USER GUIDE

Version 1.0.0

Table of Contents

1. About Extension

Increase your average order value by algorithmically recommending frequently bought together products. The extension uses the [Apriori data mining algorithm](#) that mines your order data for frequent item sets and generates association rules. It then accurately recommends products that appear together in most purchases. You can offer discounts to maximize upsells.

1.1 How the Extension Works?

Consider the following transactions (order data) with some products ids
1. **p1, p2, p3, p4**
2. **p1, p4, p3**
3. **p2, p3**
4. **p1, p5, p3**
5. **p1, p6, p5,p7**
6. **p1, p2, p3**
7. **p4, p6, p2**
8. **p2, p5, p8**
9. **p3, p5, p8**
10. **p4, p5, p2**
11. **p1, p2, p3**

Here, the **Row 1** represents the order with **Products having ids 1,2,3,4**. Similarly **Row 2** represents the order with **Products having ids 1,4,3** and so on.

1.1.1 Frequent Itemsets

Following are the itemsets of products frequently bought together. The following 1st itemset **{p1,p5} = 2** basically represents that product **p1 & p5** were **bought 2 times** together. You can check the above example as given in **Section 1.1** in **transaction number 4 & 5**. Similarly, 2nd itemset {p2,p4}=3 shows that products p2 & p4 are bought 3 times together.

1. **{p1,p5} = 2**
2. **{p2,p4} = 3**
3. **{p2,p5} = 2**
4. **{p3,p5} = 2**
5. **{p5,p8} = 2**
6. **{p1,p2,p3} = 3**
7. **{p1,p3,p4} = 2**

1.1.2 Association Rules

The following association rules are automatically created by the Apriori data mining algorithm based on the order data.

1. **p4** bought along with **p2 = 75%**
2. **p8** bought along with **p5 = 100%**
3. **p1** bought along with **p3 = 83.33%**
4. **p1,p2** bought along with **p3 = 100%**
5. **p2,p3** bought along with **p1 = 75%**
6. **p1,p4** bought along with **p3 = 100%**
7. **p3,p4** bought along with **p1 = 100%**

Now, see the above **association rule 1** that is **p4 => p2 = 75%**. This basically represents that if **product p4 is bought** then **how many times product p2 is also bought.**

For verification, check the **order transaction data** in **Section 1.1**. You can check that **product p4** is **bought 4 times** as shown in **transaction 1, 2, 7 & 10**, but **product p2** is **bought along** with **product p4** in **transaction 1, 7 & 10**. So, in 3 out of 4 transactions p2 is bought along with p4 that gives us 75%.

Similarly, see **association rule 5** that is **p2,p3 => p1 = 75%**. This shows that **product p2** and **product p3** are **bought together** in transactions 1,3, 6 & 11 but **product p1 is only bought** in **transaction 1, 6 & 11 along with p2 & p3.**

2. Feature List

- Import Order Data to be Mined
- Download Data in CSV
- Offer Discount on Associated Products
- Specify Minimum Support Count
- Specify Minimum Confidence
- Set Number of Scans
- Customize Discount Label
- Customize Add to Cart Button Label
- Set Default Discount Amount
- Personalize Label Back & Text Colors
- Display Rules in Separate Grid
- Edit/Update Rules

2.1 Import Order Data to be Mined

Frequently Bought Together extension enables to import the order data from the sales order grid in a single click.

2.2 Download Data in CSV

Store owners can download the imported order data in a CSV file.

2.3 Offer Discounts on Associated Products

Store owners can configure discount offers on recommended frequently bought together products.

2.4 Specify Minimum Support Count

Minimum Support is one of the parameters of Apriori data mining algorithm. If you specify the Minimum Support Count as 4, the extension will consider itemsets that appear four or more than four times in the total number of orders and ignore the rest.

2.5 Specify Minimum Confidence

Confidence is another parameter of the Apriori data mining algorithm. Confidence refers to the number of times an item Y is purchased when item X is purchased.

2.6 Set Number of Scans

With this option, you can set the number of scans. The algorithm will scan the sales order database for finding the itemsets. If you set the scan value '5', then the algorithm will scan the sales order database 5 times to automatically generate the association rules.

2.7 Customize Discount Label Text

Store owners can also set the discount label name like *sale, discount, offer*, etc.

2.8 Customize Add to Cart Button Label

This extension enables you to change the text of the "Add to Cart' button according to your requirements like *Buy Now,* etc.

2.9 Set Default Discount Amount

This is another exciting feature of FBT extension which allows you to set the default discount amount. The discount will be applied as a fixed value like *$10, $5, etc.*

2.10 Personalize Label Background & Text Colors

With this option you can customize the label background color & text color according to your store theme requirements.

2.11 Display Rules in Separate Grid

The product association rules are automatically created based on the sales orders data according to the Apriori data mining algorithm. Store owners can save and update the rules from the separate grid.
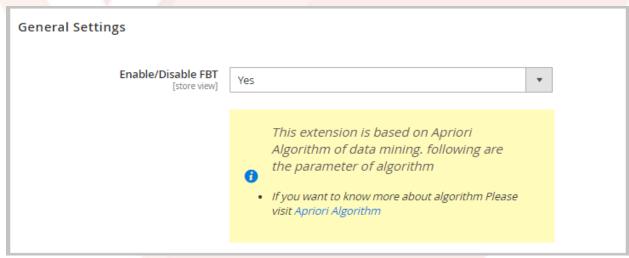
3. Setup the Extension

3.1 Extension Configurations

At the backend, go to **FME EXTENSIONS > FBT > Configurations**. Here you can find the **General Settings**.

3.1.1 General Settings

Now, expand the **General Settings tab** and set the following configurations:
- **Enable/Disable FBT:** Select **'Yes'** or **'No'** to Enable/Disable the module

- **Minimum Support Count:** Here you can set the minimum support count.
- **Minimum Confidence:** Set minimum confidence value
- **No. of Scans:** Set the Number of Scans you want the algorithm to scan the sales orders data to generate the FBT products association rules.

General Settings

Minimum Support Count [store view]	2
Minimum Confidence [store view]	90
No. Of Scans [store view]	10

3.1.2 Labels Settings

Here, you can customize the discount label according to your store theme requirements.

- **Discount Label:** Add text to the Discount label according to your requirements like *sale, offer, discount, off, etc.*
- **Add to Cart Button Label:** Set the text of Add to cart Button like *Buy Now, Add to Cart, Buy, etc.*
- **Default Discount**: Set the Default discount value that will be applied to all rules. The discount is applied as a fixed value like 5 means $5 discount.
- **Label Back Color:** Set the discount label background color
- **Label Text Color:** Set the discount Label Text color.

Labels Settings

Discount Label [store view]	Discount Label
Add to Cart Button Label [store view]	Add All Product
Default Discount [store view]	5
	This discount will applied to all the rule while creating.
Label Back Color [store view]	#350076
Label Text Color [store view]	#fff

3.2 Import Order Data & Manage FBT Rules

This extension automatically generates the rules based on the imported sales order data. Store owners can manage all the rules in a single grid.

At the backend, go to **FME EXTENSIONS > FBT > Manage Rules**

3.2.1 Import Order Data

First of all you need to import the order data with the help of the **Import Order Data button.** A notification popup appears upon clicking the **Import Order Data** button. Click **OK** to continue.

Once the order data is imported, a success message will appear. All rules are automatically created by the Apriori data mining algorithm based on the order data.

Download Data Button:

With the help of this button, you can download all the imported data in a CSV file for your record.

Save Rule Button:

With this button you can save all the rules that are created automatically. You must click the Save Rule button once you have imported the order data.

Edit/Update Each Rule:

By default all the created rules are disabled. You can enable & customize the rule from the rule edit page. In the **Grid** click **Select** dropdown > Click **Edit** in the last column.

3.2.2 Grid Details

Below are the details of the terms used in the rules grid.

- **ID:** This represents the ID of the rule
- **Pre Rule:** These are the products that are selected according to the rule
- **Pre Product Name:** Name of the product selected according to the rule
- **Post Rule:** These are the products that are frequently bought whenever a selected pre rule product is bought. The post product is recommended by the rule based on the sales order data .
- **Post Product Name:** This represents the Name of the post product
- **Priority:** The priority of the rule to be executed
- **Status:** Status value is 1 if rule is Enabled and 0 if rule is Disabled.
- **Percentage:** This column represents the confidence percentage of each rule that determines how many times a product X is bought whenever product Y is bought. It can be 100%, 80%, etc. according to the sales orders data.
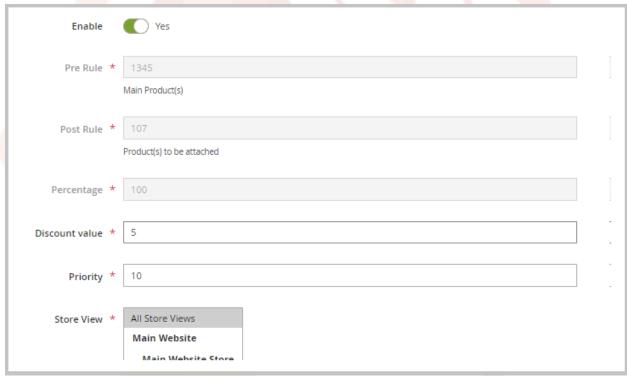
8

- **Discount:** The amount of discount offered. Discount can be either the Default Discount or rule specific discount. Store owners can also set the rule specific discount.
- **Action:** From the action dropdown you can **Edit & Delete** the rule.

3.2.3 Edit Rule

You can edit the following options in each rule.

- **Enable/Disable Rule:** Enable/Disable the rule. By default all new rules are disabled.
- **Discount Value:** Set rule specific discount. Discount offered is a fixed value. If the entered value is 5, then it means a $5 discount.
- **Priority:** Set priority of the rule
- **Select Store View:** Select store view(s) to apply the rule.

Enable	Yes
Pre Rule *	1345
	Main Product(s)
Post Rule *	107
	Product(s) to be attached
Percentage *	100
Discount value *	5
Priority *	10
Store View *	All Store Views
	Main Website
	Main Website Store

Note: The rest of the values like **Pre Rule, Post Rule & Percentage** in the **rule edit page** can't be changed as they are automatically set by the algorithm.

3.3 Refresh the Cache

- **Refresh** the **Cache: System** > **Cache Management** > Select **All** from **Mass Actions** > Click **Refresh the Cache.**