', '6')
Flip a card: 1
Card 1 is a dog
Flip another card: 2
Card 2 is a duck
('1', '2', '3', '4', '5', '6')
Flip a card: 3
Card 3 is a duck
Flip another card: 2
Card 2 is a duck
They are a Match!
('1', 'duck', 'duck', '4', '5', '6')
Flip a card: 4
Card 4 is a bottle
Flip another card: 5
Card 5 is a dog
('1', 'duck', 'duck', '4', '5', '6')
You lose. :' (
```

Bonus:

- Extent the game to allow 2 players to play the game with at least 8 cards and at least 4 turns. You have more freedom to creatively interpret this section. Points will be allotted based on how sophisticated your game is. The bonus is worth up to an extra 20 points.

Deliverables:

- In myCourses, upload your source code
- Lab Report: Your lab report should follow the outline for this class (found on myCourses) and include:
    - Title Page
    - Program Design (flow chart)
    - Sample Execution – take a screen shot hold down alt key and press print screen) when you run your program and paste into your word document.
    - Analysis and Conclusions
    - Source Code
- Print your report and turn it in the next time that you attend lab

Grading:

Task	Points
Pre-lab	10 points
Demo 1	30 points
• Create your card variables • Print visible cards • Allow the user to pick two cards • Compare the values of those cards	
Demo 2	30 points
• Keep score • Allow the user to play for 3 turns • Tell the user if he won or lost • Display the current game state every turn	
Lab report	30 points
Bonus	20 points