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Homework #1

1.

Statement of purpose: Computes the change of the payment given the amount of money given by the shopper.

Precondition:

* All values in the argument must be positive.
* integer ***d*** is the dollars given to the clerk; d >= 0.
* double***c*** is the cents given to the clerk ; 0.0 <= c < 1.0.
* double ***itemPrice*** is the price of the item being sold ;itemPrice > 0.0

Postcondition: double ***change*** is the returned value generated by

(d+c) – itemPrice.

Description of arguments:

integer ***d*** is the dollars given to the clerk

double***c*** is the cents given to the clerk

double ***itemPrice*** is the price of the item being sold

double ***change*** is the returned value

UML style function prototype:

+calcChange ( d: int , c : double, itemPrice : double ) : double

2.

1. Statement of Purpose: Given a date, this function advances a given date by one day.

Precondition:

* All values in argument must be positive.
* The month must be between 1 <= month <= 12.
* When month is 1, 3, 5,7, 8, 10, or 12 the last day is 31; therefore if this month and day is chosen, month++ and day ==1.
  + If month == 12 && day ==31 this is the last day of the year

change year++, month == 1, day ==1.

* When month is 4, 6, 9, or 11 the last day is 30; therefore if this month and day is chosen, month++ and day ==1.
* When month == 2 the last day == 28; therefore if this month and day is chosen, month++ and day == 1. I am not considering leap years.

Postcondition: The date will advance by one day, if the date is the last day of that month it will advance to the next month.

Description of arguments:

int month is the month given by the date

Int day is the day given by the date

int year is the year given by the date

Implementation:

In Date.cpp file