

# CodSoft Internship

## Task 3: Password Generator

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### ***# Introduction:***

*# In this project, I have created a random password generator using Python.*

*# The main purpose of this task is to generate strong, secure passwords*

*# by combining letters, numbers, and special symbols.*

*# This tool helps in improving online security by creating passwords*

*# that are difficult to guess or hack.*

### **Code:**

```
import random
import string

def generate_password(length=12):

    if length < 4:
        return "Password should be at least 4 characters long."

    password = [
        random.choice(string.ascii_lowercase),
        random.choice(string.ascii_uppercase),
        random.choice(string.digits),
        random.choice(string.punctuation)
```

```

/

characters = string.ascii_letters + string.digits + string.punctuation
password += random.choices(characters, k=length-4)

random.shuffle(password)
return"".join(password)

print("Welcome to strong password Generator")

while True:
    try:
        length = int(input("Enter the desired password length (minimum 4): "))
        print("Generated password:",generate_password(length))
    except ValueError:
        print("Invalid input! please enter a number.")

    again = input("Generate another password? (yes/no): ").lower()
    if again != 'yes':
        print("Thank you for using the password Generator! stay safe! ")
        break

```

## Output:

Welcome to strong Password Generator  
 Enter the Desired Password length (minimum 4): 5  
 Generated Password: G)3u>  
 Generate Another Password? (yes/No):

## *# Conclusion:*

*# -> This project helped me learn how to generate random passwords using Python.*

*# -> It improved my skills in using libraries like 'random' and 'string'.*

*# -> The password generator ensures better online security by creating strong passwords.*