1. Password strength checker

import re

def evaluate\_password\_strength(password):

strength = 0

# Define criteria for password strength

requirements = [

(lambda pwd: len(pwd) >= 8, "Password should be at least 8 characters long."),

(lambda pwd: any(char.isdigit() for char in pwd), "Password should include at least one number."),

(lambda pwd: any(char.islower() for char in pwd), "Password should include at least one lowercase letter."),

(lambda pwd: any(char.isupper() for char in pwd), "Password should include at least one uppercase letter."),

(lambda pwd: any(char in "!@#$%^&\*()-\_=+{}[]|:;'<>,.?/" for char in pwd), "Password should include at least one special character."),

]

feedback = []

# Check each requirement

for requirement, suggestion in requirements:

if requirement(password):

strength += 1

else:

feedback.append(suggestion)

# Provide result based on how many criteria are satisfied

if strength == len(requirements):

return "Your password is strong!"

elif strength >= len(requirements) // 2:

return f"Your password is moderate: {', '.join(feedback)}"

else:

return f"Your password is weak: {', '.join(feedback)}"

# Run the program

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

user\_password = input("Enter a password to check its strength: ")

result = evaluate\_password\_strength(user\_password)

print(result)