

Blackjack

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Project Overview

- **Blackjack**
 - **Main Features:** Shuffle, double, split, Blackjack
 - **Limitations:** No insurance, one deck.
 - **Assumptions:** The user knows rules and strategy for Blackjack.
 - The user knows the money is not real.

Game description and rules / images

Rules: Players aim to beat the dealer without going over 21. Each player is dealt two cards initially and can choose to hit (receive another card) or stand (keep their current hand). Aces can count as 1 or 11, face cards as 10, and numbered cards at face value. The player wins if their hand is closer to 21 than the dealer's without exceeding it.



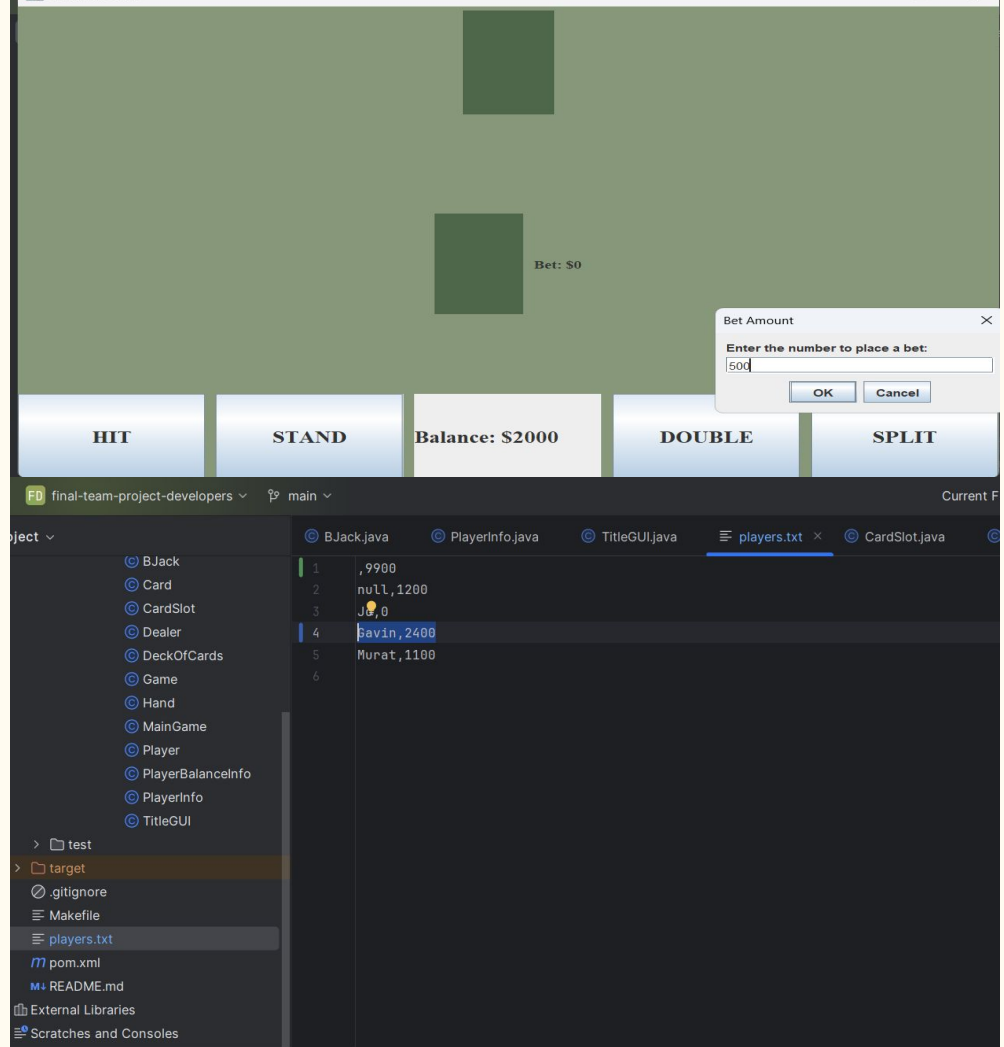
Project Requirements

Functional:

- Betting Options (Double, split)
- Shuffle, deal, and reshuffle
- Winning/losing scores for hands

Non-Functional:

- Visual aspects of the GUI
- Game saving
- Usability: user-friendly



Project Solution Approach

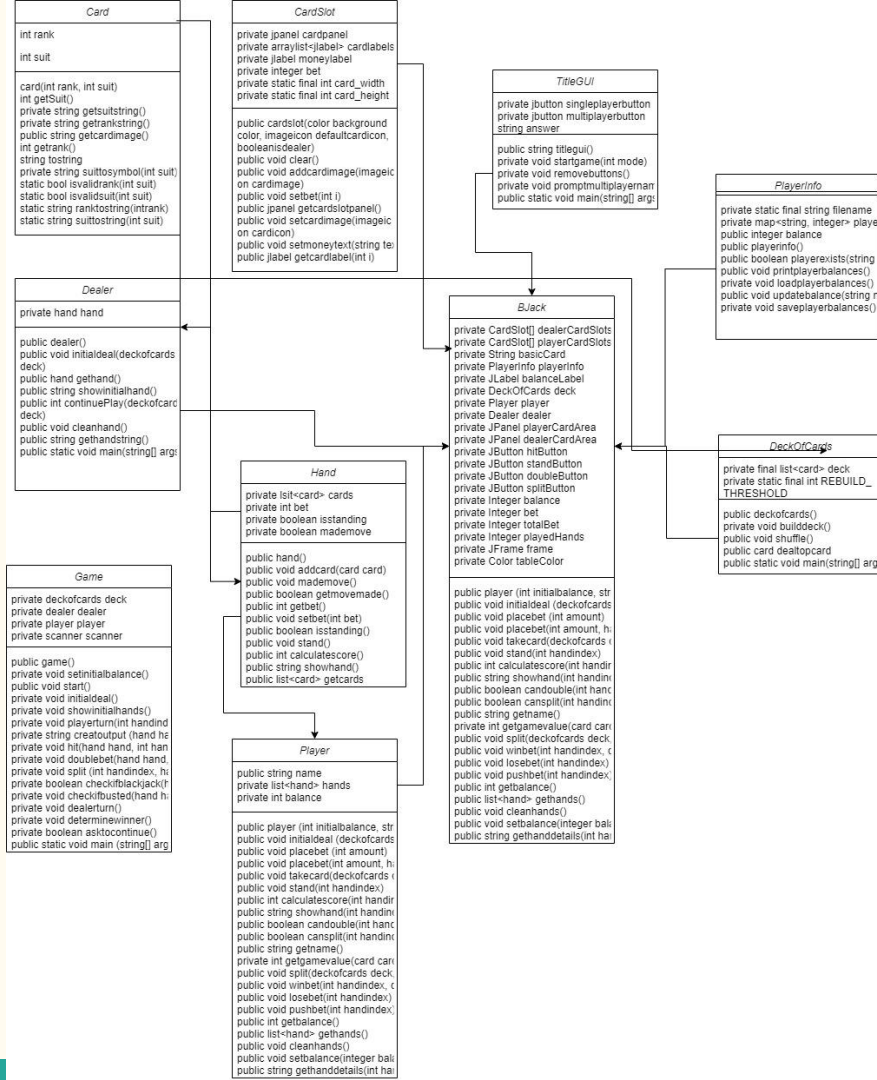
Major Components:

- Deck of cards that shuffles + deals off the top.
- Dealer: collects and pays out bets.
- Player: Name, bets, hand.
- Betting options and progress save.

Game/Ui Features:

- Game table: with cards and bets.
- Display currency: total and bets.
- Action buttons.
- Outcome display.

UML Design



Team Collaboration Approaches

Communication: Snapchat group chat, in-person coding sessions.

GitHub Issues: Odd git errors when pushing/pulling.

Git Branches: Main, Murat's Branch, Gavin Branch

Lesson Learned as a Group: Better communication, better time management.

Code Together or Seperate: Mostly separate, with occasional group sessions.

Testing, Validation, and Acceptance Plan

Testing Approaches: Unit Testing, User Testing

Why Our Project Is Deliverable: Every vital piece of Blackjack works. Players can save their currency, all betting options (except insurance) are included and function, a simple GUI, and replayability.

LIVE DEMO

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Summary

Things We Could've Done Differently:

- Implement working multiplayer.
- Add insurance betting option.
- Update GUI with more detail.
- Add background music and action sounds.