COMP 1409

Intro to Software Development 1

Java

Lab 8

Lab 8

The purpose of this lab is to exercise your knowledge around `ArrayLists`. Build off of the solution from the previous lab.

Card.java

Create a new class called `Card`. `Card` is going to have 2 instance variables, `suit` and `description`.

Create accessor and mutator methods for each instance variable.

Deck.java

Recall the class called `Deck` has 2 instance variables defined as follows.

```
public static final String[] SUITS = {"Hearts", "Diamonds", "Spades", "Clubs"};
```

```
public static final String[] DESCRIPTIONS = {"Ace", "Two", "Three", "Four", "Five", "Six", "Seven", "Eight", "Nine", "Ten", "Jack", "Queen", "King"};
```

Add a new instance variable called `deck.`

- `deck` will be an `ArrayList` holding `Card` references.

Create a method called `loadDeck()`. This method will

- Use 2 nested `for` loops to create 52 instances of `Card`, to represent a full deck of cards.
    - Each `Card` will have a unique combination of suit and description.
- Add each instance to the `deck` `ArrayList`.

Update the `printDeck()` method to print the entire `deck` `ArrayList`. Use a `for-each` loop.

- ie your output should look similar to

```
Ace of Hearts.
Ace of Diamonds.
Ace of Spades.
Ace of Clubs.
Two of Hearts.
Two of Diamonds.
...
```

Add a `removeCard(int)` method that takes an `int` parameter. It will have a `void` return type.

- When called, this method will remove a card from the deck based on the parameter.
- Be sure to check that the parameter is within bounds of the current `deck`.

Be sure to comment your code with appropriate JavaDoc.

Be sure to use proper camelCasing or PascalCasing.

Be sure to use reasonable data types/reference types.

Submission

Compress and submit your source code to the Dropbox in D2L.