HACETTEPE UNIVERSITY
DEPARTMENT OF COMPUTER ENGINEERING
BBM104 PROGRAMMING LAB.

Hacettepe University

Computer Science and Engineering Department

Name and Surname   : Recai ÇAKIROĞLU

Identity Number   : 21426768

Course   : BBM104

Experiment   : Assignment 1

Subject   : Pharmacy Stock Management

Input/Output

Input Format

[patient name and surname] tab [social security administration] tab [prescription date] newline

[medicament name] tab [quantity] newline

[medicament name] tab [quantity] newline

Output Format

[medicament name] tab [unit price] tab [quantity] tab [amount] newline

Total tab [Total amount]

2. Software Using Documentation

2.1. Software Usage

first of all in this program i have 4 class main,readfile,pill and user.
main class have only one goal;object for readfile and call the next method
in main 2 input directly goes into readfile class and in this class first operation is read data and split
the data.first line by line then word by word and after all this method collects all words and stores
in a arraylist with respect to user and pill classes.

2.2 Error Messages

there is no error but i have exceptions like array bound out of exception and parse exception.

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3.Software Design Notes

3.1. Desctiption of the program

3.1.1. Problem

One of the many problems with which hospital pharmacists have to deal is that of stock control. The number of items which must be available in the pharmacy at all times,and in this experiment we have to deal with stock control in pharmacy.

3.1.2.Solution

first problem is storing data.your program must handle every detail in inputs and efficient code can do this. after that name should be equal and 2 for loop the solution in this one.there is another problem comparing the dates for every pill.java have best API so date class in java api is very helpful for comparizons and finally lowest price thing.i think hardest part of this experiment because 3 for loop is not a good way to solve a problem like this but it works anyway.

4. Algorithm

   4.1. Make initialisation.

     4.1.1. take inputs in command prompt

     4.1.2. Open input: 'prescription.txt', Open input: 'medicaments.txt'

  4.2. pass the args strings(inputs) to ReadFile

    4.2.1. read .txt files

    4.2.2. split the lines

    4.2.3. read Patient datas

    4.2.4. read Pill datas

    4.2.5.store all datas in one arraylist.

  4.3. start Controls method

     4.3.1.check for name and delete invalid Pills

     4.3.2 check for date   and delete invalid Pills

     4.3.3 check for price and delete invalid Pills

  4.4. Print the arraylist one last time

    4.4.1.Print Patient info

    4.4.2.Print Total Price

  4.5. Close files

5. SOFTWARE TESTING NOTES :

5.1. Bugs and Software Reliability

 i have only one bug in this experiment and it is this in arraylist when finding min price i had a little problem in for loops first loop starts at i=0 and second loop starts with j=i+1; both for loop is for one arraylist and problem occures only if i have 2 or 3 pill which have same name in a row for example first loop removes the pill in arraylist because its not the min value and arraylist automatically shifting left 1 time and the next pill get rid of all for loops and if statements because i already incremented by one.

5.2. Software Extendibility and Upgradability

maybe if code handles with multiple patients at a time.that can be a Extendibility

5.3. Performance Considerations

3 for loop is so bad if we talk about performance.it's a solution but I'm not proud.