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**North South University**

Department of Electrical and Computer Engineering

**Lab Project Report**

Semester : NSU Spring 2023

Course Code : CSE 215L

Section : 16

Group Name : I

Faculty : Dr. Shamim Al Mamun (SAM3)

Lab Instructor : A. S. M. Sabiqul Hassan

Project Topic : Pharmacy Management System

GitHub Repo Link :

Submission Date : 16/06/2023

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**Pharmacy Management System**

Github repository link: https://github.com/emraaaan/Pharmacy-Management-System

The purpose of the pharmacy management system project is to develop a Java-based software application that facilitates the efficient management of a pharmacy. The system aims to automate various tasks involved in pharmacy operations, including drug inventory management, store management, order processing, and drug browsing. The scope of the project includes the creation of multiple Java files, such as AddPharmacy.java, AddStore.java, BrowseDrugs.java, BrowseStores.java, and many others. These files contribute to different functionalities of the system, allowing users to add pharmacies and stores, browse drugs and stores, manage orders, view pharmacy details, and perform various administrative tasks.

**Features:**

Class named AddData contains methods for setting initial values for a pharmacy directory and a store directory.

Class Drug represents a drug in a pharmacy system. The class has private instance variables to store various properties of a drug, such as drugID, drugName, expirationDate, manufacturedDate, composition, drugType, drugDescription, drugAvailability, and drugPrice. This class uses getter and setter methods such as getDrugName() setDrugName (String drugName).

Class DrugCatalog provides functionality to manage a collection of drugs in a pharmacy system, including adding drugs to the catalog, removing drugs from the catalog, and accessing the list of drugs.

Class OrderItem encapsulates the properties and behaviors related to an item in an order within a pharmacy system, including the associated drug, quantity, and sales price.

Class Pharmacy encapsulates the properties and behaviors related to a pharmacy within a pharmacy system, including its name, ID, location, and the drug catalog associated with it. It contains getter and setter methods such as getStoreName(), setStoreName(String storeName).

Validator class provides basic input validation methods for integers, floats, and strings, and it uses JOptionPane to display error messages if the input is invalid.

Class PharmacyDirectory provides functionality to manage a collection of pharmacies in a pharmacy system, including adding and removing pharmacies from the directory, accessing the list of pharmacies, and searching for a drug within the directory. It contains methods such as searchDrug(int drugID) to search for a drug in the pharmacy directory based on its ID.

Store Class represents a store entity and provides methods to access and modify its properties, such as the store name, location, and the associated order catalog.

And finally, the main method named ‘MainJFrame.java’ represents the main user interface window of the application and sets up the initial components and functionality. It provides buttons for different types of administrators (CVS admin, store admin, and pharma admin) and allows switching between different panels based on the user's actions. The concept of inheritance and polymorphism is used here.

**The video’s link is given in the github repository, here are some screenshots:**

