

CLASS ASSESSMENT

INT108

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Project 4:

Create a program that takes the length of the password as input and generates a random password of the same length. The strength of the password depends equally on the 4 properties mentioned below. If the password generated randomly following the rules or constraints given below, then that password is treated as good in terms of strength and accepted otherwise ignore that password.

The properties to be followed for a strong password are:

- At least 12 characters.
- A mixture of both uppercase and lowercase letters.
- A mixture of letters and numbers.
- Inclusion of at least one special character, e.g., @ #?]

Note: do not use < or > in your password, as both can cause problems in Web browsers.

Code:

```
import random

print("Hello, Welcome to Password generator! \n Created By Krishna Nishant \n Of Lovely Professional University \n Section: K22SG \n Roll No.: RK22SGA04 \n")

while True:

    length = int(input("\nEnter the length of password: "))

    if length < 12:

        print("Password Must Be Atleast Of 12 Characters!! \n")

    else:

        Lowercase_Characters = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j',
                                'k', 'm', 'n', 'o', 'p', 'q', 'r', 's', 't', 'u', 'v', 'w', 'x', 'y', 'z']

        Uppercase_Characters = ['A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J',
                                'K', 'M', 'N', 'O', 'P', 'Q', 'R', 'S', 'T', 'U', 'V', 'W', 'X', 'Y', 'Z']

        Digits = ['0', '1', '2', '3', '4', '5', '6', '7', '8', '9']

        Symbols = ['@', '#', '$', '%', '=', ':',
                   '?', '!', '/', '|', '~', '*', '(', ')']

        all = Lowercase_Characters + Uppercase_Characters + Digits + Symbols

        temp = random.sample(all, length)

        a=""

        for i in temp:

            a=a+i

        print("Your password is:",a)

        break
```

Code (Image):

```
1 import random
2
3 print("Hello, Welcome to Password generator! \n Created By Krishna Nishant \n Of Lovely Professional University \n Section: K22SG \n Roll No.: RK22SGA04 \n")
4
5 while True:
6     length = int(input("\nEnter the length of password: "))
7
8     if length < 12:
9         print("Password Must Be Atleast Of 12 Characters!! \n")
10    else:
11        Lowercase_Characters = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j',
12                                'k', 'l', 'm', 'n', 'o', 'p', 'q', 'r', 's', 't', 'u', 'v', 'w', 'x', 'y', 'z']
13        Uppercase_Characters = ['A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J',
14                                'K', 'L', 'M', 'N', 'O', 'P', 'Q', 'R', 'S', 'T', 'U', 'V', 'W', 'X', 'Y', 'Z']
15        Digits = ['0', '1', '2', '3', '4', '5', '6', '7', '8', '9']
16        Symbols = ['@', '#', '$', '%', '=', ':',
17                  '?', '.', '/', '|', '~', '*', '(', ')']
18
19        all = Lowercase_Characters + Uppercase_Characters + Digits + Symbols
20
21        temp = random.sample(all, length)
22        a=""
23        for i in temp:
24            a=a+i
25        print("Your password is:",a)
26        break
```

Output:

```
Hello, Welcome to Password generator!  
Created By Krishna Nishant  
Of Lovely Professional University  
Section: K22SG  
Roll No.: RK22SGA04
```

```
Enter the length of password: 5  
Password Must Be Atleast Of 12 Characters!!
```

```
Enter the length of password: 11  
Password Must Be Atleast Of 12 Characters!!
```

```
Enter the length of password: 20  
Your password is: 3K0vn~6JXkjYe:EAc.gC
```

```
Hello, Welcome to Password generator!  
Created By Krishna Nishant  
Of Lovely Professional University  
Section: K22SG  
Roll No.: RK22SGA04
```

```
Enter the length of password: 9  
Password Must Be Atleast Of 12 Characters!!
```

```
Enter the length of password: 8  
Password Must Be Atleast Of 12 Characters!!
```

```
Enter the length of password: 26  
Your password is: sTvVaJ:tx@8pdCYWIFr7BD)9K?
```