**INTRODUCTION :-**

Step 1: Open VS Code

* Open VS Code on your computer. If you don't have VS Code installed, you can download it from the official website.

Step 2: Create a new file

* Click on the "Explorer" icon in the left sidebar or press Ctrl + Shift + E (Windows/Linux) or Cmd + Shift + E (Mac) to open the Explorer panel.
* Click on the "New File" button or press Ctrl + N (Windows/Linux) or Cmd + N (Mac) to create a new file.
* Name the file password\_generator.py and save it to a location of your choice.

Step 3: Import necessary modules

* In the password\_generator.py file, add the following lines of code:

VerifyOpen In EditorEditCopy code

1import random

2import string

* These lines import the random and string modules, which we will use to generate the password.

Step 4: Define the generate\_password function

* Add the following code to define the generate\_password function:

VerifyOpen In EditorEditCopy code

1def generate\_password(length):

2 characters = string.ascii\_letters + string.digits + string.punctuation

3 password = ''.join(random.choice(characters) for \_ in range(length))

4 return password

* This function takes a length parameter, which determines the length of the password to generate.
* The function generates a password by choosing random characters from the characters string, which includes uppercase and lowercase letters, digits, and special characters.

Step 5: Define the main function

* Add the following code to define the main function:

VerifyOpen In EditorEditCopy code

1 def main():

2 password\_length = 12

3 password = generate\_password(password\_length)

4 print(f"Generated password: {password}")

* This function defines the length of the password to generate (in this case, 12 characters) and calls the generate\_password function to generate the password.
* The generated password is then printed to the console.

Step 6: Run the script

* Click on the "Run Code" button or press F5 to run the script.
* VS Code will execute the script and generate a password based on the criteria we defined.
* You can see the generated password in the terminal panel at the bottom of the VS Code window.