

Getting Ready: Online Blackjack Game

Understand the online Blackjack game problem and learn the questions to further simplify this problem.

We'll cover the following



- Problem definition
- Expectations from the interviewee
 - Players in the game
 - Point dynamics
 - Card limit
- Design approach
- Design patterns

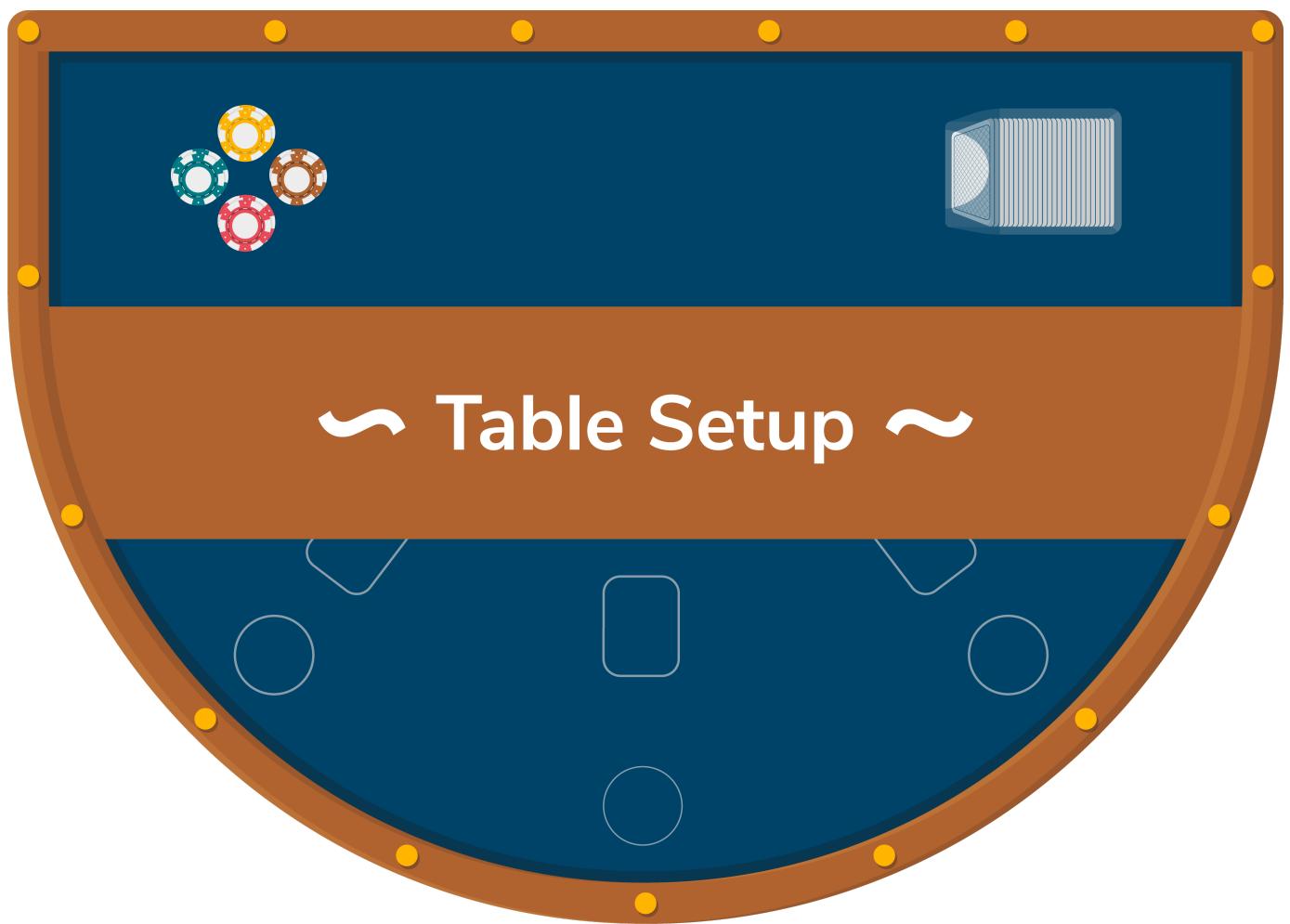
Problem definition

Blackjack is one of the most played games in casinos. In this game, several players play against the dealer. The objective of the game is to get closer to 21 than the dealer without exceeding the 21 points. This game is played with a deck of cards. Each card has a specific value associated with it, and these values are compared. The value of an ace card can be 1 or 11 points while cards of 10, Jack, Queen, and King value 10 points. Whereas, cards 2-9 have the same values as the number written on them. Hence, the player having one ace and a face card (King, Queen, or Jack card.) or a 10 card has 21 points. This is called Blackjack.

At the start of the game, a bet is placed by a player, and then the dealer will create hands (Each player and the dealer get two cards each.). All players have both cards exposed while the dealer has one card exposed and one card hidden. Now, both the dealer and the player can hit (Draw an additional card.) a card and ensure that they should not get over 21. Anyone exceeding 21 points, busts and loses the bet. The player can stand pat (Stop taking cards) at any time. When a player stops

taking cards, if the player has more points than the dealer but less than 22, they win the bet.

The following slide represents how to play Blackjack:

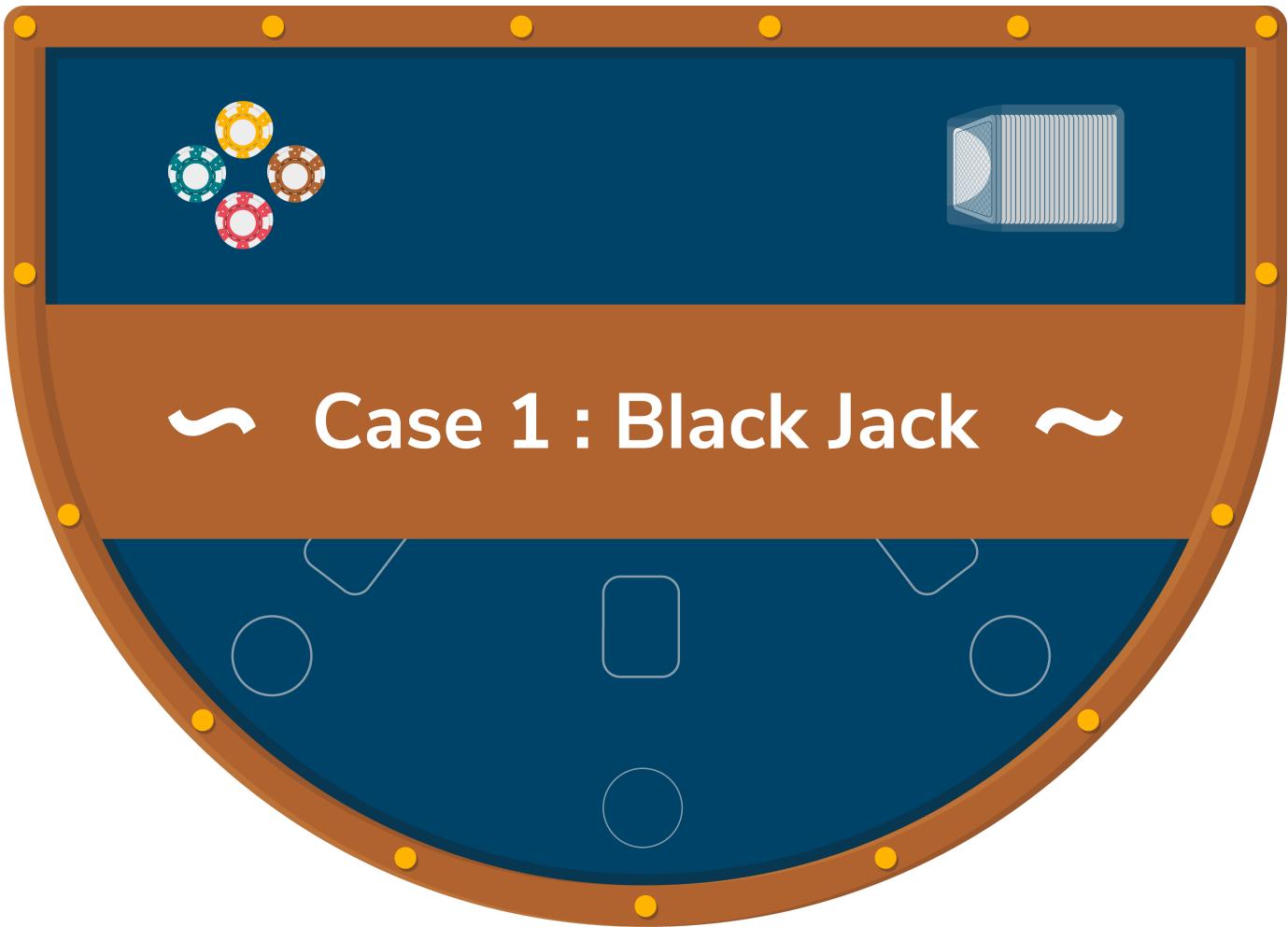


Blackjack table setup



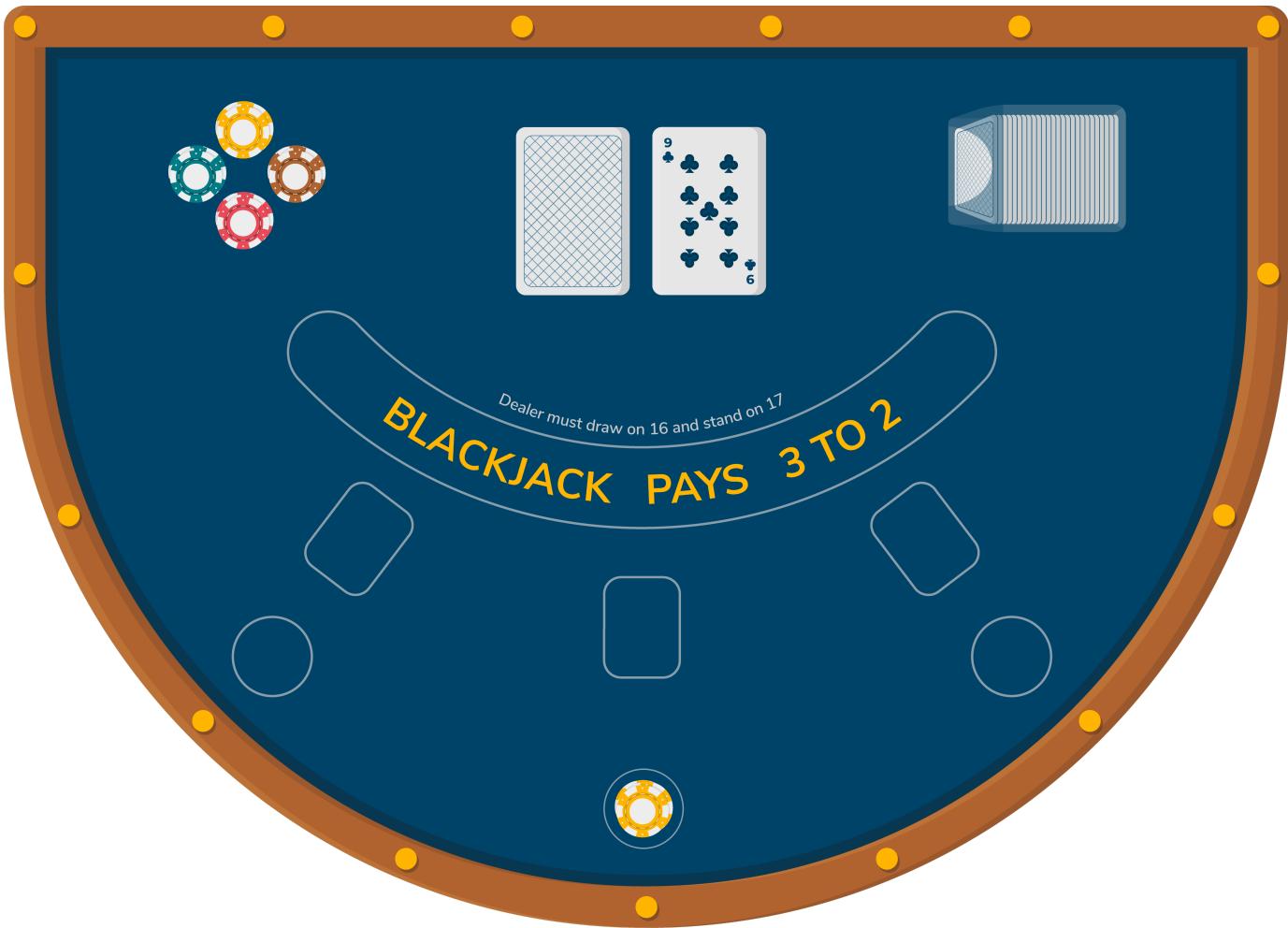
The dealer's end and Player's end

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~ Case 1 : Black Jack ~

Blackjack case represents if the player's first two cards' sum is equal to 21



The dealer deals two cards to themselves, one card facing up and the other card facing down



The dealer will deal two cards to player (both cards facing up)



Player wins the game because their first two cards' sum is equal to 21 and gets 150 percent profit



~ Case 2 : Dealer Wins ~

Dealer wins if the dealer card sum is greater than player's card sum



The dealer deals two cards to themselves and two cards to the player



The player hits and draws an additional card (8)

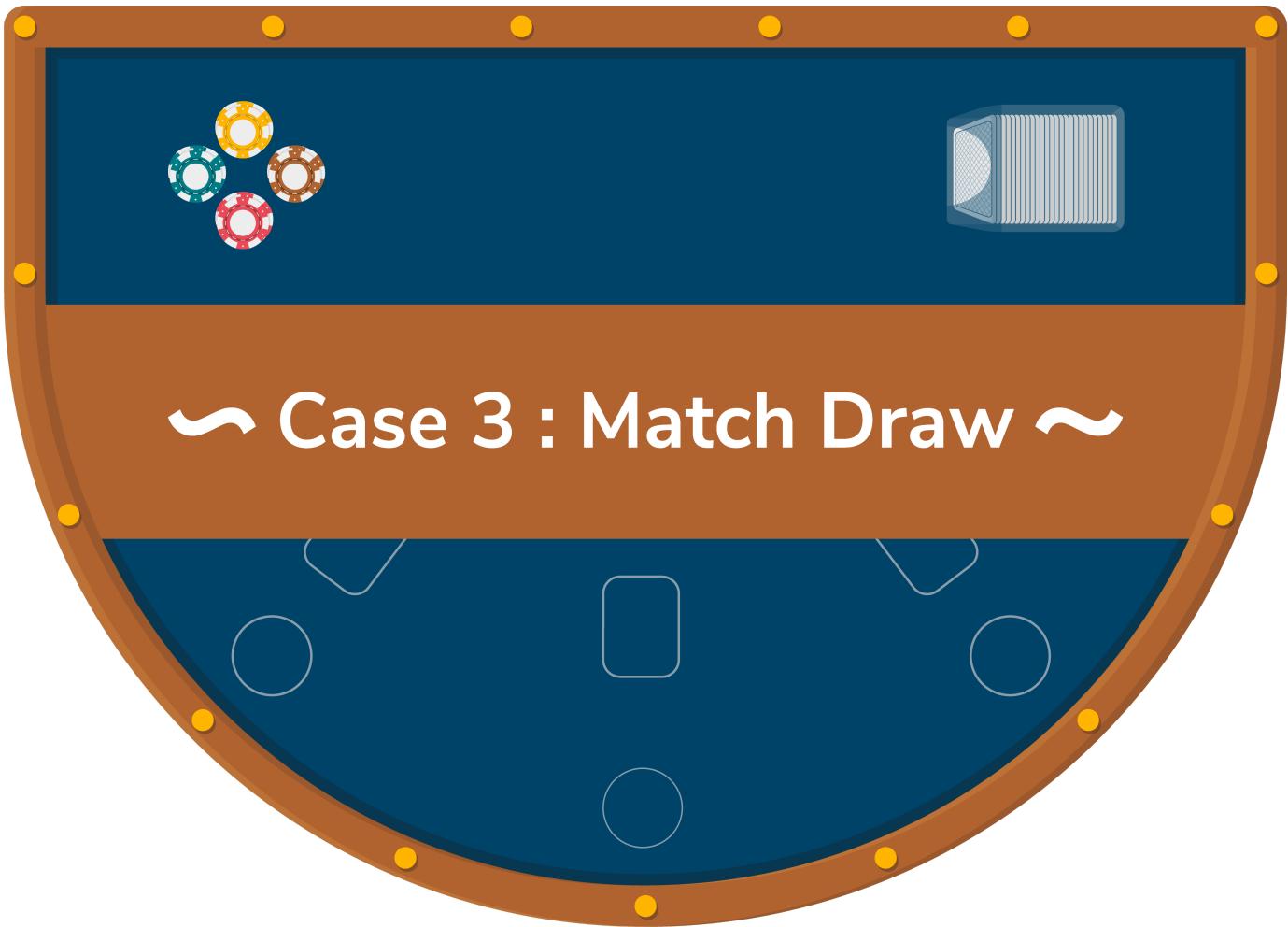
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After the player stands, the dealer exposes their second card



Player loses the game and the bet because player cards' sum (18) is less than dealer cards' sum (19)



The game results in a draw if the player card sum is equal to the dealer card sum



The dealer deals two cards to themselves and two cards to the player



The player hits and draws an additional card (8)

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