***Assignment 2***

***Improvement in Money Machine app***

We are going to re-factor the app based on the Canadian Dollar coins. The goals are:

* Learning Canadian money coins
* Learning casting between variable types in C++
* Learning print formatting

**Introduction:**

The Canadian money coins are as follows:

* Toonie: $2
* Loonie: $1
* Quarter: 25 cents ($0.25)
* Dime: 10 cents ($0.1)
* Nickel: 5 cents ($0.05)
* Penny 1 cent ($0.01)

Please see the table at this link for more details:

<https://en.wikipedia.org/wiki/Coins_of_the_Canadian_dollar>

**The app:**

* The difference between this version and the first version (Iranian money) is that we ask users how much Canadian money they want to exchange to the coins, and we only use the above mentioned coins as the result.

Example:

* + User enters: 9.92
  + App: (we want the exact output)

$2.00 Toonies X 4 (remaining: $1.42)

$1.00 Loonies X 1 (remaining: $0.42)

$0.25 Quarters X 1 (remaining: $0.17)

$0.10 Dimes X 1 (remaining: $0.07)

$0.05 Nickels X 1 (remaining: $0.02)

$0.01 Pennies X 2 (remaining: $0.00)

***Study Goals:***

To be able to solve this assignment, we need to learn about:

* Difference between Double (ex. 5.65) and Int (ex. 5) types
* The modulus operator (%) that works with Int type
* Type casting (ex. changing a Double to an Int)
* Output formatting

Please study this links:

<http://levinic.ir/type-casting-c-language/>