q1-

solution:import java.util.\*;

class Card {

private String rank;

private String suit;

public Card(String rank, String suit) {

this.rank = rank;

this.suit = suit;

}

public String getRank() {

return rank;

}

public String getSuit() {

return suit;

}

@Override

public String toString() {

return rank + " of " + suit;

}

}

public class CardCollector {

private Collection<Card> cards;

public CardCollector() {

cards = new ArrayList<>();

}

public void addCard(Card card) {

cards.add(card);

}

public Collection<Card> findCardsBySuit(String suit) {

Collection<Card> result = new ArrayList<>();

for (Card card : cards) {

if (card.getSuit().equalsIgnoreCase(suit)) {

result.add(card);

}

}

return result;

}

public void displayAllCards() {

for (Card card : cards) {

System.out.println(card);

}

}

public static void main(String[] args) {

CardCollector collector = new CardCollector();

collector.addCard(new Card("2", "Hearts"));

collector.addCard(new Card("3", "Hearts"));

collector.addCard(new Card("K", "Spades"));

collector.addCard(new Card("J", "Diamonds"));

collector.addCard(new Card("A", "Clubs"));

collector.addCard(new Card("10", "Hearts"));

collector.addCard(new Card("7", "Spades"));

System.out.println("All Cards in Collection:");

collector.displayAllCards();

String suitToSearch = "Hearts";

System.out.println("\nCards in " + suitToSearch + ":");

Collection<Card> heartsCards = collector.findCardsBySuit(suitToSearch);

for (Card card : heartsCards) {

System.out.println(card);

}

}

}