Mini project

Password generator

**Introduction**

In today’s digital world, it’s important to have strong and secure passwords for all our online accounts. But creating unique and complex passwords can be pretty challenging, especially for kids. Don’t worry, though!

In this article, we will walk you through creating a fun and interactive password generator program using Python. By the end, you’ll have a tool to generate strong passwords for all your online adventures

**What is a Password Generator?**

A password generator is a program that creates random and strong passwords for various online accounts. It eliminates the need for using predictable and easy-to-guess passwords like “123456” or “password.”

A strong password consists of at least more than ten characters with a combination of characters such as percent (%), commas(,), and parentheses, as well as lower-case and upper-case alphabets and numbers.

## Generate a Random Password Maker

You must be excited to develop your random password generator in Python. It is recommended to have a good understanding of Python programming, like the working of loops, operators, and functions. Along with that, we will be using some data structures like lists, strings, etc.

Source code:

import random

import string

def generate\_password(length=12):

# Define character sets for different types of characters

uppercase\_letters = string.ascii\_uppercase

lowercase\_letters = string.ascii\_lowercase

digits = string.digits

special\_characters = '!@#$%^&\*()\_-+=<>?/{}[]|'

# Combine all character sets

all\_characters = uppercase\_letters + lowercase\_letters + digits + special\_characters

# Ensure the length is at least 8 characters

length = max(length, 8)

# Generate a password with a mix of characters

password = random.choice(uppercase\_letters) + random.choice(lowercase\_letters) + random.choice(digits) + random.choice(special\_characters)

password += ''.join(random.choice(all\_characters) for \_ in range(length - 4))

# Shuffle the characters to make it more random

password\_list = list(password)

random.shuffle(password\_list)

password = ''.join(password\_list)

return password

# Example usage:

password = generate\_password()

print("Generated Password:", password)

**output:**



The MINI PROJECT “ PASSWORD GENERATOR”, submitted by NILOJI SUPRAJA.