Blackjack Game Layout Document

In this project, we’ll build a text-based Blackjack game in Java using NetBeans 18. The idea is to capture the key mechanics of Blackjack and make sure it runs smoothly for up to 4 players. We'll stick to object-oriented design principles, breaking the code into three logical sections to keep things organized.

Here’s a breakdown of the main game logic:

* Player setup and turn management
* Dealer’s automatic actions following Blackjack rules
* Score management throughout the game

Program Structure

1. Launch Screen

When the program starts, the players will be welcomed with the message:  
*"Welcome to Blackjack by Team Go Team!"*

Then, they’ll have two options:

* Press 1: Start the game
* Press 2: View the "How to Play" guide

How to Play Guide:  
This guide gives a quick explanation of the game:  
*"The goal of Blackjack is to get as close to 21 as possible without going over. Cards 2-10 are worth their face values, J/Q/K are 10 points, and an Ace can count as 1 or 11. You play against the dealer. On your turn, you can ‘Hit’ (draw a card) or ‘Stand’ (keep your total). If you go over 21, you bust. The dealer keeps drawing until they hit at least 17."*

Once they’ve read the guide, the program will prompt them to press 1 to start the game.

2. Game Setup

Player Selection:  
The game will ask how many people are playing (between 1 and 4 players). Each player will:

* Enter their name (e.g., “Player 1” or something custom).
* Start with an empty hand and a score of 0.

Dealer Initialization:  
The dealer will follow basic Blackjack rules:

* They keep drawing cards until their total is 17 or higher.

Deck Management:

* A standard 52-card deck will be used.
* The deck will be shuffled at the start of every game.

3. Game Logic (Turn-based Play)

Turn Sequence:

* Each player takes their turn independently.
* On their turn, they can:
  1. Hit: Draw a new card.
  2. Stand: Keep their current hand and end their turn.
* If a player’s total exceeds 21, they bust and lose the round.

Score Display and Management:

* After every turn, the current scores of all players and the dealer will be displayed.
* This keeps everyone up to date on their performance.

Dealer’s Play:

* Once all players have finished, the dealer plays automatically.
* The dealer draws cards until they reach at least 17 or go bust.

4. End of Game and Results

Score Evaluation:  
At the end of the game, the scores will be checked:

* If a player’s score is higher than the dealer’s without going over 21, they win.
* If the dealer busts, all remaining players win.
* If the scores are tied, it’s a draw.

Displaying Final Scores:

* The final scores of all players and the dealer will be shown, along with a message announcing the winner(s) or declaring a tie.

Restart or Quit:

* At the end, the players will be asked:  
  *"Play again? (Y/N)"*
  + If Y, the game resets for a new round.
  + If N, the game exits.