import random  
import string  
import argparse  
  
  
def generate\_password(length, include\_letters, include\_numbers, include\_symbols):  
 character\_pool = ""  
  
 if include\_letters:  
 character\_pool += string.ascii\_letters  
 if include\_numbers:  
 character\_pool += string.digits  
 if include\_symbols:  
 character\_pool += string.punctuation  
  
 if not character\_pool:  
 raise ValueError("No character types selected. Please include at least one character type.")  
  
 password = ''.join(random.choice(character\_pool) for \_ in range(length))  
 return password  
  
  
def main():  
 parser = argparse.ArgumentParser(description='Generate a random password based on user-defined criteria.')  
 parser.add\_argument('-l', '--length', type=int, required=True, help='Length of the password')  
 parser.add\_argument('--letters', action='store\_true', help='Include letters in the password')  
 parser.add\_argument('--numbers', action='store\_true', help='Include numbers in the password')  
 parser.add\_argument('--symbols', action='store\_true', help='Include symbols in the password')  
  
 args = parser.parse\_args()  
  
 try:  
 password = generate\_password(args.length, args.letters, args.numbers, args.symbols)  
 print(f"Generated password: {password}")  
 except ValueError as e:  
 print(e)  
  
  
if \_\_name\_\_ == '\_\_main\_\_':  
 main()