

Background

You have been given a dataset containing transaction data for a retail store. The data includes information on transaction ID, user ID, amount, transaction date, item description, inventory category, color, size, zone of the billing store, and store name.

Data is available year wise in the following location (to be updated)

Total number of rows 1.1 Million , split year wise, you are free to use all data or few data based on your system capability

user_id	bill_id	line_item_amount	transaction_date	description	inventory_category	colour	size	zone_name	store_name	year
317105682	202452876	0.0000	2015-02-07	SH BOB DBL PKT SS SLIM Indigo S / 38CM	SHIRT	Indigo	S / 38CM	South	South_XX93	2015
317105682	202452876	0.0000	2015-02-07	SH BOB DBL PKT SS SLIM Indigo S / 38CM	SHIRT	Indigo	S / 38CM	South	South_XX93	2015
266541637	229410064	944.3700	2015-08-16	SH PRESLEY DBL PKT LS SLIM Black M / 40CM	SHIRT	Black	M / 40CM	West	West_7214	2015
266541637	229410064	944.3700	2015-08-16	SH PRESLEY DBL PKT LS SLIM Black M / 40CM	SHIRT	Black	M / 40CM	West	West_7214	2015
315878523	199496373	1999.0000	2015-01-21	DENIM ITA13DND012 5P KANSAS Raw 34 / 87CM	DENIM	RAW	34 / 87CM	South	South_7407	2015

Instructions

1. Load the data into a tool such as python, R or SQL.
2. Clean the data as necessary, handling any missing or invalid values.

Objective 0 (Data Exploration)

Explore the data and develop insights - Sales trends over time, Item sales trends and Customer behavior , any other matric you think is important.

Objective 1 (Customer Segmentation)

Your objective is to segment customers based on their purchasing behavior and develop effective marketing strategies for each segment. You will be

evaluated on your ability to analyze customer behavior and develop effective marketing strategies for each segment.

Create a new column that groups customers based on their purchasing behavior. You can use any segmentation method of your choice

Explore the data and develop insights on each customer segment. It is up to you to decide what are the relevant business kpis

Develop marketing strategies for each segment. If you think that is relevant.

Objective 2 (Generalized Strategy Making)

Develop effective marketing strategies for each segment to achieve the following you are free to use any insights you have gained from earlier objectives:

1. How to increase repeat purchase of customers
2. How to revive customer who has not been shopping from quite a while
3. How to keep active customers engaged.
4. How to identify areas where we can make customers spend more on each visit.
5. If you can come up with more recommendations it will be an added bonus.

Deliverables

Your deliverables should include:

1. A report summarizing your findings and recommendations.
2. Marketing strategies for each segment which you think make sense.

4. Story building , articulation , connecting the dots etc will be some of the aspects we will look for :)