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import re
import sys
import time
import getpass
# ANSI color codes
RED = "\033[91m"
GREEN = "\033[92m"
YELLOW = "\033[93m"
CYAN = "\033[96m"]
MAGENTA = "\033[95m"
BOLD = "\033[1m"]
RESET = "\033[0m"
# Typing effect for messages
def type_print(text, delay=0.02):
    for char in text:
       sys.stdout.write(char)
       sys.stdout.flush()
       time.sleep(delay)
    print()
# Password strength bar
def strength_bar(score):
    bar = f"{BOLD}Strength Meter: "
    levels = ["\square", "\blacksquare", "\blacksquare", "\blacksquare", "\blacksquare"]
    for i in range(5):
       if i < score:</pre>
           bar += GREEN + " + RESET
        else:
           bar += RED + " + RESET
    return bar
# Suggestions based on missing elements
def get_suggestions(password):
   suggestions = []
    if not re.search(r"[A-Z]", password):
       suggestions.append("Add at least one UPPERCASE letter.")
    if not re.search(r"[a-z]", password):
       suggestions.append("Include some lowercase letters.")
    if not re.search(r"\d", password):
       suggestions.append("Insert at least one number.")
    if not re.search(r"[!@#$%^*()\-_=+{};:,<..>]", password):
       suggestions.append("Use a special character (e.g., !, @, #).")
    if len(password) < 8:
       suggestions.append("Make your password at least 8 characters long.")
    return suggestions
def check_password_complexity(password):
    has_uppercase = bool(re.search(r"[A-Z]", password))
    has_lowercase = bool(re.search(r"[a-z]", password))
    has_digit = bool(re.search(r"\d", password))
    \label{eq:has_special} $$ has\_special = bool(re.search(r"[!@#$%^&*()\-_=+{};:,<.>]", password)) $$
    length_ok = len(password) >= 8
    score = sum([has_uppercase, has_lowercase, has_digit, has_special, length_ok])
    if score == 5:
       strength = f"{GREEN} i Excellent{RESET}"
    elif score >= 3:
       else:
       strength = f"{RED} X Weak{RESET}"
    report = f"""
- Length: {'☑' if length_ok else 'X'}
- Uppercase: {'☑' if has_uppercase else '
- Lowercase: {'☑' if has_lowercase else 'X'}
- Digit: {'\ensuremath{ \ensuremath{ f V}}' if has_digit else '\ensuremath{ \ensuremath{ f X}}'}
- Special Char: {'☑' if has_special else 'X'}
{strength_bar(score)}
{BOLD} i Overall Strength: {strength}{RESET}
    suggestions = get_suggestion
                                ♦ What can I help you build?
                                                                                               ⊕ ⊳
    if suggestions:
       for tip in suggestions:
           report += f" - {tip}\n"
```

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report += f"\n{GREEN} ✓ Your password looks great. No suggestions needed!{RESET}"
   return report
# Main function
if __name__ == "__main__":
   type_print(f"{BOLD}{CYAN}Welcome to the Enhanced Password Strength Checker! 🔐 {RESET}")
   time.sleep(0.3)
   password = getpass.getpass(f"{CYAN}Enter your password (hidden): {RESET}")
   show = input(f"{YELLOW}Do you want to see your password? (y/n): {RESET}").strip().lower()
       print(f"{MAGENTA} \( \big) \) You entered: {password}{RESET}")
   result = check_password_complexity(password)
   type_print(result, delay=0.01)
→ Welcome to the Enhanced Password Strength Checker! 📦
    Enter your password (hidden): .....
    Do you want to see your password? (y/n): y
     You entered: vasantha@846
     Password Check Result:
    - Length: 🔽
    - Uppercase: X
- Lowercase: ✓
    - Digit: ☑
- Special Char: ☑
    Strength Meter:
     Suggestions to Improve:
       - Add at least one UPPERCASE letter.
```