



Academy of Computer Science and Software Engineering

Informatics 1B

Practical 04

Due: 12 August 2022, 09:00

Problem

The local Society for Puppies ('SUP!') has approached you to design and develop a Visual Basic application that will help the employees of the shelter home to manage the various puppies they take in. Your program will need to work out how much it costs to keep their various puppies sheltered during a certain period.

Your program must be able to handle any number of puppies as well as any number of days. You may assume that each puppy is kept at the shelter for the same number of days.

When a puppy is processed, the following information about them is captured: Name ("Prince"), Breed ("Maltese Poodle"), Gender ("Male"), Age (in months). Each day, the puppy is weighed to determine how much food must be fed to the puppy.

To work out how much food must be fed to a puppy on the day, the formula is as follows: for every 500g (or part thereof e.g., if a puppy is 750g, this will count as 2 x 500g), the puppy weighs, they must be fed 10g of special puppy food.

The special puppy food is sold to 'SUP!' per whole kilogram. The user will need to inform the program of this price (per kilogram).

Your program must display the following information:

Each puppy's name, their weight each day, the total food fed to that puppy over the entire period. You must also display the total food that was fed to all the puppies. The total amount of money spent to feed all the puppies must also be displayed.

Note that your program should adhere to both encapsulation and abstraction principles.

Marksheet

Definition of Class (includes attributes and relevant method(s))	25
Use of Class (initialization and Instantiation)	10
Use of Class (calculations and display)	5
Correct	40
Design *	5
UML Class Diagram *	10
Total	95

* A full design and UML Class Diagram must be completed or the project will not be marked