**Store Application (Point of Sale): User Document**

**Github:** <https://github.com/gauravshilpakar/store_java>

**Goal of Project**

Create an application for a point of sale system which is widely used in convenience stores and/or grocery stores.

**Potential Users**

* + Small Businesses
  + Grocery Stores

**Implemented Functionalities**

1. **Addition of new or existing items**

When the console application starts, there is no item present in the inventory. So, the user adds the items to the inventory. The user is prompted with the name, quantity, and price of the item. Then, the unique item is placed in a HashMap with the name of the item as the key. The price and quantity entries form the attributes of a data class which becomes the values for the hash key. When the user inputs the data, it is also validated so as the numeric inputs are integers and the names aren’t left blank. Numeric data is considered a valid input for the name of the item. When an item present in the HashMap is entered, the quantity is added to the same key and the price is either updated or stays the same based on the input.

1. **Display full inventory**

This functionality allows the administrator to display the full list of items in the inventory with its price and stock quantity. If this function is called when there is no item in the inventory, the null pointer exception is thrown and then the user has prompted the main menu the console application. This method facilitates users to keep track of the item and make an order list if the item is out of stock. At the end of the day, this function is also useful for the user to provide information about what kind of service they can provide to their customer.

1. **Display specific item in the inventory**

Users can use this function if they want to pull out information about an individual item. This method takes only one argument, string, which is the name of the item, If the input string is not found in the list of keys in the HashMap, then an error is thrown and the user is asked again to enter the name of the item until valid input is given. If the input string matches with the key in the HashMap, then the data associated with that key is outputted to the console which is an object of class data, consists of stock and price of the input item.

1. **Sell an item in the inventory**

This functionality allows the potential user to sell a certain item that is present in the user’s inventory. Once the customer makes an order this function is called and the quantity of the item that is requested by the customer is deducted from the user’s inventory. If the customer requests an item that is not present in the inventory, the customer is alerted about the item being unavailable and is prompted to enter an item that the user has in the inventory. Also, if the quantity requested of an available item in the inventory is greater than the user’s stock, the customer is alerted about the stock being low to meet their demand.

1. **Generate sales report**

This functionality allows the user to display a sales report of a time period (daily, monthly). It shows the user all the items and their respective quantities as well as the total amount of items that have been sold from their business, which allows the user to analyze and stock up the items. The method checks if any sales have occurred or not and acts based on the check.

1. **Payment**

This functionality provides a payment option to the customer. It shows payment amount and It allows users to choose payment options as they desire whether cash or card. It will verify the card on the basis of the parameters provided.

**For Next Release:**

* + Implementation of GUI
  + Proper implementation of a database for inventory sales and check
  + Forward sales report to the user email

**Contributions:**

* Gaurav Shilpakar R11521961 Add Inventory, UI
* Pranesh Shrestha R11521976 Add Inventory, Display Inventory
* Raju Khadka R11536576 Sales Report
* Sudesh Subedi R11621320 Payment Option
* Utkrist Bhandari R11537543 Sale Item, Stock Check