Objectives:

* Creating functions.
* Setting and passing arguments.
* Creating global variables.

**There are 5 print screens, each worth 20%**

Please submit this document for grading when completed… Please work in-groups.

A function is a name that you can call, and within a function are code statements. It’s a neat way to break down your code.

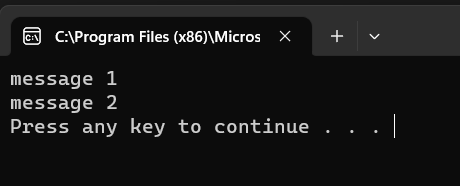
**Project #1** (here we create two function message1 and message2). We use the keyword **def** to use a function.

Graphical user interface, text, application

Description automatically generated

Text

Description automatically generated



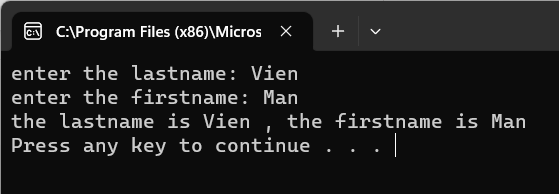
**Project #2** (using an input and output in a function)

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, chat or text message

Description automatically generated



**Project #3** (calling the first function and in between functions)

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**Challenge Exercise #1**: using project #3, add to the code so that the user can enter or input the number of birds in each state.

**#1 print screen the output with code below here.**

**Text

Description automatically generated**

Text

Description automatically generated

**Project #4** (passing string arguments to a function).

Text

Description automatically generated

Text

Description automatically generated

A black screen with white text

Description automatically generated with low confidence

**Challenge Exercise #2:** Create a program with a *function* that will allow the user to enter the last, first names, address, city, state, with zip code.

**#2 print screen the output with code below here.**

**A screenshot of a computer

Description automatically generated with medium confidence**

**Text

Description automatically generated**

**Project #5** (Creating a global variable)

A global variable is used using the global keyword, and it’s a variable that can be seen anywhere on the program. See the code below.

Graphical user interface, text, application

Description automatically generated

Text

Description automatically generated

Graphical user interface, text

Description automatically generated

**Project #5 continued**, using global variables, this example will add 3+4 using a function named add.

Text

Description automatically generated

**Program’s output:**

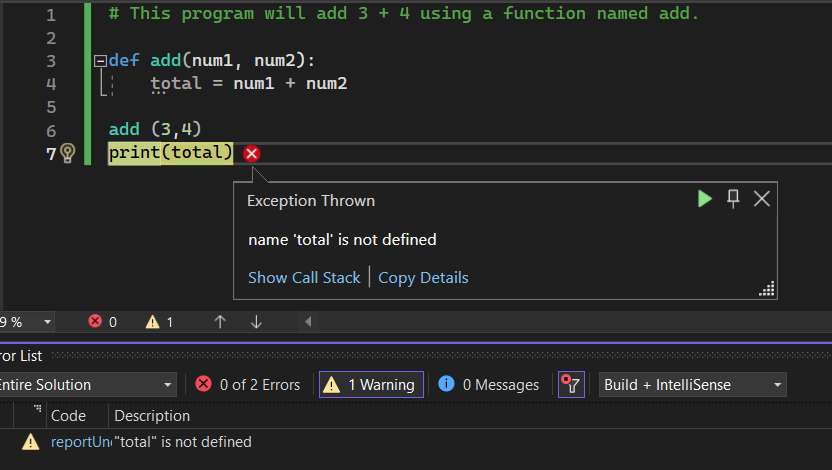
Graphical user interface, text, application

Description automatically generated

Now, cut and paste print(total) below add (3,4). Notice the error appears because it is not a part of the function no more.

Text, letter

Description automatically generated



To fix this, you can use the **return** word in this local variable and assign a local variable of (a) and print (a).

Text, letter

Description automatically generated

**Program’s code and output:**

Text

Description automatically generated

Graphical user interface, text

Description automatically generated

Now, let’s talk about a global variable. To use a **global** variable, use the global keyword. Notice, that we the total global variable can be seen anywhere in the program, since its global.

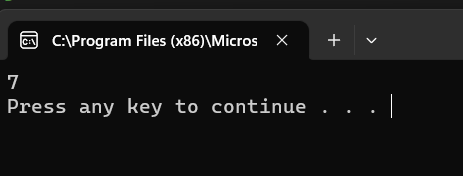
Text

Description automatically generated

**Program’s code and output:**

**Text

Description automatically generated**



**Challenge Exercise #3:** Modify the project #5 to add three numbers.

**#3 print screen the output with code below here.**

**Text

Description automatically generated**

**Graphical user interface, text

Description automatically generated**

**Challenge Exercise #4:** Modify the project #5 so the user can enter or input any three numbers, be sure to use global variables in the program. Also, sum and average the three numbers.

**#4 print screen the output with code below here.**

**Graphical user interface, text

Description automatically generated**

Text

Description automatically generated

Text

Description automatically generated

**Project #6** (using a global constant, which means a global variable where a parameter or a number is assigned).

Text

Description automatically generatedText

Description automatically generated

**Program’s code and output:**

Text, chat or text message

Description automatically generated

Text

Description automatically generated

**Challenge Exercise #5:** using a **function** and **setting** and **passing** **arguments**, create a program that will ask the user to enter the hours worked, and hourly pay. Then get the output in a print statement.

**#5 print screen the output with code below here.**

**Text

Description automatically generated**

**Text

Description automatically generated**

**Submit this document to Module 5 Class Exercise.**