



Product Requirements and Specification Document

Project Name

PulseCare - Healthcare KPI Dashboard

Description

PulseCare is an interactive Tableau dashboard designed to visualize key healthcare metrics, including patient admissions, average length of stay, and readmission rates. The dashboard utilizes a sample hospital dataset and provides users with interactive filters and summary KPIs for educational and business insights.

1. Objectives

Objective ID	Description
OBJ-1	Enable visualization of core hospital KPIs
OBJ-2	Provide interactive filtering for data exploration
OBJ-3	Support educational and business use cases

2. Stakeholders

Role	Responsibility
Product Owner	Requirements, acceptance, prioritization
Developer	Dashboard implementation in Tableau
Data Analyst	Data preparation and validation
End User	Dashboard usage and feedback

3. Functional Requirements

Req ID	Requirement
FR-1	Display total patient admissions as a summary KPI
FR-2	Display average length of stay as a summary KPI
FR-3	Display readmission rate as a summary KPI
FR-4	Provide interactive filters (e.g., date range, department, patient type)
FR-5	Visualize trends over time for each KPI (line/bar charts)
FR-6	Allow drill-down into department-level or patient-type data



FR-7	Ensure dashboard is responsive and user-friendly
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4. Non-Functional Requirements

Req ID	Requirement
NFR-1	Dashboard loads within 5 seconds
NFR-2	Compatible with Tableau Desktop and Tableau Public
NFR-3	Data anonymized for privacy
NFR-4	Accessible to users with basic Tableau skills

5. Data Requirements

Data Element	Description
Patient Admissions	Number of admissions per period
Length of Stay	Days per patient admission
Readmission Indicator	Flag for readmitted patients
Department	Hospital department name
Admission Date	Date of patient admission
Patient Type	Inpatient/Outpatient

6. User Stories

ID	As a...	I want to...	So that...
US-1	User	View summary KPIs	Quickly assess hospital performance
US-2	User	Filter data by date, department, patient type	Analyze specific segments
US-3	User	See trends over time	Identify patterns and anomalies
US-4	User	Drill down into detailed data	Gain deeper insights

7. Dashboard Layout

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[Header: PulseCare - Healthcare KPI Dashboard]
[Filters: Date Range Department Patient Type]

[KPI Tiles: Admissions Avg. Length of Stay Readmission]

[Trend Chart: Admissions over Time]
[Trend Chart: Avg. Length of Stay over Time]



[Trend Chart: Readmission Rate over Time]	

[Department/Patient Type Drill-down Table or Chart]	
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8. Acceptance Criteria

ID	Criteria
AC-1	All KPIs are visible and update with filters
AC-2	Trend charts reflect filtered data
AC-3	Drill-down functionality works as specified
AC-4	Dashboard loads sample data within 5 seconds
AC-5	Data is anonymized and suitable for public/educational use

9. Technology Stack

Component	Technology
Dashboard	Tableau Desktop
Data Source	Sample hospital dataset (CSV/Excel)
Deployment	Tableau Public

10. Constraints & Assumptions

- Only sample, anonymized data will be used.
- No integration with live hospital systems.
- Users have access to Tableau Desktop or Tableau Public.

11. Milestones

Milestone	Target Date
Data Preparation	Week 1
Initial Dashboard Design	Week 2
User Testing & Feedback	Week 3
Final Delivery	Week 4

12. Appendix

Sample Data Schema:



Field Name	Type	Example
Patient_ID	String	P12345
Admission_Date	Date	2024-01-15
Department	String	Cardiology
Patient_Type	String	Inpatient
Length_of_Stay	Integer	5
Readmission	Boolean	TRUE

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