Business Requirements Document (BRD)

Project Name: RamaCar&BikeServices – Data Analytics System

Company Name: Rama Car Services Pvt. Ltd.

# 1. Executive Summary

The RamaCar&BikeServices – Data Analytics System project is initiated to transform operational and strategic decision-making through data-driven insights. By analyzing customer behavior, booking patterns, and vehicle performance, the system will improve service quality, reduce operational costs, increase bookings, and support the expansion into new markets.

# 2. Business Objectives

* Reduce operational inefficiencies and costs.
* Improve sales and customer booking experience.
* Enhance service quality through data-based feedback.
* Identify high-potential areas for new control offices.
* Empower leadership with strategic insights for data-driven decisions.

# 3. Stakeholders

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| --- | --- |
| Stakeholder Name | Role/Responsibility |
| Business Heads | Strategic decision-making |
| Operations Manager | Monitor service quality & cancellations |
| Marketing Manager | Understand customer behavior |
| Data Analytics Team | Data modeling and insight generation |
| IT/BI Team | Dashboard and reporting development |

# 4. Scope of the Project

* In Scope:
* Analysis of booking, ride, and customer data.
* SQL-based data querying for insights.
* Dashboards using Power BI for key metrics.
* Reports for business planning and review.
* Out of Scope:
* Customer mobile applications.
* Real-time GPS tracking.
* Direct customer interaction tools.

# 5. Business Requirements

1. A. Reduce Operational Costs

* Identify vehicles with the highest cancellation rates.
* Highlight vehicles with below-average customer ratings.
* Detect customers and regions with high fake booking/cancellation rates.
* Spot locations with abnormally high ride cancellations.

1. B. Improve Sales

* Recognize and reward loyal customers.
* Understand vehicle preferences by geographic area.
* Find high-volume ride areas to target for marketing and capacity.

1. C. Improve Service Quality

* Analyze driver behavior using ride and feedback data.
* Pinpoint underperforming vehicles and services.

1. D. Plan New Control Offices

* Identify high-booking pickup and drop-off zones.

# 6. Reporting & Dashboard Requirements (Power BI)

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| --- | --- |
| Business Goal | Visualization Type |
| Reduce Cost | Bar Chart: Vehicle type vs. cancellation Heatmap: Pickup/drop location cancellations Bar Chart: Driver-wise cancellations |
| Improve Sales | Bar Chart: Bookings by vehicle type Heatmap: Bookings by pickup/drop location Pie Chart: Top 3 customers by successful bookings |
| Improve Service | Bar Chart: Customer rating by vehicle type Bar Chart: Driver-related cancellations |
| New Offices | Heatmap: Bookings by pickup/drop location |

# 7. Data Sources

* Booking and cancellation records
* Customer ratings database
* Vehicle and driver performance data
* Geographic location-based ride data

# 8. Assumptions

* Required data is clean and accessible.
* MySQL access is granted to the analytics team.
* Power BI tools and licenses are available.
* Stakeholder involvement is consistent throughout development.

# 9. Risks & Mitigations

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| Risk | Mitigation Strategy |
| Incomplete or inaccurate data | Apply validation, cleansing procedures |
| Changes in business requirements | Hold regular stakeholder review meetings |
| Data source integration delays | Early technical evaluation and planning |

# 10. Success Criteria

* Working dashboards with actionable insights.
* Accurate reporting from SQL-based queries.
* Increase in customer satisfaction and booking conversion rates.
* Strategic identification of at least 3 potential areas for new control offices.