Sprint 2 Submission

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

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

How to run the program

- From PyCharm, run: main.py
- From command line: python main.py

User Stories Delivered

As the technical user, I want the shopper file generated in a database

- The technical user can run main.py to generate a shopper file in a database using the default parameters.
- If the user wants to change the parameters, then they can do so from the command line by providing additional arguments or edit main.py to create configurations with updated parameters.
- The acceptance test is in unittests/test_shopper_database.py
    - test_populate_shopper_database()

As the store owner, I can run queries to do analysis on the data file generated. (query)

- The technical user can edit main.py to add more queries by using the ShopperDatabase.query() method.
- Acceptance tests are in unittests/test_shopper_database.py
    - test_date_query()
    - test_time_in_query()
    - test_time_spent_query()
    - test_is_senior_query()

As a store owner, I want to know how much store traffic increases during lunch, dinner, and weekends so that I can hire additional staff members appropriately (query)

- Test cases have been created for querying the number of people coming in during lunch, dinner and weekends.
- Acceptance tests are in unittests/test_shopper_database.py
    - test_lunch_traffic_query()
    - test_dinner_traffic_query()
    - test_weekend_traffic_query()

As the technical user, I can modify when the lunch or dinner rush happens during the day.

- The technical user can input different parameter for the start time and end time for both the lunch rush and dinner rush
- Acceptance tests:
    - test_Rush.py

As a technical user, I can change the time and date when the senior discount occurs.

- The technical user can input different parameter for the start time, end time, and the day the discount occurs
- Acceptance test:
    - test_SeniorDiscount.py

As a technical user, I can modify the amount of time shoppers spend instore on average.

- The technical user can input different parameters for the number of shoppers per day of week in the store

Code Quality

Common pylint erros:

- Too many instance variables
    - We didn't think this was a problem because pylint complains about having only five instance variables which seems restrictive.
- Too many local variables
    - The local variables could be eliminated and just use the configuration values directly, but that would have made the code look messier.
- Too few public methods
    - This is the result of breaking up our original code into more classes. Some object are only being used to hold data/inputs and don't have logic.