
```
classdef deck < handle
    properties
        decks;
        cards = [];
        discardPile = [];
        table = [];
    end
    methods
        % Constructor function
        function obj = deck(decks,jokers)
            if nargin == 0
                obj.decks = 1;
                for j = 1:52
                    if ~isempty(obj.cards)
                        obj.cards(end+1) = card(j);
                    else
                        obj.cards = card(j);
                    end
                end
            elseif nargin == 1
                obj.decks = decks;
                for i = 1:decks
                    for j = 1:52
                        if ~isempty(obj.cards)
                            obj.cards(end+1) = card(j);
                        else
                            obj.cards = card(j);
                        end
                    end
                end
            else
                obj.decks = decks;
                for i = 1:decks
                    for j = 1:52
                        if ~isempty(obj.cards)
                            obj.cards(end+1) = card(j);
                        else
                            obj.cards = card(j);
                        end
                    end
                end
                for i = 1:jokers
                    obj.cards(end+1) = card(0);
                end
            end
        end

        % Shuffle deck
        function shuffleDeck(obj)
            obj.cards = obj.cards(randperm(length(obj.cards))));
        end
    end
end
```

```

% Draw top card
function carddrawn = drawCard(obj)
    obj.cards(1).cardPlayed;
    if ~isempty(obj.table)
        obj.table(end+1) = obj.cards(1);
    else
        obj.table = obj.cards(1);
    end
    carddrawn = obj.cards(1);
    obj.cards = obj.cards(2:end);
end

% Clear away cards in play
function clearTable(obj)
    obj.discardPile = obj.table;
    for i = 1:length(obj.discardPile)
        obj.discardPile(i).discard;
    end
    obj.table = [];
end

% Reshuffle discard pile into deck
function reshuffleDiscard(obj)
    obj.cards = [obj.cards,obj.discardPile];
    for i = 1:length(obj.discardPile)
        obj.discardPile(i).reshuffle;
    end
    obj.discardPile = [];
    obj.shuffleDeck;
end

% Reset deck, reshuffle cards on table and in discard pile
function resetDeck(obj)
    obj.clearTable;
    obj.reshuffleDiscard;
end
end
end

ans =

    deck with properties:

        decks: 1
        cards: [1x52 card]
    discardPile: []
        table: []

```

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