Assignment 1: The goal of this assignment is to get statistical data about Blackjack using a Charlie plugin.

**Exercise 1:**

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| --- |
| *loses* dealer = *wins* player + *Blackjacks* player + *Charlies* player |
| *wins* dealer = *loses* player + *breaks* player |
| *hands* dealer = *wins* dealer + *loses* dealer + *pushes* dealer |
| *hands* dealer = *hands* player - *splits* player |

Table 1. Tabulation of game statistics with the default shoe.

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| --- | --- | --- |
|  | Player | Dealer |
| Wins | 5 | 4 = (1 + 3) |
| Loses | 1 | 6 = (5 + 1) |
| Pushes | 3 | 3 = (3) |
| Breaks (>21) | 3 |  |
| Blackjacks | 1 |  |
| Charlies | 0 |  |
| Total splits | 0 |  |
| Total hands | 9 | 9 = (5+1+3) |

Bankroll: 1005.00

(Got output like following after first burn card)

* **Before first burn card**: Wins: 0 | Lose: 0 | Push: 0 | Breaks: 0 | Blackjacks: 0 | Charlies: 0 | Splits: 0 | Total Hands: 0 | Bankroll: 1000.0
* **After first burn card:** Wins: 5 | Lose: 1 | Push: 3 | Breaks: 3 | Blackjacks: 1 | Charlies: 0 | Splits: 0 | Total Hands: 9 | Bankroll: 1005.0

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Exercise 2: Shoe value changed (charlie.shoe charlie.card.Shoe00 in charlie.props file)

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| --- |
| *loses* dealer = *wins* player + *Blackjacks* player + *Charlies* player |
| *wins* dealer = *loses* player + *breaks* player |
| *hands* dealer = *wins* dealer + *loses* dealer + *pushes* dealer |
| *hands* dealer = *hands* player - *splits* player |

Table 2. Tabulation of game statistics with Shoe00.

|  |  |  |
| --- | --- | --- |
|  | Player | Dealer |
| Wins | 21 | 30 = (24 + 6) |
| Loses | 24 | 26 = (21 + 5) |
| Pushes | 2 | 2 = (2) |
| Breaks (>21) | 6 |  |
| Blackjacks | 5 |  |
| Charlies | 0 |  |
| Total splits | 0 |  |
| Total hands | 47 | 47 = (21 + 24 + 2) |

Bankroll: 837.50

(Got output like following after first burn card)

* **Before first burn card:** Wins: 0 | Lose: 0 | Push: 0 | Breaks: 0 | Blackjacks: 0 | Charlies: 0 | Splits: 0 | Total Hands: 0 | Bankroll: 1000.0
* **After first burn card:** Wins: 21 | Lose: 24 | Push: 2 | Breaks: 6 | Blackjacks: 5 | Charlies: 0 | Splits: 0 | Total Hands: 47 | Bankroll: 837.5