CPSC 122 Project: Stacks and Queues

Due Date: April 17th Midnight

Implement Yu Gi Oh Card Playing Game

Description:

Yu-Gi-Oh! is a trading card game where the objective is to defeat your opponent by reducing their Life Points to zero.

Understanding the Cards:

Monster cards are summoned to attack your opponent's Life Points and defend your own. They are usually orange (effect) or yellow (normal) in color, but there are many other colors as well. Monsters have levels, ranging from 1-12, which are indicated by the stars along the top, and a symbol in the top right corner indicating Attribute. The Attack and Defense stats are listed as ATK and DEF along the bottom.

What you will implement:

Monster Cards:

Name

Attack Points - # of points to take from life points

Defense Points - # of points to

Type – monster type gives extra points to the ATK or DEF points

Implementation:

1. Each player can start out with a set of cards:
    a. Players add cards
    b.
2. Players can go into battle:
    a. Players start out with 8000 life points
    b. Each player chooses 5 cards from the *deck*
    c. Players can only choose from the top of *deck*
    d. Coin Toss to see who is player 1 and who is player 2
    e. Places one card of their choosing in *defense mode*
    f. Places one card of their choosing in *attack mode*
    g. Each player will choose which card is active.
        i. If one player chooses attack and the other chooses defense

1. New Life points = Life points - (ATK – DEF)
        ii. If both players choose defense
                1. Cards get discarded
        iii. If both players choose attack
                1. One with the greater ATK winss round
        iv.
    h. After the first round
        i. 5 cards should be in the players hand at all times
        ii. two more cards can be placed in attack and defense mode
        iii. Cards can be activated in queue mode

    Battle ends when a player has no more Life Points

3. Players can trade cards:
    a. Cards can be added and deleted from any players deck

Example of output:

Choose an option from the following:

1. Create Player

2. Add Cards to Specific Player

3. Trade Cards with Other Player

4. Battle Other Player

Input: 4

Round 1:

Player 1 chooses Cyber Dragon in ATK mode

Player 2 chooses Dark Magician in DEF mode

Player 2 losses 0 life points

Player 1: 8000 LP

Player 2: 8000 LP

Round 2: ….