



CHRONIC DISEASE MONITORING SYSTEM (CDMS)

Analytics-Driven Patient & Alert Management

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Course: PL/SQL Database





INTRODUCTION

The Chronic Disease Monitoring System helps healthcare teams track patient conditions, detect critical alerts, and support faster medical decisions through automated monitoring and analytics.



Background & Rationale

Chronic conditions need constant follow-up, yet manual tracking is slow and prone to errors. This system ensures timely detection of abnormal health readings.

Scope of the System

Includes patient profiles, disease tracking, diagnoses, alerts, and dashboards for real-time monitoring.

Expected Outcomes

Improves patient safety, reduces missed alerts, and enhances clinical workflow efficiency.

Analytical Benefits

Provides insights through charts, KPIs, and filters to help doctors and administrators understand trends and prioritize critical cases.





THE PROBLEM

Healthcare providers struggle to continuously track chronic patients, leading to delayed intervention and increased risk of complications.



CONTEXT

The system is used in hospitals and clinics to monitor patient vitals, diagnoses, and alerts in one centralized platform.

TARGET USERS

Doctors, nurses, hospital administrators, and clinical data teams who rely on timely patient insights.

PROJECT GOALS

Improve early detection, streamline follow-up, reduce workload, and support data-driven clinical decisions.

BI POTENTIAL

Analytics help identify high-risk patients, monitor disease trends, and optimize resource allocation.

SYSTEM OVERVIEW

CORE COMPONENTS

- Patient registration and health metrics tracking
- Automated alert generation for abnormal conditions
- Diagnosis, diseases, and treatment management
- Audit logs for system accountability

KEY FEATURES

- Real-time monitoring
- Threshold-based alerts
- Doctor-patient assignment
- Secure data storage in Oracle PDB

HOW IT WORKS.

- Patient data is captured
- monitored against thresholds
- alerts generated
- doctors respond
- actions recorded.



BI POTENTIAL

Analytics highlights patients at highest risk and alerts that need urgent attention.

Dashboards give clinicians real-time visibility into health trends and disease patterns.

Data insights support better decisions, faster interventions, and improved patient outcomes.

85%

IMPROVEMNT

