

```
1 import random
2 import string
3
4
5 def generate_password(length=12):
6     characters = string.ascii_letters + string.digits
7     + string.punctuation
8     if length < 4:
9         raise ValueError("Password length must be at
10         least 4.")
11     password = (
12         random.choice(string.ascii_uppercase) +
13         random.choice(string.ascii_lowercase) +
14         random.choice(string.digits) +
15         random.choice(string.punctuation)
16     )
17     password += ''.join(random.choice(characters) for
18     _ in range(length - 4))
19     password_list = list(password)
20     random.shuffle(password_list)
21     return ''.join(password_list)
22
23 def generate_multiple_passwords(num_passwords=5,
24     length=12):
25     passwords = [generate_password(length) for _ in
26     range(num_passwords)]
27     return passwords
28
29 if __name__ == "__main__":
30     try:
31         password_length = int(input("Enter the
32         desired password length (at least 4): "))
33         num_passwords = int(input("Enter the number
34         of passwords to generate: "))
35
36         if password_length < 4 or num_passwords <= 0:
37             raise ValueError("Password length must be
38             at least 4, and the number of passwords must be
39             positive.")
```

```
33
34     generated_passwords =
    generate_multiple_passwords(num_passwords,
    password_length)
35
36     print("\nGenerated Passwords:")
37     for i, password in enumerate(
    generated_passwords, start=1):
38         print(f"Password {i}: {password}")
39
40     except ValueError as ve:
41         print(f"Error: {ve}")
42
```