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Programming Languages and Translators
Language Proposal

I.   Introduction

This paper describes a language for creating card games. The language will allow for the creation of any card game regardless of the rules for each. It is up to the programmer to use the language to program a game of their choosing.

II.   Language Description

The language only outputs and takes inputs as text.
The cards in the language are limited to the standard 52 card deck. The cards will already be initialized at the beginning of the program.
Simple arithmetic is included in the language. Each card has certain characteristics and value. For example Ace of hearts will have the character A for Ace, h for hearts, r for red, True/False for whether or not the card is showing, an integer for group number and miscellaneous values (should this become necessary). Group number determines where the card is relative to the other cards. By default, each card will have the first characteristics and value already assigned. It is up the programmer to assign value to the cards as the game is played. The value of the cards can change once the game begins.

Reserved Keywords Commands to be used

    # A list in the compiler holds the 52 card standard deck.
    # Below is the command to initialized the program and randomized the cards.

    Shuffle
    # This will pass from deck or another grouping of cards to another group
    Pass
    Discard
    # shows the cards in a group
    Reveal
    # All the cards in the grouping
    All
    # prints text to command line
    Print

if the values are an integer, it will all up the card total.
Total

conditional checking
If
While

Reserved words for the characteristics of cards

Number

Suit

Color

Hides or shows the card
Showing

Group number is pretty much a list to hold the cards.
Group

This is also a list. Reason is so that this card might contain more than one value.
For example in black jack, an Ace has a value of 1 and 11. In the misc
characteristics of the Ace, the list will have two elements.
Misc

III.   Sample Code

The following is a sample lines of code for blackjack with cards.

This is a comment for the cards language.
The following is a black jack game.
in this game there will be two players.
With two players in blackjack, there are 4 groups of cards.
First group is 1 which is deck grouping
Second group is 2 which is player
Third group is 3 which is dealer
Fourth group is 4 with is discard
It's up to the programmer to assign the grouping and order of play as the game
progresses.

If the cards showing are ten of clubs and king of diamonds. The output to
command line will be.

Code:

To get two cards
Code:
Group.2 ← Group.1.Pass.2
#defaults that cards are passed out face down
Group.2 ← Reveal.All
Print Group.1

Output to Command Line:
[Th][Kd]

In case of black jack the total will be:
20
This can be outputted to screen with the following code:
Print Total(Group.1.Misc)

For the dealer, the following lines could be used
Group.3 ← Group.1.Pass.2
Group.3 ← Reveal.1

Print Group.1
[??][7d]

Simple arithmetic will also be used.
+ (add)
 - (subtract)
> (greater than)
= (equal to)
< (less than)
!= (not equal to)

Each card is the number of the card or Capital Letter followed by the suit of the card.
 [As]   # This means the A of Spades.

All suits are lowercased
s is spades
h is hearts
c is club
d is diamond

The numbers of each card are as follows:
A is Ace
K is King
Q is Queen
 J is Jack
T is Ten

9 is 9
......
2 is 2