

Insights

Frequent items

	Left Hand Side	Right Hand Side	Support	Confidence	Lift
0	light cream	chicken	0.004533	0.290598	4.843951
7	light cream	chicken	0.004533	0.290598	4.843951
2	pasta	escalope	0.005866	0.372881	4.700812
12	pasta	escalope	0.005866	0.372881	4.700812
30	pasta	shrimp	0.005066	0.322034	4.515096
6	pasta	shrimp	0.005066	0.322034	4.506672
36	frozen vegetables	spaghetti	0.004399	0.259843	4.350622
55	frozen vegetables	spaghetti	0.004399	0.259843	4.350622
10	ground beef	herb & pepper	0.004133	0.206667	4.178455
35	ground beef	herb & pepper	0.004133	0.206667	4.178455

We can see that "pasta" appears multiple times with different RHS items such as "escalope" and "shrimp," and "frozen vegetables" also appears more than once. Therefore, "pasta" and "frozen vegetables" could be considered frequent items from this dataset.

Bought together items

	Left Hand Side	Right Hand Side	Support	Confidence	Lift
0	light cream	chicken	0.004533	0.290598	4.843951
1	mushroom cream sauce	escalope	0.005733	0.300699	3.790833
2	pasta	escalope	0.005866	0.372881	4.700812
3	herb & pepper	ground beef	0.015998	0.323450	3.291994
4	tomato sauce	ground beef	0.005333	0.377358	3.840659
5	whole wheat pasta	olive oil	0.007999	0.271493	4.122410
6	pasta	shrimp	0.005066	0.322034	4.506672
7	light cream	chicken	0.004533	0.290598	4.843951
8	frozen vegetables	shrimp	0.005333	0.232558	3.254512
9	ground beef	spaghetti	0.004799	0.571429	3.281995

For instance, there is a 4.84% chance that light cream and chicken are needed together in a dish.

Here are some of the ingredients that are listed together in the table:

- Light cream and chicken
- Mushroom cream sauce and escalope
- Pasta and escalope
- Pasta and shrimp
- Herb & pepper and ground beef
- Tomato sauce and ground beef
- Whole wheat pasta and olive oil
- Frozen vegetables and shrimp

1. Popular Combinations: Items like "light cream" and "chicken" have a relatively high support value, indicating they are frequently bought together.
2. Strong Associations: The association between "pasta" and "escalope" appears multiple times with high confidence values, suggesting a strong relationship between these items. Similarly, "frozen vegetables" and "spaghetti" have a high confidence value, indicating they are often bought together.
3. Seasoning Preferences: "Ground beef" and "herb & pepper" have a moderate confidence value, indicating that customers who buy ground beef are somewhat likely to also buy herb & pepper.
4. Item Relationships: Certain items like "pasta" and "shrimp" have moderate support and confidence values, suggesting a moderate association between them.

Strategy

1. Promotions for Popular Combinations: Offer promotions or discounts for items like "light cream" and "chicken" which have a high support value. Consider bundling these items together or offering special deals to encourage customers to purchase them together.
2. Highlight Strong Associations: Since the association between "pasta" and "escalope" appears multiple times with high confidence values, consider creating special meal deals or recipes featuring these items together. This can help capitalize on their strong relationship and encourage customers to buy both items.
3. Cross-Promotions for Frequently Bought Together Items: Items like "frozen vegetables" and "shrimp" have a high confidence value, indicating they are often bought together. Place these items in close proximity in the store and consider offering discounts or promotions when both items are purchased together to further encourage this behavior.
4. Seasonal Marketing for Seasoning Preferences: For items with moderate confidence values like "ground beef" and "herb & pepper," consider seasonal marketing campaigns or promotions that highlight these items together. For

example, during grilling season, promote herb & pepper seasoning alongside ground beef for burger recipes.

5. Customer Engagement: Engage with customers to gather feedback on their preferences and shopping habits. Use this information to tailor promotions, product placement, and marketing efforts to better meet their needs and preferences.