RANDOM PASSWORD GENERATE

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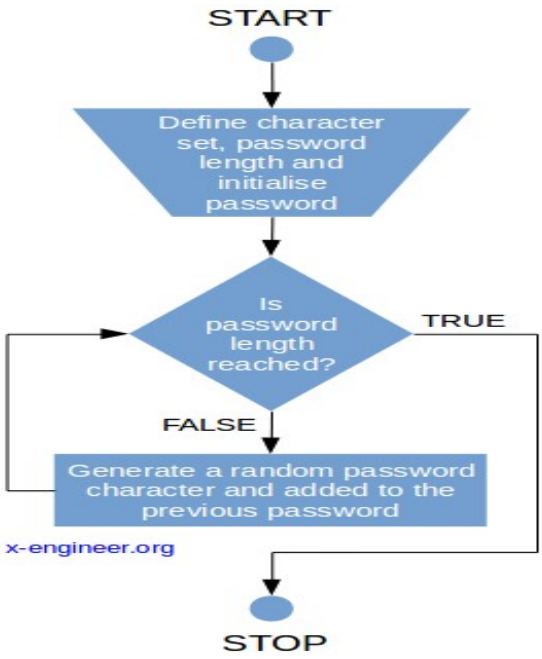
ABSTRACT :

Some password generators are simply random password generators. These programs produce complex/strong passwords with combinations of numbers, uppercase and lowercase letters, and special characters such as braces, asterisks, slashes, etc.

Other types of password generators are made to generate more recognizable passwords rather than a completely random set of characters. There are tools for generating pronounceable passwords, as well as custom tools that allow users to set detailed criteria. For instance, a user could set a request for a certain number of characters, a certain mix of letters and numbers, a certain number of special characters, or any other criteria for generating a new password.

Password generators help those who have to constantly come up with new passwords to ensure authorized access for programs and to manage a large number of passwords for identity and access management. Other kinds of tools include a password vault, where users manage large numbers of passwords in a secure location.

Architecture :



How to Code a Password Generator in Python :

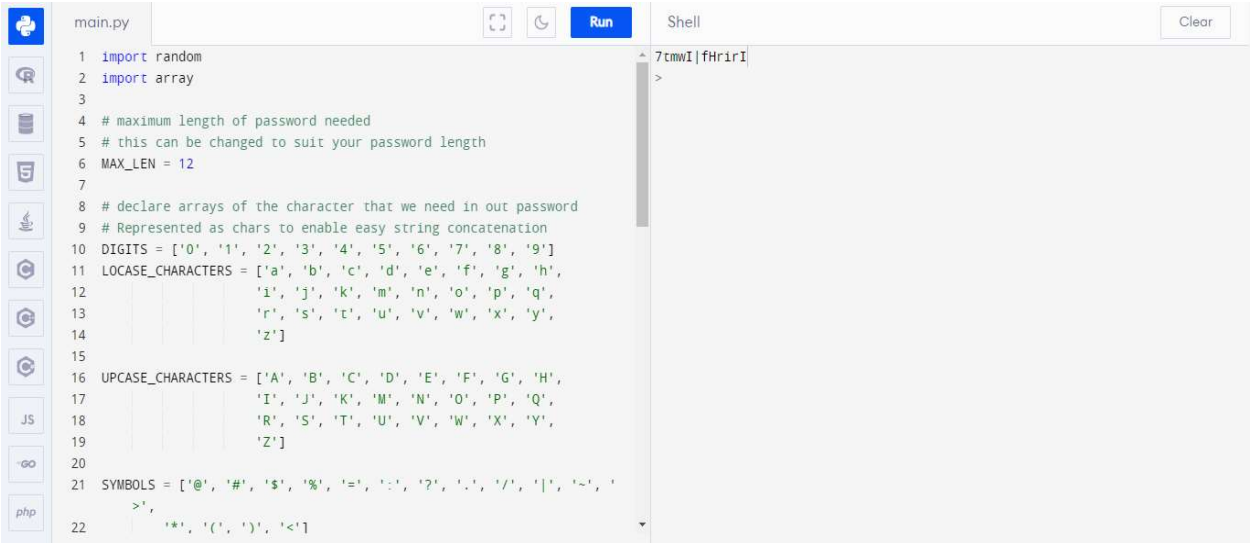
- Step 1: Import necessary modules. As a first step, let's import the secrets module. .
- Step 2: Define the alphabet. The next step is to define the alphabet. ...
- Step 3: Fix the length of the password; Generate a password. ...
- Step 4: Customize Your Passwords Based on Constraints.

IMPLEMENTATION :

```
import random

import array

MAX_LEN = 12

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

LOCASE_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']

UPCASE_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']

SYMBOLS = ['@', '#', '$', '%', '=', ':', '?', '.', '/', '|', '~', '>','*', '(', ')', '<']

COMBINED_LIST = DIGITS + UPCASE_CHARACTERS +
LOCASE_CHARACTERS + SYMBOLS

rand_digit = random.choice(DIGITS)

rand_upper = random.choice(UPCASE_CHARACTERS)

rand_lower = random.choice(LOCASE_CHARACTERS)

rand_symbol = random.choice(SYMBOLS)

temp_pass = rand_digit + rand_upper + rand_lower + rand_symbol

for x in range(MAX_LEN - 4):
```

```
temp_pass = temp_pass + random.choice(COMBINED_LIST)

temp_pass_list = array.array('u', temp_pass)

random.shuffle(temp_pass_list)

password = ""

for x in temp_pass_list:

password = password + x

print(password)
```

OUTPUT :



CONCLUSION :

The random password generator in Python is a program that will generate strong random passwords of the specified length using alphabets, numbers, and symbols. We first create a string or list consisting of all the alphabets, numbers, and symbols.

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