



Task 3 > Subtask 1



### Subtask 1: Calculate RFM Metrics

**RFM Analysis (Recency, Frequency, and Monetary Value)** is a customer segmentation technique used by e-commerce businesses like **Flipkart, Amazon India, and Meesho** to identify valuable customers based on their purchasing behavior.

This analysis helps businesses:

- Identify **loyal and high-value customers**.
- Target **at-risk customers** who haven't purchased recently.
- Improve **marketing strategies and personalized promotions**.
- Optimize **customer retention strategies**.

The **three key RFM metrics** are:

- Recency (R)**: How recently a customer made a purchase.
- Frequency (F)**: How often a customer makes purchases.
- Monetary Value (M)**: How much money a customer spends.

### Subtask 1: Calculate RFM Metrics

#### 🔧 How You Can Perform This Task?

#### 1 Define the RFM Metrics

- Recency**: Calculate the number of days since the last purchase for each customer.
- Frequency**: Count the total number of transactions per customer.
- Monetary Value**: Compute the total amount spent by each customer.

#### 2 Choose a Reference Date

- Select a fixed reference date (e.g., the most recent date in the dataset).
- Compare each customer's last purchase date with this reference date to calculate **recency**.

#### 3 Group Data by Customer ID

- Aggregate customer purchase history to get:
- Last purchase date** (for recency).
- Total number of purchases** (for frequency).
- Total revenue generated** (for monetary value).

#### 5 Interpret the RFM Segments

- Identify different customer categories:
- High-value customers (5-5-5)**: Frequent, recent buyers with high spending.
- Potential loyalists**: New customers who have started purchasing frequently.
- At-risk customers**: Previously active customers who haven't purchased recently.
- Lost customers**: Customers who haven't purchased in a long time.

#### 6 Document Key Insights

- Summarize the number of customers in each RFM segment.
- Identify **which customer groups need re-engagement strategies**.
- Suggest **marketing strategies** for high-value, at-risk, and lost customers.

#### Tasks

- ☐ Defined **Recency, Frequency, and Monetary Value** metrics.
- ☐ Chose a **reference date** for analysis.
- ☐ Grouped data by **Customer ID** to calculate RFM scores.
- ☐ Assigned **RFM rankings** and segmented customers.
- ☐ Defined **Recency, Frequency, and Monetary Value** metrics.
- ☐ Chose a **reference date** for analysis.
- ☐ Grouped data by **Customer ID** to calculate RFM scores.
- ☐ Assigned **RFM rankings** and segmented customers.
- ☐ Documented key insights and recommendations for customer engagement.

Overall Progress

0%



#### Project Overview

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Step 1: Understanding Business Requirements and Data Overview



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Step 2: Sales Trend Analysis



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Step 3: Customer Segmentation Using RFM Analysis



Subtask 1: Calculate RFM Metrics



Subtask 2: Segment Customers Based on RFM Scores



Subtask 3: Visualize Customer Segments



Subtask 4: Submission

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Step 4: Sales Forecasting Using Time Series Analysis



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Step 5: Business Insights & Recommendations

