import random

import os

# global constants

EASY = 10

HARD = 5

# Functions

def choosing\_difficulty():

    choose\_difficulty = ""

    while choose\_difficulty != "easy" or choose\_difficulty != "hard":

        choose\_difficulty = input("Choose a difficulty. Type 'easy' or 'hard': ")

        if choose\_difficulty == "easy":

            return EASY

        elif choose\_difficulty == "hard":

            return HARD

        else:

            print("That is not a valid difficulty please choose again.")

def remaining (tries):

    print (f"You have {tries} attempts remaining.")

def play\_game(number\_to\_guess, tries\_remaining):

    guess = 0

    while guess != number\_to\_guess and tries\_remaining > 0:

        guess = int (input ("Make a guess: "))

        if guess < 0 or guess > 100:

            print ("Please input a valid number between 1 and 100.")

            remaining(tries\_remaining)

        elif guess > number\_to\_guess:

            print ("Too high.")

            tries\_remaining -= 1

            remaining(tries\_remaining)

        elif guess < number\_to\_guess:

            print ("Too low.")

            tries\_remaining -= 1

            remaining(tries\_remaining)

        elif guess == number\_to\_guess:

            return ("You guessed it! You win.")

    if tries\_remaining == 0:

            return (f"You lose. The number was {number\_to\_guess}")

# GAME ON

more = True

while more == True:

    print ("Welcome to the Number Guessing Game")

    print ("I'm thinking of a number between 1 and 100.")

    number = random.randint(1, 100)

    #print (f"The number is {number}")

    difficulty\_tries = choosing\_difficulty()

    print (f"You have {difficulty\_tries} attempts remaining to guess the number.")

    result = play\_game(number, difficulty\_tries)

    print (result)

    if input("Play again? y or n: ") == "n":

        more = False

    os.system ('cls')

**TEACHER SOLUTION**

from random import randint

from art import logo

EASY\_LEVEL\_TURNS = 10

HARD\_LEVEL\_TURNS = 5

#Function to check user's guess against actual answer.

def check\_answer(guess, answer, turns):

  """checks answer against guess. Returns the number of turns remaining."""

  if guess > answer:

    print("Too high.")

    return turns - 1

  elif guess < answer:

    print("Too low.")

    return turns - 1

  else:

    print(f"You got it! The answer was {answer}.")

#Make function to set difficulty.

def set\_difficulty():

  level = input("Choose a difficulty. Type 'easy' or 'hard': ")

  if level == "easy":

    return EASY\_LEVEL\_TURNS

  else:

    return HARD\_LEVEL\_TURNS

def game():

  print(logo)

  #Choosing a random number between 1 and 100.

  print("Welcome to the Number Guessing Game!")

  print("I'm thinking of a number between 1 and 100.")

  answer = randint(1, 100)

  print(f"Pssst, the correct answer is {answer}")

  turns = set\_difficulty()

  #Repeat the guessing functionality if they get it wrong.

  guess = 0

  while guess != answer:

    print(f"You have {turns} attempts remaining to guess the number.")

    #Let the user guess a number.

    guess = int(input("Make a guess: "))

    #Track the number of turns and reduce by 1 if they get it wrong.

    turns = check\_answer(guess, answer, turns)

    if turns == 0:

      print("You've run out of guesses, you lose.")

      return

    elif guess != answer:

      print("Guess again.")

game()