

# Scenario 1: Understanding the Business Goal in EDA & Data Collection

## Step 1: Understand the Business Goal

### Business Case:

E-commerce Goal: "An online fashion retailer wants to reduce their return rate from 25% to 15% within one year"

### Key Objectives:

1. Identifying the number of returns based on reason for return.
2. Determine which category of products have high return rate.
3. Improve the effectiveness of sizing guides.
4. Recommend solutions to reduce the return rates.
5. Determining return rates during particular season.

## Step 2: Questions a Data Analyst Would Ask & Client Responses

Question	Client Response
Do you track the reasons for returns?	Yes, We have an option to mention the reasons like fit, quality, wrong product, color.
Are there any specific category of higher return rates?	Yes, shoes & formal wear have higher returns
Do you track the timeline of return after the product has been delivered?	No, we don't have any information about that in particular.
Have you observed any increase in return rates during offers or festive season?	Yes, it rose a bit than usual but we don't have exact count of it.
Do customers provide reviews for the products?	Yes, but very few customers provide the reviews.

## Step 3: Sample Data Collection

Customer Information Table

customer_id	name	gender	location
101	harshitha	Female	Hyderabad
106	Siri	Female	Banglore
200	Aryan	Male	Chennai
109	Yashwitha	Female	Delhi
670	Prasanna	Female	Vizag

Transaction Data Table

transaction_id	customer_id	date	category	amount	return_status	return_reason
1	101	2-1-24	slippers	100	Yes	Size
2	106	5-7-24	dress	800	Yes	N/A
3	200	14-8-24	bag	590	No	Quality
4	109	5-4-24	bottle	200	Yes	Too large
5	670	7-9-24	book	98	No	Size

Product Information Table

product_id	product_name	category	price	return rate(%)
201	Sneakers	Shoes	100	35
202	Shirt	Clothing	500	10
203	Sunglasses	Accessories	200	5
204	Blazer	Clothing	1200	25

## Step 4: Next Steps

Once the business goal and data requirements are clear, the next steps involve:

- 1. Data Cleaning:** Address missing values, duplicate entries, and formatting inconsistencies.
- 2. Exploratory Data Analysis (EDA):** Analyze return trends, identify problematic product categories, and understand customer return behaviors.
- 3. Feature Engineering:** Develop new features like “return rate by customer segment” or “average return value.”
- 4. Building Insights:** Create actionable recommendations such as improving size charts, enhancing product descriptions, or revising return policies.

By-

**G Sri Harshitha(22B81A6648)**

**A Yaswitha(22B81A6663)**

**K Lakshmi Prasanna(22B81A6685)**