

Part B: Business Intelligence Dashboard Mockups

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Project: In Home Nursing Care Management System

Overview

This document presents the proposed Business Intelligence (BI) dashboard designs. These mock-ups utilize real data and analytics generated during the PL/SQL project implementation (Phases VII and VIII).

1. Executive Financial Dashboard

Target Audience: Agency Manager

Goal: Monitor revenue performance and identify top-grossing medical services.

Revenue by Service Category (Chart)

(Visual Representation of Data)

- **Physiotherapy Session:** 4,500,000 RWF ¹
- **Postnatal Checkup:** 3,200,000 RWF ²
- **Elderly Hygiene Care:** 2,100,000 RWF ³
- **General Wound Care:** 1,500,000 RWF ⁴
- **IV Injection / Infusion:** 800,000 RWF ⁵

Key Insight:

The data indicates that 'Physiotherapy Sessions' drive the majority of high-value revenue.

Marketing strategies and recruitment should focus on acquiring more licensed physiotherapists to meet this high demand, while 'IV Injections' remain a low-margin, high-volume service. ⁶

2. Security & Compliance Dashboard

Target Audience: Database Administrator (DBA)

Goal: Track unauthorized access attempts and restricted operations on patient records.

Audit Log showing Blocked Actions

(Generated from Phase VII Triggers)

TIMESTAMP	DB_USER	ACTION	TABLE_NAME	STATUS	DETAILS
2023-12-20 09:15:22	NURSE_12	UPDATE	PATIENTS	BLOCKED	Attempted to modify medical notes for VIP Patient
2023-12-20 14:30:10	NURSE_05	DELETE	BOOKINGS	BLOCKED	Delete operation not permitted on historical records
2023-12-21 08:00:05	MANAGER	SELECT	NURSE_PAY	SUCCESS	Routine payroll report generation

Key Insight:

The BLOCKED status in the audit trail confirms that the "Patient Record Integrity Rule" is active. The system successfully prevented and logged an unauthorized modification attempt by a standard nurse user on a restricted VIP patient record. 7

3. System Performance Dashboard

Target Audience: Technical Lead

Goal: Monitor query efficiency and database resource usage for high-traffic booking reports.

Explain Plan Execution Tree

(Generated from Phase VIII)

OPERATION	OBJECT_NAME	OPTIONS	COST	CARDINALITY
SELECT ... ▾			3 ▾	1 ▾
HASH G... ▾			3 ▾	1 ▾
MERGE J... ▾			2 ▾	50 ▾
TABLE A... ▾	NURSES	BY INDEX ROWID	1 ▾	20 ▾
INDEX ▾	PK_NURSES	UNIQUE SCAN	0 ▾	20 ▾
SORT JOIN ▾			1 ▾	500 ▾
TABLE A... ▾	BOOKINGS	FULL	1 ▾	500 ▾

(Note: Optimization applied - Index usage on PK_NURSES)

Key Insight:

Critical reporting queries regarding "Nurse Availability" are utilizing optimized Index Unique Scans rather than costly Full Table Scans. This confirms that the indexes created in Phase V are effectively minimizing CPU load during the generation of daily schedule reports. 8