TASK 3:- PASSWORD GENERATOR

A password generator is a useful tool that generates strong and

random passwords for users. This project aims to create a

password generator application using Python, allowing users to

specify the length and complexity of the password.

User Input: Prompt the user to specify the desired length of the

password.

Generate Password: Use a combination of random characters to

generate a password of the specified length.

Display the Password: Print the generated password on the screen.

Ans:-

import random

import string

def generate\_password(length, complexity):

# Define character sets based on complexity

if complexity == "low":

characters = string.ascii\_letters # Letters (lowercase and uppercase)

elif complexity == "medium":

characters = string.ascii\_letters + string.digits # Letters and digits

elif complexity == "high":

characters = string.ascii\_letters + string.digits + string.punctuation # Letters, digits, and punctuation

else:

return "Error: Invalid complexity level"

# Generate the password

password = ''.join(random.choice(characters) for \_ in range(length))

return password

# Input from the user

try:

length = int(input("Enter the desired password length: "))

complexity = input("Enter complexity level (low, medium, high): ").lower()

# Generate the password

password = generate\_password(length, complexity)

# Display the password

print(f"Generated Password: {password}")

except ValueError:

print("Error: Invalid input. Please enter a valid password length.")

except KeyboardInterrupt:

print("Password generation canceled.")