Business Requirements Document (BRD)

# Project Title:

RFM-Based Customer Retention Analysis for Online Retail

# 1. Business Need

The business seeks to retain valuable customers and reduce churn. Currently, there is no structured system to identify and monitor customers based on their engagement, spending, and purchase behavior. A data-driven approach is required to segment the customer base, uncover retention gaps, and develop proactive strategies using customer purchase history.

# 2. Problem Statement

A significant percentage of customers make limited or one-time purchases, while others show signs of disengagement over time. Without a way to monitor these behavioral patterns, the business risks losing potential revenue. We need a reliable analytical solution to identify high-risk customers, understand retention patterns, and target specific customer segments with appropriate engagement strategies.

# 3. Project Scope

In Scope:

* Clean and structure online retail transaction data.
* Implement RFM analysis to score customers based on Recency, Frequency, and Monetary value.
* Create customer segments such as: Best Customers, Loyal Customers, At Risk, Need Attention, Recent Customers, Lost Customers.
* Develop an interactive Power BI dashboard with: Top revenue-generating Customers, identify high-value customers who are at risk of churning, Frequent but low spenders, Infrequent but high spenders, KPIs, Filtered views.

Out of Scope:

* Predictive modeling.

# 4. Stakeholders

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| --- | --- |
| Role | Details |
| Project Owner | Shikha (Business Analyst) – Responsible for all aspects of the project. |
| End Users | Marketing, Sales, or Retention Teams –users benefiting from insights. |

# 5. Functional Requirements

* Segment customers using RFM scoring logic based on quartile distribution (using Excel’s quartile.INC function).
* Interactive dashboard in Power BI with visualizations, and KPIs.
* Dashboard designed with export-ready segment-level data.

# 6. Non-Functional Requirements

* Dashboard should refresh weekly or monthly.
* Visually intuitive and accessible to non-technical users.
* Performance: Dashboard should load within 5 seconds.

# 7. Success Metrics

* 100% of customers categorized into RFM segments.
* Identify top revenue-generating customers.
* 16% of customers accurately segmented as “Lost” due to lack of recent purchases.
* 8.5% of customers are “At Risk”, requiring immediate attention to prevent churn.
* Improved stakeholder understanding of customer behavior.
* Created KPI- driven dashboards to track Recency, Frequency, and Monetary values at both summary and segment levels.
* Established foundation for launching data-driven customer engagement campaigns (e.g., for “At Risk” and “Need attention”).

# 8. Assumptions

* Transaction data is accurate and complete.
* Customers are uniquely identifiable through Customer ID.
* Date fields are clean and correctly formatted.

# 9. Constraints

* Dataset limited to one year’s worth of transactions.
* Missing Customer ID entries are excluded from RFM.
* No direct feedback loop with CRM systems.