TASK:3

A password generator is a useful tool that generates strong and random passwords for users. This project aims to create a password generator application using Python, allowing users to specify the length and complexity of the password.

User Input: Prompt the user to specify the desired length of the password.

Generate Password: Use a combination of random characters to generate a password of the specified length.

Display the Password: Print the generated password on the screen.

CODE:

```python
import string
import random
length = int(input("Enter required password length: "))
print('''Choose character set for password from these :
        1. letters
        2. digits
        3. special characters
        4. exit''')
characterList = ""

while(True):
    choice = int(input("Pick a number "))
    if(choice == 1):
```

```python
            characterList += string.ascii_letters
        elif(choice == 2):

            characterList += string.digits
        elif(choice == 3):

            characterList += string.punctuation
        elif(choice == 4):

            break
        else:

            print("!Please choose a valid option!")


password = []


for i in range(length):


    randomchar = random.choice(characterList)

    password.append(randomchar)


print("The random password is " + "".join(password))
```

OUTPUTS:

```
Output

Enter required password length: 12
Choose character set for password from these :
        1. letters
        2. digits
        3. special characters
        4. exit
Pick a number 1
Pick a number 2
Pick a number 3
Pick a number 4
The random password is h|cR(^pg(A}<

=== Code Execution Successful ===
```

```
Output

Enter required password length: 8
Choose character set for password from these :
        1. letters
        2. digits
        3. special characters
        4. exit
Pick a number 1
Pick a number 9
!Please choose a valid option!
Pick a number
```

```
Output

Enter required password length: 10
Choose character set for password from these :
        1. letters
        2. digits
        3. special characters
        4. exit
Pick a number 1
Pick a number 2
Pick a number 4
The random password is udcXuVa5zT

=== Code Execution Successful ===
```