

# Code Lab 5 (part 1)

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## Code Lab 5 – Lists & Tuples

In this code lab, you will create a new module that will be used in future code labs. The module will be used to create and work with new deck of cards as well as create and work with the “hand” of cards that will be used for tracking both the player and dealer cards.

```
C:\Users\Kelly\AppData\Local\Programs
Card Tester
  4 of Diamonds
  3 of Clubs
  Ace of Diamonds
  Queen of Hearts
  2 of Hearts

HAND
  Ace of Hearts
  6 of Spades
  7 of Clubs
Points 14

Process finished with exit code 0
```

## Criteria of Acceptance

Create a module which will include the following functionality:

- Create a deck of 52 unique playing cards
- Shuffle the deck
- Deal (remove and return) a card from the deck
- Create empty “hands” of cards
- Add cards to the hand
- Calculate the points from a hand of cards
- Display a card string (ex: King of Hearts)

### Hints

How you code this is up to you, but the following hints are meant to assist you in your process.

#### Card

- Each card will have 3 “properties”, suit, rank, and value.
  - Suits = Hearts, Spades, Clubs, and Diamonds
  - Rank = Ace, 2, 3...10, Jack, Queen, and King
  - Point Values
    - 2 through 10 = the value of the card.
    - For simplicity, aces equal 11 in this iteration but feel free to allow for an ace to be equal to 1 or 11.
    - Jacks, Queens, and Kings equal 10

#### Deck of Cards

- A list will be used to store the cards that will make up the deck.
  - Hint: You can use two nested loops (1 for rank, the other for suit) to create the deck of 52 cards.
- Once created, the deck should contain 52 unique cards.
- You should have the ability to:
  - Shuffle or randomize the order of the cards in the deck
  - Deal a card which will get and return 1 card while also removing it from the deck

#### Dealer's and Player's Card

- You should use a list to store the dealer's and player's hand.

#### For Submitted Validation

- Create a new deck of cards
- Shuffle the deck
- Display the first 5 cards of the deck
- Create an empty hand
- Deal the top 3 cards from the deck to the hand
- Display the 3 unique cards and the total value of the cards in the hand.
- Validate that the point total is correct.