# Palmoria Group HR Bonus Analysis

This document outlines the step-by-step data cleaning, bonus calculation, and compensation enrichment conducted on Palmoria Group's employee dataset using the department-specific bonus rule matrix.

## Step 1: Load and Clean Employee Data

- Loaded 'Palmoria Group emp-data.csv'.

- Replaced missing gender entries with 'Undisclosed'.

- Removed records where salary was missing or equal to 0 (assumed exited employees).

- Removed records with null department values.

- Standardized the 'Rating' column to proper case.

## Step 2: Transform Bonus Rule Matrix

- Loaded bonus rule matrix from 'Palmoria Group Bonus Rules.xlsx'.

- Recognized that department names were in rows and ratings in columns.

- Reshaped the matrix so that each row contains Department, Rating, and Bonus %.

## Step 3: Merge and Bonus Calculations

- Merged bonus rules with cleaned employee data using Department + Rating.

- Calculated Bonus Amount as: Salary × Bonus %.

- Calculated Total Compensation as: Salary + Bonus Amount.

## Step 4: Resulting Dataset

- Final dataset contains enriched information including computed bonuses and total compensation.

- Saved cleaned and enriched data to Excel for reporting and visualization.

## Insights from HR Data

1. Gender Distribution:

* - Males: 664
* - Females: 621
* - Undisclosed: Filled missing values during cleaning

2. Gender Representation by Department:

* - Engineering and Sales are male-dominated.
* - HR and Legal have more gender balance.

3. Gender Pay Gap by Department:

* - Significant pay gap observed in Engineering and Services.
* - HR shows more equal pay distribution.

4. Employees Earning Less Than $90,000:

* - 590 employees earn below the benchmark.
* - Mostly Female or Undisclosed.

5. Salary Band Distribution:

* - Most employees fall into $80K–$90K and $90K–$100K bands.
* - Very few earn over $120K.

6. Top 5 Earners:

* - Concentrated in Legal and Product Management.

## Bonus Distribution by Location

* - Kaduna has the highest total bonus payout: ₦825,912
* - Followed by Abuja (₦801,144) and Lagos (₦572,223)
* - Bonus payout by location may reflect staff distribution and performance rating mix.