# Execution flow of the program

1. Importing Libraries: The program begins by importing the random and sys libraries, which are essential for generating random numbers and handling system exit operations, respectively.
2. Defining Constants: A dictionary named JAPANESE\_NUMBERS is defined to map the numerical values of the dice to their corresponding Japanese words.
3. Game Introduction: The program prints an introduction to the game, providing the player with context about Cho-Han.
4. Initializing Player's Purse: The player's starting amount of money, referred to as purse, is initialized to 5000 mon.
5. Main Game Loop: The program enters an infinite loop (while True:) that represents the main game loop, allowing the player to continue playing until they choose to quit or run out of money.
6. Betting Process:
   * The player is prompted to enter a bet amount or to quit the game.
   * Input validation occurs to ensure the player enters a valid number and has sufficient funds to place the bet.
7. Rolling the Dice: Two dice are rolled using random.randint(1, 6), generating random values between 1 and 6.
8. Player's Bet on Even or Odd: The player is prompted to bet on whether the total of the dice will be even or odd. Input validation ensures that the player enters either "CHO" or "HAN".
9. Revealing the Dice Results: The program displays the results of the dice roll, both in numerical form and using the Japanese number representation.
10. Determining the Outcome:
    * The program checks if the sum of the dice is even or odd.
    * It compares the player's bet with the actual outcome to determine if the player has won or lost.
11. Updating the Purse:
    * If the player wins, the pot is added to their purse, and a 10% house fee is deducted.
    * If the player loses, the pot is subtracted from their purse.
12. Checking for Game Continuation: The program checks if the player's purse has reached zero. If so, it exits the game with a message.

Python Chohan\_ss.py code:

# Program revised by Steve Stylin, Nov 1, 2024. Module 3.2

import random

import sys

JAPANESE\_NUMBERS = {1: 'ICHI', 2: 'NI', 3: 'SAN', 4: 'SHI', 5: 'GO', 6: 'ROKU'}

print('''Cho-Han, by Al Sweigart al@inventwithpython.com

In this traditional Japanese dice game, two dice are rolled in a bamboo

cup by the dealer sitting on the floor. The player must guess if the

dice total to an even (cho) or odd (han) number.

Notice: If you roll a total of 2 or 7, you get a 10 mon bonus!

''')

purse = 5000

while True: # Main game loop.

# Place your bet:

print('You have', purse, 'mon. How much do you bet? (or QUIT)')

while True:

pot = input('\nss: ')

if pot.upper() == 'QUIT':

print('Thanks for playing!')

sys.exit()

elif not pot.isdecimal():

print('Please enter a number.')

elif int(pot) > purse:

print('You do not have enough to make that bet.')

else:

# This is a valid bet.

pot = int(pot) # Convert pot to an integer.

break # Exit the loop once a valid bet is placed.

# Roll the dice.

dice1 = random.randint(1, 6)

dice2 = random.randint(1, 6)

total = dice1 + dice2

print('The dealer swirls the cup and you hear the rattle of dice.')

print('The dealer slams the cup on the floor, still covering the')

print('dice and asks for your bet.')

print()

print(' CHO (even) or HAN (odd)?')

# Let the player bet cho or han:

while True:

bet = input('ss: ').upper()

if bet != 'CHO' and bet != 'HAN':

print('Please enter either "CHO" or "HAN".')

continue

else:

break

# Reveal the dice results:

print('The dealer lifts the cup to reveal:')

print(' ', JAPANESE\_NUMBERS[dice1], '-', JAPANESE\_NUMBERS[dice2])

print(' ', dice1, '-', dice2)

# Determine if the player won:

rollIsEven = total % 2 == 0

if rollIsEven:

correctBet = 'CHO'

else:

correctBet = 'HAN'

playerWon = bet == correctBet

# Check for bonus:

if total == 2 or total == 7:

print(f'You rolled a total of {total} and receive a 10 mon bonus!')

purse += 10

# Display the bet results:

if playerWon:

print('You won! You take', pot, 'mon.')

purse = purse + pot # Add the pot from player's purse.

print('The house collects a', pot \* 12 // 100, 'mon fee.')

purse = purse - (pot \* 12 // 100) # The house fee is 12%.

else:

purse = purse - pot # Subtract the pot from player's purse.

print('You lost!')

# Check if the player has run out of money:

if purse == 0:

print('You have run out of money!')

print('Thanks for playing!')

sys.exit()

A screenshot of a computer flowchart

Description automatically generatedFlow chart of the program