

Solve the following exercises for your practice

Every question should be implemented in its own Python file and pushed to a GitHub repository. Ensure that the file names are descriptive of the exercise they contain.

1. Variable Manipulation(Declaration and initialization):

- Create three variables: `num1`, `num2`, and `num3`, and assign them integer values.
- Calculate the average of these three numbers and store it in a variable called `average`.
- Print out the result using an f-string.

2. String Operations:

- Create a string variable called `sentence` containing any sentence of your choice.
- Convert the sentence to uppercase and print it.
- Convert the sentence to lowercase and print it.
- Convert the first letter of each word in the sentence to uppercase and print it.

3. List Operations:

- Create a list called `numbers` containing five integer values.
- Print the list in its original order.
- Sort the list in ascending order and print it.
- Reverse the list and print it.
- Print the length of the list.

Write a Python program to display the first and last colors from the following list.

```
color_list = ["Red", "Green", "White", "Black"]
```

Write a Python program to sum all the items in a list.

4. Data Type Conversion:

- Create three variables: `x`, `y`, and `z`, and assign them values of different data types (integer, float, string).
- Convert `x` and `y` to strings and concatenate them with `z`.
- Print the result.

5. Comments:

- Write a Python program that calculates the area of a circle. Make sure to include comments explaining each step of your code.

6. String Formatting:

- Ask the user to input their first name and last name separately.
- Use string formatting to print a message that says "Hello [First Name] [Last Name]! Welcome to Python programming."

7. String Methods:

- Create a string variable containing a sentence with multiple words.

- Use string methods to count the number of occurrences of the letter 'a' in the sentence.
- Replace all occurrences of the letter 'a' with 'z' and print the modified sentence.

8. Nested Lists:

- Create a nested list containing three inner lists, each representing a student's scores in three subjects.
- Calculate the average score for each student and store it in a separate list.
- Print out the average score for each student.

These exercises are for the topics we've covered so far. Let me know if you need any help.