

PROJECT REPORT

(Project term: August to December 2022)

RANDOM PASSWORD GENERATOR

Submitted by:

Names:

Registration Numbers:

Rishav

12209656

Ambar Beohar

12209752

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Under the Guidance of:

Amandeep Kaur

School Of Computer Science And Engineering



INTRODUCTION

With growing technology, everything has relied on data and securing these data is the main concern. Passwords are meant to keep the data safe that we upload on the Internet. An easy password can be hacked easily and all the personal information can be misused. In order to prevent such things and keep the data safe, it is quite necessary to keep our passwords very strong.

A password generator is a software application device that creates arbitrary or tailored passwords for individuals. It assists individuals to produce more powerful passwords that offer greater protection for a provided sort of access. Some password generators are merely random password generators. These programs produce complex/strong passwords with mixes of numbers, uppercase and also lowercase letters, and also unique personalities such as dental braces, asterisks, slashes, and so on. It is a tool that generates passwords based on the given guidelines that you set to create an unpredictable strong password for your accounts.

The Password generator tool creates a random and customized password for users that helps them to create a strong password which provides greater security. While there are many examples of "random" password generator programs available on the Internet, generating randomness can be tricky and many programs do not generate random characters in a way that ensures strong security. A common recommendation is to use open source security tools where possible since they allow independent checks on the quality of the methods used. Note that simply generating a password at random does not ensure the password is a strong password, because it is possible, although highly unlikely, to generate an easily guessed or cracked password. In fact, there is no need at all for a password to have been produced by a perfectly random process: it just needs to be sufficiently difficult to guess.

A password generator can be part of a password manager. When a password policy enforces complex rules, it can be easier to use a password generator based on that set of rules than to manually create passwords.

MODULES USED

RANDOM MODULE

Random module is used to perform the random generations. We are making use of random.sample module here. If you will observe in the output all characters will be unique. random.sample() never repeats characters. If you don't want to repeat characters or digits in the random string, then use random.sample() but it is less secure because it will reduce the probability of combinations because we are not allowing repetitive letters and digits.

STRING MODULE

The string module contains a number of useful constants, classes and a number of functions to process the standard python string.

IMPLEMENTATION

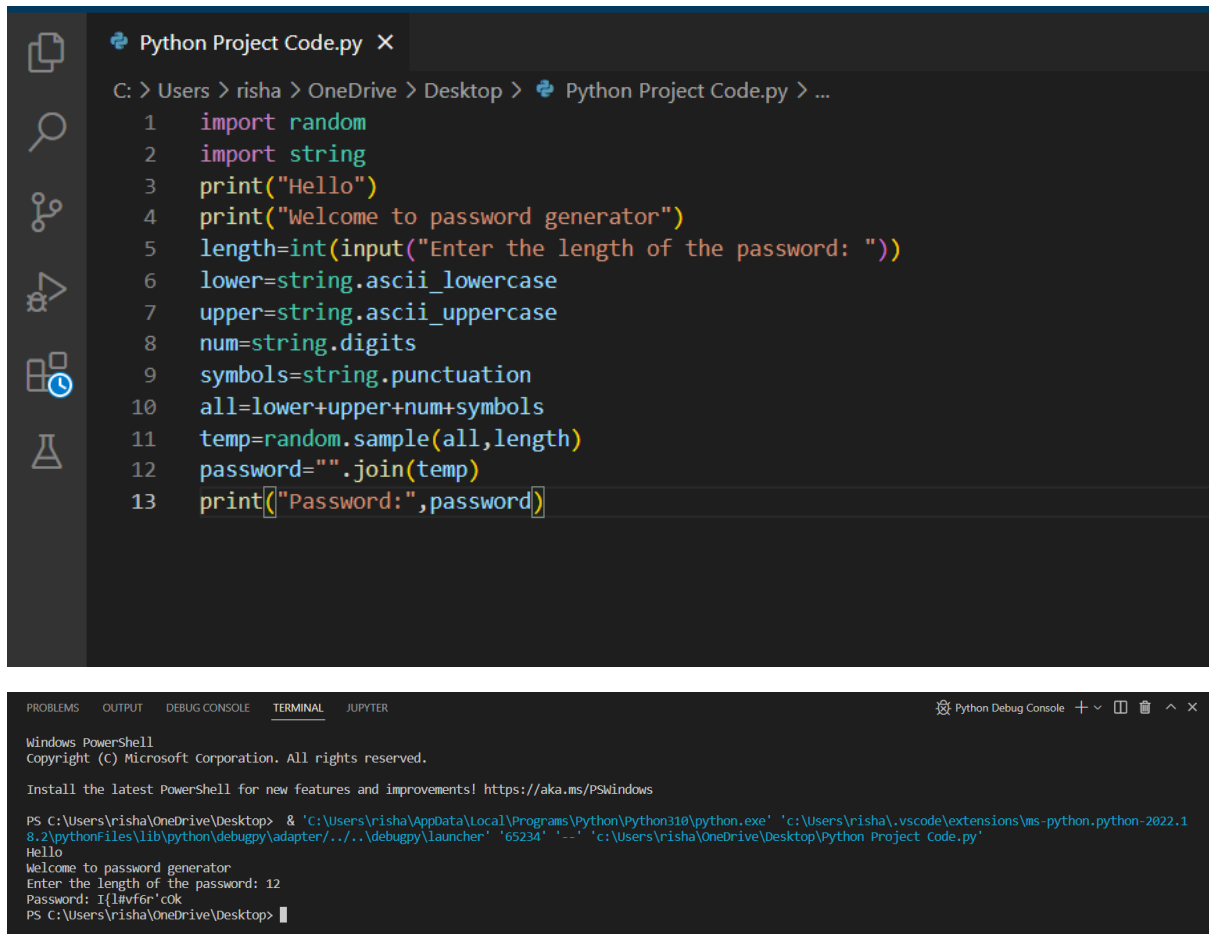
In this Project we have done many things & used many Class, String and Tuples. A password generator can be part of a password manager.

we used Upper case , Lower case, symbol, Punctuation.

With the help of these project you can easily create a password which is not a normal Password. That is created by all characters and numbers. Password can be created by any length. Simply you have to enter a value 0 to 9 and your password will be created.

It is a software application device that creates arbitrary or tailored passwords for individuals. In one statement we can say that Password generator is a Random Password generating program which generates a password mix of upper and lowercase letters, as well as numbers and symbols strong enough to provide great security.

SCREENSHOTS



The image shows two screenshots from a development environment. The top screenshot displays a Python script named 'Python Project Code.py' in a code editor. The script is a password generator that imports 'random' and 'string', prompts the user for a password length, and generates a password using a combination of lowercase letters, uppercase letters, digits, and punctuation. The bottom screenshot shows the terminal output of the script, which includes the PowerShell command used to run the program and the resulting execution output.

```
Python Project Code.py X
C: > Users > risha > OneDrive > Desktop > Python Project Code.py > ...
1  import random
2  import string
3  print("Hello")
4  print("Welcome to password generator")
5  length=int(input("Enter the length of the password: "))
6  lower=string.ascii_lowercase
7  upper=string.ascii_uppercase
8  num=string.digits
9  symbols=string.punctuation
10 all=lower+upper+num+symbols
11 temp=random.sample(all,length)
12 password="".join(temp)
13 print("Password:",password)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER Python Debug Console

Windows PowerShell
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Install the latest PowerShell for new features and improvements! <https://aka.ms/PSWindows>

PS C:\Users\risha\OneDrive\Desktop> & 'C:\Users\risha\AppData\Local\Programs\Python\Python310\python.exe' 'c:\Users\risha\.vscode\extensions\ms-python.python-2022.18.2\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '65234' '-' 'c:\Users\risha\OneDrive\Desktop\Python Project Code.py'

Hello
Welcome to password generator
Enter the length of the password: 12
Password: I{!#vfer'cok
PS C:\Users\risha\OneDrive\Desktop>

thank
you