**Apriori algorithm:**

Say we have two products

swaddlers(Pamper) and a beer (Heineken)

now a company did analytical around products people are purchasing

analyzed 1000's of transactions

they found very often people shop around afternoon, people who buy diapers also buy beer

now why diapers when they buy beer

plausible explanations:

in afternoons or evening when husband gets home, when diapers are done at home

he goes to bring the diapers, and also had a busy day, he is getting beer for himself

Now lot of stores separate beers and diapers

they separate bread and milk

reason: because they know these are brought together

when you buy bread, you are more likely to get milk

so, when you walk through the store, they know we might buy something we need while walking down the aisle

How to get to this data?

this can happen by apriori algorithm

Apriori is about people who did something also do something else, it analyses when things come in pair or as triplicates

this looks for the rules and ways it happens

EX: Movie recommendation system:

A screenshot of a computer program

Description automatically generated

Movie recommendation:

Movies 1,2,3,4

The above have some potential rules

People who like movie 1 like movie 2

Movie 2 to move 4

Movie 1 to movie 3

In these rules some are stronger and some are weaker

We need to able to extract stronger one from weaker ones with taking a large sampling size

Step1: set up minimum support and confidence

Step 2:

Take the subsets in transactions having higher support than minimum support

Step 3:

Take all the rules of these subsets having higher confidence than minimum

Step 4: sort the rules by decreasing in

Dataset:

Description:

Imagine a beautiful region of south of France, Imagina a lively place where people hang out to chill out and buy their products

Imagine we are a business owner in a shop

Now we need to offer new great deals to customers

Buy a product to buy another product for free

Now we need to measure if a customer buys the product, he needs to get another product

Owner needs to identify that product which customers are highly likely to buy if he buys another product

As a data scientist, I need to analyze that