Task No – 3

Q. Build a tool that assesses the strength of a password based on criteria such as length, presence of uppercase and lowercase letters, numbers, and special characters.

Code :-

import re

def check\_password\_strength(password):

"""Evaluates password strength based on length, cases, numbers, and symbols."""

score = 0

criteria = {

"Length (8+ chars)": len(password) >= 8,

"Uppercase Letter": bool(re.search(r"[A-Z]", password)),

"Lowercase Letter": bool(re.search(r"[a-z]", password)),

"Number": bool(re.search(r"\d", password)),

"Special Character": bool(re.search(r"[!@#$%^&\*(),.?\":{}|<>]", password))

}

for criterion, met in criteria.items():

if met:

score += 1

# Strength Levels

strength\_levels = {

5: "Very Strong 💪",

4: "Strong ✅",

3: "Moderate ⚠️",

2: "Weak ❌",

1: "Very Weak 🔴",

0: "Extremely Weak ⚠️"

}

strength = strength\_levels.get(score, "Unknown")

# Display Results

print("\nPassword Strength Analysis:")

for criterion, met in criteria.items():

print(f"{criterion}: {'✔' if met else '✘'}")

print(f"\nOverall Strength: {strength}")

return strength

# Example Usage

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

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

check\_password\_strength(user\_password)

Output :-

