# Report (Homework 4)

#### Student ID and Name

- B03902015
- 簡瑋德

## The Player's Strategy

- If the player's opened-card is **not** ACE, he will buy the insurance.
- The player **never** surrenders, since he considers confidence important.
- The player will doulbe down only when 10 < the value of the current hand < 16
- If the total value of the current hand is **lower** than 16, the player will split his current hand.
- The player won't stop hitting until the total value is **more** than 15
- If the player loses, he will bet **more** in the next round, in order to earn the money back.

#### **Framework**

```
POOCasino
  Src src
  (default package)
    PayerB03902015.java

<sup>⁴</sup> 

■ game

    Blackjack.java
    CardDeck.java
    CardSet.java
    POOCasino.java
    Printer.java
▶ ■ JRE System Library [JavaSE-1.7]
Referenced Libraries
🋂 😎 lib
  4 📂 foop
      Card.class
      Hand.class
      Player.class
      Player$BrokeException.class
      Player$NegativeException.class
    PlayerB03902007.class
```

- PlayerB03902015. java: The player that I implemented
- Blackjack.java: The Game Instance, which can be started by calling public method start()
- CardDeck.java: It represents a deck of cards. A random card is available with getRandCard()
- CardSet.java: It maintains the imformation of a hand.
- POOCasion.java: The start point. It will deal with the args and start the Blackjack correctly.
- Printer.java: It consists of some static methods, which are responsible for output messages.

### The Result of the Duel

- Classmate's Name and ID: 鄭德馨 B03902007
- Rounds = 100
- Initial Chips = 1000

```
<System> Round 100 Start!
Player1's Bet: 24
                             Player2's Bet: 2
                                                           Player3's Bet: 0
                                                                                         Player4's Bet: 1
<System> Face-Up Cards Assigned Dealer's Hand: (CLUB)4
Player1's Hand:
                      (HEART)2
Player2's Hand:
                       (HEART)A
Player3's Hand: (DIAMOND)3
Player4's Hand:
                      (SPADE)5
<System> Player4 Doubles Down
<System> Current Hands
<System> Current Hands
Player1's Bet: 24
Player1's Hand: (HEART)2
Player2's Bet: 2
Player2's Hand: (HEART)A
Player3's Bet: 0
Player3's Hand: (DIAMOND)3
Player4's Bet: 2
Player4's Hand: (SPADE)5
                                        (DIAMOND)8
                                          (HEART)8
                                          (HEART)7
                                           (CLUB)2
                                                           (DIAMOND)10
<System> Result Hands
Dealer's Hand:
                       (CLUB)4
                                          (SPADE)Q
                                                              (HEART)10
Dealer's Total Value: 24
Player1's Hand:
                                                                                   (CLUB)A
                      (HEART)2
                                        (DIAMOND)8
                                                              (SPADE)3
                                                                                                     (HEART)4
Player1's Total Value: 18
Player2's Hand:
                                          (HEART)8
                      (HEART)A
Player2's Total Value: 19
Player3's Hand: (DIAMOND)3
                                          (HEART)7
                                                              (HEART)5
                                                                               (DIAMOND)A
Player3's Total Value: 16
Player4's Hand:
                      (SPADE)5
                                           (CLUB)2
                                                           (DIAMOND)10
Player4's Total Value: 17
B03902015: 2455.0 Chips
B03902007: 1016 Chips
B03902015: 72.0 Chips
B03902007: 979 Chips
                19:55:15 - - b03902015 @ linux3 - - ~/foop/hw4 - (git) - (master *) - 2
```

#### **Bonus**

- I did nothing worth the bonus points.
- However, I tried my best to make my codes readable, including adding comments on every section.