

Programming Practice

For your Holiday

For each of the tasks write the pseudocode, draw an algorithm to show the logic of the program, write the program and include comments to explain your code and finally create a test table for the program.

Complete one of the following:

Task 1

A sweet factory uses slabs of chocolate. These can be either 5kg or 1 kg blocks. Create a program which will ask the user how much chocolate they require for the recipe and will then display how many 5kg and how many 1kg blocks they will need. For instance, if they require 17kg of chocolate they will need 3 x 5kg blocks and 2 x 1kg blocks.

Task 2

Create a program that will ask the user to enter names of fizzy drinks and will store them in a list. The program should then count how many items are in the list.

Task 3

Create a list of words (with at least 20 items in the list). The computer should then select one of those words at random and ask the user to type in that word 5 times. It should display how long it took the user to do this and display the time to the user. They should then be asked to do the task again and the computer should tell them if they managed to do that faster or slower than their first attempt.

Task 4

Create a spreadsheet containing the following data (shown on the right) and save it as a .csv file format. Create a program that will ask the user if they want to add to the list or display particular data from the list. If they want to add to the list it then this should be done in a user friendly way. If they want to display particular details then ask the user for the pass mark (for example 50) and then show everybody who got higher than that number.

	A	B	
1	Name	Test Result	
2	Brian	76	
3	Timothy	46	
4	Simon	79	
5	Carly	67	
6	Harry	52	
7	Peter	38	
8	James	49	
9	Connor	84	
10	Katy	79	
11	Sarah	73	
12			