**Business Requirements Document (BRD)**

**Project Title: Analysis of Target’s E-Commerce in Brazil (2016-2018)**

**1. Introduction**

**1.1 Purpose**

This document outlines the requirements for analysing Target's Brazilian operations, focusing on a dataset of 100,000 orders from 2016 to 2018. The goal is to generate insights into sales performance, customer behaviour, and operational efficiency to enhance Target's market presence in Brazil.

**1.2 Background**

Target is a leading global retailer known for its commitment to value and customer experience. This analysis leverages a dataset containing detailed information on order status, pricing, payment methods, customer demographics, and product attributes, aimed at informing strategic initiatives and improving customer satisfaction.

**1.3 Scope**

The analysis will encompass basic, intermediate, and advanced queries to explore:

* Order trends and volumes
* Customer demographics
* Product performance
* Seller revenue

This comprehensive approach will facilitate actionable insights for Target’s operations in Brazil.

**2. Dataset Overview**

The dataset comprises eight CSV files, each containing crucial information relevant to the analysis:

* customers.csv
* sellers.csv
* order\_items.csv
* geolocation.csv
* payments.csv
* orders.csv
* products.csv

This comprehensive dataset serves as a robust foundation for in-depth analysis and strategic insights.

**3. Business Requirements**

**3.1 Basic Queries**

1. **Unique Cities of Customers**

* **Objective:** Identify all unique cities where customers reside.
* **Data Source:** customers.csv, geolocation.csv

1. **Order Volume in 2017**

* **Objective:** Calculate the total number of orders placed in the year 2017.
* **Data Source:** orders.csv

1. **Sales by Product Category**

* **Objective:** Determine total sales figures for each product category.
* **Data Source:** order\_items.csv, products.csv

1. **Orders Paid in Instalments**

* **Objective:** Assess the percentage of orders paid using instalment plans.
* **Data Source:** payments.csv

1. **Customer Distribution by State**

* **Objective:** Count customers based on their respective states.
* **Data Source:** customers.csv, geolocation.csv

**3.2 Intermediate Queries**

1. **Monthly Order Count for 2018**

* **Objective:** Analyse the number of orders placed each month in 2018.
* **Data Source:** orders.csv

1. **Average Products per Order by City**

* **Objective:** Calculate the average number of products included in orders, segmented by customer city.
* **Data Source:** order\_items.csv, customers.csv

1. **Revenue Contribution by Product Category**

* **Objective:** Evaluate the percentage of total revenue generated by each product category.
* **Data Source:** order\_items.csv, products.csv

1. **Correlation Between Product Price and Purchase Frequency**

* **Objective:** Analyse the relationship between product pricing and the frequency of purchases.
* **Data Source:** order\_items.csv, products.csv

1. **Seller Revenue Analysis**

* **Objective:** Calculate and rank total revenue generated by each seller.
* **Data Source:** order\_items.csv, sellers.csv

**3.3 Advanced Queries**

1. **Customer Order Value Moving Average**

* **Objective:** Compute the moving average of order values for each customer over their purchase history.
* **Data Source:** orders.csv

1. **Cumulative Monthly Sales Analysis**

* **Objective:** Analyse cumulative sales on a monthly basis for each year.
* **Data Source:** order\_items.csv

1. **Year-over-Year Sales Growth Rate**

* **Objective:** Determine the year-over-year growth rate of total sales.
* **Data Source:** order\_items.csv

1. **Customer Retention Rate Calculation**

* **Objective:** Calculate the retention rate of customers, defined as the percentage of customers making subsequent purchases within six months of their first transaction.
* **Data Source:** orders.csv

1. **Top Spending Customers Analysis**

* **Objective:** Identify the top three customers by spending for each year.
* **Data Source:** orders.csv, order\_items.csv

**4. Use Cases**

* **Operational Efficiency:** Enhance order processing and shipping strategies through analysis of fulfilment and payment methods.
* **Customer Insights:** Develop a deeper understanding of customer demographics and purchasing behaviour to inform targeted marketing initiatives.
* **Product Strategy:** Assess product performance and pricing strategies to optimize inventory management and boost sales.
* **Seller Performance Evaluation:** Analyse seller contributions to overall revenue, identifying key opportunities for growth and collaboration.

**5. Deliverables**

* Comprehensive query results and analytical reports covering basic, intermediate, and advanced queries.
* Visualizations and dashboards summarizing key insights and trends.
* Strategic recommendations derived from the analysis findings.

**6. Stakeholders**

* **Internal:** Data Analysts, Business Analysts, Marketing Team, Sales Team.
* **External:** Business Partners, Key Decision Makers.