Fundamental Object Oriented Programming

Homework 2 POOCasino -- Jacks or Better

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Part 1 – How a player play with my program?

[1] After opening the program, a player will be asked to input your name.

Who are you? (Please enter your name):

- **NOTE:** Your name may contain space or any punctuation, and also can type in in any language. Once you type in "Enter", the program will continue, and the game starts! For example, you can type in:

Charlie Brown and Snoopy, hahaha! αβυθ...

[2] In the beginning, a player will be given 1000 P-dollars. The program will ask you to decide how many P-dollars you want to bet for round 1. You will see:

Round 1: Please enter your P-dollar bet (1-5 or 0 for quitting the game):

- **NOTE:** You can enter integer 0 to 5. If you input 0, the game will quit immediately.
- **NOTE:** If you input any integer other than 0 to 5, you will be ask to choose your bet one more time.
- **NOTE:** Please mind that you cannot input other type of characteristics, or the program will break.

[3] Then, the computer will distributes 5 cards from the shuffled deck for you, and you can choose which card you want to "keep" in your round. You will be asked to enter the letter from a to e.

- **NOTE:** You don't need to enter the letter in alphabetical order. That is, you can enter "abcde" or "cba" or "n" for keeping nothing. The program will be normal operation.
- **NOTE:** You can also enter letters or integers or more than 5 characteristics if you want, but the program will ask you to enter one more time.
- **NOTE:** Please mind that you cannot type in "space" or other punctuation, and your input should be shorter than 100 characteristics, or the program will break.

[4] The computer will remain the card you choose, and exchange others from the shuffled deck. You will see your new cards and the result on the screen immediately.

- **NOTE:** A straight hand in this game is from A2345 to 10JQKA, doesn't contain JQKA2 to KA234.

[5] After round 1, if you want to quit, you can enter 0 when the program asks you to decide your bet, then the program will tell you the final money you have in the end.

Or, you may play infinite times, until you go bankrupt (your money less than 0).

Part 2 – How I test the correctness

There are two parts in this program may be incorrect most often.

[1] As the program interacts with the player, such as entering player's name, deciding bet or which cards to keep. In this regards, I test the correctness just as the blue part in Part3.

[2] As the computer to judge the result.

I add a method in Class Computer to test if all the cards will return the correct result. Player can remove the comment(#) in the file, Computer.java, line 15, to make method "TestResult" work. Then follow the prompt in the program to enter 5 cards you want (don't have to input in order) to test the program. You will see:

```
Please enter 5 integers for test (0 to 51):
For example: 2(0-3), 3(4-7)..., K(44-47), A(48-51)
For example: 35 39 43 47 51 => S10 SJ SQ SK SA => royal flush
here: 5 6 7 1 2
Your cards are D2 H2 D3 H3 S3
You get a full House. The payoff is 45.
```

Part 3 -- The output for three rounds

```
f31104:desktop yitingli$ make
javac JacksOrBetter.java
f31104:desktop yitingli$ make run
java JacksOrBetter
POOCasino Jacks or Better, written by B03202017 Yi-Ting, Lee.
Welcome to POOCasino! I am Eating.
Who are you? (Please enter your name): Charlie Brown and Snoopy
Hello, Charlie Brown and Snoopy.
You have 1000 P-dollars now.

Round 1: Please enter your P-dollar bet (1-5 or 0 for quitting the game):
12
Please enter your P-dollar bet (1-5 or 0 for quitting the game): -1
Please enter your P-dollar bet (1-5 or 0 for quitting the game): 5
Your cards are (a) D5 (b) D7 (c) S8 (d) D9 (e) DQ
Which cards do you want to keep? (Please enter a to e) abcdefg
Which cards do you want to keep? (Please enter a to e) 12345
Which cards do you want to keep? (Please enter a to e) edcba
```

Okay. I will discard nothing.
Your new cards are D5 D7 S8 D9 DQ .
You get others. The payoff is 0.
Your have 995 P-dollars now.

Round 2: Please enter your P-dollar bet (1-5 or 0 for quitting the game):
5
Your cards are (a) D2 (b) S2 (c) H7 (d) S10 (e) HQ
Which cards do you want to keep? (Please enter a to e) ab
Okay. I will discard (c) H7 (d) S10 (e) HQ
Your new cards are D2 S2 H4 S4 C5 .
You get two pairs. The payoff is 10.
Your have 1000 P-dollars now.

Round 3: Please enter your P-dollar bet (1-5 or 0 for quitting the game):
5
Your cards are (a) H3 (b) D5 (c) D6 (d) SJ (e) DA
Which cards do you want to keep? (Please enter a to e) n
Okay. I will discard (a) H3 (b) D5 (c) D6 (d) SJ (e) DA
Your new cards are C5 S8 C9 S10 HJ .
You get others. The payoff is 0.
Your have 995 P-dollars now.

Round 4: Please enter your P-dollar bet (1-5 or 0 for quitting the game):
0
Good bye, Charlie Brown and Snoopy.
You played for 3 rounds and have 995 P-dollars now.

Part 4 – Bonus!

[1] If player's bet other than 0 to 5, the program will allow the player to input one more time.

[2] As deciding which card to keep, player doesn't have to enter according to the order. And if player makes a mistake, not from letter a to e, the program will allow the player to input one more time.

[3] An extra method "TestResult" to test if it is correct to judge the result.