Design a Java console application that will simulate the card

game BlackJack [21]

BlackJack is a simple card game that is played with a standard

52 card deck of poker cards. For more information on the rules,

please refer to the follow explanation:

https://bicyclecards.com/how-to-play/blackjack/

A player should be able to play a game of blackjack against a

computer dealer. This means that during a game the following

should be possible:

- a player should start by being dealt 2 cards and see those

cards

- the dealer should also be dealt 2 cards, and the player

should be able to see one of those cards

- the player should be given choices then on what to do:

\* The player can choose to hit, and will be given

another card

\* The player can stand and the turn will be passed

to the dealer

- whoever is closest to 21 without going over wins,

if the player goes over 21 the dealer wins, even

if the dealer also goes over 21, and if both are

less than 21 and have the same score, it is a tie

- the game should be scored in the following format:

\* if the player wins the game they should be awarded 10

points

\* if the player loses the game they should have 10

points deducted

\* if the player doubles down and wins they should

be awarded 20 points

\* if the player doubles down and loses they should

be deducted 20 points

\* if a player pays for insurance and the dealer has

blackjack, they are only deducted 5 points

\* if the player pays for insurance and the dealer

does not have blackjack, they are deducted 5

points but still have the chance to either win

or lose the original game

- the players total score should be tracked and displayed

at all times

The dealer should play and make decisions off of a very basic

set of rules that are as follows:

- the dealer will hit as long as their hand is less than 16

- as soon as the dealers hand is equal to 16 or higher they

will stand

- the dealer cannot split, double down, or buy insurance

- the only exception to this rule is that the dealer will

not hit if all players have busted, even if their hand

is less than 16

Stretch goals - not required

There should be an option to play with up to 4 human players

against the computer dealer:

- each player will play there own game against the computer

- player do not compete with each other, just the dealer

- it is possible for some player to lose and other do

win in the same turn

- all players go in order and the dealer always plays

their turn last

- special rules:

\* if the player is dealt 2 of the same card, they should

be given the option of splitting the cards, if they

choose to do so, they will be playing with 2 sets of

cards from that point forward. It is possible to

either lose or win both sets regardless of how

the other set scores.

\* if the face up card for the dealer is an ace, the

player should be given the option to get insurance,

if the choose to, they will only lose half of amount

of points they normally would (5 points) if the dealer

does has blackjack; if the dealer does not have blackjack

the player loses the insurance (5 points) immediately

\* if the initial 2 cards for a play add up to 9, 10, or

11, the player has an option doubling down, this will

double the players bet and they will be given only

one more card and their turn is over