Pseudocode for Lab Card Dealer

The goal of this lab is to create a program where integers represent certain cards in a deck and the program is able to assign random cards (integers) to either the deck, the player, or the computer.

***First attempt at psuedocode***

Main problems:

* Assigning cards to numbers 0-51

Create a tuple called RANK\_NAME that includes Ace, Two, Three, Four, Five, Six, Seven, Eight, Nine, Ten, Jack, Queen, King (provided on canvas)

Create a tuple called SUIT\_NAME that includes Clubs, Hearts, Spades, and Diamonds

Create a function called divideInteger() that divides an integer by thirteen. Assign the first digit of that integer to variable called {cardSuit} and the decimal of the integer to variable called {cardRank}. Return both of these variables

* Assigning 5 random numbers to the player, 5 random numbers to the computer, and the rest to the deck

Ask for the player name, store under variable {playerOne}

Create a list called OWNER\_COUNT that includes {playerOne} and Computer

Create a function called chooseInteger() that generates a random number between 0 and 51, using rand.randint(0, 51), and assigns it to a variable called {cardOwner]

Repeat this 5 times using a for loop

* Print a list of the cards, who/what they are assigned to, and the hands of both the computer and the player

***After watching video, second attempt at pseudocode***

Constants:

NUMCARDS = 52

RANKNAME = (“Ace”, “Two”, “Three”, “Four”, “Five”, “Six”, “Seven”, “Eight”, “Nine”, “Ten”, “Jack”, “Queen”, “King”)

SUITNAME = (“Clubs”, “Hearts”, “Spades”, “Diamonds”)

HANDS = (“Deck”, “Player”, “Computer”)

DECK = 0

PLAYER = 1

COMPUTER = 2

Main:

Initialize cardDB - *initCards()*

Assign five cards to player – *assignCard()*

Assign five cards to computer – *assignCard()*

Show the current deck – *showDeck()*

Show cards in player hand – *showHand()*

Show cards in computer hand – *showHand()*

initCards()

No parameters

Create an empty list called cardDB

Assign 52 entries, all zero

Return cardDB

assignCard()

Parameters: cardDB, hand

Pick a random number 0 – 51

If that number already has an assigned hand, repeat first step

Else if that number doesn’t

Assign hand to that numbers location

No return value needed

showDB()

parameter: cardDB

Step through all cards

Print card number

Print card name getCardName()

Print card location

No return value

showHand()

parameters: cardDB, hand

step through all card

if card is in hand

print card name

No return value

getCardName()

Parameters: cardNum

Integer divide cardNum by 13 which goes into “suit”

Modulus of cardNum and 13 goes into “rank”

Use SUITNAME and RANKNAME tuples to get a string name

Return card name