



# PROJECT TITLE: COMPREHENSIVE DATA ANALYTICS FOR PRIMELIFE MEDICAL HOSPITAL

Your health, our priority. Compassionate care,  
innovative solutions—because your well-being  
is the heart of our mission.

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# About Us

we stand as your dedicated partners on the journey to optimal health. With a commitment to compassionate care and medical excellence, our team of experienced healthcare professionals is here to provide personalized solutions tailored to your well-being.





# Objective

The goal of this project is to design an interactive, data-driven dashboard for PrimeLife Medical Hospital, focusing on improving operational efficiency, patient care, and financial performance. This dashboard provides insights into key metrics such as patient admission trends, treatment outcomes, financial stats, and resource utilization.



# DATA DESCRIPTION

1. Patient ID: Unique identification number assigned to each patient.
2. Admit Date: The date when the patient was admitted to the hospital.
3. Discharge Date: The date when the patient was discharged from the hospital.
4. Diagnosis: The medical condition or illness diagnosed by the doctor.
5. Bed Occupancy: Duration or percentage of time the bed was occupied by the patient.
6. Test: Medical tests conducted during the patient's stay.
7. Doctor: The doctor responsible for the patient's treatment and care.
8. Follow-up Date: Scheduled date for a follow-up appointment after discharge.
9. Feedback: Patient's feedback on the hospital experience or treatment.
10. Billing Amount: Total amount billed for the patient's treatment and services.
11. Health Insurance Amount: Amount covered by the patient's health insurance.

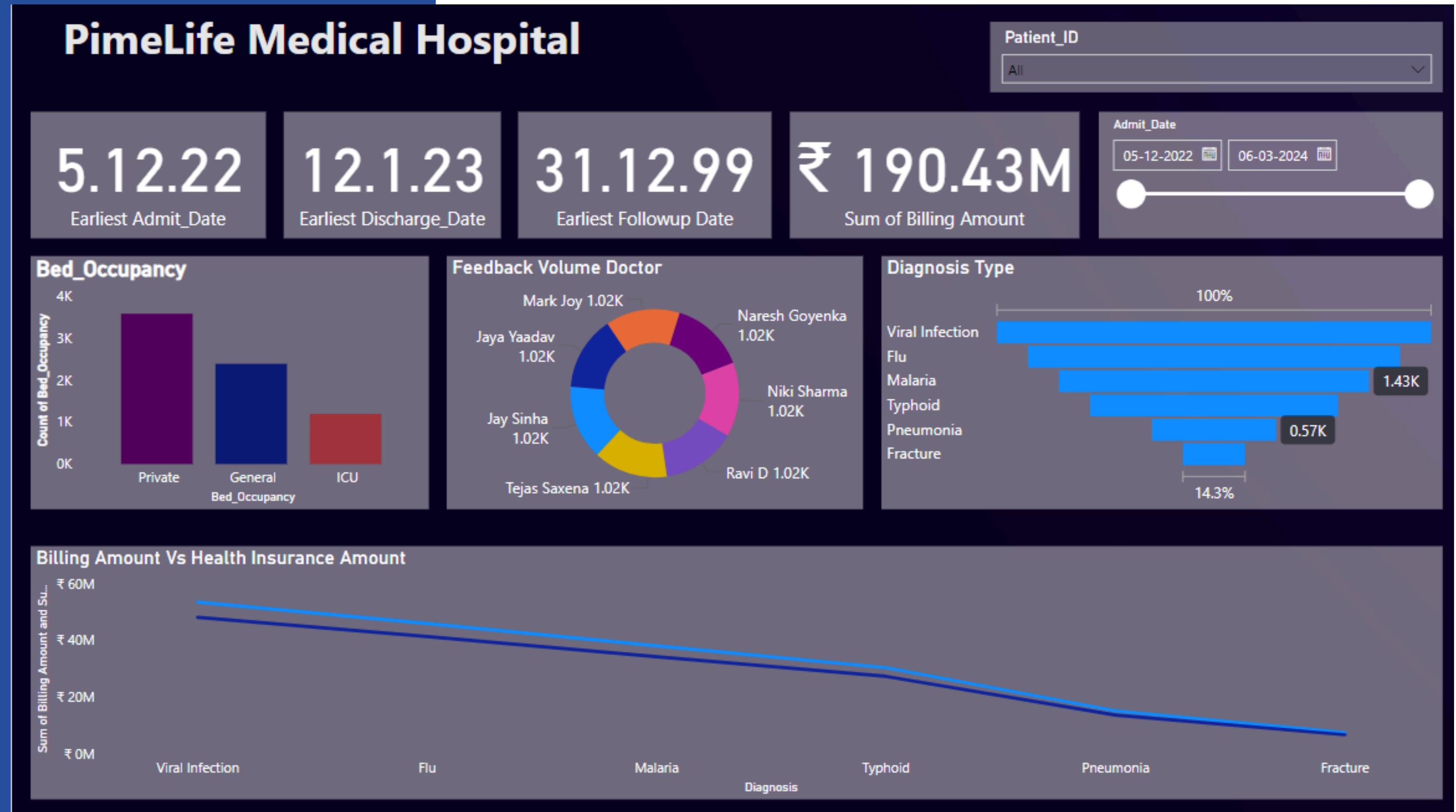


# Key Metrics

- Patient Information: Breakdown by Patient\_ID for individual tracking.
- Billing Trends: Analyze billing data for financial patterns.
- Bed Occupancy: Optimize bed usage based on occupancy data.
- Doctor Feedback: Aggregate patient reviews for doctor performance.
- Diagnosis Statistics: Analyze diagnosis data to improve treatments.



# Dashboard



# Insights



## 1. Patient Dates Overview:

- Earliest Admit Date: 5th December 2022
- Earliest Discharge Date: 12th January 2023
- Earliest Follow-up Date: 31st December 2099
- These indicate a wide timeline of patient admissions and follow-ups, with some unusual future follow-up dates.

## 2. Billing Amount:

- The total billing amount is ₹190.43M, suggesting a significant volume of services and treatments provided by the hospital.



# Insights



## 3. Bed Occupancy:

- Private rooms have the highest occupancy at around 4,000 beds.
- General ward beds are occupied by around 2,000 patients.
- ICU beds have the lowest occupancy, around 1,000.

## 4. Diagnosis Type:

- Viral infections are the most common diagnosis (100% scale).
- Other significant diagnoses include flu (1.43K patients) and malaria.
- Less frequent diagnoses include typhoid, pneumonia, and fracture.



# Insights



## 5. Doctor Feedback Volume:

- Feedback is evenly distributed among doctors, each receiving around 1.02K feedbacks. Notable doctors include Mark Joy, Naresh Goyenka, Niki Sharma, and Tejas Saxena.

## 6. Billing vs Health Insurance Amount:

- The graph compares the billing amount against health insurance coverage for different diagnoses.
- Viral infections show the highest billing, followed by flu, malaria, and typhoid, with a steady decline in billing for less severe conditions like fractures.



# Recommendation



- Optimize Bed Utilization: Since private rooms have the highest occupancy, increase capacity or adjust pricing for private rooms while improving ICU utilization to balance resources.
- Focus on Viral Infections: Viral infections are the most diagnosed; allocate more resources and staff to handle these cases efficiently and reduce patient congestion.
- Review Unusual Follow-up Dates: Investigate the future follow-up date anomalies to ensure accurate patient data tracking.
- Increase Insurance Partnerships: Enhance collaboration with health insurers to cover a broader range of diagnoses, especially for high-billing cases like viral infections and flu.



Thank  
You