NTOU Java Programming
Exercise 3

Spring 2024

Lab Goals

- Object Arrays
- Constructors
- Basic Exception Handling

Lab Instructions1

- Please create a mini poker game based on the provided code.
- Modify Card.java and add a new method:

  public int getPoint()

  - This method will return the points of a card using the following rules of points:
    - Cards 2~10: its points is the face on the card
    - Ace: 20 points; Jack: 11 points; Queen: 12 points; King: 13 points
  - To determine points, please use the public field *FACES* of *DeckOfCards*
    - Equal determination for Stings: https://docs.oracle.com/javase/tutorial/java/data/comparestrings.html

Lab Instructions2

- Please develop the PokerGame class
  - In the constructor without parameters, please shuffle the cards.
  - Please design *public void dealFiveCards()*:
    - Five cards should be dealt, and the individual cards, points, and total points of the five cards should be displayed (please refer to ex3-result.txt).
    - Please catch *NullPointerException* in this method to deal with the situation that the entire deck has been dealt (please refer to ex3-result.txt).

Lab Instructions3

- Please provide **another constructor** to copy *myDeckOfCards* of the given *PokerGame* object parameter (Shallow Copy is enough, Deep Copy is not required), and reset *currentCard* to zero.

Lab Instructions4

- Please develop the PokerGameTest class
  - Design a while loop to allow users to continuously input options to play the game
  - Users can choose
    - 0: end the while loop (0 is the sentinel)
    - 1: deal five cards (call *dealFiveCards()*)
    - 2: create a new deck of cards, and deal another five cards
    - 3: clone the previous deck of cards, and restart the deal
  - Please refer to ex3-result.ext to check the expected game history.

Expected Results

- Please check ex3-result.txt

Submission

- The naming should conform to the **CamelCase** style.
- “Package“ is required: ntou.cs.java2024.
- Please submit .java files and .class files (upload them to TronClass).
- Code that fails to compile or execute is not accepted.