Documentation

Password Generator Script

This Python script generates a strong password based on user input. The password consists of a mix of lowercase letters, uppercase letters, digits, and special characters. The code ensures that the password is sufficiently strong by enforcing a minimum length and distributing characters in a balanced way.

Modules Used

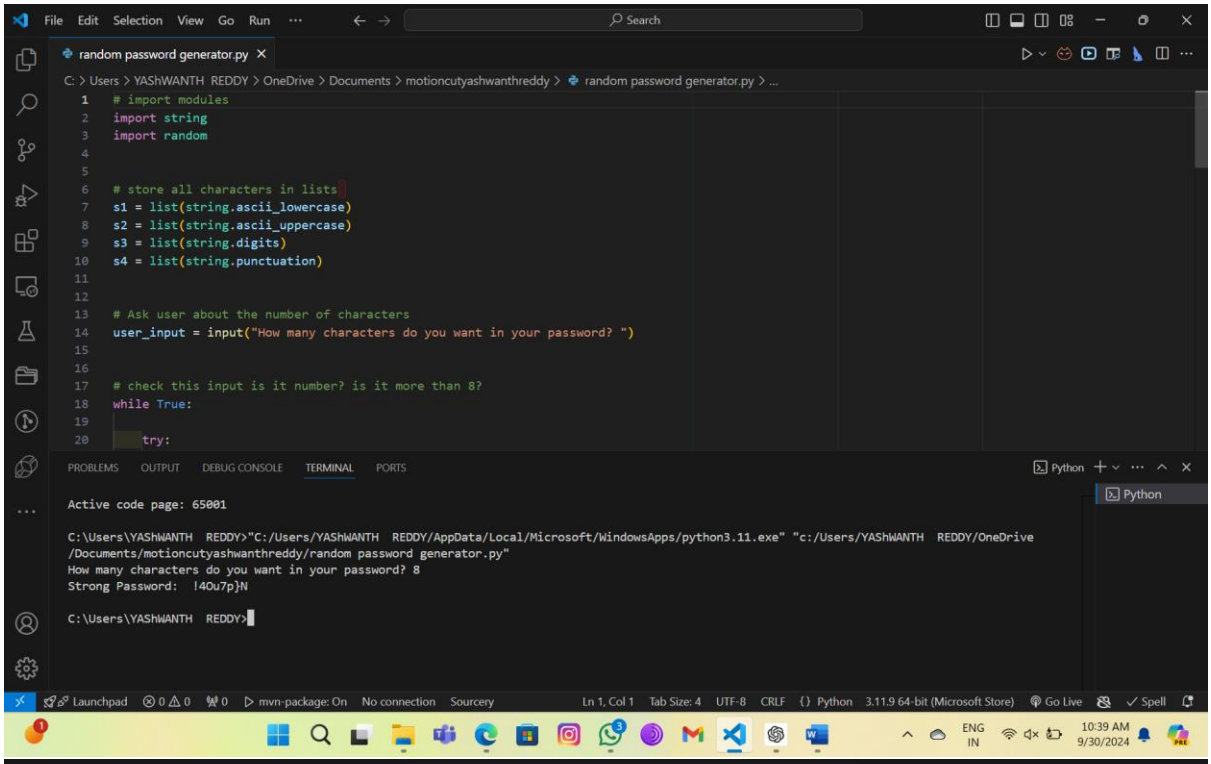
- **string**: Provides access to string constants (lowercase, uppercase, digits, punctuation).
- **random**: Used to shuffle the lists of characters and generate random sequences.

How the Script Works:

1. **Import Modules**:
    - Imports the string and random modules.
2. **Character Lists**:
    - Four lists are created, each containing different character types:
        - s1: Lowercase letters (a-z)
        - s2: Uppercase letters (A-Z)
        - s3: Digits (0-9)
        - s4: Special characters (punctuation)
3. **User Input**:
    - The script prompts the user to input the number of characters for the password.
    - The input is validated to ensure it's a number and at least 8 characters long.
4. **Shuffle Characters**:
    - The lists (s1, s2, s3, and s4) are shuffled to randomize the character order.
5. **Password Composition**:
    - The password is generated as a mix of:
        - **60% letters**: 30% lowercase, 30% uppercase.
        - **40% digits and punctuation**: 20% digits, 20% punctuation.
6. **Result Shuffle**:
    - The selected characters are shuffled again to ensure randomness.
7. **Final Password**:
    - The resulting password is joined and printed to the user.

Code Flow:

1. **Input validation**: Ensures the user enters a number and checks that it's 8 or more.
2. **Shuffling**: Each list of characters is shuffled before selection to enhance randomness.
3. **Password generation**: The script creates the password using a mix of characters based on percentages.
4. **Output**: The final password is displayed to the user.


File Edit Selection View Go Run ···
Search
random password generator.py
C: > Users > YAShWANTH REDDY > OneDrive > Documents > motioncutyashwanthreddy > random password generator.py > ...
1 # import modules
2 import string
3 import random
4
5
6 # store all characters in lists
7 s1 = list(string.ascii_lowercase)
8 s2 = list(string.ascii_uppercase)
9 s3 = list(string.digits)
10 s4 = list(string.punctuation)
11
12
13 # Ask user about the number of characters
14 user_input = input("How many characters do you want in your password? ")
15
16
17 # check this input is it number? is it more than 8?
18 while True:
19
20 try:
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Python
Active code page: 65001
C:\Users\YAShWANTH REDDY>"C:/Users/YAShWANTH REDDY/AppData/Local/Microsoft/WindowsApps/python3.11.exe" "c:/Users/YAShWANTH REDDY/OneDrive
/Documents/motioncutyashwanthreddy/random password generator.py"
How many characters do you want in your password? 8
Strong Password: !4Ou7p}N
C:\Users\YAShWANTH REDDY>
Launchpad 0 0 0 mvn-package: On No connection Sourcery
Ln 1, Col 1 Tab Size: 4 UTF-8 CRLF Python 3.11.9 64-bit (Microsoft Store) Go Live Spell
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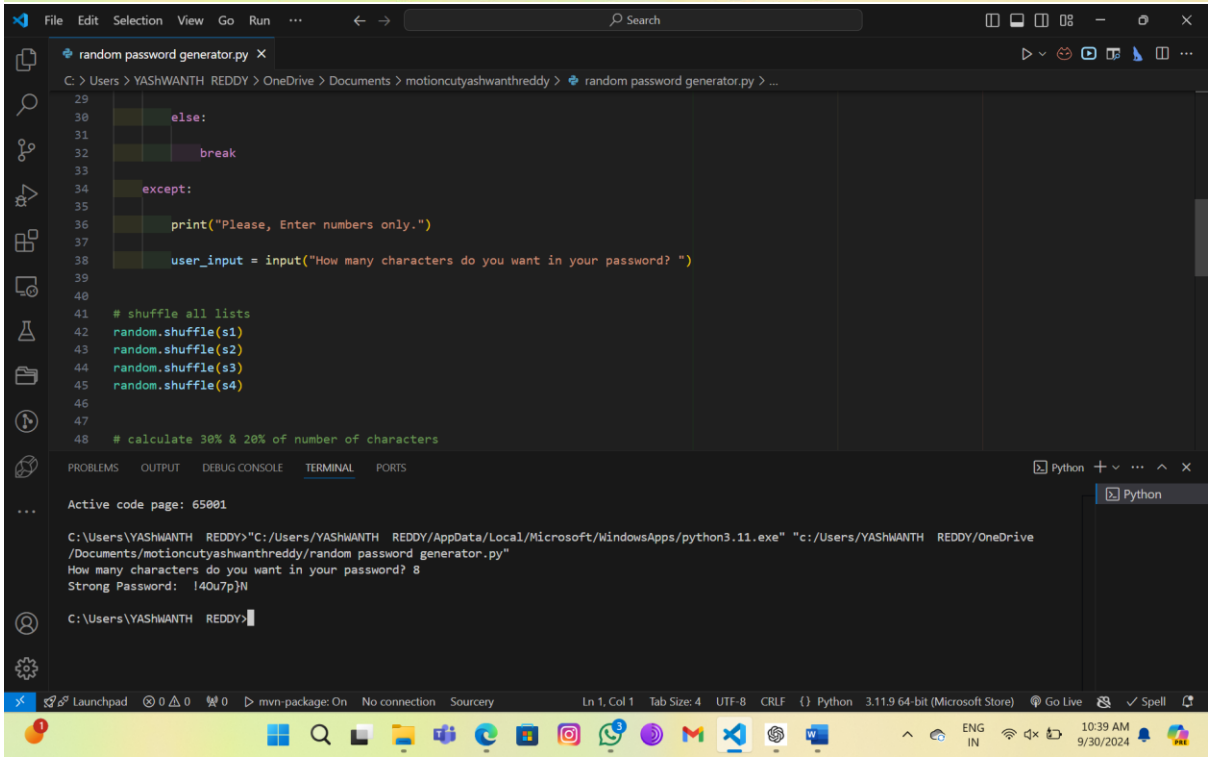
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random password generator.py
C: > Users > YAShWANTH REDDY > OneDrive > Documents > motioncutyashwanthreddy > random password generator.py > ...
else:
break
except:
print("Please, Enter numbers only.")
user_input = input("How many characters do you want in your password? ")
# shuffle all lists
random.shuffle(s1)
random.shuffle(s2)
random.shuffle(s3)
random.shuffle(s4)
# calculate 30% & 20% of number of characters
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Python
Active code page: 65001
C:\Users\YAShWANTH REDDY>"C:/Users/YAShWANTH REDDY/AppData/Local/Microsoft/WindowsApps/python3.11.exe" "c:/Users/YAShWANTH REDDY/OneDrive
/Documents/motioncutyashwanthreddy/random password generator.py"
How many characters do you want in your password? 8
Strong Password: !4Ou7p}N
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Launchpad 0 0 0 mvn-package: On No connection Sourcery
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