Communication Software Design

Lab 02 loop & selection

09/27/2019

Q1. Ask the user to enter two numbers (using cout/cin) and calculate the Product of these two numbers WITHOUT using the * operator.

//Input: Read the numbers

//Output: write the product x*y

//Constraint: Dont use * operator

// Hint1:   The program calculate the sum (x + x + x+   -------x) y times

// Hint2:   use while or for loop

> Examples:
>
> > **Please enter two numbers x and y:**
>
> 3 5
>
> > **The product of 3 and 5 is 15**

Q2:. The options of paying money in Taiwan includes: using coins of NT$1, NT$ 5, NT$10 and NT$50 and using Bills of NT$100, NT$ 500, NT$1000. (We do not consider NT$ 200 and 2000 in this question).

Write a function to calculate the best solution of paying a specific amount of money

(use the larger value first, i.e. 1000> 500> 100>50>10>5>1) :

//Input: Read the number

//Output: write the combination (Do not print out the coin or bill if no use)

// e.g. in the example below, 5333 do not use the bill of 500, do not print `NT$500 x 0`

Examples:

Please enter how much money:

5776

Here is what you will get:

NT$1000 x 5

NT$500 x 1

NT$100 x 2

NT$50 x 1

NT$10 x2

NT$5 x 1

NT$1 x 1

————————————————————————————————

Please enter how much money:

5333

Here is what you will get:

NT$1000 x 5

NT$100 x 3

NT$10 x3

NT$1 x 3

————————————————————————————————

Please enter how much money:

7880

Here is what you will get:

NT$1000 x 7

NT$500 x 1

NT$100 x 3

NT$50 x 1

NT$10 x3