

Instacart Market Basket Analysis

Shiny Dashboard Screenshots

Home Page



 Instacart

 Upload Tables

 Tables


 Descriptive Data Analytics<

 Prescriptive Data Analytics <

Welcome to Instacart's Market Basket Analysis Dashboard





Upload Tables





Choose the folder of the csv files


Choose Folder

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Uploading Tables...

Tables

Choose Table to display

aisles

Instacart

Upload Tables

Tables

Descriptive Data Analytics

Prescriptive Data Analytics

Have a glance at the tables

Aisles

Show 10 entries

Search:

| aisle_id | aisle |
|----------|----------------------------|
| All | All |
| 1 | prepared soups salads |
| 2 | specialty cheeses |
| 3 | energy granola bars |
| 4 | instant foods |
| 5 | marinades meat preparation |
| 6 | other |
| 7 | packaged meat |
| 8 | bakery desserts |
| 9 | pasta sauce |
| 10 | kitchen supplies |

Descriptive Data Analytics

Instacart

Upload Tables

Tables

Descriptive Data Analytics

Popular Order Times

All About Reorders

Purchasing Behaviour

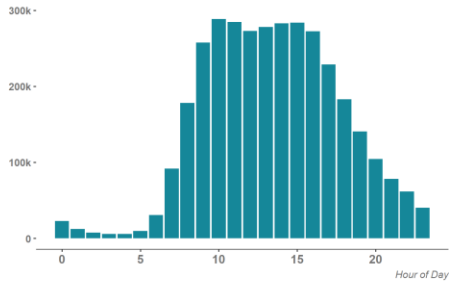
Product Portfolio

Prescriptive Data Analytics

Popular Order Times

What time of day do our customers order the most?

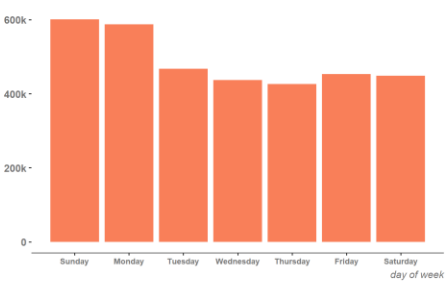
Our Customers order most between 9:00AM and 5:00PM



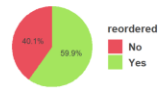
Popular Order Days

Which day of week do our customers like to shop the most?

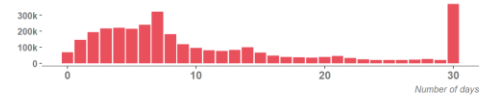
People love grocery shopping on Sundays and Mondays



on Average, 60% of items are reordered



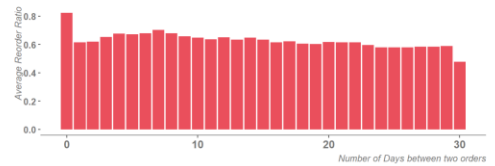
Most of our customers order again either in less than 10 days or once a month



| Product | % of average item records |
|---------------------------------------|---------------------------|
| 2% Lactose Free Milk | ~95% |
| Organic Low Fat Milk | ~90% |
| 100% Florida Orange Juice | ~85% |
| Original Sparkling Seltzer Water Cans | ~80% |
| Organic Spelt Tortillas | ~75% |
| Banana | ~70% |
| Petit Suisse Fruit | ~65% |
| Organic Lowfat 1% Milk | ~60% |
| Organic Lactose Free 1% Lowfat Milk | ~55% |
| 1% Lowfat Milk | ~50% |

Association between time of last order and probability of reorder

Customers who order frequently, buy more of the same items



A histogram showing the frequency of the number of items in the top 1000 items. The x-axis is labeled 'Number of items' and ranges from 0 to 60. The y-axis represents frequency, ranging from 0 to 200k. The distribution is right-skewed, with a peak frequency of approximately 200k for 5 items, and a long tail extending towards 60 items.

| Produce Item | Number of units sold (approx.) |
|------------------------|--------------------------------|
| Banana | 14,500 |
| Bag of Organic Bananas | 10,500 |
| Organic Strawberries | 9,500 |
| Organic Baby Spinach | 8,500 |
| Large Lemon | 7,500 |
| Organic Avocado | 6,500 |
| Organic Hass Avocado | 5,500 |
| Strawberries | 4,500 |
| Limes | 3,500 |
| Organic Raspberries | 2,500 |

| Item | % of times item added First to Cart |
|---|-------------------------------------|
| White Multifold Towels | 65% |
| Sparkling Water, Bottles | 58% |
| Purified Alkaline Water with Minerals pH10 | 55% |
| Organic Dark Roast | 52% |
| 2% Lactose Free Milk | 48% |
| Cookie Tray | 45% |
| Boneless Pork Shoulder Butt | 44% |
| Sport Bottle with Flip Cap Natural Spring Water | 43% |
| Party Tumblers | 42% |
| XL Pick-A-Size Paper Towel Rolls | 42% |

[illegible]

The size of the boxes shows the volume of sales.

Prescriptive Data Analytics



Apriori

Algorithm Controls

Top N Rules

10

Sorting Criteria:

lift

Association by:

Products

Support:

0.001

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

Confidence:

0.25

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

Max Items per set:

3

2 3 4

Algorithm

Marketing Insights Association Rules Scatterplot Association Rules Graph Association Rules

People who usually buy (Blueberry Yoghurt) also buy (Strawberry Rhubarb Yoghurt)

People who usually buy (Strawberry Rhubarb Yoghurt) also buy (Blueberry Yoghurt)

People who usually buy (Nonfat Icelandic Style Strawberry Yogurt) also buy (Icelandic Style Skyr Blueberry Non-fat Yogurt)

People who usually buy (Non Fat Acai & Mixed Berries Yogurt) also buy (Icelandic Style Skyr Blueberry Non-fat Yogurt)

People who usually buy (Kiwi Sandia Sparkling Water) also buy (Blackberry Cucumber Sparkling Water)

People who usually buy (Blackberry Cucumber Sparkling Water) also buy (Kiwi Sandia Sparkling Water)

People who usually buy (Non Fat Raspberry Yogurt) also buy (Icelandic Style Skyr Blueberry Non-fat Yogurt)

People who usually buy (Icelandic Style Skyr Blueberry Non-fat Yogurt) also buy (Non Fat Raspberry Yogurt)

People who usually buy (Lemon Sparkling Water) also buy (Grapefruit Sparkling Water)

People who usually buy (Total 2% Lowfat Greek Strained Yogurt with Peach) also buy (Total 2% Lowfat Greek Strained Yogurt With Blueberry)



Apriori

Algorithm Controls

Top N Rules

10

Sorting Criteria:

lift

Association by:

Products

Support:

0.001

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

Confidence:

0.25

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

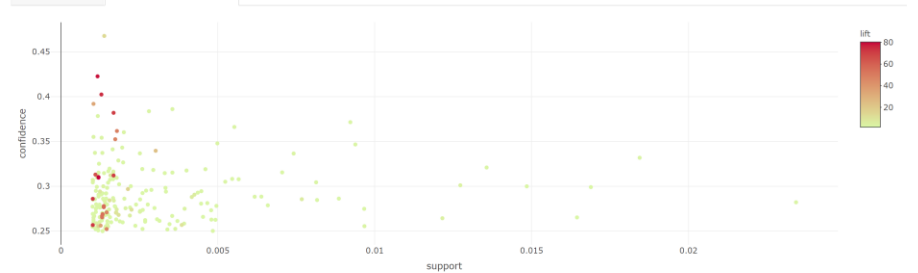
Max Items per set:

3

2 3 4

Algorithm

Marketing Insights Association Rules Scatterplot Association Rules Graph Association Rules



Algorithm Controls

Top N Rules

Sorting Criteria:

Association by:

Support:

Confidence:

Max Items per set:

Marketing Insights Association Rules Scatterplot Association Rules Graph Association Rules



Algorithm Controls

Top N Rules

10

Sorting Criteria:

lift

Association by:

Products

Support:

0.05

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

Confidence:

0.7

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

Max items per set:

1

1 2 3 4 5 6 7 8 9 10

Marketing Insights Association Rules Scatterplot Association Rules Graph Association Rules

| lhs | rhs | support | confidence | lift | count |
|---|--|-------------|------------|----------|-------|
| [1] (Blueberry Yogurt) | => (Strawberry Bhuturo Yogurt) | 0.001196555 | 0.3162707 | 0.829663 | 157 |
| [2] (Strawberry Bhuturo Yogurt) | => (Blueberry Yogurt) | 0.001196555 | 0.3090192 | 0.829663 | 157 |
| [3] (Nonfat Focal Style Strawberry Yogurt) | => (IceLand Style Skyr Blueberry Non-fat Yogurt) | 0.00160049 | 0.4236159 | 0.7652 | 132 |
| [4] (Non Fat Acai & Mixed Berries Yogurt) | => (IceLand Style Skyr Blueberry Non-fat Yogurt) | 0.001288012 | 0.4021816 | 0.74 | 146 |
| [5] (Kiwi Sanda Sparkling Water) | => (Blackberry Cucumber Sparkling Water) | 0.000164162 | 0.2660215 | 0.740598 | 13 |
| [6] (Blackberry Cucumber Sparkling Water) | => (Kiwi Sanda Sparkling Water) | 0.000164162 | 0.2541381 | 0.740598 | 13 |
| [7] (Non Fat Raspberry Yogurt) | => (IceLand Style Skyr Blueberry Non-fat Yogurt) | 0.001676701 | 0.3814044 | 0.710531 | 228 |
| [8] (IceLand Style Skyr Blueberry Non-fat Yogurt) | => (Non Fat Raspberry Yogurt) | 0.001676701 | 0.3126657 | 0.705041 | 228 |
| [9] (Lemon Sparkling Water) | => (Gruyter Spang Water) | 0.00189074 | 0.313657 | 0.7044 | 164 |
| [10] (Total 2% Lowfat Greek Strained Yogurt with Peach) | => (Total 2% Lowfat Greek Strained Yogurt) | 0.001364225 | 0.2775050 | 0.56764 | 170 |