Program 4 Report

Objectives

The objective for this program assignment is to learn to write and use functions in our programs and get some experience in recoding an existing program. This program takes code that was written from program assignment two and makes them into function for easier use in later code. In doing so this code allows the user a simple calculator and then a complex calculator.

Functions

math\_operation – takes input ineger values and math specified math operators to perform simple mathematic operations

stringChange – takes string input and changes all lettering into lower case form

stringSlice – takes simple string example and slices for specified parts

simpBreakdown - takes a simple string and breaks and slices parts of the string to be evaluated

validateoperation – takes user input of an operation and validates before returning an answer

complexoperator – takes multiple simple calculator operations and uses the expressed values to work multiple

Variables

Part 1.

fac1- integer input value to set conditions for functions

fac2- integer input value to set conditions for functions

user\_op- input for mathematic operators for setting function conditions

endsum- functional equation that works based on user\_op condition that is met

\*\*The variables above are used in a later part of code \*\*

Part 2

**st**rg- variable for string input for function

new\_strg- variable for new string after case change

str1- string that is used to practice slicing.

n- calculates the length of the string using len function

f- slice of the string str1

a- another slice of the string str1

r- third slice of the string str1

expr- expression in string form

p1- slicing of expr for the number 12

p2- slicing of expr for the number 27

newexpr- expressing the expr to complete a mathematic value

stop- variable used to stop while loop statement from running infinitely

Part 2

operate(1-3) – simple calculator expressions

first\_op – first expression used in the complex calculation

sec\_op - second expression used in the complex calculation

op\_it1 – first calculation in the complex operator

op\_it2 – second calculation in the complex operator

Reflection on the program code

The code is simple in design and takes as inputs based specifically on direction given by code writer. Some possible conflicts that arose while construction this code were infinite loops when writing while conditions. This was successfully fixed. Another conflicts that arose involved the proper use of already defined function in new functions.