

Object Oriented Analysis and Design using Java

Practice Assignment

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import java.util.*;

class Card {
    public String cardsuit;
    public String value;

    public Card(String cardsuit, String value) {
        this.cardsuit = cardsuit;
        this.value = value;
    }

    public String getSuit() {
        return cardsuit;
    }

    public String getValue() {
        return value;
    }

    public String toString() {
        return cardsuit + " " + value;
    }
}

class Pile
{
    public Stack<Card> cards;
    public Pile() {
        cards = new Stack<Card>();
    }

    public void pushCard(Card card) {
        if (cards.size() < 10) {
            cards.push(card);
        }
        else

```

```

    {
        System.out.println("The pile is already full");
    }
}

public Card popCard() {
    if (!cards.isEmpty()) {
        return cards.pop();
    } else {
        System.out.println("The pile is already empty");
        return null;
    }
}

public Card peekCard() {
    if (!cards.isEmpty()) {
        return cards.peek();
    } else {
        System.out.println("The pile is already empty");
        return null;
    }
}
}

class Trial
{
    public static void main(String[] args)
    {
        Pile pile = new Pile();
        Scanner sc = new Scanner(System.in);
        System.out.println("Mention number of cards:");
        int n = sc.nextInt();
        System.out.println("Mention Card suit and value as 'Suit Value:");
        for(int i=0;i<=n;i++)
        {
            String cardsuit1 = sc.nextLine();
            String cardval1 = sc.nextLine();
            Card card1 = new Card(cardsuit1, cardval1);
            pile.pushCard(card1);
        }
    }
}

```

```

        System.out.println("Cards in pile:");
        for (Card card : pile.cards)
        {
            System.out.println(card.toString());
        }
        do{
            System.out.println("1. Pop 2.Peek 3.Push:");
            int task = sc.nextInt();
            if(task==1)
            {
                System.out.println("Drawing a card from pile:");
                Card drawnCard = pile.popCard();
                System.out.println("Drawn card: " + drawnCard.toString());
            }
            else if(task==2)
            {
                System.out.println("Peeking at top card in pile:");
                Card topCard = pile.peekCard();
                System.out.println("Top card: " + topCard.toString());
            }
            else if(task==3)
            {
                String inputline2 = sc.nextLine();
                String[] cardarr2 = inputline2.split(" ");
                Card card2 = new Card(cardarr2[0], cardarr2[1]);
                pile.pushCard(card2);
                System.out.println("Cards in pile:");
                for (Card card : pile.cards)
                {
                    System.out.println(card.toString());
                }
            }
        }
    }
}

```