

13016235: C Programming

First Semester, 2020

Project Proposal

1. Project developer

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2. Project title

C Blackjack

3. Project description and requirements

Project description:

This project simulates the game called “Blackjack” which is played in casino inside the terminal. The objective of the game is to get the highest amount of money possible. Just like real blackjack, the player starts off with some money (1000\$). The player will then bet their way through the game fighting against the dealer, hopefully getting lucky and earning as much money as possible.

- (In the attached file there is flowchart which explain the game in a more clear manner)
- (As well as some pseudocode)

Project requirements:

Program Specification/Requirement

The program is supposed to partly replicate the game of blackjack, which is played in a casino

Each component of the game has broken down into the functions below

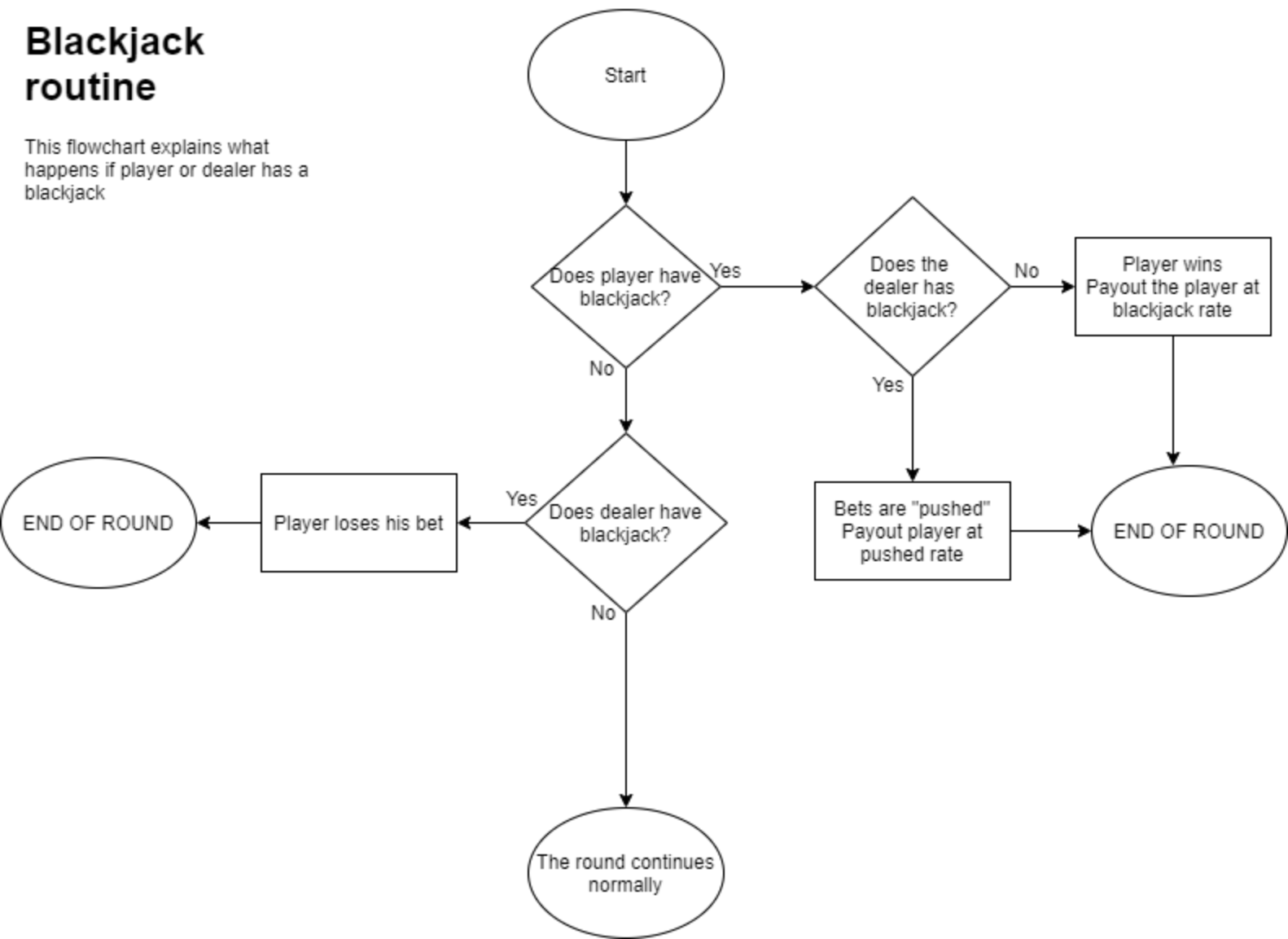
Functions required

- Find value of a card
- Finding the value of the hand
 - Pre-round routine
 - Clear the dealer hand
 - Clear the player hand
 - Clear the player bets
 - Set player hand state to be playing
 - Input validation for the bet
- Input validation for the playing decision
- Input validation for choosing whether to keep playing
 - Displaying hands (with option for hidden card)
 - Checking for sufficient money
 - Generate a random card and hit card to hand
 - Generate card
 - Appending it to the hand
 - Check for blackjack in hand
 - Check for busted hand
- Check if player is allowed to double down

(A flowchart is made for any long/harder to understand function)

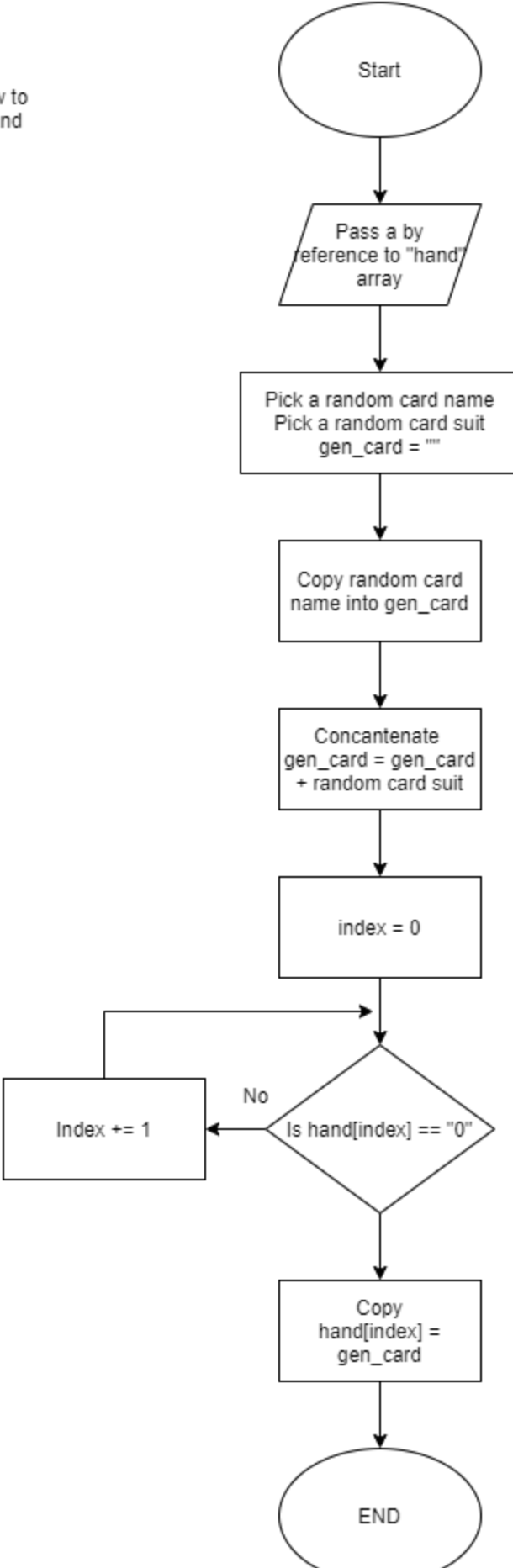
Blackjack routine

This flowchart explains what happens if player or dealer has a blackjack



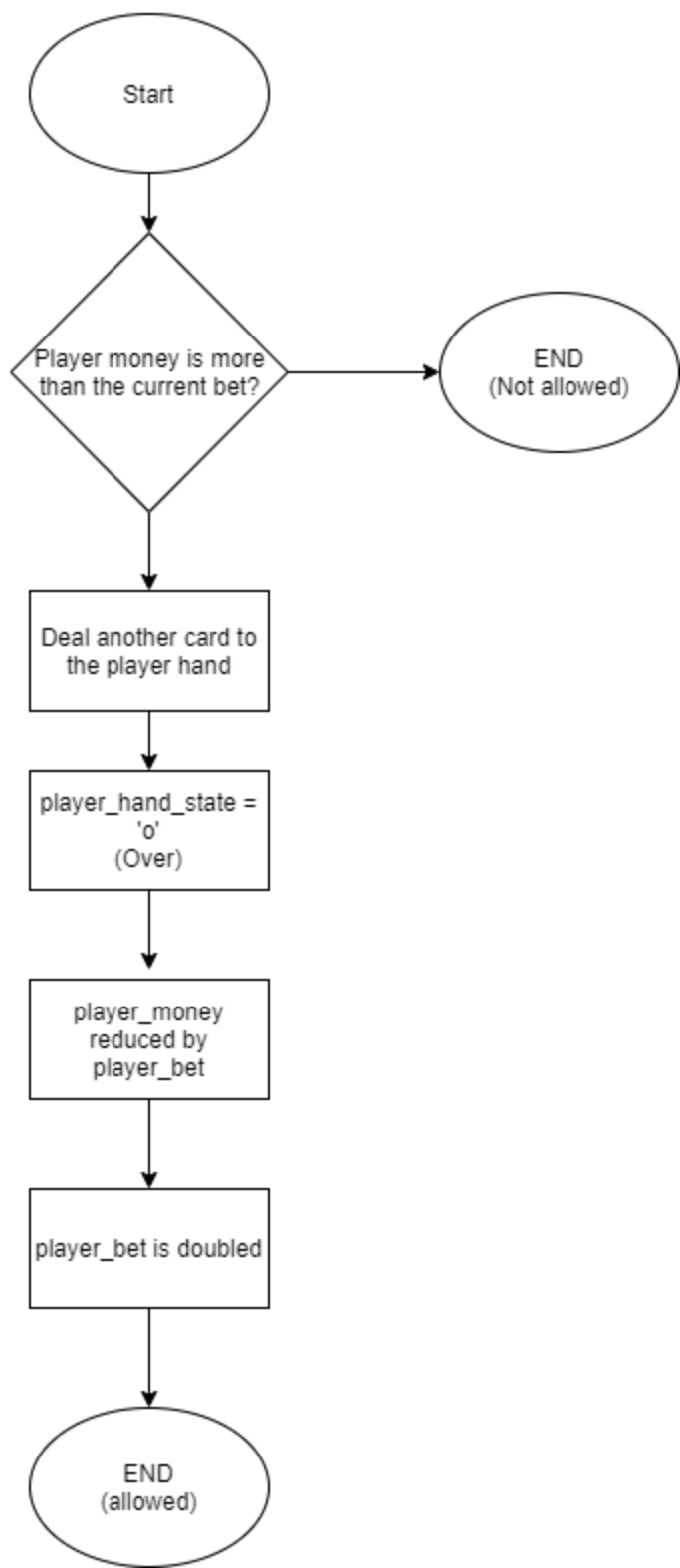
Deal card

This flowchart explains how to deal a random card to a hand



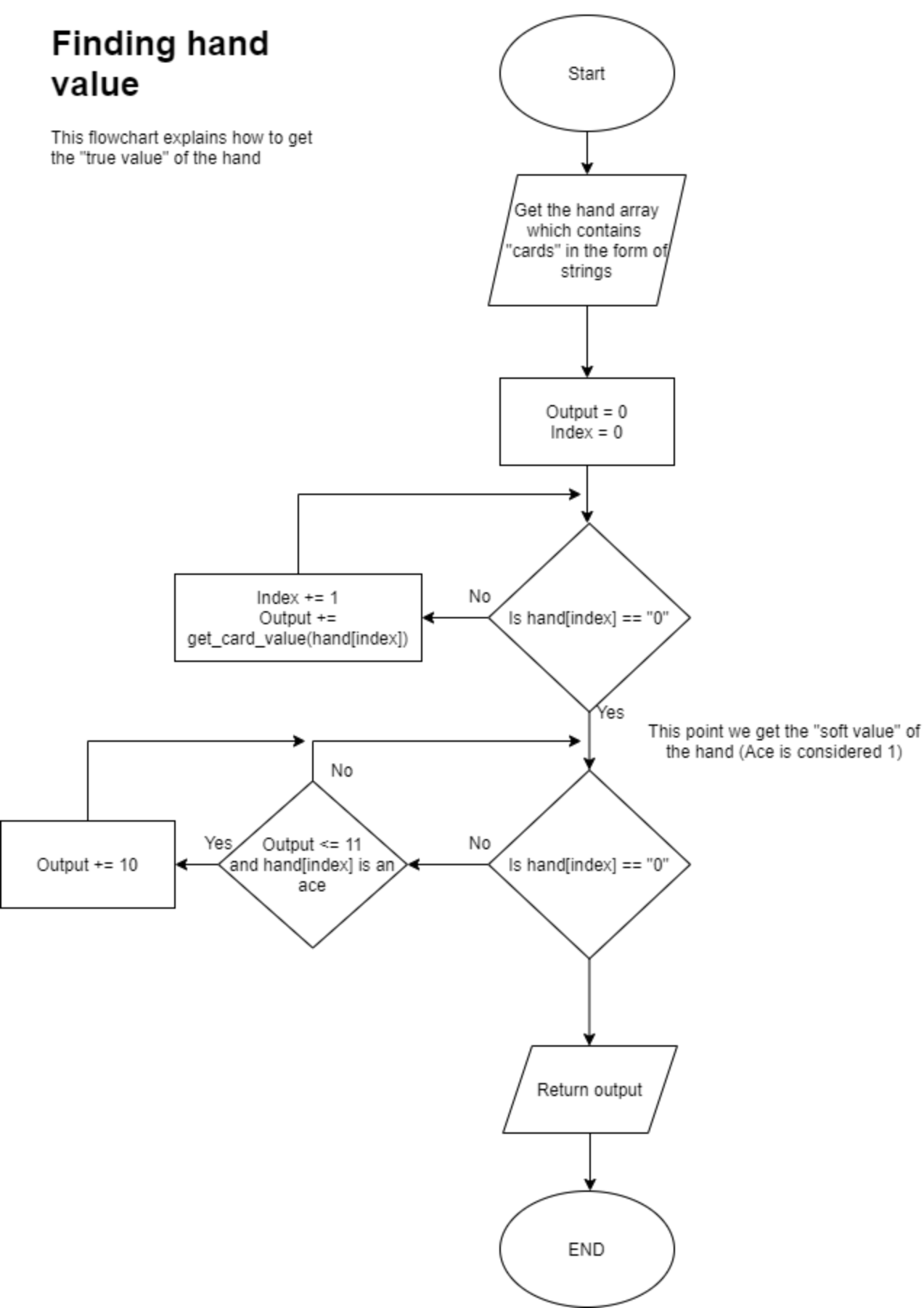
Double down routine

This flowchart explain hwo the double down routine works



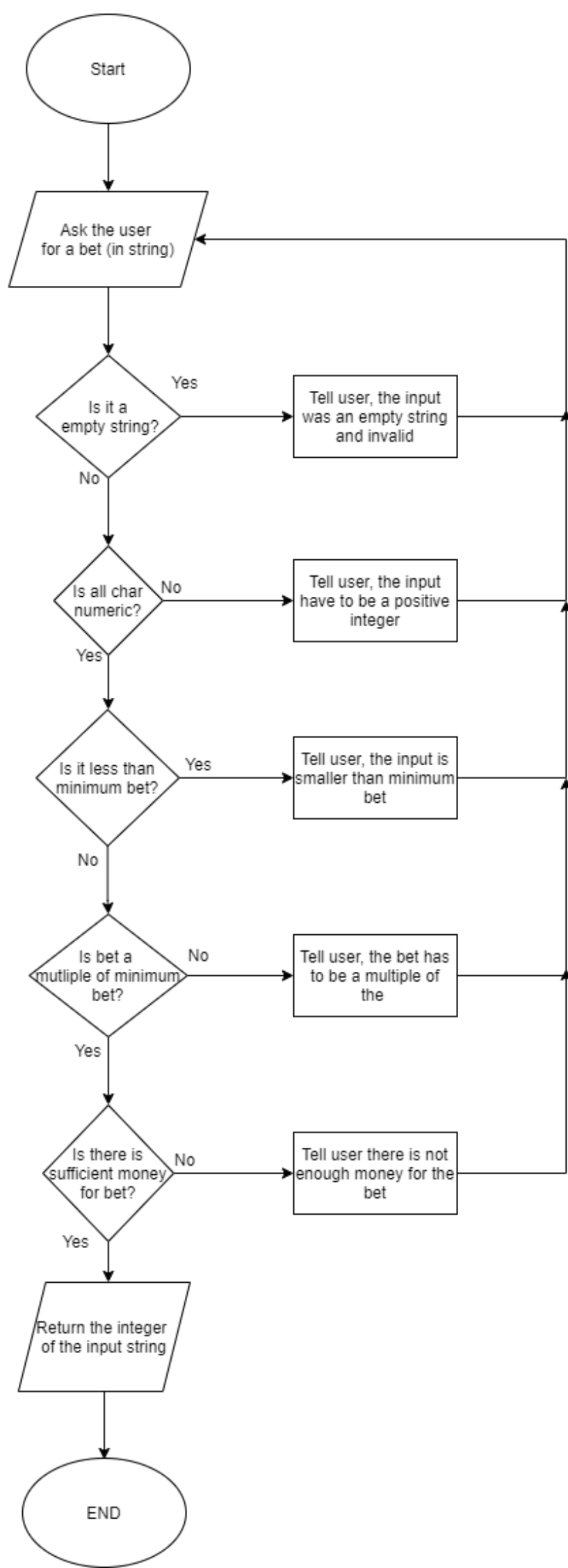
Finding hand value

This flowchart explains how to get the "true value" of the hand



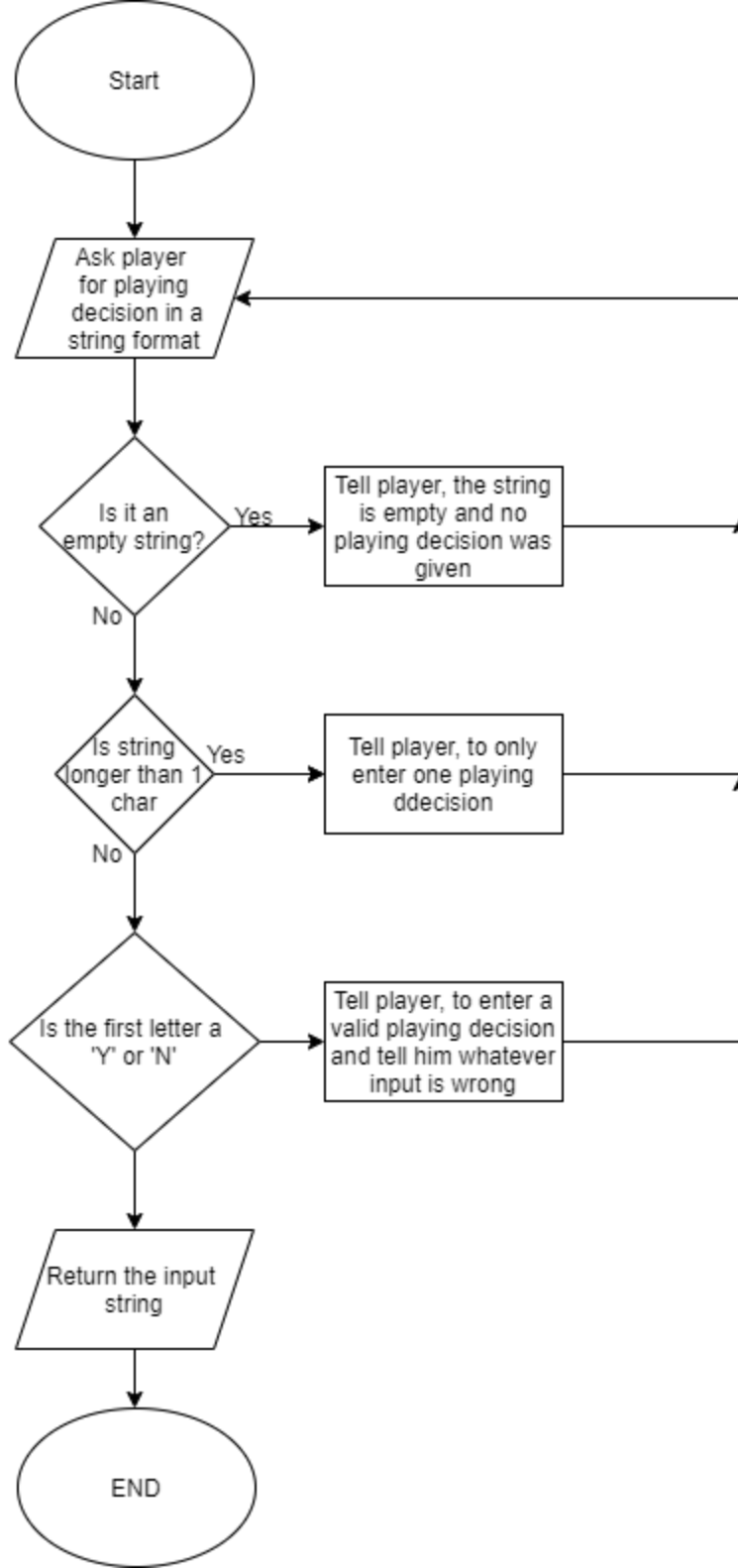
Getting bet from user

This flowchart explains how we get a valid bet from the user



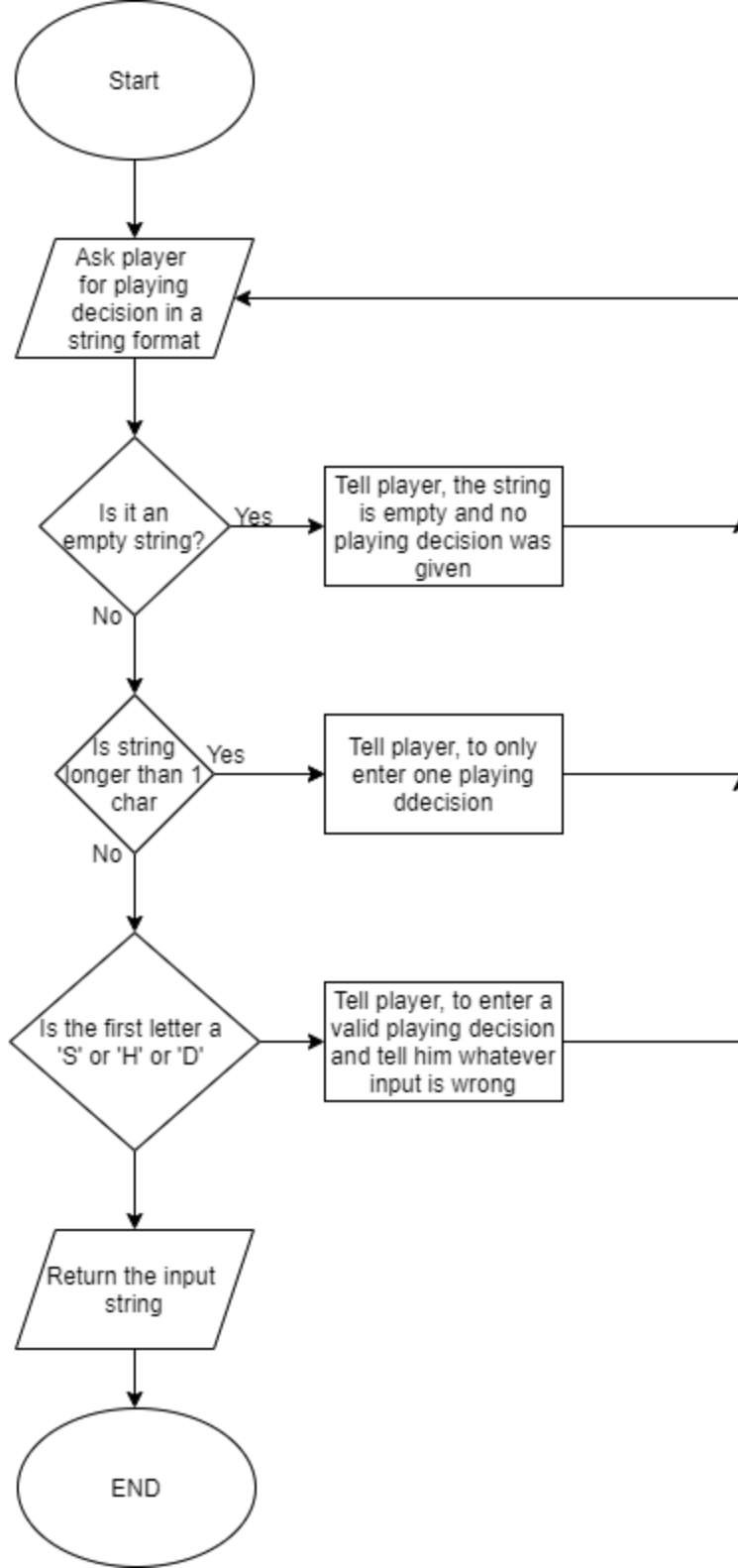
Getting decision to keep playing

This flowchart explain how to get a valid decision by the player if she wants to keep playing



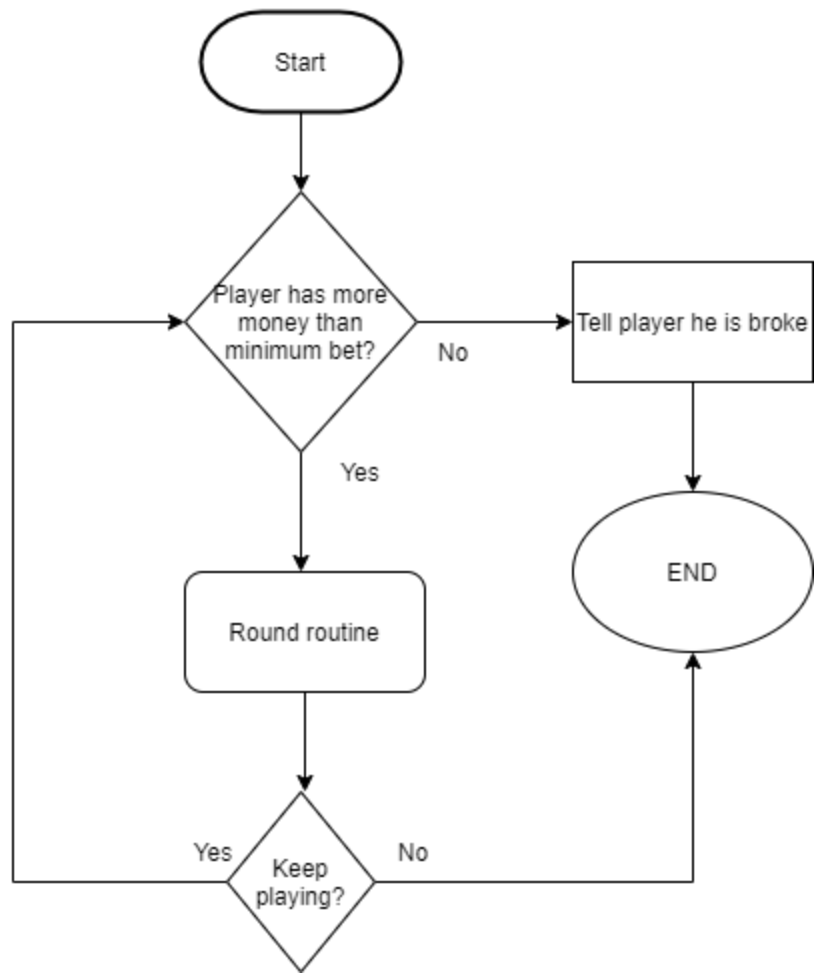
Getting playing decision from player

This flowchart explain how to get a valid playing decision from a player



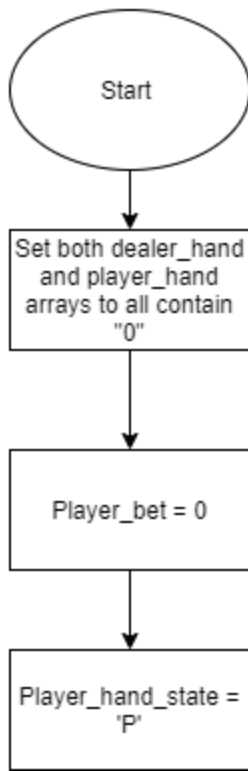
Main game loop

This flowchart show the main game loop



Pre-round set up

This flowchart shows how to prep for the round in C blackjack program



Round routine

This flowchart explain the very general flow of the C blackjack program in one round

