

# IT Elective 4 - Mobile Application Development

## Exercise 2 - Dart Programming Exercise

### Problem 1: Gasoline Station

Peter Gasoline station just started their business. However, they need your help to build a simple gasoline station program. They offer 4 fuel types in their business; Leaded, Unleaded, Diesel and Bio-Diesel having prices of 45.75, 43.18, 37.12 and 48.03 respectively.

#### Input

First line of input is that the customer/user will select the type of fuel. For the next input, the customer/user will select the type of purchase; **by Cash** or **by Liter**. For the last input, the customer/user will input payment

#### Output

Your program will then display the following output;

If the user/customer selects Cash, output the total Liters acquired

If the user/customer selects Liter, output the total payable.

Calculate change as well.

### Problem 2: Fibonacci sequence checker

#### Input

A List contains numbers/elements to be checked. Number of elements should be  $3 < n < 10$ , where **n** is the number of elements. Inputs should be numbers only.

#### Process

Your program will check if the inputted numbers are in the same sequence in the Fibonacci sequence. For example, if input is [5, 8, 13, 21, 34], output should be True as all the numbers are in the same sequence with Fibonacci sequence.

#### Output

*True* - if numbers are in the same sequence as the Fibonacci. *False* - if not.

**Note: Apply Dart List, Map, I/O, Loops, Conditions, Functions and OOP concepts on your code**