Password Generator Project

Description

This project demonstrates a simple Password Generator using Python. It generates a random secure password based on user-defined length and criteria.

Objective

To create a program that generates strong, random passwords to improve security for users.

Tools and Technologies

- Python 3.x

- random *module*

- string *module*

Code Implementation

```python
import random
import string

def generate_password(length=12):
    characters =
string.ascii_letters +
string.digits + string.punctuation
    password =
''.join(random.choice(characters)
for i in range(length))
    return password

if __name__ == "__main__":
    length = int(input("Enter
password length: "))
    print("Generated Password:",
generate_password(length))
```

How it works

1. User inputs the desired password length.

2. The program uses letters (uppercase and lowercase), digits, and punctuation characters.

3. Random characters are picked and combined to form a password.

4. The generated password is displayed to the user.

Sample Output

Copy code

```
Enter password length: 16
Generated Password:
9vP!e#2Rq4@WxTz*
```