

## Python Week 1 Task:

### Random Password Generator.

The given code works as follows:

First, we create ArgumentParser object from the argparse module to read the command line.

Then read the requirements specified by the user on command line and it to the ArgumentParser object.

After adding all requirements from command line call password\_generator function to generate random password.

The password generator function checks for the digit, special-character, lowercase and uppercase letters. If result is true then it appends all of them like

- If uppercase is True, it appends all uppercase letters (from A to Z) to the characters string
- If lowercase is True, it appends all lowercase letters (from a to z) to the characters string
- If digit is True, it appends all digits (from 0 to 9) to the characters string
- If special\_chars is True, it appends all punctuation characters (e.g., !, @, #, \$, etc.) to the characters string

Then generate the password with the help of random module of length which is specified in the command line and return the password.

To generate the random password user had to give the requirements on the command line as follows

**python password\_generator.py 12 --uppercase --lowercase --digits --special-chars**

This will generate the 12 character password with digit, special\_char, uppercase and lowercase letters.

```
PS C:\Users\ASUS\Desktop\Internship> python password_generator.py 12 --uppercase --lowercase --digits --special-chars
Generated Password: GcbZ?o'aj@'B
PS C:\Users\ASUS\Desktop\Internship> |
```

User can specify their requirements in command line

- **Example 1:** Password of length 12 and include uppercase and lowercase letters.

```
PS C:\Users\ASUS\Desktop\Internship> python password_generator.py 12 --uppercase --lowercase
Generated Password: ULJVrBldqwLI
```

- **Example 2:** Password of length 4 and include lowercase letters and digits

```
PS C:\Users\ASUS\Desktop\Internship> python password_generator.py 4 --lowercase --digits
Generated Password: 8usm
PS C:\Users\ASUS\Desktop\Internship> |
```

- **Example 3:** Password of length 8 and include digits, uppercase and lowercase letters.

```
PS C:\Users\ASUS\Desktop\Internship> python password_generator.py 8 --uppercase --lowercase --digits
Generated Password: 0IDSbPE3
PS C:\Users\ASUS\Desktop\Internship> |
```