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Python Project

Password Generator

[Source Code Included]

Password Generator



Password Generator:

A password generator is a software program and a cybersecurity tool that creates random and strong passwords.

It is used in major websites and applications.

These passwords usually consist of the following combinations:

Uppercase letters (A–Z)

Lowercase letters (a–z)

Numbers (0–9)

Security symbols (!*@\$%^& ...)



Its Purpose: Its main purpose is to prevent accounts from being hacked and to increase overall user security.

Password Generator Code:

```
❖ import string as str
❖ import random as rn
❖ while True
❖ chars = st.ascii_lowercase + st.ascii_uppercase + st.digits + st.punctuation
❖ n = int(input("How many letters you want on your password: "))
❖     if n == "exit":
❖         break
❖ Password = ""
❖ for i in range(n):
❖     Password += rn.choice(chars)
❖ print>Password)
```

Code Explanation

Code Explanation python :

import string as st.

Imports the string module with alias st for accessing standard character sets python

import random as rn.

Imports the random module with alias rn for generating random selections python

while True:

- Creates an infinite loop to keep the program running until user decides to exit python

chars = st.ascii_lowercase + st.ascii_uppercase + st.digits + st.punctuation.

Combines all possible characters for password generation: · st.ascii_lowercase: Lowercase letters (a-z) ·

st.ascii_uppercase: Uppercase letters (A-Z) · st.digits: Numbers (0-9) · st.punctuation: Special characters (!@#\$%^&* etc.)

pythonn = int(input("How many letters you want on your password: ")).

Prompts user for password length and converts input to integer python

if n == "exit": break.

"Initializes an empty string to store the generated password python

for i in range(n):

Loops n times (based on requested password length) python

Password += rn.choice(chars).

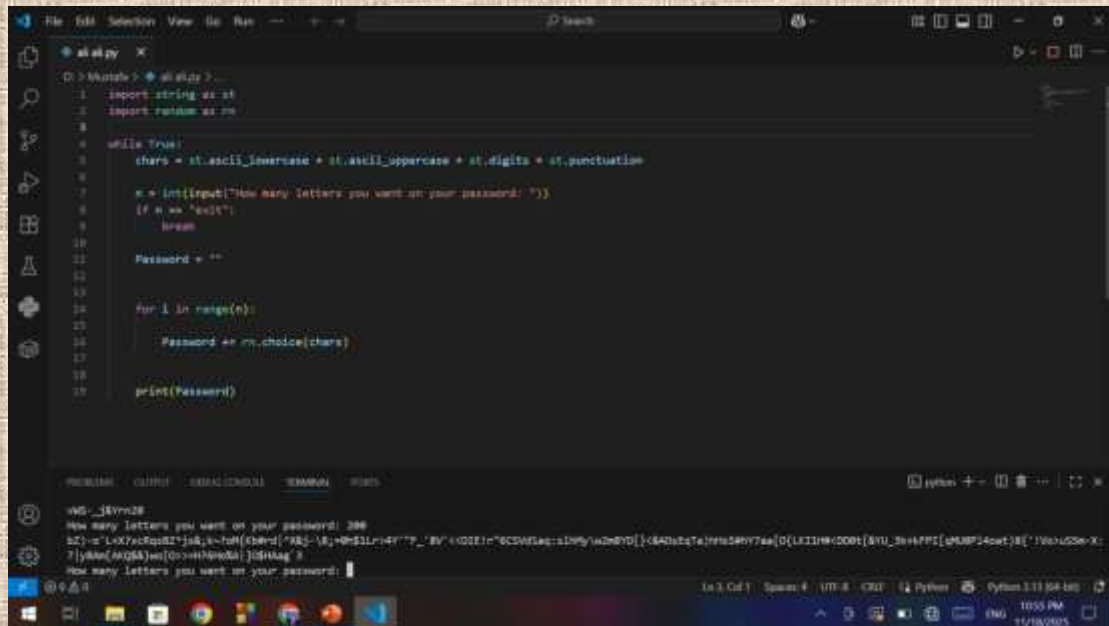
In each iteration, randomly selects one character from chars and appends to password python

print>Password).

Displays the final generated password Features· Generates cryptographically strong random passwords· Includes uppercase, lowercase, numbers, and special characters· Customizable password length.

Code Result

This is the result of the code in the terminal, and you can run as much code as you want by mentioning it in the terminal.

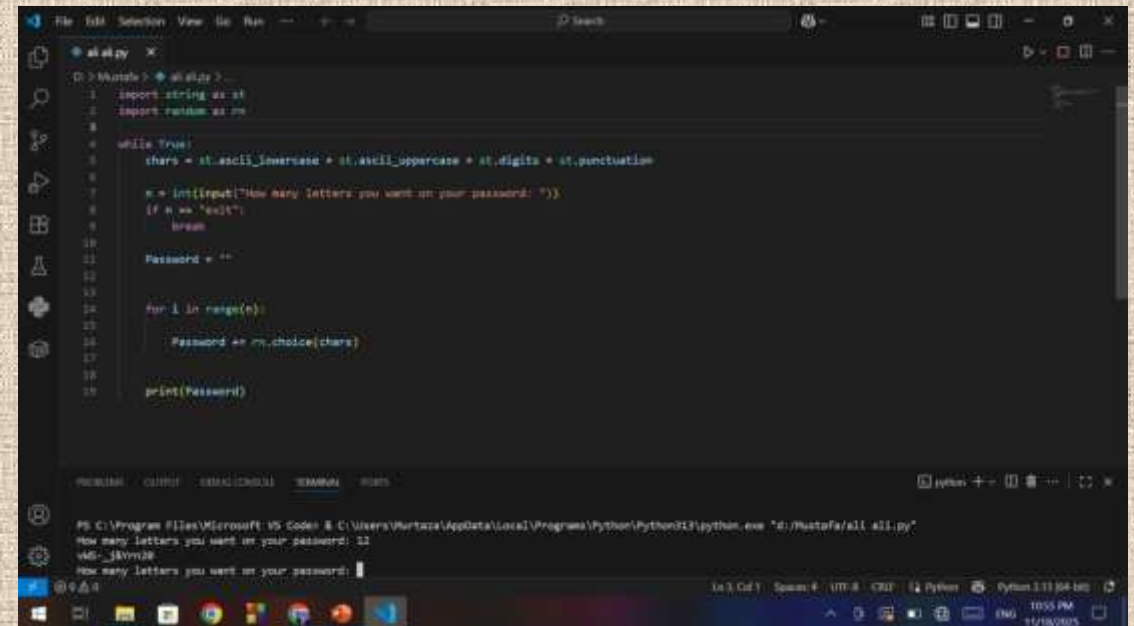


The screenshot shows a VS Code editor with a Python script named `all.py` in the editor pane. The script is a password generator that takes user input for the number of letters and generates a password from a set of characters. The terminal pane at the bottom shows the execution of the script, with the user inputting 300 letters and the program outputting a long, complex password.

```
File Edit Selection View Go Run -- + + +
D:\search

all.py
1 import string as st
2 import random as rn
3
4 while True:
5     chars = st.ascii_lowercase + st.ascii_uppercase + st.digits + st.punctuation
6
7     n = int(input("How many letters you want on your password: "))
8     if n == "exit":
9         break
10
11     Password = ""
12
13     for i in range(n):
14         Password += rn.choice(chars)
15
16     print(Password)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
python + Python 3.11.64 bit
vAG-j8Vn28
How many letters you want on your password: 300
27)~"~\x7a\x027"i6;~\n(cherd"785-18;~0611r47"7_"BV"~Q2E1r"6C5Wf1ag;~Dpy\w28YD[]~840d5t5a\Hn54H77aa[D(L111H~C200[8TU_3~+47P[~uMMP34cet)8["1V6uG26~X;
7[y6w(A0G6)w[0o~+H0n0d[[]H0ag 9
How many letters you want on your password:
La 3, Col 1 Space 4 UTF-8 CRLF Python Python 3.11.64 bit
11/16/2025
```



This screenshot is identical to the one on the left, showing the same VS Code editor with the `all.py` script and its terminal output. The user input and the resulting password are the same as in the first image.

```
File Edit Selection View Go Run -- + + +
D:\search

all.py
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How many letters you want on your password: 300
27)~"~\x7a\x027"i6;~\n(cherd"785-18;~0611r47"7_"BV"~Q2E1r"6C5Wf1ag;~Dpy\w28YD[]~840d5t5a\Hn54H77aa[D(L111H~C200[8TU_3~+47P[~uMMP34cet)8["1V6uG26~X;
7[y6w(A0G6)w[0o~+H0n0d[[]H0ag 9
How many letters you want on your password:
La 3, Col 1 Space 4 UTF-8 CRLF Python Python 3.11.64 bit
11/16/2025
```