**Question1: Card Guessing Game**

In this question, your task is implementing a card guessing game. There are four card type such as "spade", "heart", "diamond" and "club". Each card can have value 1 to 13. The program chooses a card from deck and asks player card type and value. The program informs player about whether his/her guess is correct or wrong. Program runs until player guess is correct.

**Card.java**

*Constructor [5 Points]*

```
public Card(String cardType, int value):
```

Constructor initializes the new card instance with given card type and value.

*Getters [5 x 2 Points]*

```
public String getCardType():
```

This method returns the card type.

```
public int getCardValue():
```

This method returns the card value.

*Equality [10 Points]*

```
public boolean equals(Card other):
```

In this method, you must check the given card equals current card. If both cards are same type and have same value then they are equal. Otherwise, they are not equal.

## Question1.java

### Program Structure [25 Points]

```java
public void run(){
        ArrayList<Card> cardDeck = generateCardDeck();
        Card randomCard = cardDeck.get(rgen.nextInt(52));
        Card testCard = cardDeck.get(0);//spade 1

        println("Welcome to the card guessing game!\n");

        //Your code starts here



        //Your code ends here

}
```

Program creates card deck by using generateCardDeck method which is already implemented. generateCardDeck method returns an ArrayList<Card> instance which contains cards that are in all types and have value 1 to 13. A random card is chosen from this deck. You must implement the part of asking player a card and checking guess equals randomCard until guess is correct. You must use equals method in Card class to check equality. You may want to implement this part using testCard which is spade of 1 instead of randomCard. By this way, you can test your code by staying away from random issue. Don't forget to upload quiz with randomCard version.

## Sample output: