FOP2 Mini Project – 2021

Program Description

Cafe Point of Sale System
Created by: Alan O'Regan
Student Number: B00133474

This is a point of sale computer program for a Coffee shop.

The Program displays the menu from an inventory file, allows the user to process orders and save them to a transaction file.

The System Menu

The **menu items** are read from an **inventory csv file** in the format: *[item name]*, *[price]* Each menu item name and price is added to an ArrayList of MenuItem Objects.

Item Number options

The user is **allowed** to enter as **many items** as they want from the list of menu items.

The Remove Option

The user **can delete** items from their order by selecting the this option and entering the **item order number** from the current order displayed.

The Payment Option

The user **complete the transaction** by selecting this option and entering the required information.

The program will then *process* the customers transaction using the following *steps*:

- 1. The total price is calculated from ordered item prices within **MenuItem ArrayList**.
- 2. The user selects CASH or CARD transaction.
 - If cash transaction then the amount tendered will be entered and change calculated from the price difference if any.
 - o If card transaction then the card type (Visa/Master) will be selected.

3. The program gets the transaction **timestamp** in the format (dd/MM/yyyy HH:mm:ss) and saves the transaction in an **ArrayList of TransactionItems**.

An appropriate **receipt** will then be generated on screen.

The Exit Option

When the coffee shop owner exits the system, all the days transactions are written to a **transaction.csv** file from the **ArrayList of TransactionItems**.

Transaction Formats:

Cash Transaction format

[Date and time stamp], [Item/s Purchased], [Price], [Amount tendered], [Change given]

Card Transaction format

[Date and time stamp], [Item/s Purchased], [Price], [Card Type]

References Used

- https://www.youtube.com/watch?v=yO ctH4mEk4
- https://stackoverflow.com/questions/16956720/how-to-create-an-2d-arraylist-in-java/16956747
- https://www.w3schools.com/java/java arraylist.asp
- https://www.youtube.com/watch?v=lcWV7hLYByk
- https://stackoverflow.com/questions/2979383/java-clear-the-console
- https://www.youtube.com/watch?v=Vs2ZR7-LJO0
- https://www.w3schools.com/java/java files read.asp
- https://www.w3schools.com/java/java files create.asp
- https://stackoverflow.com/questions/2255500/can-i-multiply-strings-in-java-to-repeat-sequences
- https://stackoverflow.com/questions/16956720/how-to-create-an-2d-arraylist-in-java/16956747
- https://www.w3schools.com/java/java arraylist.asp
- https://www.tutorialspoint.com/convert-from-string-to-double-in-java#:~:text=To convert String to double%2C use the valueOf() method.
- https://www.geeksforgeeks.org/format-specifiers-in-java/
- https://stackoverflow.com/questions/6264576/number-of-decimal-digits-in-a-double