**Project name: Healthfirst Care initiative**

**Data Visualization Report**

**Introduction**

This report presents the development of an interactive dashboard for HealthFirst Care, aimed at identifying operational trends, patient satisfaction insights, and resource utilization across departments. The goal is to enhance decision-making for hospital administration by providing actionable visual analytics.

**Datasets Used**

| **Dataset Name-** |
| --- |
| 1. **Cleaned\_Appointment** |
| 1. **Cleaned\_Feedback** |
| 1. **Cleaned\_Resources** |

**Dashboard Design Process**

**Structure of the Dashboard:**

1. **Average Patient Wait Time by Appointment Date** (Line Chart)  
   → *Displays how patient wait times vary over time.*
2. **Average Resource Utilization by Department** (Bar Chart)  
   → *Highlights departments consuming the most resources.*
3. **Resource Usage Intensity Across Departments** (Heatmap)  
   → *Breaks down resource usage types by department.*
4. **Overall Patient Satisfaction Distribution (High vs Low)** (Pie Chart)  
   → *Shows ratio of high vs low feedback.*

**Interactivity Features:**

* Filters by department, dates, and resource types
* Tooltips for detailed data on hover
* Charts update dynamically with filter selections

**Key Findings**

**Appointments:**

* Some departments have more appointments than others.
* **Cardiology** and **Pediatric** departments are the busiest.
* **General Medicine** has fewer appointments.
* **Most busy time:** Around **6:00 PM**, also **11 AM** and **12 PM**.
* **Less busy time:** Around **1 PM – 2 PM**.
* Appointments are a bit higher in **April** and **September**.

**Patient Feedback:**

* **Most patients are happy.**
* **Neurology** has the **best** patient feedback.
* **Orthopedics** and **General Medicine** have more complaints.

**Resources:**

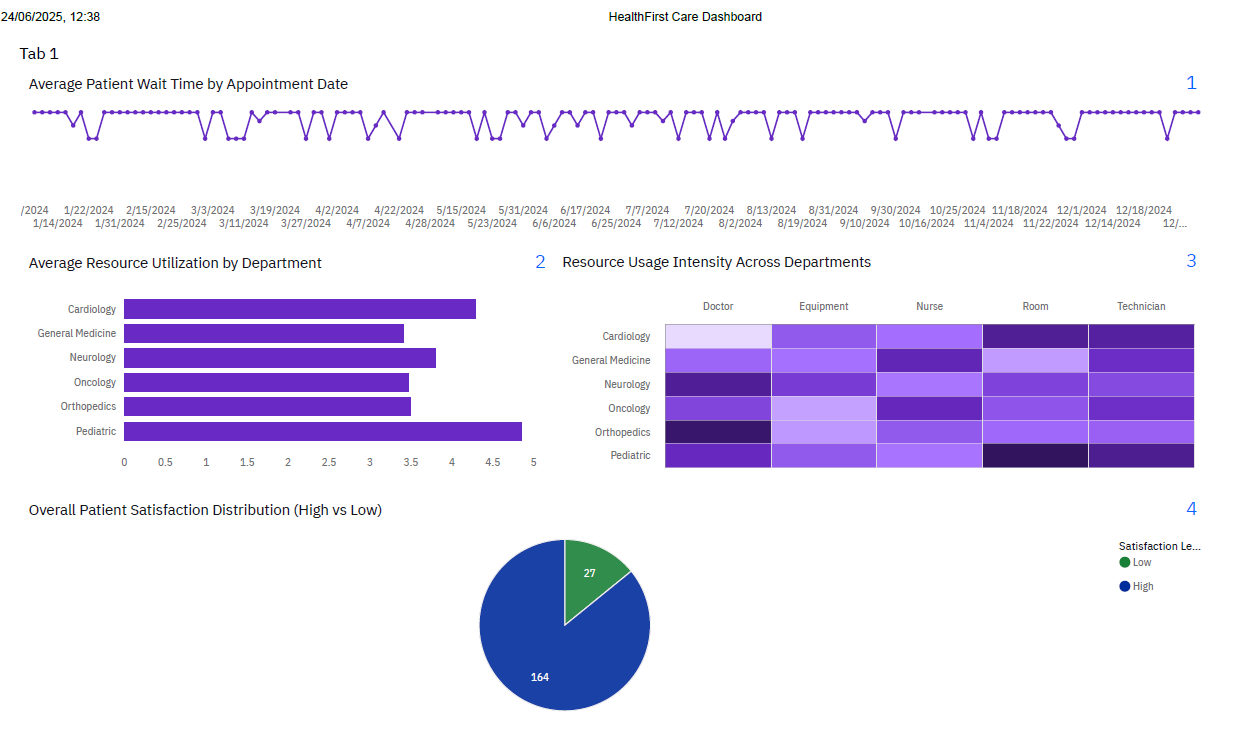
* **Pediatric** and **Cardiology** use more resources (staff, rooms, equipment).
* **General Medicine** and **Oncology** use fewer resources.

**Business Implications**

* **Good news:** Patients are generally happy. Departments like **Neurology** should be seen as examples of good service.
* **Bad news:** Departments with complaints (**Orthopedics**, **General Medicine**) should be checked—maybe talk to staff or ask patients what’s wrong.
* **Plan staffing better:** More doctors or staff might be needed around **6 PM** because that’s when most people come.
* **Prepare for busy months:** Before **April** and **September**, plan more staff or resources.
* **Efficiency:** Since **Pediatric** is busy and has good feedback, make sure it doesn’t get overloaded in the future.

**Dashboard Image and PDF File-**

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