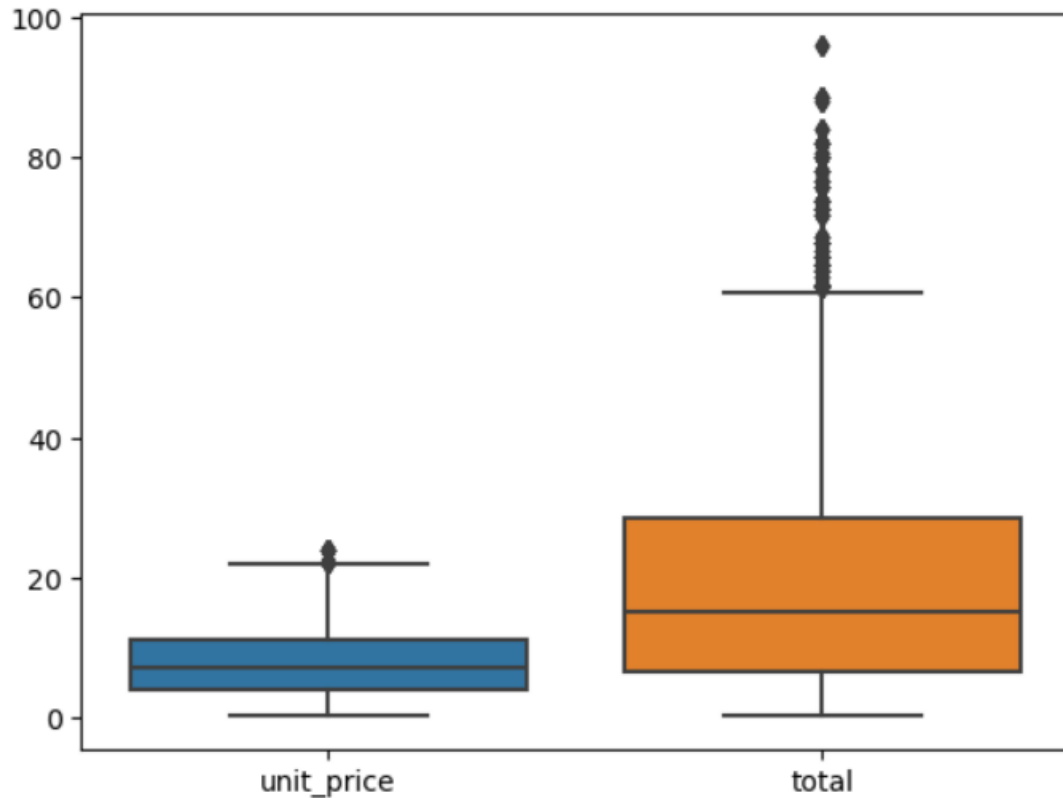# RETAIL STORE ANALYSIS

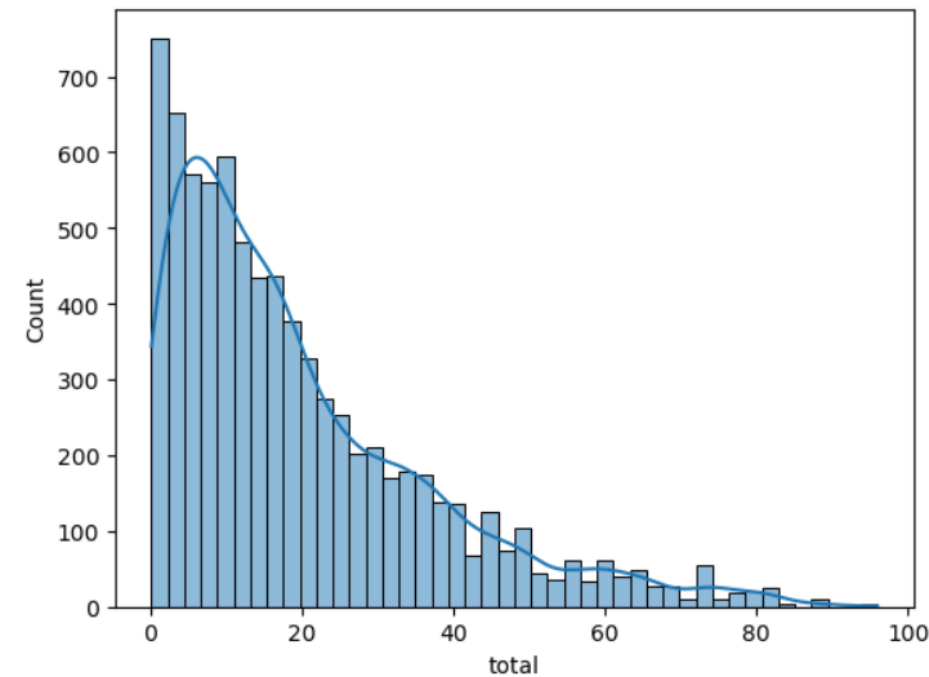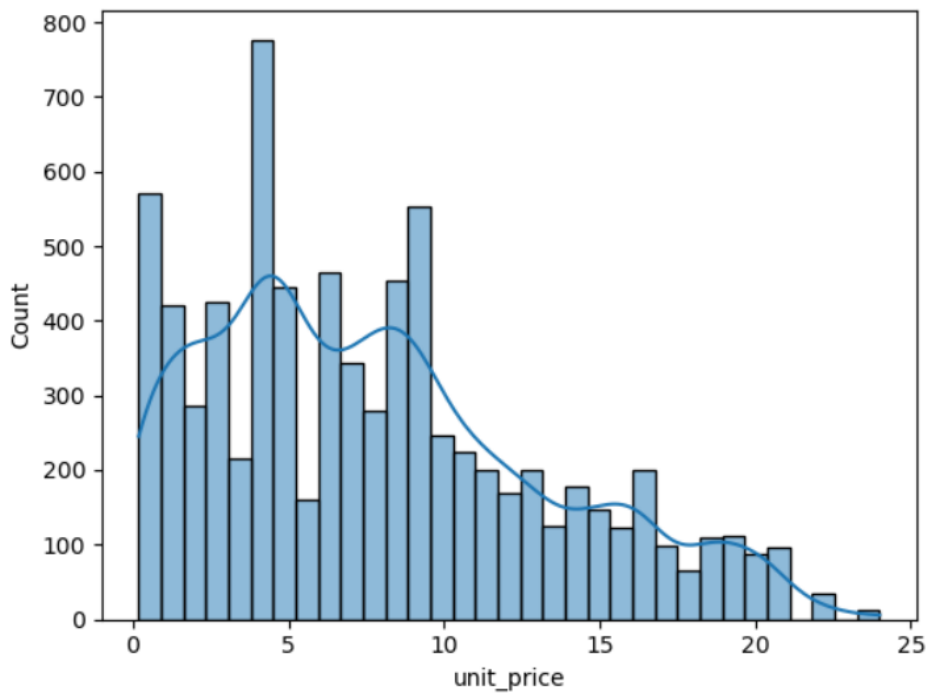# How to Better Stock Items Recommendations

- Get most stock out on Tuesday and Wednesday. (Most purchases made on those days.

- Make sure fruit and vegetable stock levels remain high and getting fresh stock as often as possible.

- Get most stock out early mornings as mornings are busiest (specifically produce).

- Use 12-3pm quiet to stock low items for next day for products that can stay out for long periods.

- Spices and herbs and pet products don't need to be replaced as often.

- Note analysis was only on 7 days, would require much more data to make stronger conclusions. The above recommendations is based on one week worth of data.
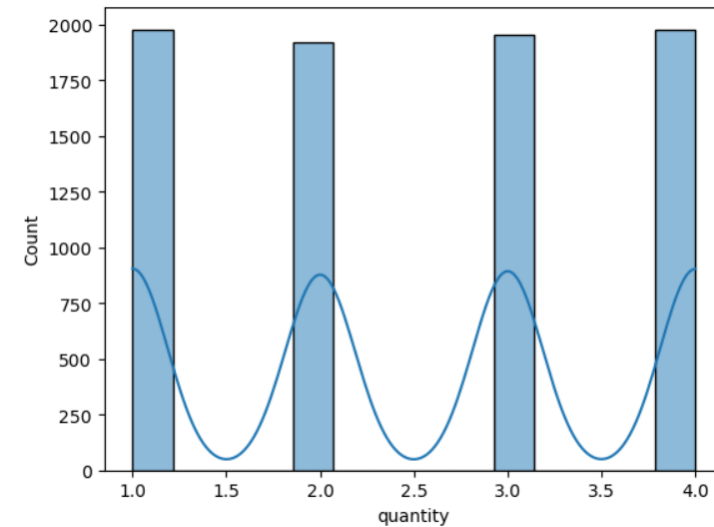
Summary Statistics

	unit_price	total
count	29.000000	7829.000000
mean	7.819480	19.709905
min	0.190000	0.190000
25%	3.990000	6.570000
50%	7.190000	14.970000
75%	11.190000	28.470000
max	23.990000	95.960000
std	5.388088	17.446680

- Average unit prices were $7.82 and varied between $0.19 and $23.99.

- Total average was $19.81 and varied between $0.19 and $95.96, however, totals above $60 were considered outliers.
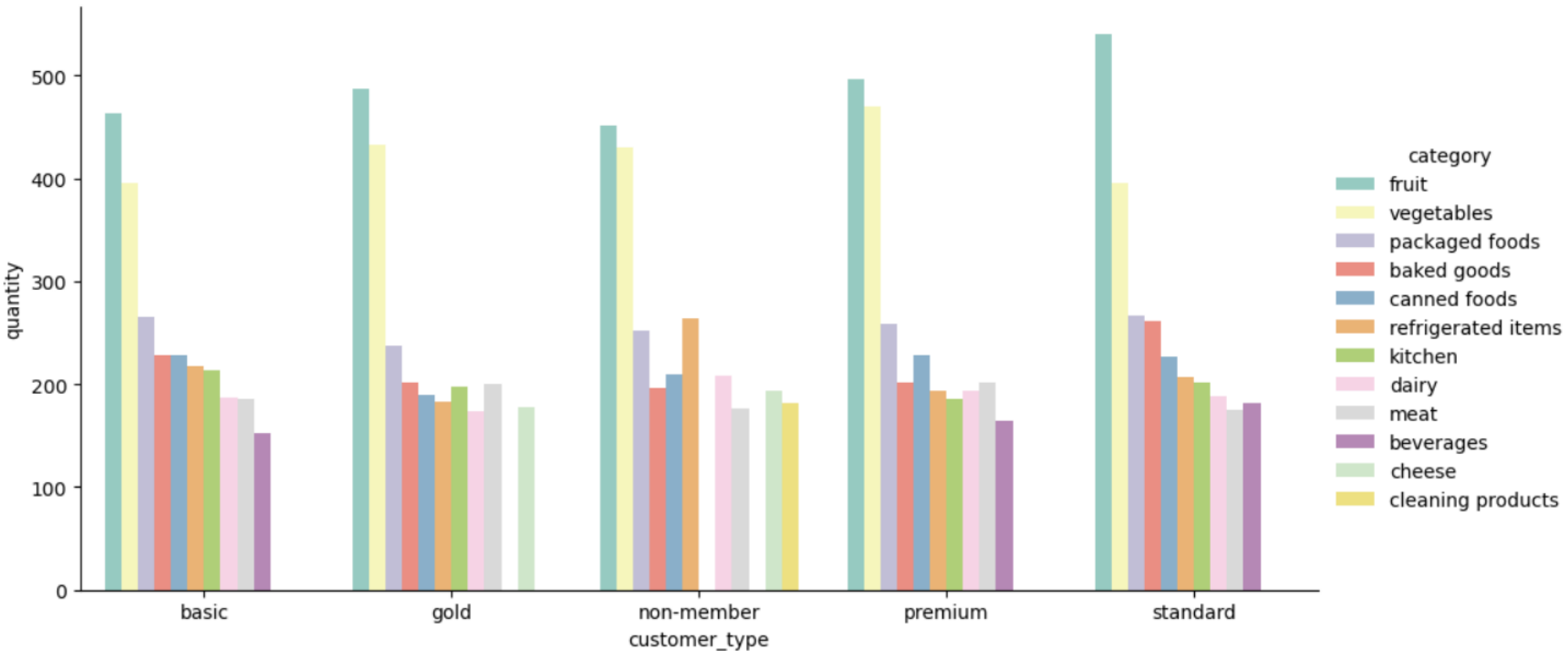
- Unit price and total are right skew, showing majority of data lies to left. This indicates people tend to buyer lower priced items and small shopping cart totals.
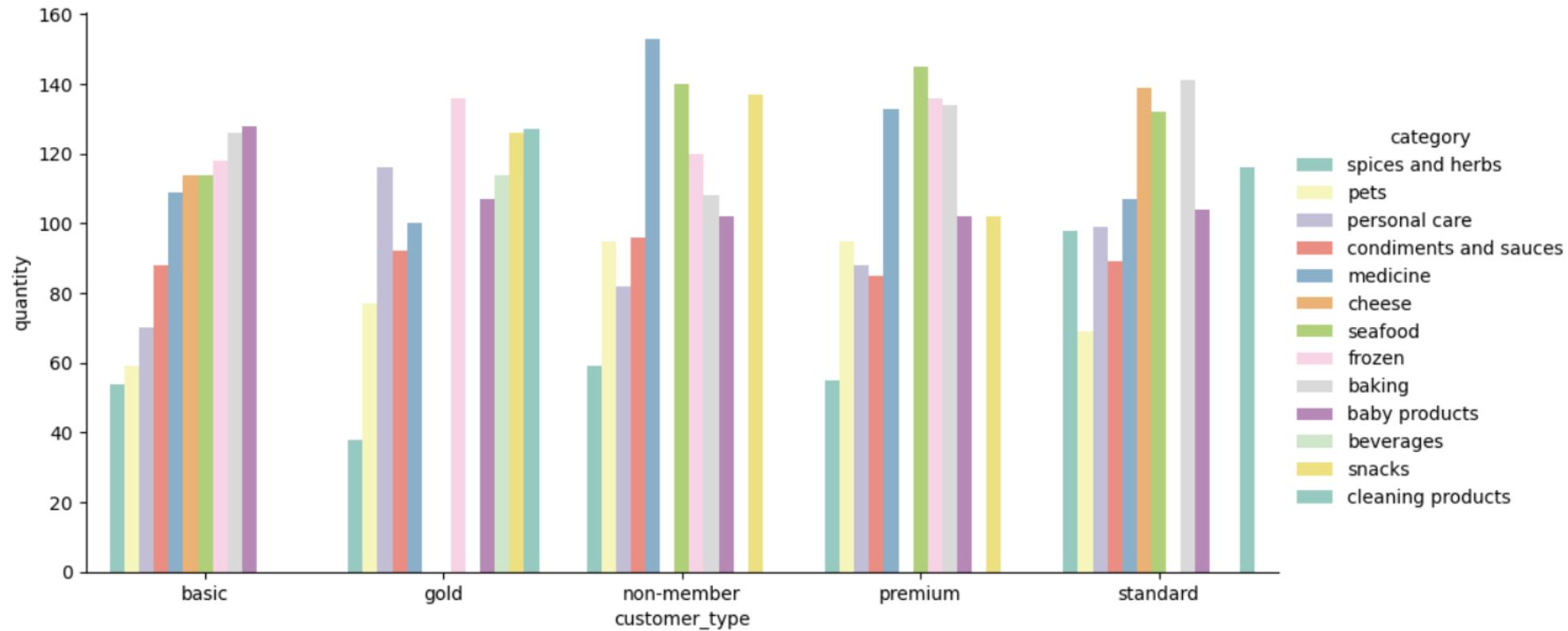

- Quantity values were symmetrical showing there was no one preference for how many of each item people purchased.

Top 10 Categories for Customers

- Fruit and vegetables are by far most popular. In the one week 400+ bought by every customer type.
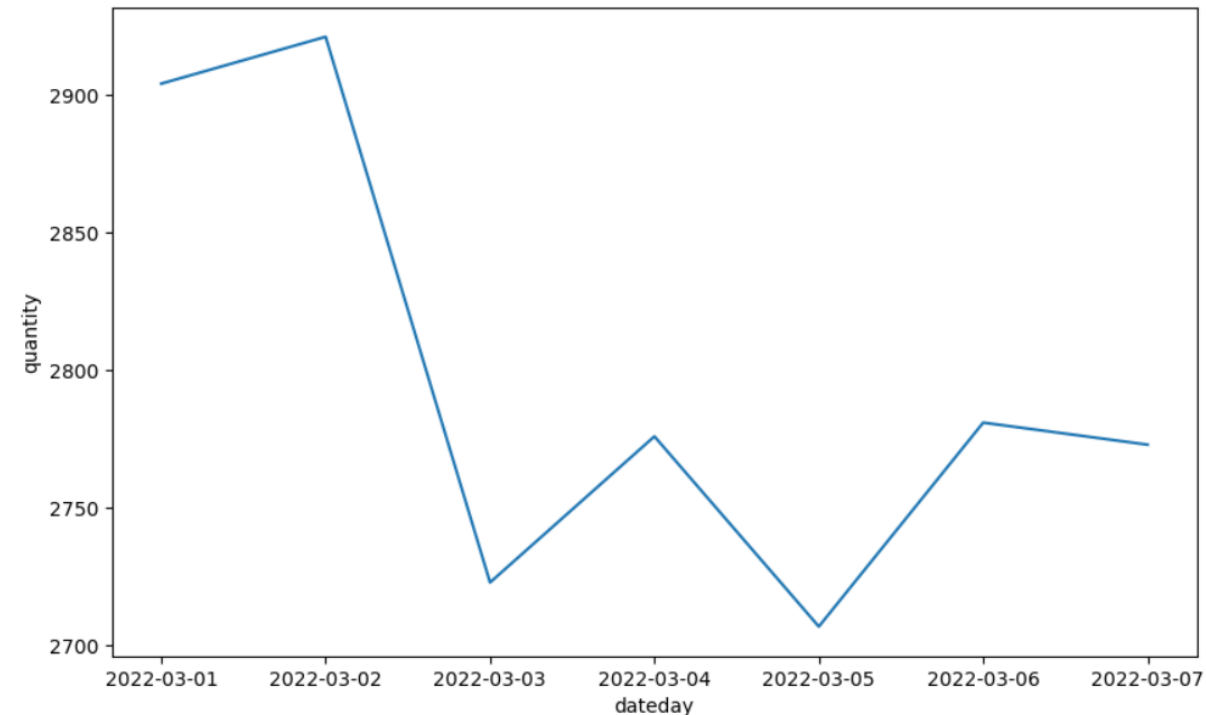
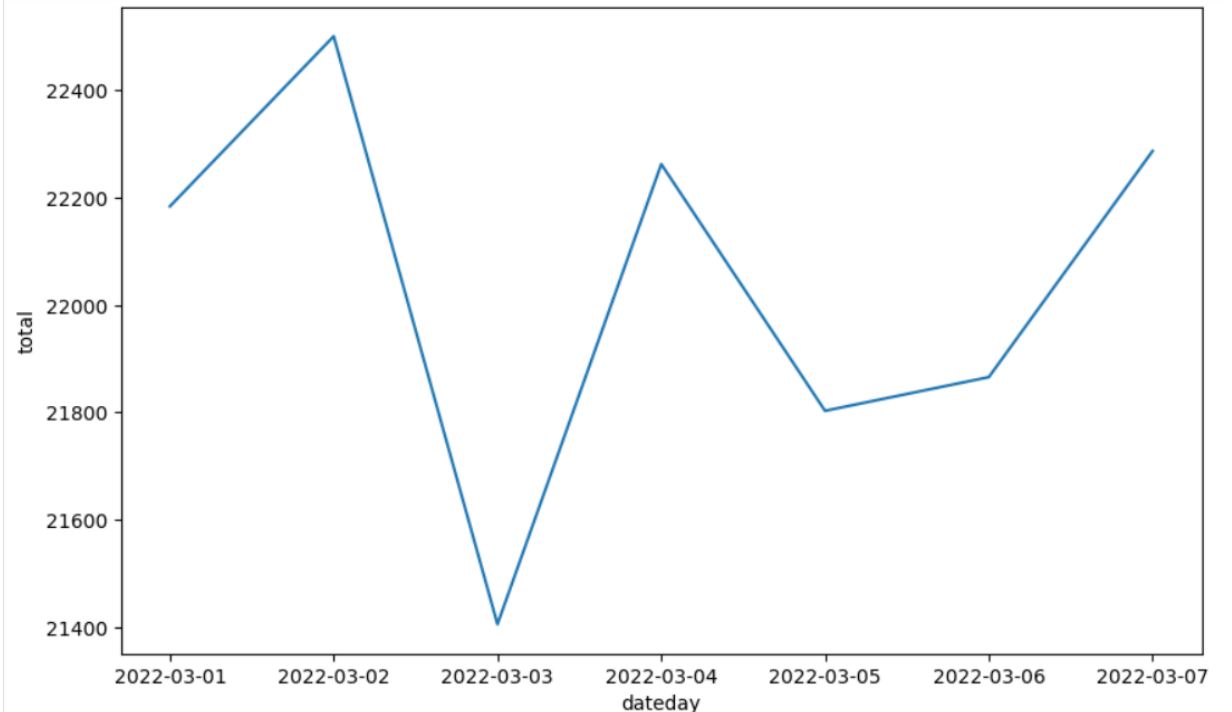# Bottom 10 Categories for Customers

- Spice and herbs lowest quantity bought for all except standard which had pet.
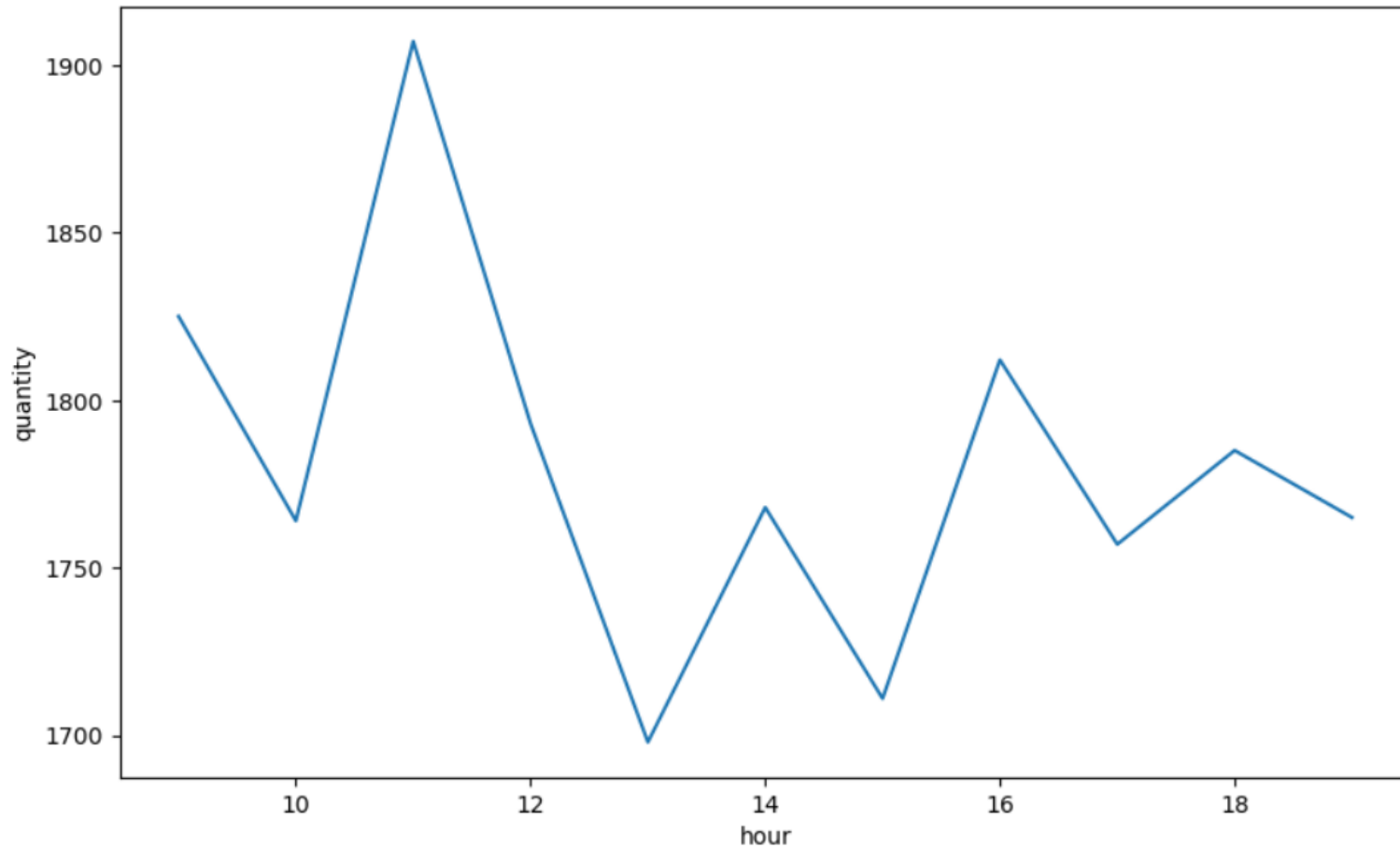
Time Analysis

- Shows quantity purchased each day that week.

- Tuesday and Wednesday had highest frequency.

- Shows total purchased each day that week.

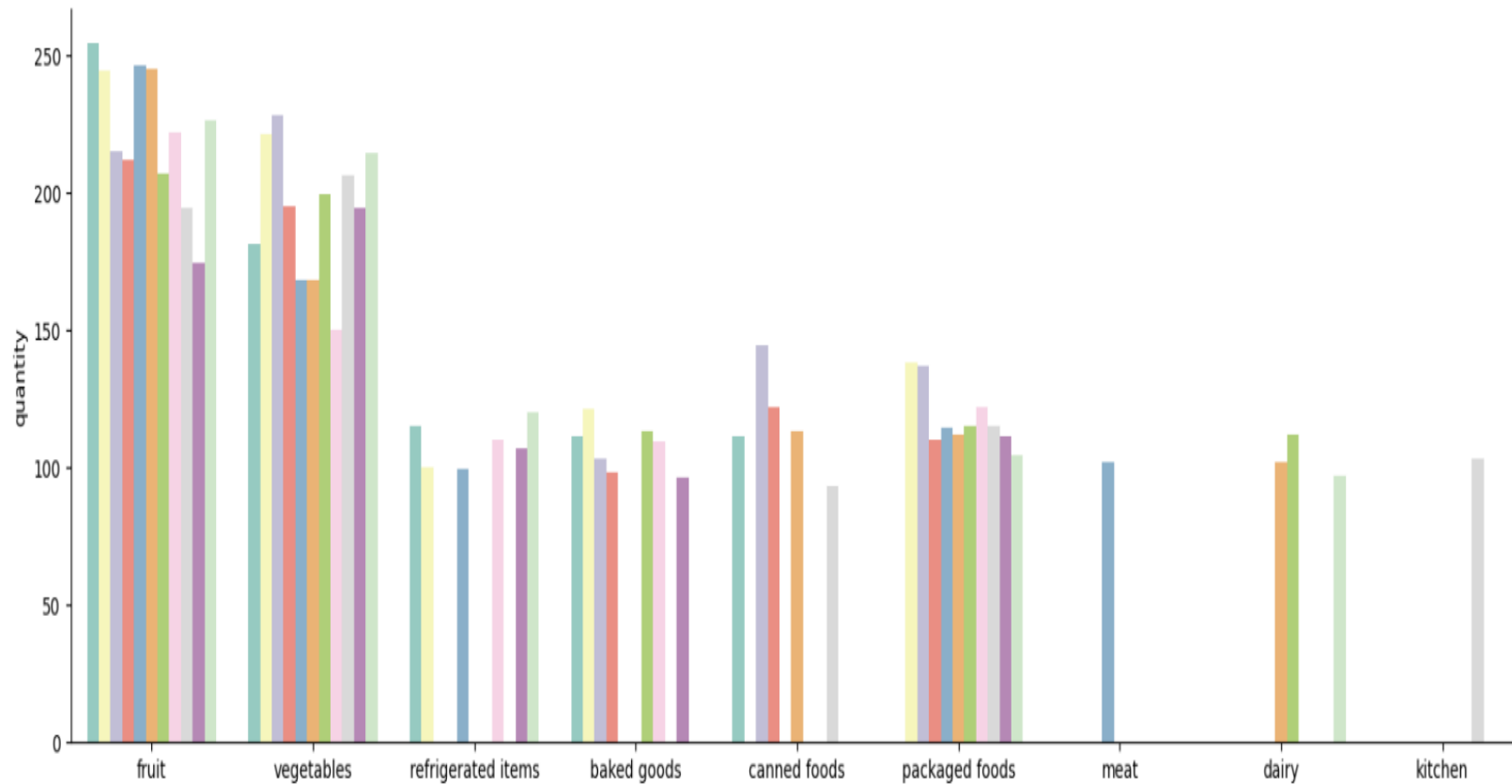- Friday and Monday had a low quantity but high total day.

Hourly Analysis

- Busiest hour was 11 am.

- Mornings generally had more purchases.

- 12-3pm quiet time.

Top 5 Categories Per Hour of Day

- Fruit and vegetables bought fairly frequently throughout whole day.

- Interestingly most meat was bought at 1pm during quiet time.