Title: Task 1 – Random Password Generator

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Objective:

To develop a Python program that generates a random and secure password based on user input length.

Tools Used:

- Python 3.x

- IDLE (Python Editor)

Description:

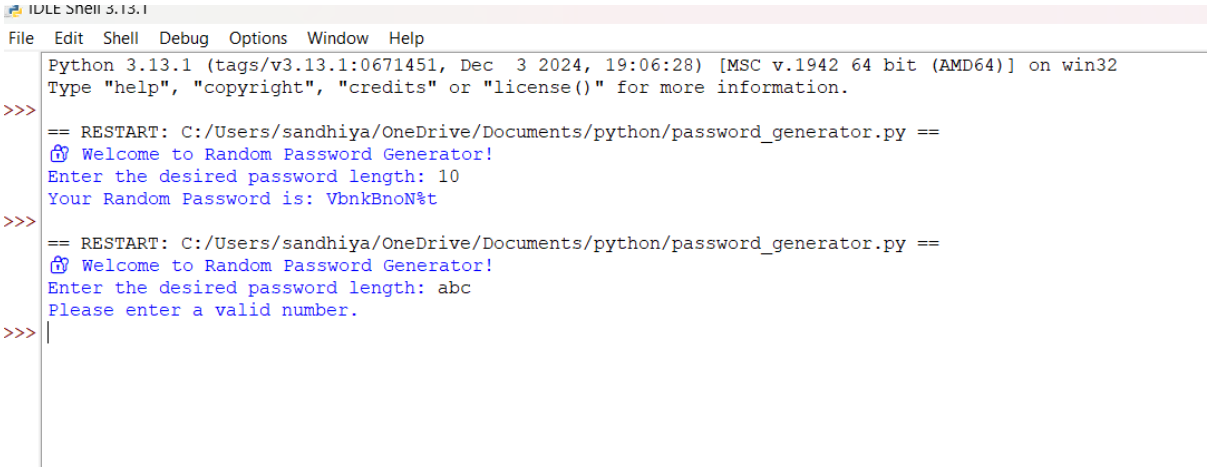
This project uses Python's built-in libraries – random and string – to create a random password containing letters, numbers, and special symbols. It ensures secure password generation with user-defined length.

Source Code:

```
import random
import string

def generate_password(length):
    if length < 4:
        return "Password too short!"

    characters = string.ascii_letters + string.digits +
string.punctuation
    password = ''.join(random.choice(characters) for _ in
range(length))
    return password

print("      Welcome to Random Password Generator!")
try:
    length = int(input("Enter the desired password length: "))
    result = generate_password(length)
    print("Your Random Password is:", result)
except ValueError:
    print("Please enter a valid number.")
```

Screenshot:

Both valid and invalid input results.



Conclusion:

This task helped me understand random data generation and how to handle user input in Python. I improved my knowledge of functions and string operations.