**Week 4 source**

import random

import string

def generate\_password(length=12):

"""

Generates a random password with the specified length.

The password includes a mix of uppercase letters, lowercase letters,

numbers, and special characters.

Parameters:

- length (int): The length of the password (default is 12).

Returns:

- str: The generated random password.

"""

characters = string.ascii\_letters + string.digits + string.punctuation

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

return password

def generate\_multiple\_passwords(num\_passwords=5, length=12):

"""

Generates multiple random passwords.

Parameters:

- num\_passwords (int): The number of passwords to generate (default is 5).

- length (int): The length of each password (default is 12).

Returns:

- list: A list of generated random passwords.

"""

passwords = [generate\_password(length) for \_ in range(num\_passwords)]

return passwords

def main():

print("Random Password Generator")

try:

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

num\_passwords = int(input("Enter the number of passwords to generate: "))

except ValueError:

print("Invalid input. Please enter valid numbers.")

return

if length <= 0 or num\_passwords <= 0:

print("Invalid input. Length and number of passwords must be greater than zero.")

return

passwords = generate\_multiple\_passwords(num\_passwords, length)

print("\nGenerated Passwords:")

for i, password in enumerate(passwords, start=1):

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

if \_name\_ == "\_main\_":

main()