**TASK:1 Hangman Game**

**Design a text-based Hangman game. The program**

**selects a random word, and the player guesses one**

**letter at a time to uncover the word. You can set a**

**limit on the number of incorrect guesses allowed.**

PROGRAM:

import random

word\_list = ['python', 'hangman', 'programming', 'developer', 'computer', 'software']

def choose\_word():

    return random.choice(word\_list)

def display\_word(word, guessed\_letters):

    return ''.join([letter if letter in guessed\_letters else '\_' for letter in word])

def hangman():

    word = choose\_word()

    guessed\_letters = set()

    incorrect\_guesses = 0

    max\_incorrect\_guesses = 6

    print("Welcome to Hangman!")

    while incorrect\_guesses < max\_incorrect\_guesses:

        print(f"\nCurrent word: {display\_word(word, guessed\_letters)}")

        print(f"Incorrect guesses left: {max\_incorrect\_guesses - incorrect\_guesses}")

        guess = input("Guess a letter: ").lower()

        if len(guess) != 1 or not guess.isalpha():

            print("Please enter a valid single letter.")

            continue

        if guess in guessed\_letters:

            print("You've already guessed that letter.")

            continue

        guessed\_letters.add(guess)

        if guess in word:

            print(f"Good guess! The letter '{guess}' is in the word.")

        else:

            incorrect\_guesses += 1

            print(f"Oops! The letter '{guess}' is not in the word.")

        if all(letter in guessed\_letters for letter in word):

            print(f"\nCongratulations! You've guessed the word: {word}")

            break

    else:

        print(f"\nSorry, you've run out of guesses. The word was: {word}")

hangman()