Program Requirements Document

CIS 022 Wednesday, February 7th, 2024

|  |  |
| --- | --- |
| **Application/ Program name:** | L1-1 |
| **Written by:** | Adam Karsner, Anele Ngcongo, Elijah Topete,  John Weaver, Sebastian Tiberos Cruz |

| **Purpose or problem definition:** |
| --- |
| This program fulfills a couple different purposes that are performed in the following sequence:   1. This program will ask the user to enter two integers separated by a space, followed by the enter key. The program will then assign each of the supplied integers to two separate variables, and then display the name and values of those variables. The program will then perform some arithmetic on those variables and assign the resulting value to a new variable and display its value to the user. Then, the value of the new variable will have the sum of a secret constant variable added to it, and the new value will be displayed to the user. 2. This program will ask the user to enter a last name. Then it will ask the user to enter a number between 1 and 100, which will then be used in a calculation of the number of hours worked multiplied by a predefined pay rate of $12.50 to determine the employee’s salary. The program will then display the name of the employee, their pay rate, the number of hours worked, and finally their salary. |

| **Program Procedures:** |
| --- |
| 1. Display information about the source code’s author, the name of the program, and the filename of its compiled .exe form. 2. Display prompt – Ask the user to enter two integers separated by a space. 3. Display the values of the integers entered as variables num1 and num2. 4. Multiply num1 by 2 and then add the result to num2. Assign the total to new variable, newNum, then display the value of newNum. 5. Add the value of a constant SECRET (value is 13) to newNum, then display the new value of newNum. 6. Display prompt – Ask user to enter a last name. 7. Display prompt – Ask user to enter a number between 1 and 100. 8. Calculate employee’s salary by multiplying the number entered in the previous step by the constant pay rate of 12.50. 9. Display employee’s name, pay rate, number of hours worked, and salary. 10. Prompt user to press a key to exit the program. 11. Exit program. |

| **Algorithm/Processing/Conditions:** |
| --- |
| **Inputs:** |
| 1. Two integers. 2. A last name. 3. A number between 1 and 100. |
| **Processes:** |
| 1. Demonstrates some arithmetic with the use of variables. 2. Calculates an employee’s salary. |
| **Outputs:** |
| 1. Display results of variable arithmetic. 2. Display employee salary information. |
|  |

| **Notes & Restriction:** |
| --- |
| It is assumed that the user will only enter numerical values for every prompt expecting numerical input.  It is assumed that the user will always enter input when prompted. |

| **Comments:** |
| --- |
| There is no error handling in this program.  If the user enters anything other than numbers for prompts that expect only numerical input, the program will unexpectedly exit (crash). |