Sprint 1 Submission

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Github: https://github.ccs.neu.edu/simpsone/5500Project

Trello: https://trello.com/b/z7zJbAuZ/cs-5500-project-kanban

Trello Invite: https://trello.com/invite/b/z7zJbAuZ/ab83d84a7fe375145aee368ff47731c4/cs-5500-project-kanban

For Sprint 1, the user can generate a .csv representing shoppers at the MetMarket. The initial csv is based on the project specs given to us by the manager. The program is run by using Python 3.8 in the command line and inputting:

- python main.py

That above command has optional parameters that the user can set to generate different data sets. To see the optional parameters, the user can input:

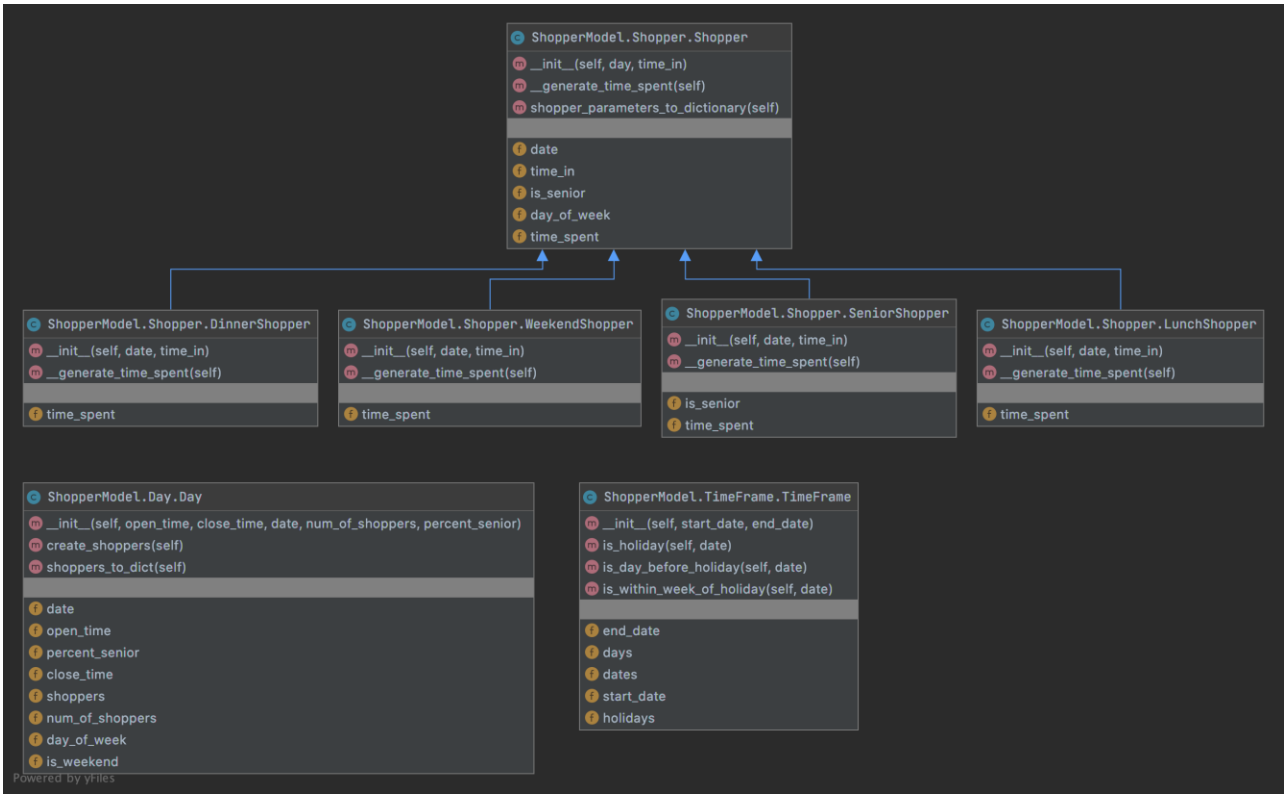
- python main.py -h

Example optional parameter

- python main.py -sd 2020-01-01 -ed 2020-01-31

This will generate a shopper data file for the period January 1, 2020 to January 31, 2020.

User Story	**Implementation**
As a technically literate person, I can generate a data file for the grocery store manager so that he can run some analysis.	The program will generate a csv that simulates how many shoppers coming in for a year and save it in the project folder.
As a technical user, I can modify the range of dates of shoppers to be generated to drill down on shopper behavior.	Program allows the user to input a start date and end date to generate data for by using a command line parameter.
As a technical user, I can modify the number of people coming in during lunch and dinner time rush.	The user can input a parameter into the command line that modifies the amount of people coming in for lunch and dinner for the day.
As a technical user, I can modify average shopper traffic to simulate changes in traffic going through the grocery store.	Users can input optional parameters in the command line when running the program to set average number of shoppers per day.
As a technical user, I can modify the parameters to generate a different version of the data for the grocery store manager to run some analysis.	There is a list of parameters that the user can input to simulate different scenarios.



Compared to the previous UML we created for Sprint 0, we added the command line portion as well as the Configuration class which holds all of the values that the user can change to generate multiple versions of shopper behavior data. The TimeFrame class knows everything related to dates such as if the date passed to it is a holiday, the day before a holiday, or a week before the holiday. The Day class represents a day in the store. It knows how many shoppers to create and can create shoppers for that day. We also have a Shopper class that has multiple child classes (SeniorShopper, LunchShopper, DinnerShopper, WeekendShopper) that represents the different types of shoppers. It is designed this way because different types of shoppers spend different amounts of times in the store. Subclassing it this way preserves information about the shopper while changing their time spent behavior.