Lab 1: Advanced Python

SYSA 3204 – Dr. Sukhwant Sagar

Setting up the Python Project

This lab assignment will be completed by pairs of students. Submissions by individual students will not be accepted under normal circumstances. The intent is that the two students work together.

Create a new Python Application project. **Name the project** *Lab1_GroupN* but replace ***N*** with your actual group number. Please have your **file name** as Lab1_firstname1_firstname2.py. Failure to follow this naming format makes it more difficult for me to download and grade your solution, so attention to this detail is appreciated.

Program Requirements:

For this lab, you are required to create a program which would generate a random strong password based on the users' instructions. The user can decide the number of characters in their password along with the number of letters, digits, and special characters in their custom password. The program should be tested to all the extremes to ensure proper functioning.

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Expected Output:

```
Random Password Generator

Enter the length of the password: 3
PLease enter a value of greater than or equal to 8 to create a secure password
Enter the length of the password: 9
Enter the number of letters desired in the password: -2
The number of letters should be in the range of 0 and 9
Enter the number of letters desired in the password: 3
Enter the number of digits desired in the password: 8
The number of digits should be in the range of 0 and 6
Enter the number of digits desired in the password: 4
Enter the number of special characters desired in the password: 3
The number of special characters should be in the range of 0 and 2
Enter the number of digits desired in the password: 2
Your desired password is:
69w1+x%y3
```

Things to Explore:

You are welcome to explore beyond the mandatory requirements if you wish.

General Requirements

- Include an opening comment with your full name, the full names on the student(s) you are working with, the name of the program, the date, and a short description.
- Follow the course style guide! Use descriptive names for variables, constants, arrays, functions, etc. that follow our naming conventions.
- Attach the zipped project to the assignment folder.
- **Each of the lab partner should submit a video recording (sharing screen) explaining the code line by line along with its execution. The lab partner should also mention the distribution of tasks for this lab. Both these requirements would be considered for the teamwork component of the rubric.**