

PROGRAM START

INITIALIZE user_wins, cpu_wins to 0
SET play_again to True

WHILE play_again is TRUE

PROMPT user for their name and store in user_name

RANDOMLY SELECT current_player as "User" or "CPU"
PRINT "Game starting! [current_player] goes first."
PRINT "Generating sticks,get ready!"

SET sticks to a list containing [1,3,5,7]

WHILE sum of values in sticks is grater than 0:

FOR each row in sticks:

PRINT the row number and the corresponding sticks as a pyramid shape

IF current_player is "User":

SET valid_input to False

WHILE valid_input is False:

TRY:

PROMPT user to enter row number (1-4) and store input in
row_index_input

IF row_index_input is 'q' (case-insensitive):

PRINT "Thanks for playing!"

EXIT the program

CONVERT row_index_input to integer and store in row_index

CATCH invalid input:

PRINT "Invalid row number. Try again."

CONTINUE to the next iteration of the loop

IF row_index is out of range:

PRINT "Invalid row number. Try again."

CONTINUE to the next iteration of the loop

PROMPT user to enter number of sticks to take from the selected row

CONVERT user input to integer and store in sticks_to_take

IF sticks_to_take is out of range for the selected row:

PRINT error message

CONTINUE to the next iteration of the loop

ELSE:

SET valid_input to True

REMOVE sticks_to_take from the selected row in sticks

PRINT move made by the user

SET current_player to "CPU"

ELSE (current_player is "CPU"):

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        SET valid_move to False
        WHILE valid_move is False:
            RANDOMLY SELECT a row_index
            IF the selected row has no sticks:
                CONTINUE to the next iteration of the loop
            RANDOMLY SELECT sticks_to_take between 1 and the number of sticks in
the selected row
            SET valid_move to True

        ADD a short delay
        REMOVE sticks_to_take from the selected row in sticks
        PRINT move made by the CPU
        SET current_player to "User"

PRINT "Game Over!"
IF current_player is "User":
    INCREMENT cpu_wins by 1
    PRINT "CPU wins!"
ELSE:
    INCREMENT user_wins by 1
    PRINT user_name + " wins!"

PROMPT user to play again
IF user wants to play again:
    SET play_again to True
ELSE:
    PRINT scores for user_name and CPU
    PRINT "Thanks for playing!"
    SET play_again to False.

PROGRAM END

FUNCTION print_move(player, row_index, sticks_taken):
    PRINT player + " took " + sticks_taken + " stick(s) from row " + (row_index + 1)

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