

```

"""mthorman_cardgame.py
    CSCI-23000
    6/2/2017
    Create the beginnings for a python-based card game using a main function and
various other
    functions that will translate a card number to a card name, assign a card to a
given player,
    displays the location of every card, and prints the name of every card in a
given hand.
    """

from random import *

NUMCARDS = 52

DECK = 0

PLAYER = 1

COMP = 2

cardLoc = [0] * NUMCARDS

suitName = ("hearts", "diamonds", "spades", "clubs")

rankName = ("Ace", "Two", "Three", "Four", "Five", "Six", "Seven",
            "Eight", "Nine", "Ten", "Jack", "Queen", "King")

playerName = ("deck", "player", "computer")

def main():

    clearDeck()

    for i in range(5):

        assignCard(PLAYER)

        assignCard(COMP)

    showDeck()

    showHand(PLAYER)

```

```
showHand(COMP)
```

```
def clearDeck():
```

```
    # reset each card's location to zero
```

```
    for cardNum in range(NUMCARDS):
```

```
        cardLoc[cardNum] = DECK
```

```
def showDeck():
```

```
    # go through the deck and show each card
```

```
    for cardNum in range(NUMCARDS):
```

```
        print ("{}: {}".format(getCardName(cardNum), cardLoc[cardNum]))
```

```
    print()
```

```
def assignCard(location):
```

```
    #pick a random card number, set that card's location to location
```

```
    for cardNum in range(5):
```

```
        cardNum = randrange(NUMCARDS)
```

```
        while cardLoc[cardNum] == 0:
```

```
            cardNum = randrange(NUMCARDS)
```

```
            cardLoc[cardNum] = location
```

```
def showHand(hand):
```

```
    #given a hand, shows the names of all cards in that hand
```

```
    print ("Hand for player {}".format(hand))
```

```
    for cardNum in range(NUMCARDS):
```

```
        if cardLoc[cardNum] == hand:
```

```
print (getCardName(cardNum))
```

```
print()
```

```
def getCardName(cardNum):
```

```
    #given a card number integer, return a string card game
```

```
    suit = cardNum // 13
```

```
    rank = cardNum % 13
```

```
    return ("{} of {}".format(rankName[rank], suitName[suit]))
```

```
if __name__ == "__main__":
```

```
    main()
```