CENG 114 –Computer Programming

Spring 2019 – 2020

Homework # 1

Due Date: 22 February 2020 until midnight

* Imagine you cultivate and sell Tulips. You cultivate Tulips only in 5 colors. (Red, Pink, White, Yellow, Black)

* You need a menu based program for your shop to track Tulip commerce.

* You should do the following operations:
- Check current stock information
- Update stocks
- Update prices
- Sell product (with stock control)
- Check current cash information

* Notes :
- **Initial stocks :**
  - Red Tulip : 0
  - Pink Tulip : 0
  - White Tulip : 0
  - Yellow Tulip : 0
  - Black Tulip : 0
- **Initial prices :**
  - Red Tulip : 15 TL
  - Pink Tulip : 16 TL
  - White Tulip : 17 TL
  - Yellow Tulip : 18 TL
  - Black Tulip : 30 TL

<u>Use the following functions :</u>

- printMainMenu()	Prints main menu (as seen in the sample run)
- printStockInformation()	Prints stock information (as seen in the sample run)
- printProductPrices()	Prints product price (as seen in the sample run)
- printProducts()	Prints product information (as seen in the sample run)
- printCashInfo()	Prints current cash information (as seen in the sample run)
- stockControl()	**parameters**: 'productStockInfo' and 'numberOfSold'
	return: if stock is enough return 1, if not enough return 0
- updateStocks()	Changes products stocks
- updatePrices()	Changes products prices
- sell()	Sell products, then update stocks and arrange a bill
- addMoney()	Prints 'Add x TL to cash register.' message and update total cash.
	input: sold products value (from user)
- calculateBill()	Prints 'productPrice x numberOfSold = resultant.' message.
	parameters: 'productPrice' and 'numberOfSold'
	return: resultant value.

- You can add other functions.

SAMPLE RUN : (inputs is marked as bold)

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OPERATIONS :
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1. Stock Info
2. Update Stocks
3. Update Prices
4. Sell
5. Current cash info
6. Quit

Select your operation : **2**

****
Current Stock Information :
        1. Red Tulip : 0
        2. Pink Tulip : 0
        3. White Tulip : 0
        4. Yellow Tulip : 0
        5. Black Tulip : 0
****
Select product : **2**
Enter stock for 'Pink Tulip' product : **55**

****
Current Stock Information :
        1. Red Tulip : 0
        2. Pink Tulip : 55
        3. White Tulip : 0
        4. Yellow Tulip : 0
        5. Black Tulip : 0
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OPERATIONS :
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1. Continue update stock
2. Return main menu

Select your operation : **2**

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OPERATIONS :
_____

1. Stock Info

2. Update Stocks
3. Update Prices
4. Sell
5. Current cash info
6. Quit

Select your operation : **3**
****
Prices :
          1. Red Tulip : 15 TL
          2. Pink Tulip : 16 TL
          3. White Tulip : 17 TL
          4. Yellow Tulip : 18 TL
          5. Black Tulip : 30 TL
****
Select product : **2**
Enter new price for 'Pink Tulip' product : 1**3**

****
Prices :
          1. Red Tulip : 15 TL
          2. Pink Tulip : 13 TL
          3. White Tulip : 17 TL
          4. Yellow Tulip : 18 TL
          5. Black Tulip : 30 TL
****
——————————————————
OPERATIONS :
——————————————————
1. Continue update price
2. Return main menu

Select your operation : **2**

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OPERATIONS :
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1. Stock Info
2. Update Stocks
3. Update Prices
4. Sell
5. Current cash info
6. Quit

Select your operation : **4**

****
Products :
          1. Red Tulip - 15 TL - (0)
          2. Pink Tulip - 13 TL - (55)
          3. White Tulip - 17 TL - (0)
          4. Yellow Tulip - 18 TL - (0)

5. Black Tulip - 30 TL - (0)
****
Select product : **2**
Enter how many sold 'Pink Tulip' product : **15**
15*13=195.
 Add 195 TL to cash register.

****
Products :
            1. Red Tulip - 15 TL - (0)
            2. Pink Tulip - 13 TL - (40)
            3. White Tulip - 17 TL - (0)
            4. Yellow Tulip - 18 TL - (0)
            5. Black Tulip - 30 TL - (0)
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OPERATIONS :
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1. Continue selling
2. Return main menu

Select your operation : **1**

****
Products :
            1. Red Tulip - 15 TL - (0)
            2. Pink Tulip - 13 TL - (40)
            3. White Tulip - 17 TL - (0)
            4. Yellow Tulip - 18 TL - (0)
            5. Black Tulip - 30 TL - (0)
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Select product : **5**
Enter how many sold 'Black Tulip' product : **15**
SORRY… 'Black Tulip' product out of stock.

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OPERATIONS :
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1. Continue selling
2. Return main menu

Select your operation : **2**

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OPERATIONS :
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1. Stock Info
2. Update Stocks
3. Update Prices
4. Sell
5. Current cash info

6. Quit
Select your operation : **5**


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Current cash information : 195 TL
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OPERATIONS :
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1. Stock Info
2. Update Stocks
3. Update Prices
4. Sell
5. Current cash info
6. Quit
Select your operation : 6
Bye!