Blackjack project, Pavel Arefyev.

Metropolia University of Applied Sciences, Smart IoT systems, C programming course.

User manual

Menu:

- Start game
 - Starts the game of blackjack.
- View previous game log
 - Shows the key points of the previous game played.
- View global statistics
 - Shows the statistics of overall games.
- Achievements
 - Shows the achievements received while playing.

Game process:

Hit – ask for more cards

Stand – end the player's turn

In case dealer got Ace as the first card: **yes** – to withdraw the bet, **no** – to continue playing

Press **ENTER** to move onto the next dealer's card and to come back to main menu after the game.

Press ENTER to proceed to the main menu from view stats/log/achievements pages.

Regulations

- 1. The game is played with one deck of 52 cards. No duplicates possible.
- 2. In case the game ends with push, it is considered a draw.
- 3. At the beginning of the game, dealer has 1 card, player has 2.
- 4. Dealer does not have a hidden card, as in European casinos.
- 5. If Ace was drawn by the dealer on the initial deal, player may withdraw his bet (quit).
- 6. For dealer, Ace is always 11 when possible (i.e. "soft 17" starts with 6 and A).

Technical part

In order to keep track of generated card and not allow duplicates, two linked lists of card nodes are used.

Structure class has property "aceOne" that is used for dynamic calculation of sum. In case there is an Ace in the hand and the total sum exceeded the busting limit, Ace rank is changed from 11 to 1.

Log is a text file. User can open it, analyze and retrieve.

Stats is a dat file, operated in binary mode. User is not supposed to be interacting with it directly.

Other details can be found in the comments inside the source code.