

Design Overview for Scientific Calculator

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Summary of Program

The program I want to create is a scientific calculator that is cable of using multiple operators. The program should be able to multiple, add, subtract, divide and division remainders. The program will also incorporate a GUI as this gives the program a visual element making it more practical in real world applications.

Once the sum is complete the result of the sum would be printed to the screen and then the user can run another calculation

Required Data Types

Describe each of the records and enumerations you will create using the following table (one per record).

Table 1: <<record name>> details

Field Name	Type	Notes
Num1	Integer	The first Number
Num2	Integer	The Second Number
Answer	Integer	The product of the two numbers

Table 2: <<enumeration name>> details

Value	Notes
Plus	The + Operator
Minus	The – Operator
Multiply	The X Operator
Divide	The Division Operator
Modulus	The % Operator

Overview of Program Structure

List the main functions/procedures you are going to need to create this program. For each function/procedure provide its name and a brief description of what it will do.

Don't spend too long on this at this stage. Focus on the main things you think you are likely to need and you can build on this as your program develops.

Include a structure chart (once you have your proposal approved by your tutor)

Functions:

def add

- Once this function is running it would prompt the user to enter the two numbers that they want to add together, the format for this operation is $\text{answer} = (\text{num1} + \text{num2})$ then it would output the answer.

def subtract

- Once this function is running it would prompt the user to enter the two numbers that they want to subtract, the format for this operation is $\text{answer} = (\text{num1} - \text{num2})$ then the function would output the answer.

def multiply

- Once this function is running it would prompt the user to enter the two numbers that they want to multiple together, the format for this operation is $\text{answer} = (\text{num1} * \text{num2})$ then the function would output the answer.

def divide

- Once this function is running it would prompt the user to enter the two numbers that they want to divide together, the format for this operation is $\text{answer} = (\text{num1} / \text{num2})$ then the function would output the answer.

def modulus

- Once this function is running it would prompt the user to enter the two numbers that they want to modulus together, the format for this operation is $\text{answer} = (\text{num1} \% \text{num2})$ then the function would output the answer.

These functions will only run in direct correspondence to the users input from the Gosu interface.