**Card Games**

**Graphics:**

Go to the Team Project 1 folder on the Blackboard metacourse site and locate Card games. Save the CardDeck.mat file in your current MATLAB directory.

>> load CardDeck

% Loads two cell arrays, one called BlueDeck and one called RedDeck

% BlueDeck has 55 cards arranged as follows: Ace Clubs, Ace Spades, Ace Hearts, Ace Diamonds, 2 Clubs, 2 Spades, 2 Hearts, 2 Diamonds …. King Clubs, King Spades, King Hearts, King Diamonds, Joker, Joker, Overturned Blue Card.

>> imshow([BlueDeck{1:12}])



>> imshow([BlueDeck{48:55}])



% Red Deck has 55 cards arranged as follows: Ace thru King of Clubs; Ace thru King of Spades; Ace thru King of Hearts; Ace thru King of Diamonds; Joker; Joker; Overturned Red Card.

>> imshow([RedDeck{1:12}])



>> imshow([RedDeck{48:55}])



% One arrangement of cards might be more convenient than another or you could create a new deck cell array with the cards arranged the way you want.

>> ShuffledDeck = randperm(52) % Random permutation of numbers 1 to 52

ShuffledDeck =

42 35 34 39 11 12 44 48 20 3 17 21 15 5 13 50

29 46 43 1 19 24 32 41 23 6 47 36 10 27 33 40

26 2 49 22 51 52 7 4 31 30 37 45 16 25 14 8

28 18 38 9

>> hand = ShuffledDeck(1:5)

hand =

42 35 34 39 11

>> imshow([BlueDeck{hand}])



With card games, it will be useful to create another vector called DeckValues which reflects the value of each card in the Deck.

For example, in the Beat the Dealer Game which uses the Red Deck, this works:

DeckValues = [14 2:13 14 2:13 14 2:13 14 2:13];

The Aces all get a value of 14 (highest), Kings get 13, Queens get 12, Jacks get 11, and the remaining cards get face value.

Values would vary depending on the type of card game.