Requirements

The Blackjack project is a Java-based implementation of the classic card game, designed for single-player and multiplayer experiences. It incorporates standard Blackjack rules and features an intuitive graphical user interface to enhance user engagement and usability.

The following requirements detail the core functionality and success criteria of the Blackjack project:

1. **Gameplay Rules**:

    - Players can choose the number of participants (1–8), input their names, and place betting points for each round, starting with 100 points.
    - Players start with two cards face-up, while the dealer begins with one card face-down and one face-up.
    - Players can draw cards (hit) or stop drawing (stand) as long as their total score is below 21.
    - The dealer automatically draws cards until reaching or exceeding a total value of 17.

2. **Card Handling**:

    - Aces dynamically adjust their value between 1 and 11 based on the player's total hand value.
    - If a player has a natural Blackjack (an Ace and a face card in their initial hand), they win instantly and receive 1.5 times their betting points.
    - The master deck comprises six 52-card decks. It is reshuffled automatically when fewer than 52 cards remain.

3. **Player Interaction**:

    - Invalid inputs (e.g., exceeding betting points or invalid player counts) are rejected with error messages.
    - Players who lose all their points are excluded from subsequent rounds.
    - The game ends when all players have zero points or when the user opts to quit.

4. **User Interface**:

- The GUI displays:
    - The dealer's cards and status.
    - The current player's cards, score, and options.
    - A table summarizing all players' scores and statuses.
- At the end of the game, a leaderboard ranks players and remains visible until the user decides to quit.
- If there is no single winner, the interface indicates a tie.

5. **Scoring and Leaderboard**:

- Player scores are dynamically updated at the end of each round based on betting outcomes.
- The leaderboard accurately reflects player rankings at the end of the game.

6. **Game Termination**:

- The program provides an option for the user to end the game by pressing an "END" button.
- Upon termination, all game data is cleared, and the program exits gracefully.