

# Sprint 3 Submission

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Trello:

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

GitHub:

<https://github.ccs.neu.edu/simpsons/5500Project>

REST API Documentation:

<https://github.ccs.neu.edu/simpsons/5500Project/blob/master/shopperapi/README.md>

The REST API documentation contains sample request URI and a sample response.

## User Stories

As a technical user, I want to be able to access the queries over the web using curl or postman.

- An API was implemented that allows GET and POST requests using Flask.

As a technical user, I want to be able to get a list of datasets available to me.

- The technical user can issue GET requests to get a dataset such as the list of parameters that generated a set of shoppers, the set of shoppers during a range of time or specific date, or a single shopper based on an Id.

As a technical user, I want to get a list of parameters used for the dataset.

- The technical user can issue a GET request that will get a list of parameters and the details of those parameters as JSON format.

As a technical user, I want to get a list of shoppers for a date range.

- The technical user can issue a GET request that will get a set of shoppers given a start date and end date.

As a technical user, I want to get a list of senior shoppers for a date range.

- The technical user can issue a GET request that will get a set of shoppers given a start date and end date. The user can specify whether or not the shoppers are senior or not.

As a technical user, I want to get a list of shoppers coming in on a sunny weekend.

- The technical user can issue a GET request that will get a set of shoppers given start date and end date. The user can specify whether he/she wants shoppers during sunny days or weekends or both.

# Functionality

Flask was used to create a connection to a MongoDB local database such that URI requests can be sent to the database to receive a set of shoppers or set of parameters.

## Examples

GET http://127.0.0.1:5000/parameters Send Save

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies Code

Query Params

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (4) Test Results Status: 200 OK Time: 6 ms Size: 1.03 KB Save Response

Pretty Raw Preview Visualize JSON 🔍

```
1 {
2   "documents": [
3     {
4       "_id": "5f04c7c7eab5d2983faa63ef",
5       "close_time": "21:00:00",
6       "daily_average_traffic": {
7         "Friday": 2500,
8         "Monday": 800,
9         "Saturday": 4900,
10        "Sunday": 5000,
11        "Thursday": 900,
12        "Tuesday": 1000,
13        "Wednesday": 1200
14      },
15      "day_modifiers": {
16        "avg_time_spent": 25,
17        "max_time_spent": 75,
18        "min_time_spent": 0,
19        "sunny_chance_percent": 0.3,
20        "sunny_time_spent": 15,
21        "sunny_traffic_percent": 0.4,
22        "weekend_time_spent": 60
23      }
24    }
25  ]
26 }
```

GET http://127.0.0.1:5000/get-senior-shoppers/shoppers\_db/true/2020-01-1/2020-01-31 Send Save

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies Code

Query Params

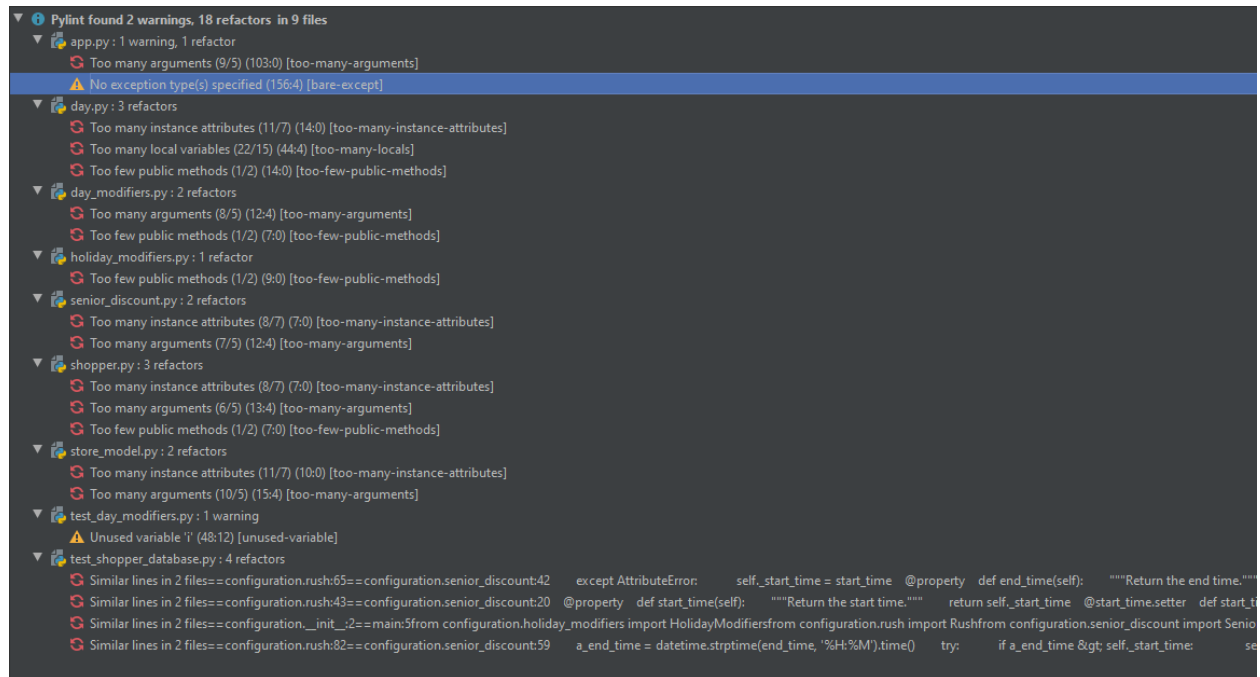
KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (4) Test Results Status: 200 OK Time: 966 ms Size: 6.17 MB Save Response

Pretty Raw Preview Visualize JSON 🔍

```
1 {
2   "collections": {
3     "shoppers": [
4       {
5         "Date": "2020-01-31 00:00:00",
6         "DayOfWeek": "Friday",
7         "IsSenior": "True",
8         "IsSunny": "False",
9         "ShopperId": "66389",
10        "TimeIn": "2020-01-31 20:55:32.370000",
11        "TimeSpent": "27.250539995106617",
12        "_id": "66389",
13        "parameter_id": "5f04c7c7eab5d2983faa63ef"
14      },
15      {
16        "Date": "2020-01-31 00:00:00",
17        "DayOfWeek": "Friday",
18        "IsSenior": "True",
19        "IsSunny": "False",
20        "ShopperId": "66389",
21        "TimeIn": "2020-01-31 20:55:32.370000",
22        "TimeSpent": "27.250539995106617",
23        "_id": "66389",
24        "parameter_id": "5f04c7c7eab5d2983faa63ef"
25      }
26    ]
27  }
```

## Code Quality



For code quality, the main issues that arose are:

- Too many arguments
- Too many local variables
- Too many instance attributes
- Too few public methods

Most of these issues we are okay with. A lot of our classes are used to hold variables used to generate the set of shoppers so we ended up with classes with “Too many arguments” and “Too many instance variables”. For “Too few public methods”, this is also an issue with the way our classes are used to hold variables. We can refactor some logic into these classes to remedy this issue but we focused on adding functionality rather than refactoring this sprint.