

Go Instore Data Take Home Task

One to One Appointments Booking

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One to One Appointments Booking

Overview

One to One Appointments Booking', is a pre-booking system designed to schedule Go Instore calls in advance. Customers can book, cancel or modify their booking prior to the scheduled launch of the 2 way video call.

Performance

Key takeaways

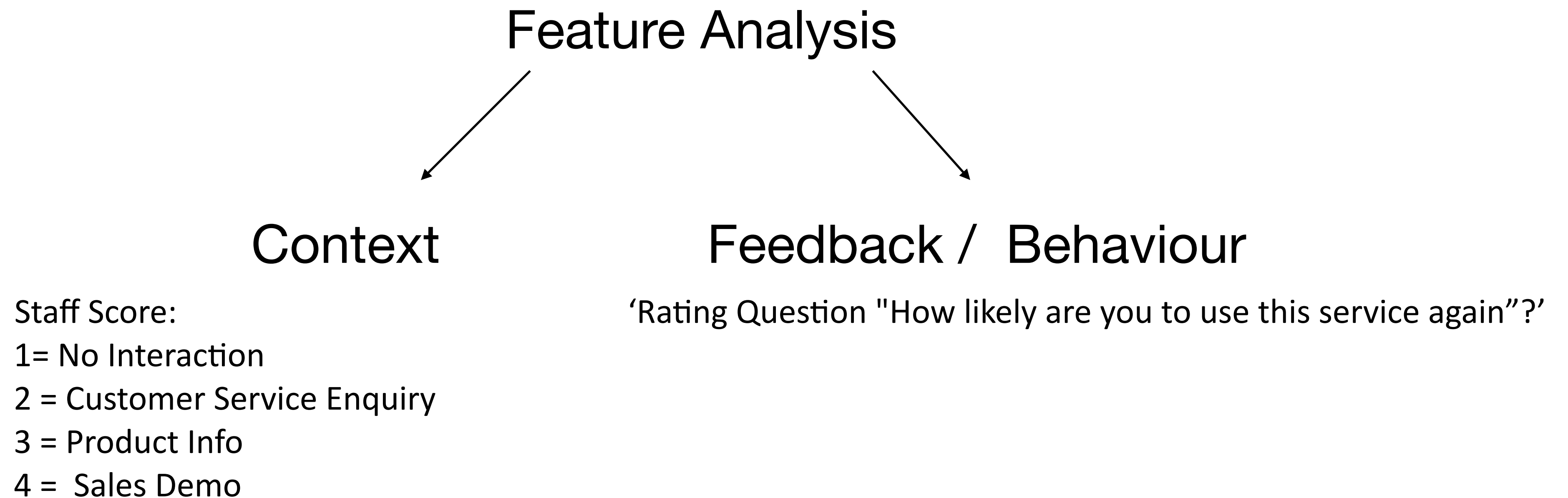
Successes

Improvements



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Method



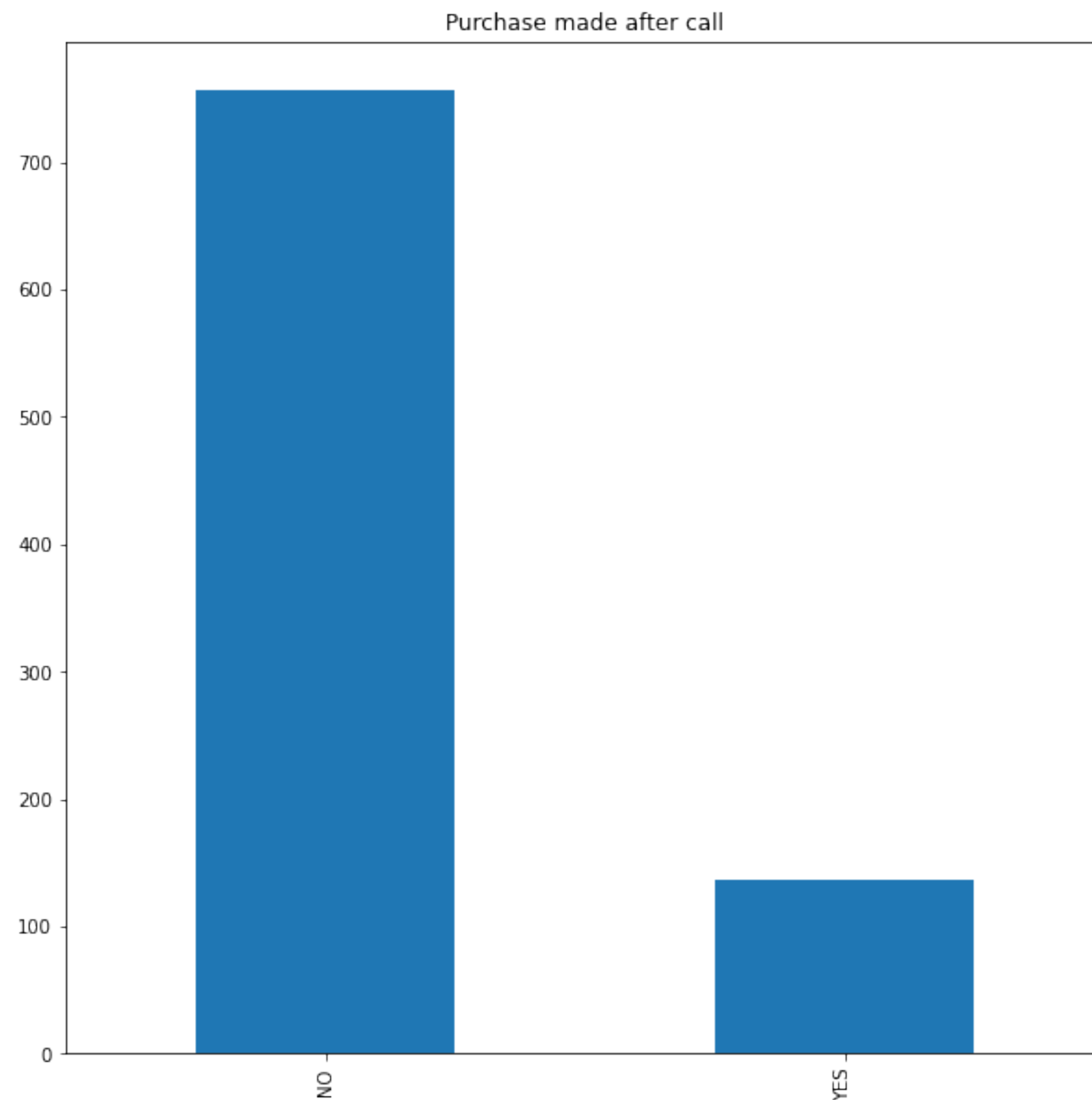
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Performance Overview

- 138 Sales
- 15% of appointments successfully converted to purchases
- Mean value of purchase (USD) \$803, maximum purchase \$3304
- Typical Ecommerce conversion rate 1-4%



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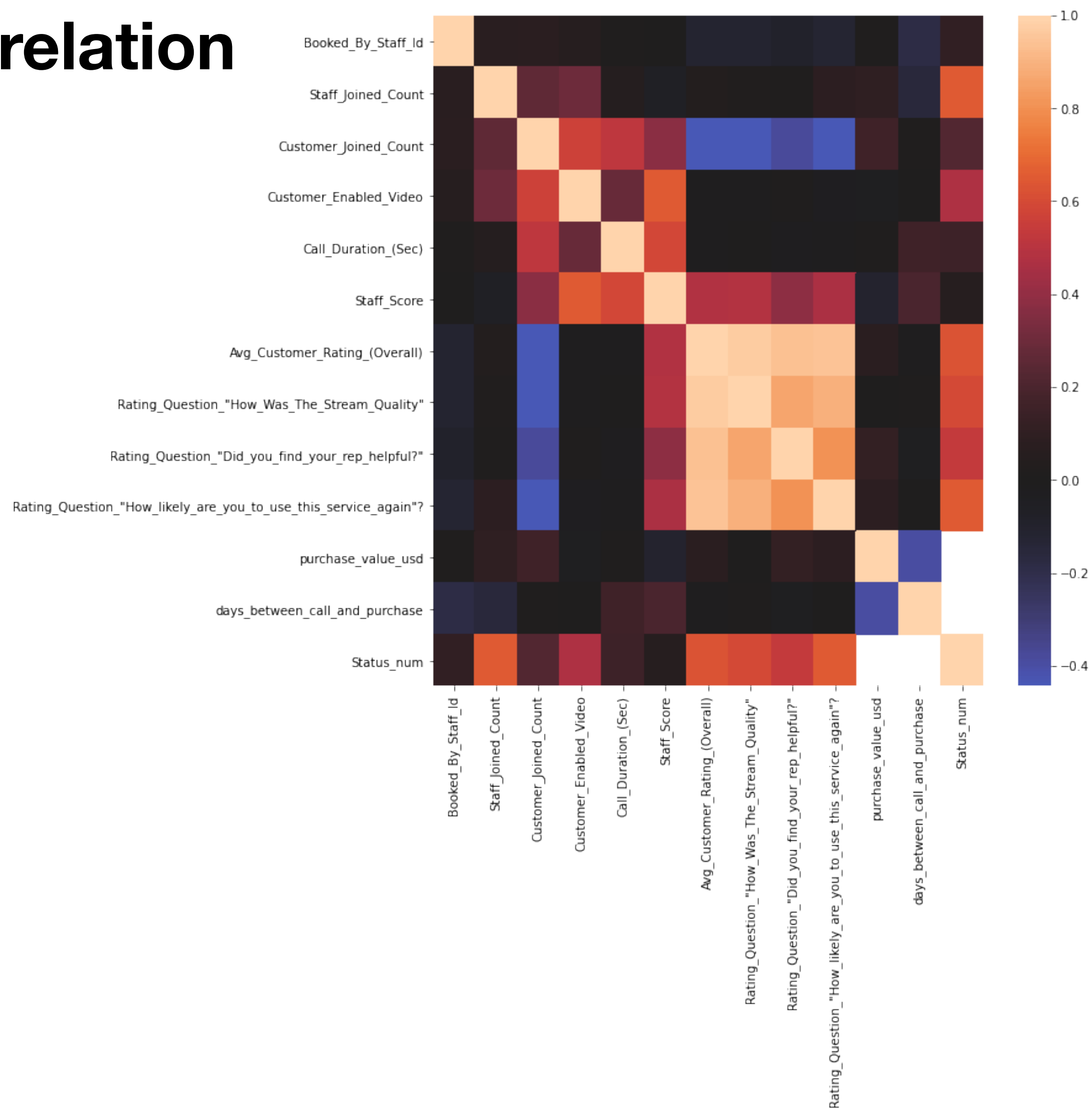


- Retain active customers
- Increase number of active customers from pool of users



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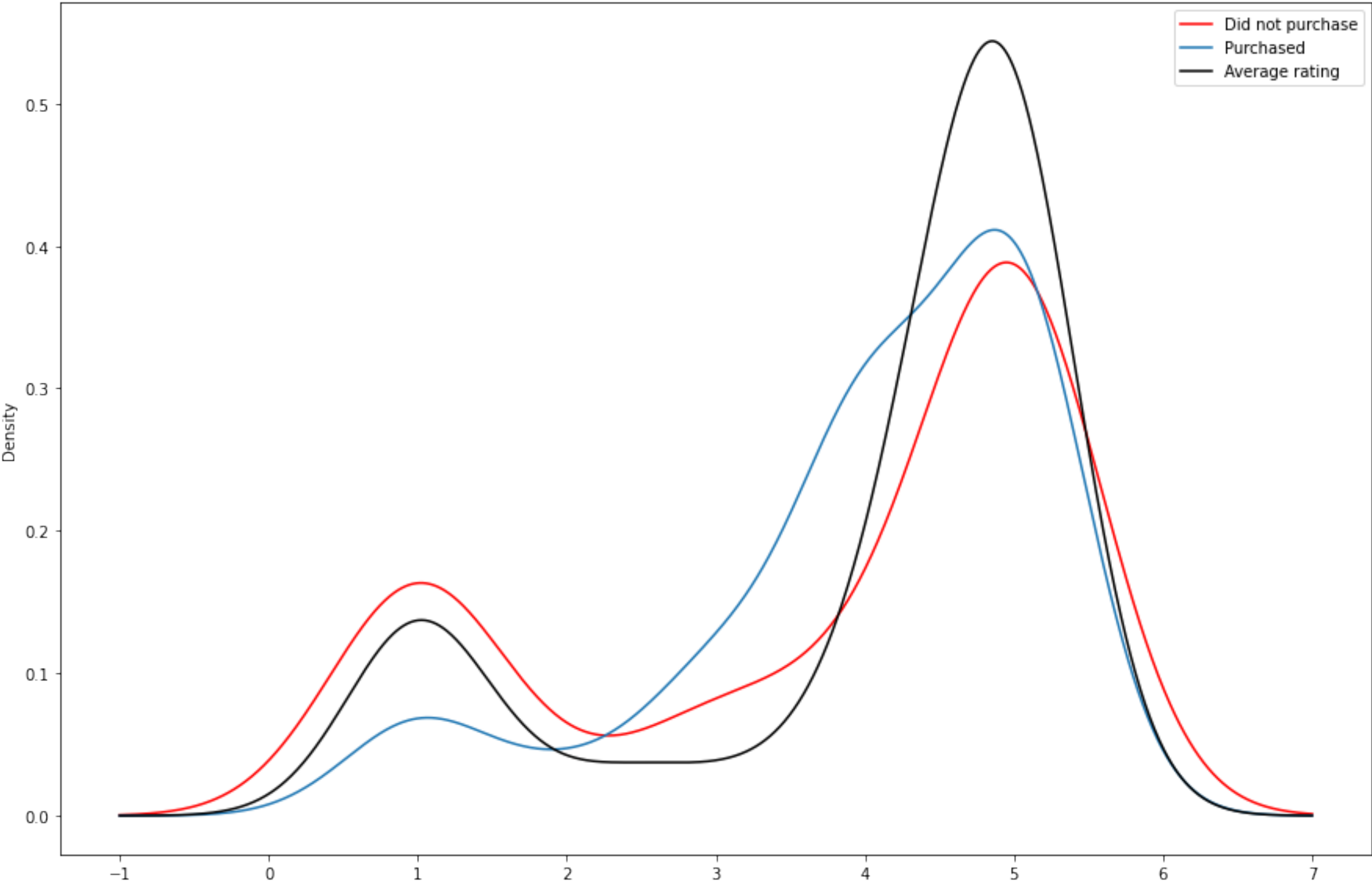
Feature Correlation



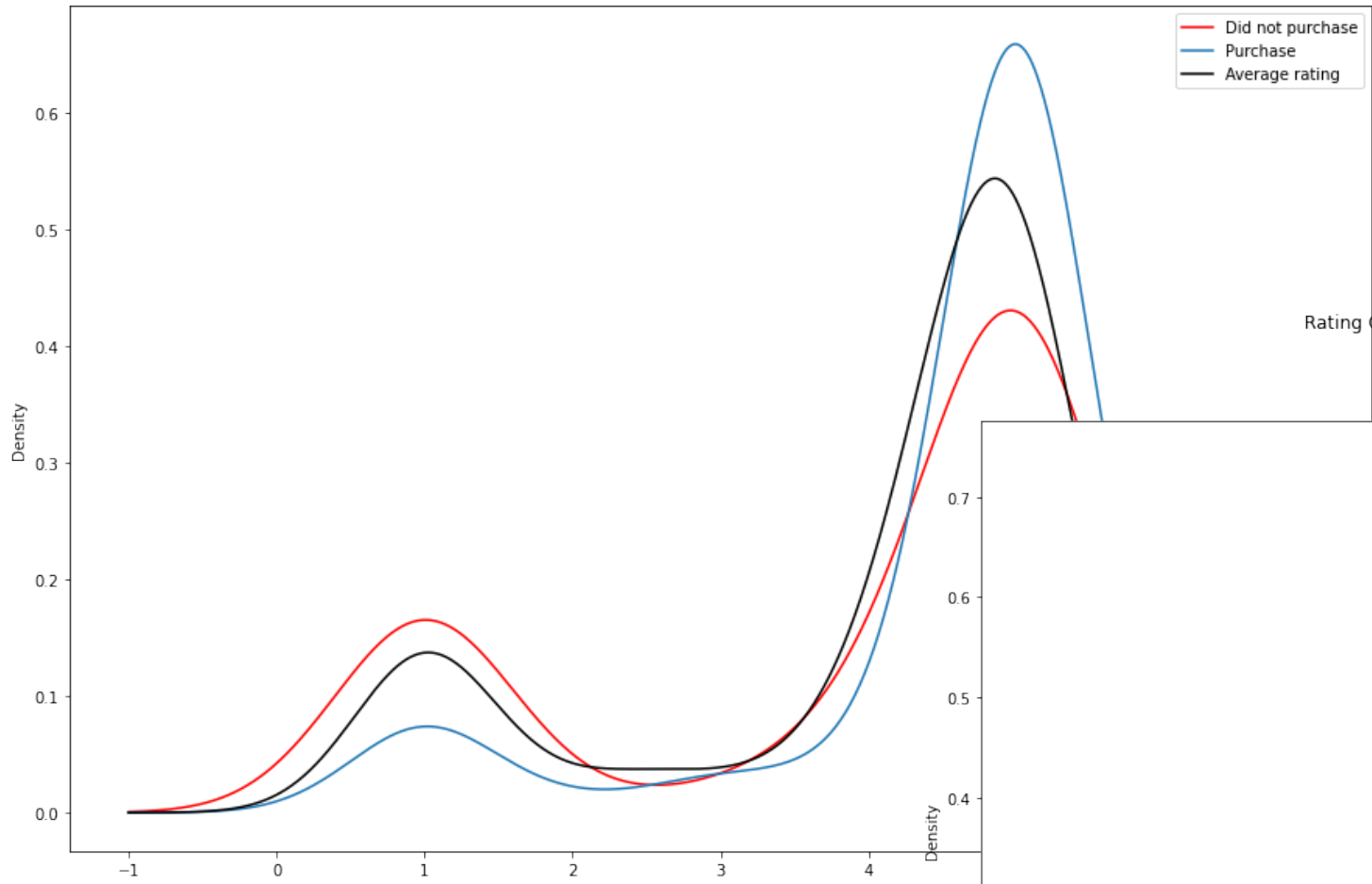
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Feedback & Purchase

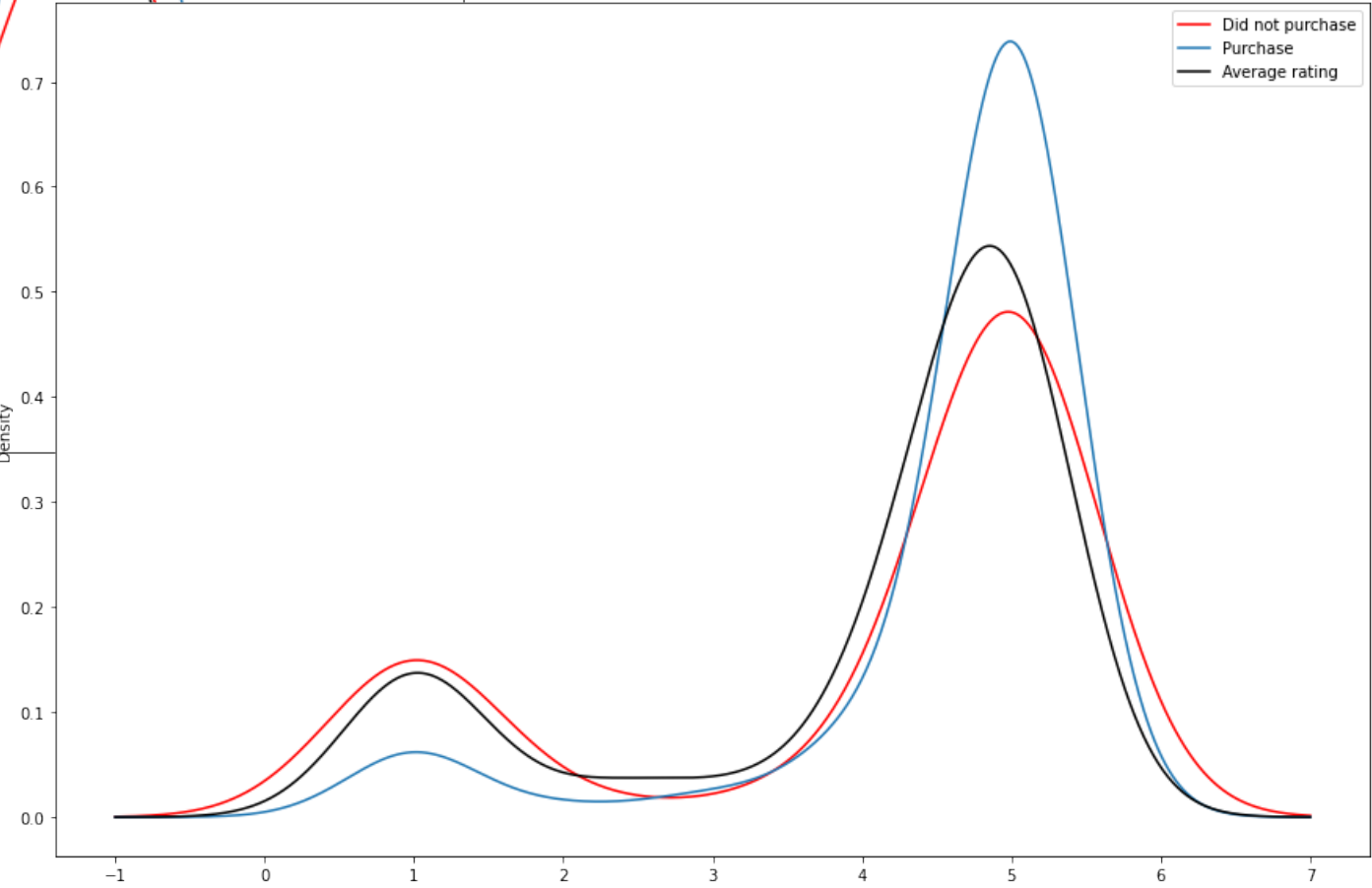
Rating_Question "Did you find your rep helpful?"



Rating Question "How Was The Stream Quality?"

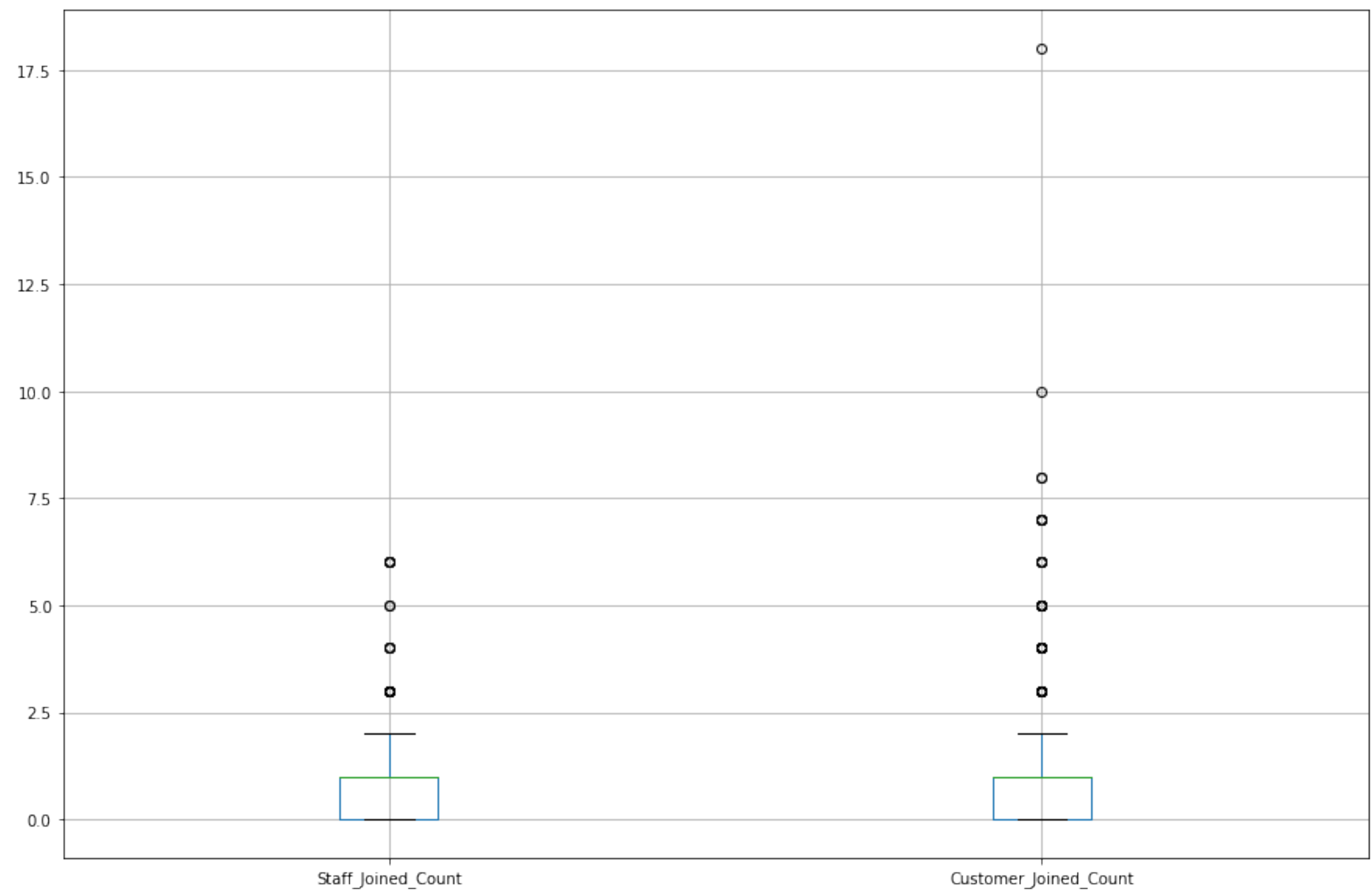


Rating Question "How likely are you to use this service again?"



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Staff & Customer Join Counts



The customer join count of those who purchased and those who didn't are significantly different (after removal of outliers).

A fewer number of join counts is inversely correlated with purchase.



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Staff Insights

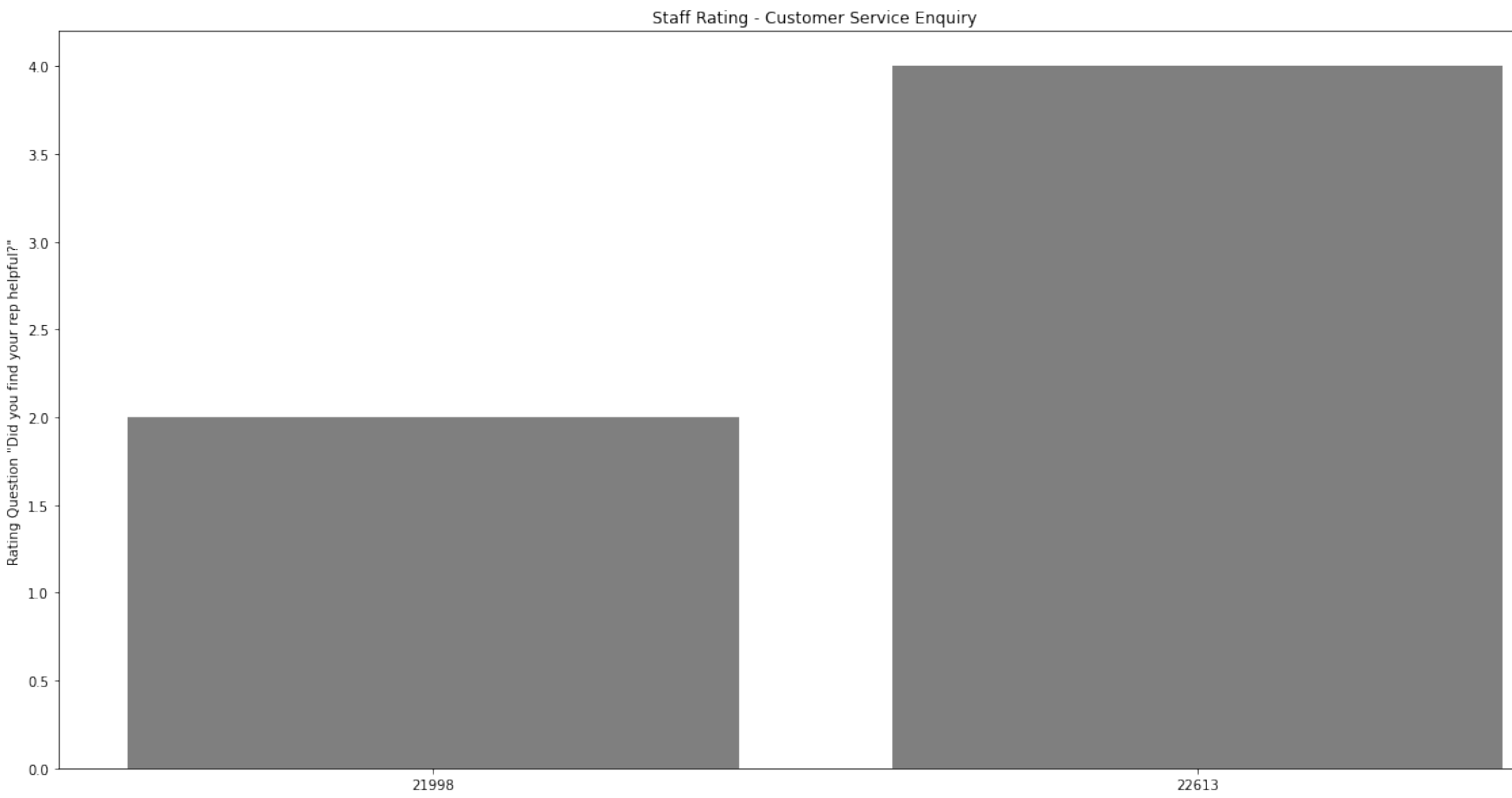
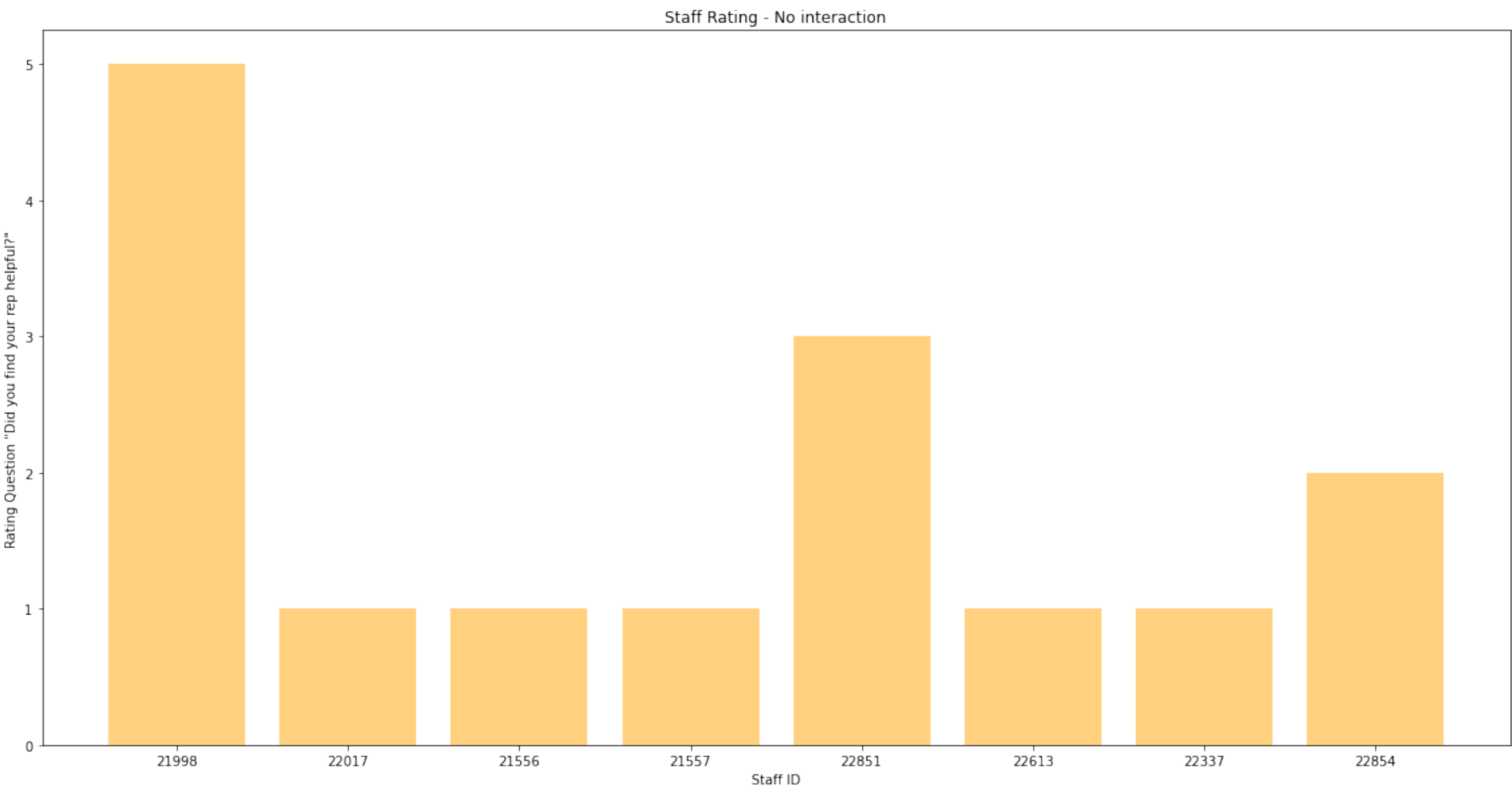
Staff ID	No. Appointments
21998	211
22017	128
21556	124
21557	109
21555	62
22851	55
22613	55
22853	41
22337	31
21558	28
22854	21
22852	15
22858	14

Booked_By_Staff_Id	Rating_Question_"Did_you_find_your_rep_helpful?"	Staff_Joined_Count	Customer_Joined_Count
22858	4.500000	1.000000	1.000000
22017	4.386364	1.090909	1.386364
21998	4.250000	1.653846	1.865385
22853	4.250000	1.125000	1.687500
21557	3.973684	0.973684	1.342105
22337	3.571429	1.000000	1.857143
21555	3.478261	1.086957	1.739130
21556	3.473684	1.157895	1.605263
22851	3.166667	1.111111	1.388889
22852	3.000000	0.750000	1.500000
22613	2.785714	0.785714	2.357143
22854	2.000000	0.666667	4.166667



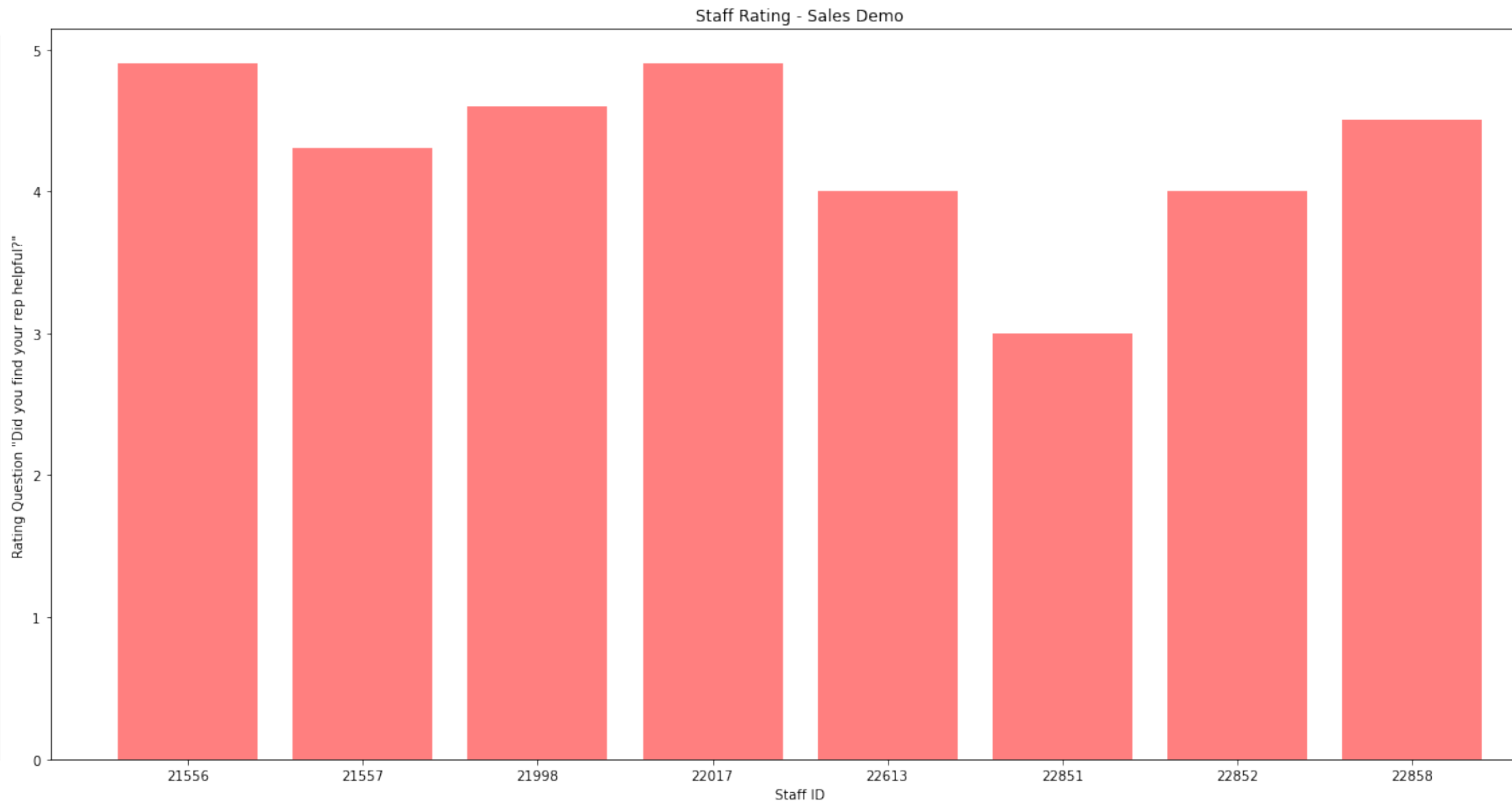
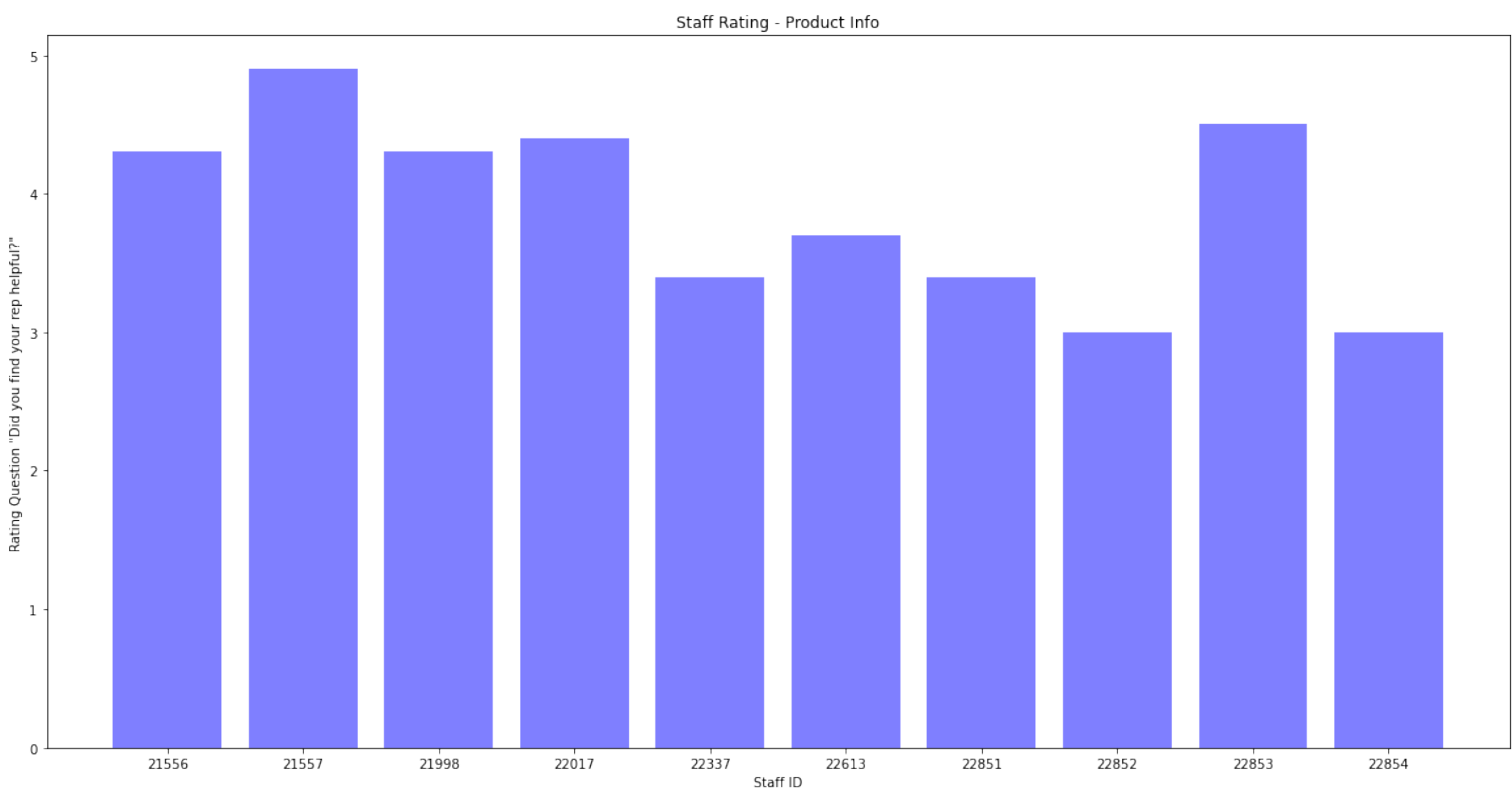
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Staff Rating & Interaction



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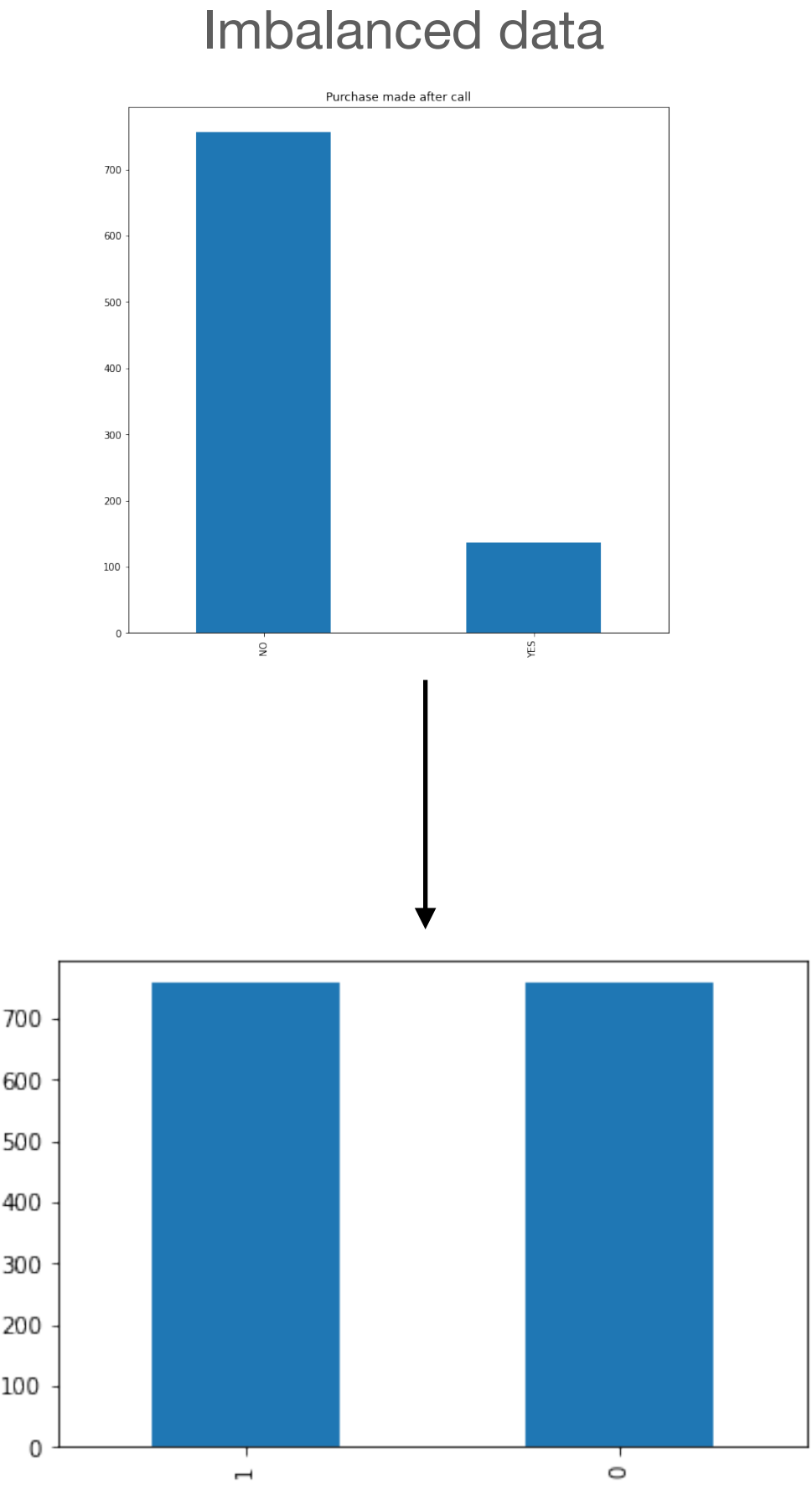
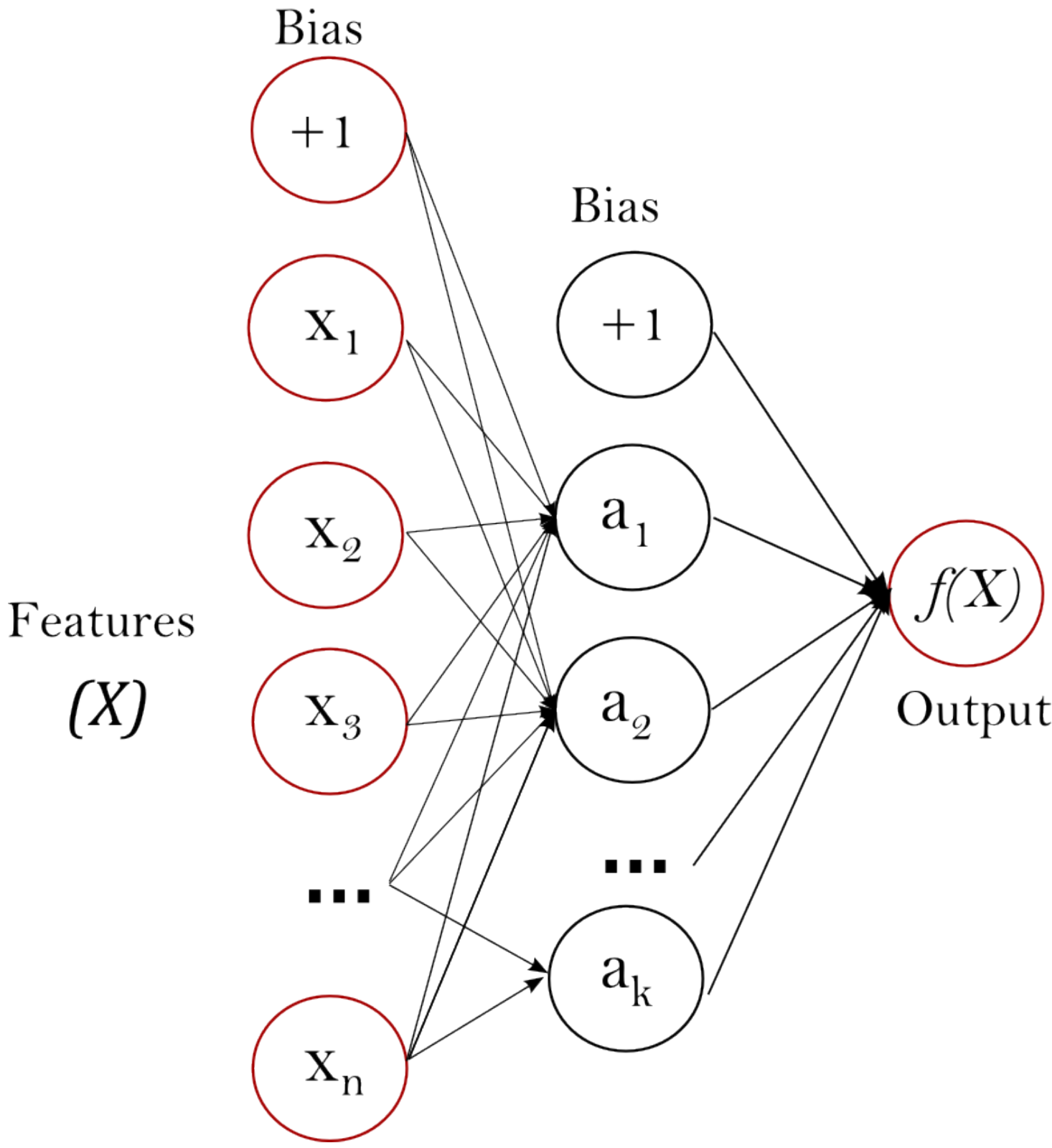


Increase in staff rating with increased interaction



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Multi-Layer Perceptron



SMOTE was used to generate data for the minority class

Who will buy?

	precision	Recall	f1-score	support
0	0.90	0.63	0.74	150
1	0.72	0.93	0.81	153
accuracy			0.78	303
macro avg	0.81	0.78	0.77	303
weighted avg	0.81	0.78	0.77	303



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Going forward

- Explore timestamp data further. Are local timezones local to the customer or staff or both depending on feature name? It would be nice to have the specific local timezones, this could, for example, tell us about regional differences or compare to available UTC timestamp data. Seasonal changes should also be analysed.
- Missing data. More complete data would be very useful, such as Customer ID, to be able to fully assess whether customers are making best use of the booking system, for example, by rebooking a cancelled appointment.
- 15% of appointments resulted in purchases. Compared with ecommerce rates, this is high. What are the target conversion rates? In addition to ecommerce, what other sectors would make appropriate comparisons?
- Explore further if MLPC model can be improved upon and try other types of models
- All data in this analysis was from Booking. It would be interesting to compare this with other products from Go Instore.
- Further statistical significance testing.

