import java.util.ArrayList;

import java.util.Collections;

// Class definition

**public class Deck {**

// Declaring a list to store Card objects

private ArrayList<Card> deck = new ArrayList<Card>();

// Constructor method to create a full deck of 52 cards

public Deck() {

// Adds a Card object to the deck list 52 times

for (int i = 0; i < 52; i++) {

// i % 13 gives the remainder; makes 0 to 12 for 4 times

// i / 13 gives the integer division; makes 0, 1, 2, or 3

this.deck.add(new Card(i % 13, i / 13));

}

// Randomise (shuffle) the order of the cards in the deck

Collections.shuffle(this.deck);

}

// Regular method to deal (draw) the top card from the deck

public Card deal() {

if (this.deck.size() > 0) { // check if the deck is not empty

Card card = this.deck.get(0);// Get the first card in the list

this.deck.remove(0); // Remove the drawn card from the deck

return card; // Return the drawn card to the player

} else return null; // If no cards are left, return null

}

// Returns a string representation of all cards in the deck

public String toString() {

String resultStr = "\n"; // Just start with an empty string in new line

// Iteration for all the card objects in the deck collection

for (Card card : deck) {

resultStr += card + "\n";// Building a string of all cards

}

return resultStr; // Return the string of the full list of cards

}

}

// Class definition: used to test the Deck and Card classes together

**public class CardTestDeck {**

// Main method: entry point to run deck operations

public static void main(String[] args) {

// Create a new deck (shuffled automatically) and print it

Deck deck = new Deck();

System.out.println("Full shuffled deck:");

System.out.println(deck);

// Deal and print five cards from the top of the deck

System.out.println("Dealt cards:");

System.out.println(deck.deal());

System.out.println(deck.deal());

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System.out.println(deck.deal());

System.out.println(deck.deal());

// Print the remaining deck after dealing five cards

System.out.println("Remaining deck:");

System.out.println(deck);

}

}