

## **Business Requirements Document (BRD)**

Project: Loan Performance Summary Dashboard

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### **1. Executive Summary**

The Loan Servicing team at Walker & Dunlop requires a centralized Power BI dashboard to streamline monthly loan performance reporting. The dashboard will serve as a single source of truth, supporting both strategic decision-making and day-to-day portfolio monitoring. By delivering timely, accurate, and interactive visualizations, it will enable stakeholders across business and technical teams to identify trends, mitigate risk, and improve operational efficiency.

### **2. Stakeholder Goals**

- Maintain continuous visibility into monthly loan portfolio performance.
- Support early identification of delinquency risks through timely, data-driven insights.
- Provide transparency across portfolio size and health by incorporating aging trends and historical comparisons.
- Enable granular analysis through intuitive filters and drilldowns by region, loan officer, loan type, and status.
- Streamline executive reporting with clearly defined, high-impact KPIs.
- Reduce manual reporting efforts by automating data refresh and visualization processes.

### **3. Scope**

In Scope:

- Development of a set of Power BI dashboards leveraging loan servicing data.
- Scheduled monthly data refresh to reflect updated portfolio performance.
- Visualization of key metrics, including breakdowns by region, loan status, and aging buckets.
- Interactive filtering capabilities and exportable views for further analysis.

Out of Scope:

- Real-time or streaming data integrations.
- Automated alerting or notification systems for delinquency thresholds.
- API-level connectivity with servicing or core banking platforms.

### **4. Key Metrics**

Primary KPI's

<b>KPI</b>	<b>Description</b>
Delinquency Rate (%)	Percentage of loans currently past due, relative to the total number of active loans.
Portfolio Size	Total number of active loans and their aggregated outstanding balance.
Charge-offs	Total dollar value of loans written off as uncollectible.
Recovery Rate (%)	Percentage of funds recovered from loans that were previously delinquent or charged off.
Average Loan Balance	Average outstanding balance across all active loans.

## Additional KPI's

KPI	Description
Property Occupancy Rate	An indicator that shows whether a property's occupancy rate is above or below the average occupancy rate for its state.
Aging Buckets	Classification of delinquent loans by days overdue: 0-30, 31-60, 61-90, 90+.
Loan Status Breakdown	Distribution of loans by status (e.g., active, delinquent, closed), by count and value.
Total Number of Loans	Count of all loans in the servicing portfolio, regardless of status.
Total Outstanding Balance	Combined loan balance segmented by status (e.g., performing, delinquent, closed).
Delinquency Trend Over Time	Month-over-month evolution of delinquency rate, with optional short-term forecasting.

To ensure usability, KPIs will be grouped by stakeholder relevance, showing high-level metrics upfront and detailed operational indicators in secondary panels or tabs.

## 5. Data source & proposed visual elements

Walker & Dunlop's data warehouses are the single source of truth. A managed ETL pipeline will expose the required models to Power BI and support streamlined, scheduled refresh.

These are the visualization requirements:

Power BI Component	Description
KPI Cards	Summary indicators: Delinquency Rate, Total Outstanding Balance, Loan Count.
Line Chart	Trend of delinquency over time (monthly granularity).
Stacked Bar Chart	Visual breakdown of delinquent loans by aging bucket.
Matrix Table	Detailed view by loan ID, officer, region, balance, status, and days past due.
Map Visualization	Interactive map using geographic data (Region, State, County, City, and Address) to visualize loan distribution and delinquency hotspots.
Slicers	Filters by Loan Officer, Region, Loan Type, and Reporting Month.
Export Functionality	Ability to export filtered tables to Excel for compliance or extended analysis.

## 6. Assumptions and Gaps

Assumption	Gaps / Risk
Provided data will supply enough metrics for the	Data will be treated as complete and authoritative within the project scope.
All properties will include sufficient attributes (rent, occupancy, state code) to compute required metrics.	Missing or null values may limit metric coverage or distort rankings.
Demographic data is representative at the state level.	Insights at the city or county level may require additional enrichment.
Property occupancy is benchmarked only at the state level, as per challenge instructions.	Sub-state occupancy risk is considered out of scope.
Sub-state demographic data (e.g., city, county) will be used where available in the provided datasets.	No assumptions will be made to infer city or county-level characteristics from state-level aggregates. This may limit some insights.

## **7. Automation plan**

After financial close, a scheduled ETL/ELT process loads the latest month-end snapshot from Walker & Dunlop's data warehouse into a curated, certified Power BI dataset. The refresh runs in the Power BI Service using AsOfMonth/AsOfDate parameters and incremental refresh to keep it fast and reliable. Pre-publish data quality checks reconcile loan counts, balances, and aging bucket totals to control reports; if a check fails, alerts fire and the release is paused until resolved.

Once validated, deployment rules publish the updated dashboards to the Executive, Servicing, and Risk apps with role-based access so each audience sees the appropriate level of detail. Optional PDF/email summaries can be generated after each refresh. This keeps reporting timely, auditable, and low-touch, while remaining easy to scale.

## **8. Communication Strategy**

Our communication plan is anchored in the Power BI Loan Performance Summary solution requested for this task, using the dashboards/pages as the primary touchpoints: Executive Summary, Operational Performance, Aging & Roll Rates, and Loan-Level Drill-through. After each month-end refresh, we run a 30-minute readout on the Executive Summary dashboard to align on KPI movements, drivers, and actions for Loan Servicing, Risk, Finance, and Collections.

We then share bookmarked views from these dashboards in Microsoft Teams with brief release notes documenting any definition or visual changes; weekly operational huddles reference the Operational Performance dashboard, while Risk focuses on Aging & Roll Rates. Executives receive a one-page brief and, if needed, a PDF export of the Executive Summary. Q&A and issue tracking live in a dedicated Teams channel; material definition changes are flagged in-app and in release notes, with parallel (old vs. new) reporting for two cycles. New users get a 30-minute onboarding on navigating the dashboards—slicers, drill-through, and export—to keep adoption high and communication consistent.

## **8. Closing Statement**

This Business Requirements Document outlines the scope, data needs, and stakeholder goals approach for the Commercial Property Investment Performance Dashboard. It is intended to serve as the foundation for implementation and collaboration between business stakeholders, data engineers, and the BI development team.

All recommendations and assumptions have been made in alignment with the provided challenge scope and Walker & Dunlop's domain context. Future enhancements may include integration with production data pipelines, real-time alerting, and expanded metric sets.