# RFM

**Recency:** it represents the time elapsed since the most recent transaction and the lowest value is considered as the most recent.

**Frequency.** Using the Field Chooser, select the frequency field to be used.

**Monetary.** Using the Field Chooser, select the monetary field to be us

**Weight.** By default, the highest importance when calculating scores is given to the recency data, followed by frequency, and then monetary. If required, you can amend the weighting affecting one or several of these to change which is given the highest importance.

The RFM score is calculated as follows:

(Recency score x Recency weight) + (Frequency score x Frequency weight) + (Monetary score x Monetary weight).

Example:

* Recency: 3
* Frequency: 4
* Monetary: 5

Dummy data used: <https://www.kaggle.com/datasets/apoorvwatsky/bank-transaction-data>

Has:

* **Account No.** - This represents the account number involved in transaction.
* **Date** - Date of transaction
* **Transaction Details** - Transaction narrations in bank statements
* **Cheque No.** - This indicates the cheque number
* **Value Date** - Date of completion of transaction
* **Withdrawal Amount** - Indicates the amount withdrawn
* **Deposit Amount** - Indicates the amount deposited
* **Balance Amount** - Current balance of account

[116201 rows x 9 columns]

1. Read data.
2. Clean data:

|  |  |
| --- | --- |
| Account No | object |
| DATE | datetime64[ns] |
| TRANSACTION DETAILS | object |
| CHQ.NO. | float64 |
| VALUE DATE | datetime64[ns] |
| WITHDRAWAL AMT | float64 |
| DEPOSIT AMT | float64 |
| BALANCE AMT | float64 |
| . | object |

|  |  |
| --- | --- |
| Account No | int64 |
| DATE | datetime64[ns] |
| VALUE DATE | datetime64[ns] |
| WITHDRAWAL AMT | int64 |
| DEPOSIT AMT | int64 |

Turned to:

[116162 rows x 5 columns]

1. Calculate the RFM:

Weights:

* Recency: 30%

The reference date is the latest transaction date in the dataset or can be specific date of your choice.

* Frequency: 40%
* Monetary: 50%

Added column recency.

Added column Transaction Amount

Graded them on scale of 10 then added weight to them and found rfm value out of 5.

Assigned the value of customer.

Displayed Pie chart and histogram.