Power BI Insurance Dashboard – Data Processing & Dashboard Guide

1. Data Collection

The dataset was sourced from an insurance transactional CSV file containing policy, customer, premium, coverage, and claim information. The file was imported directly into Power BI Desktop for analysis.

2. Data Cleaning (Power Query)

1. Removed duplicate records based on PolicyNumber and ClaimNumber.
2. Handled null and missing values for premium, coverage, and claim amounts.
3. Converted data types (dates, numeric fields, text columns).
4. Standardized policy types and claim status values.
5. Filtered invalid or incomplete records.

3. Data Modeling

Relationships were created between Policy, Customer, and Claim tables using unique identifiers. A star-schema style model was followed to optimize performance and reporting accuracy.

4. DAX Measures

1. Total Premium Amount = SUM(PremiumAmount)
2. Total Coverage Amount = SUM(CoverageAmount)
3. Total Claim Amount = SUM(ClaimAmount)
4. Active vs Inactive Policy Count using conditional logic
5. Claim Status counts (Rejected, Settled, Pending)

5. Dashboard Design

1. Created KPI cards for Premium, Coverage, and Claim amounts.
2. Designed bar charts for Premium by Policy Type.
3. Built donut charts for Active vs Inactive policies.
4. Used column charts for Claim Status analysis.
5. Added tables for policy-wise claim financial breakdown.
6. Implemented slicers for Policy Number, Claim Number, and Customer ID.

6. Business Insights

The dashboard enables stakeholders to track insurance performance, identify high-revenue policy types, monitor claims efficiency, and understand customer demographics. This supports faster,

data-driven decision-making.

7. Conclusion

This Power BI solution demonstrates end-to-end data handling, from raw CSV ingestion to interactive executive dashboards, highlighting strong skills in data cleaning, modeling, DAX, and visualization.