

Team Бутерброд – Project Blackjack

Interface Control Document

1. Overview

The purpose of this document is to provide instruction on performing system-level validation and testing of the Blackjack program. The Blackjack program in itself will be a single-player game application simulating the casino game of the same name. The program will be coded using the latest version of Java Development Kit, and will be developed over the course of three week-long sprints.

2. Interface

The user interface of the program will be a simple text-based prompt. Later versions may choose to integrate graphical components, but will be beyond the scope of the current project. The program will display a readout displaying the current stage of the game, any card hands and available command actions. The user interacts with the game by typing in the appropriate command letters or in the case of betting, integer amounts.

3. Features

At any given time, the program will either be in a game round or in between rounds. In between rounds, the player can see his current account balance and has the option of starting a new game or quitting. When a round is started, the player is prompted to bet an initial amount, followed by initial hands dealt to the player and the dealer. The player will receive a readout displaying his own hand and

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any non-hidden dealer cards. After this, the player has the option to hit (receive another card) or stay (keep current cards and allow dealer to play). If the player busts (card displayed total exceeds 21) they lose their bet amount and the round ends. If the player chooses to stay, the dealer algorithm will play, and will attempt to beat the player's total. If the player is victorious, twice their bet amount will be added back to their account total. If the player's account goes to 0 or below, they will be unable to play further rounds.

4. System Testing

Ideally, system testing will be performed with a bot program to simulate a user:

- A. The program's outputs will be read by the bot and corresponding commands will be input to the program's feed.
- B. The bot will play the game 10 ten times, betting ten dollars with no double-downs each time.
- C. The bot will input 'H' until card total is above 14 and then input 'S' to stay.
- D. Once ten rounds are played, the bot will input 'Q' to end the program.

Upon completion of the test, the diagnostic should return successful if the program ended without errors, and that the bot's final score is between 0 and 200 dollars.