Top-level functions called by **main( )**

- newDeck()
  - Creates and returns a complete deck of cards
- initialDeal(deck)
  - deals cards from the deck to each player, returns the hands
- displayGameState(playerHand, dealerHand, showAll)
  - shows visible cards and player's scores.   showAll is boolean
- playerPlays(playerHand, dealerHand, deck)
  - Allows player to choose hit or stay
- dealerPlays(playerHand, dealerHand, deck)
  - Dealer does hit or stay, based on the rules
- finalTally(playerHand, dealerHand)
  - Determines and displays who wins.

Q5

Complete code for main()

```python
def main():
    deck = newDeck()
    player, dealer = initialDeal(deck)
    displayGameState(player, dealer, False)
    playerPlays(player, dealer, deck)
    if handScore(player) > winningScore:
        print "BUSTED!  You lose."
    else:
        print "Now Dealer will play ..."
        dealerPlays(player, dealer, deck)
        finalTally(player, dealer)
    displayGameState(player, dealer, True)
```

Top-level Structure Diagram


```
                        main
newDeck      deck
              deck                        dealerHand,
       dealerHand,                        playerHand
       playerHand                  finalTally
initialDeal                   dealerHand,
                              playerHand,
                              deck
 dealerHand,                        dealerPlays
 playerHand,
 deck
     playerPlays      dealerHand,
                      playerHand,       score
                      showAll      hand
Key:
formal parameters    displayGameState      handScore
return values
```
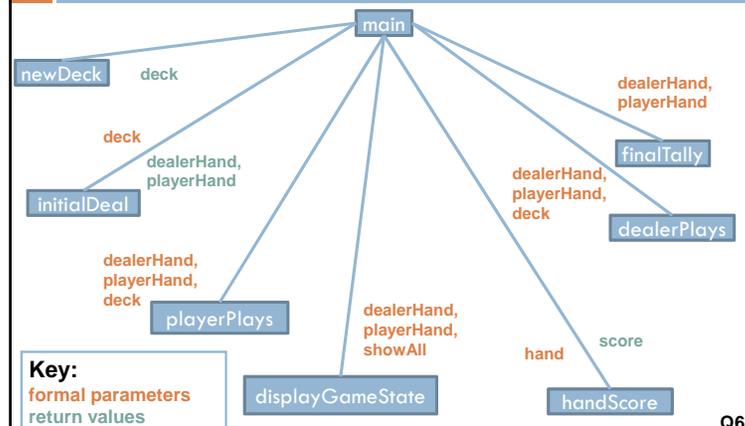
Q6

Some preliminary data values

```python
# Define some constants used by many functions
suits = ['Clubs', 'Diamonds', 'Hearts', 'Spades']

cardNames = ['Ace', 'Deuce', '3', '4', '5',
             '6', '7', '8', '9', '10',
             'Jack', 'Queen', 'King']

winningScore = 21

dealerMustHoldScore = 16


# Card is represented by a list: [cardName, suit]
# Examples: ['Ace','Clubs'] or ['7','Diamonds']
# A hand or a deck is a list of cards.
```

Q7