Python Assignment Report

This assignment covers operators, strings, and lists through a variety of tasks on basic fundamentals of Python. The arithmetic, comparison, and logical operations in the operators portion, which helped me better grasp how Python handles conditions and calculations. The string exercises featured experimenting with string formatting and substring searches, as well as discovering string lengths, reversing strings, and changing the string cases. In addition to adding, deleting, sorting, and slicing list parts All things considered, the assignment strengthened my comprehension of Python's fundamental features and enhanced my capacity to produce clear, concise code.

Approach

1.Operators

- **Question 1 Arithmetic Operators :-** In this question I wrote a code which takes 2 inputs from the user to carry out several fundamental arithmetic operations, including addition, subtraction, multiplication, division, exponential and floor division.

- **Question 2 Comparison Operators :-** In this question the user input is compared if the first number is greater, less than or equal to the second number using the if else statement.

- **Question 3 Logical Operators :-** In this question the user enter three boolean input and the input is compared and printed with the following logical operator AND, OR & NOT

2.Strings

- **Question 4 String Manipulation :-** In this question the user inputs string and the code would perform various tasks such as finding the length of the string, first and last letter,reversing it, and changing its case.

- **Question 5 String formatting :-** In this question the user inputs their name and age and generates a personalised message.

- **Question 6 Substring Search :-** In this question the user inputs a sentence and the word which needs to be found in the sentence. Using Find search method and if else statement to find the word.

3.List

- **Question 7 List Operation :-** In this question FOR loop is used to get user input of 5 numbers and f string to increment the i value while also taking user input. Using append the user input is appended to the list, then using the sum function prints the total of list and max, min which prints the greatest and smallest number of the list.

- **Question 8 List Manipulation :-** In this question the same method is used as question 7 to take user input but in string as fruit names and then the input is appended to the list. Adding and removing a fruit from the list.

- **Question 9 Sorting A List :-** Same method as question 7 to take user input and using sort & sort(reverse=true) to print ascending and descending order of the list.

- **Question 10 List Slicing :-** In this question the list is sliced in 2 parts first 5 values printed first and the second the last 5 values is printed.

- **Question 11 Nested List (Bonus Question) :-** In this question the user inputs 3 students name and appends it to the list and using the nested list the

user inputs the 3 subjects mark of the student. This then prints the students name and their marks.

Key Learning

1. Operators: I learned how to effectively carry out a variety of calculations and checks using arithmetic, comparison, and logical operators.
2. String Manipulation: By investigating various approaches to handling and processing string data, I enhanced my proficiency in manipulating strings using built-in Python functions.
3. List Operations: I became more familiar with list operations, such as how to make, edit, sort, and cut lists. I also learned how to work with nested structures, which are used to store more complicated data.

GitHub Link

https://github.com/KRiZZ85/Python-assignment-1