

Hospital Performance Insights Dashboard

1. Project Objective

The primary goal of this project is to analyze and visualize hospital operational data to improve management efficiency. By monitoring key metrics like patient stay duration and bed availability, the hospital can optimize resource allocation and enhance patient care quality.

2. Technical Stack

Database: SQL Server (for data extraction and aggregation).

Visualization Tool: Power BI Desktop.

Data Processing: Python (PyCharm) for automation scripting (if applicable).

3. SQL Data Processing

Before building the dashboard, raw data was processed using SQL to create summary tables.

KPI Extraction: Calculated the average stay days and bed occupancy percentage from the kpis table.

Departmental Analysis: Grouped patient counts by department (e.g., Cardiology, Pediatrics) using the department comparison table.

Outcome Tracking: Categorized patient discharge status (Recovered, Improved, etc.) from the patient outcomes table.

4. Dashboard Components & Insights

A. Key Performance Indicators (KPIs)

Average Length of Stay (ALOS): 3.50 Days.

Analysis: A lower ALOS indicates high hospital efficiency and effective treatment protocols.

Beds Occupancy Rate: 58.00%.

Analysis: This shows that 58% of hospital beds are currently utilized, leaving sufficient capacity for emergency admissions.

B. Visualizations

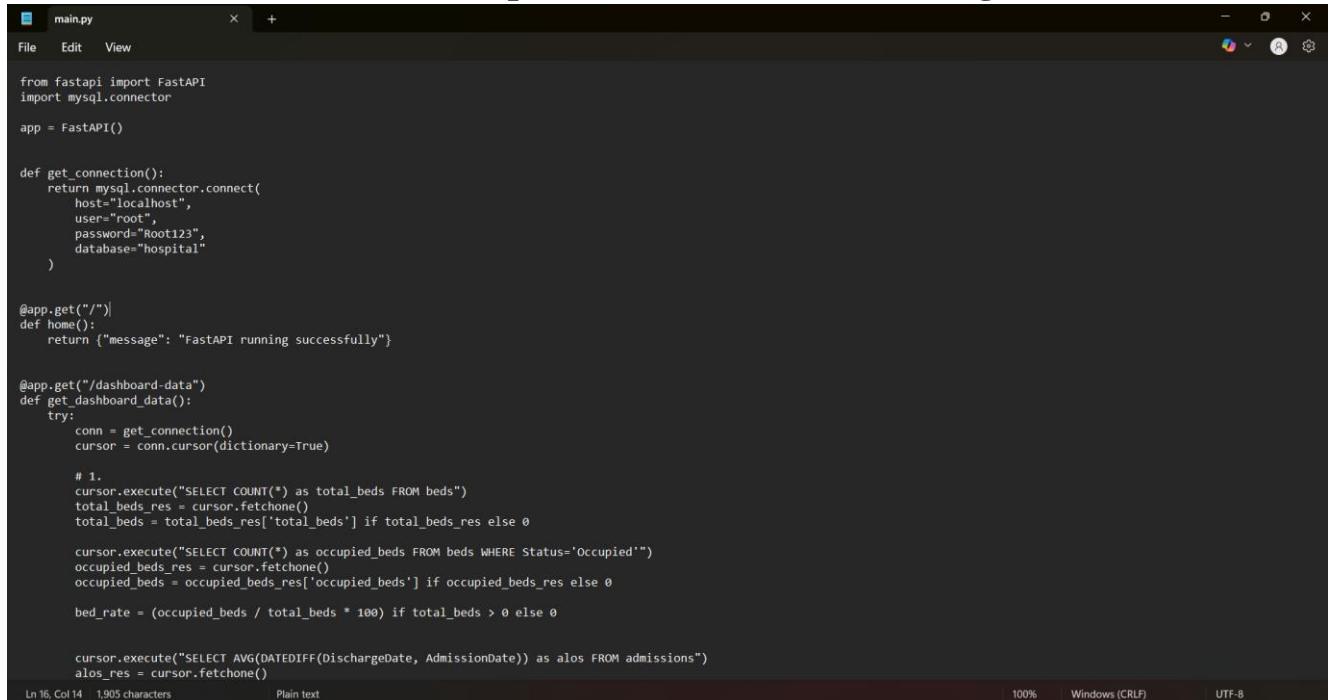
Admission by Department (Bar Chart): Displays patient volume across various departments. It identifies high-demand areas like Cardiology and Emergency to help in staff planning.

Patient Outcomes (Pie Chart): Provides a breakdown of treatment results (e.g., Improved, Recovered, Transferred). This visual helps in assessing the overall quality of healthcare provided.

5. Final Conclusion

This dashboard provides a real-time overview of hospital performance. By integrating SQL data with Power BI visuals, we have created a decision-making tool that helps management monitor patient flow and bed management effectively.

Backend Development:FastAPI and SQL integration



```
main.py
File Edit View
from fastapi import FastAPI
import mysql.connector
app = FastAPI()

def get_connection():
    return mysql.connector.connect(
        host="localhost",
        user="root",
        password="Root123",
        database="hospital"
    )

@app.get("/")
def home():
    return {"message": "FastAPI running successfully"}

@app.get("/dashboard-data")
def get_dashboard_data():
    try:
        conn = get_connection()
        cursor = conn.cursor(dictionary=True)

        # 1.
        cursor.execute("SELECT COUNT(*) as total_beds FROM beds")
        total_beds_res = cursor.fetchone()
        total_beds = total_beds_res['total_beds'] if total_beds_res else 0

        cursor.execute("SELECT COUNT(*) as occupied_beds FROM beds WHERE Status='Occupied'")
        occupied_beds_res = cursor.fetchone()
        occupied_beds = occupied_beds_res['occupied_beds'] if occupied_beds_res else 0

        bed_rate = (occupied_beds / total_beds * 100) if total_beds > 0 else 0

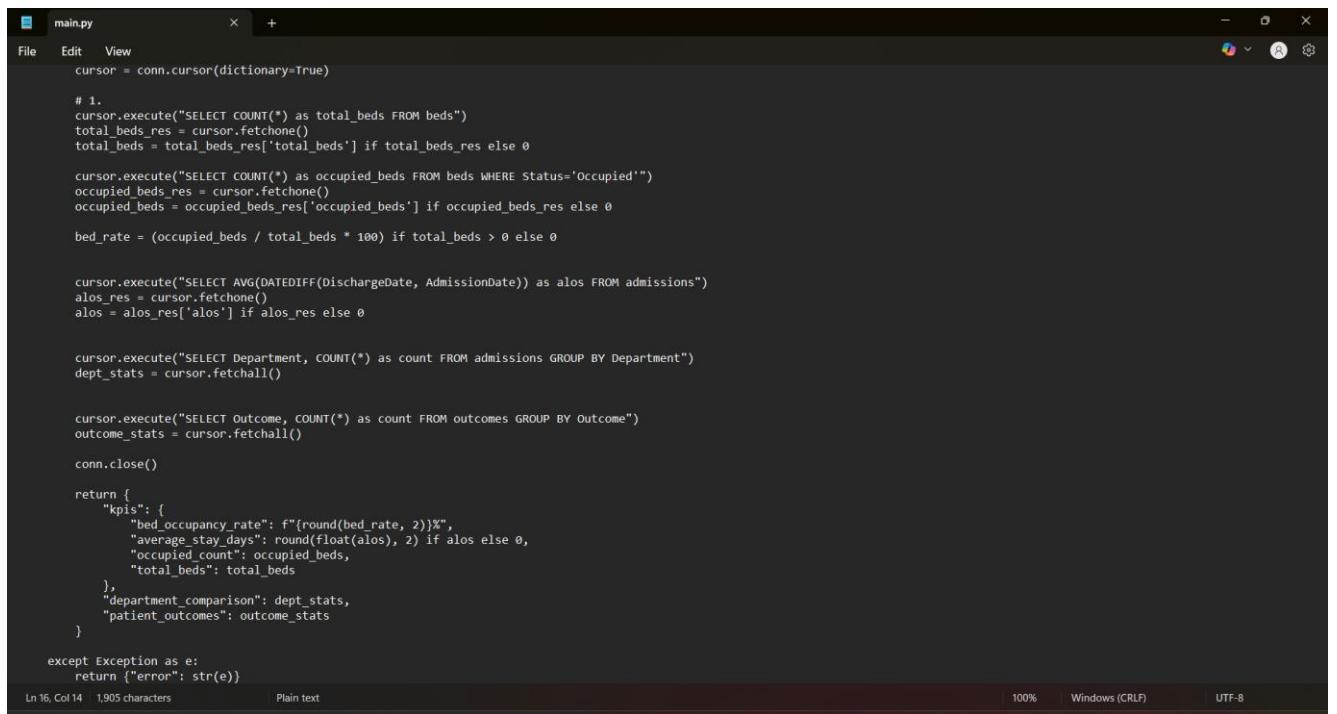
        cursor.execute("SELECT AVG(DATEDIFF(DischargeDate, AdmissionDate)) as alos FROM admissions")
        alos_res = cursor.fetchone()
        alos = alos_res['alos'] if alos_res else 0

        cursor.execute("SELECT Department, COUNT(*) as count FROM admissions GROUP BY Department")
        dept_stats = cursor.fetchall()

        cursor.execute("SELECT Outcome, COUNT(*) as count FROM outcomes GROUP BY Outcome")
        outcome_stats = cursor.fetchall()

        conn.close()

        return {
            "kpis": {
                "bed_occupancy_rate": f"{round(bed_rate, 2)}%",
                "average_stay_days": round(float(alos), 2) if alos else 0,
                "occupied_count": occupied_beds,
                "total_beds": total_beds
            },
            "department_comparison": dept_stats,
            "patient_outcomes": outcome_stats
        }
    except Exception as e:
        return {"error": str(e)}
Ln 16, Col 14 1,905 characters Plain text 100% Windows (CRLF) UTF-8
```



```
main.py
File Edit View
cursor = conn.cursor(dictionary=True)

# 1.
cursor.execute("SELECT COUNT(*) as total_beds FROM beds")
total_beds_res = cursor.fetchone()
total_beds = total_beds_res['total_beds'] if total_beds_res else 0

cursor.execute("SELECT COUNT(*) as occupied_beds FROM beds WHERE Status='Occupied'")
occupied_beds_res = cursor.fetchone()
occupied_beds = occupied_beds_res['occupied_beds'] if occupied_beds_res else 0

bed_rate = (occupied_beds / total_beds * 100) if total_beds > 0 else 0

cursor.execute("SELECT AVG(DATEDIFF(DischargeDate, AdmissionDate)) as alos FROM admissions")
alos_res = cursor.fetchone()
alos = alos_res['alos'] if alos_res else 0

cursor.execute("SELECT Department, COUNT(*) as count FROM admissions GROUP BY Department")
dept_stats = cursor.fetchall()

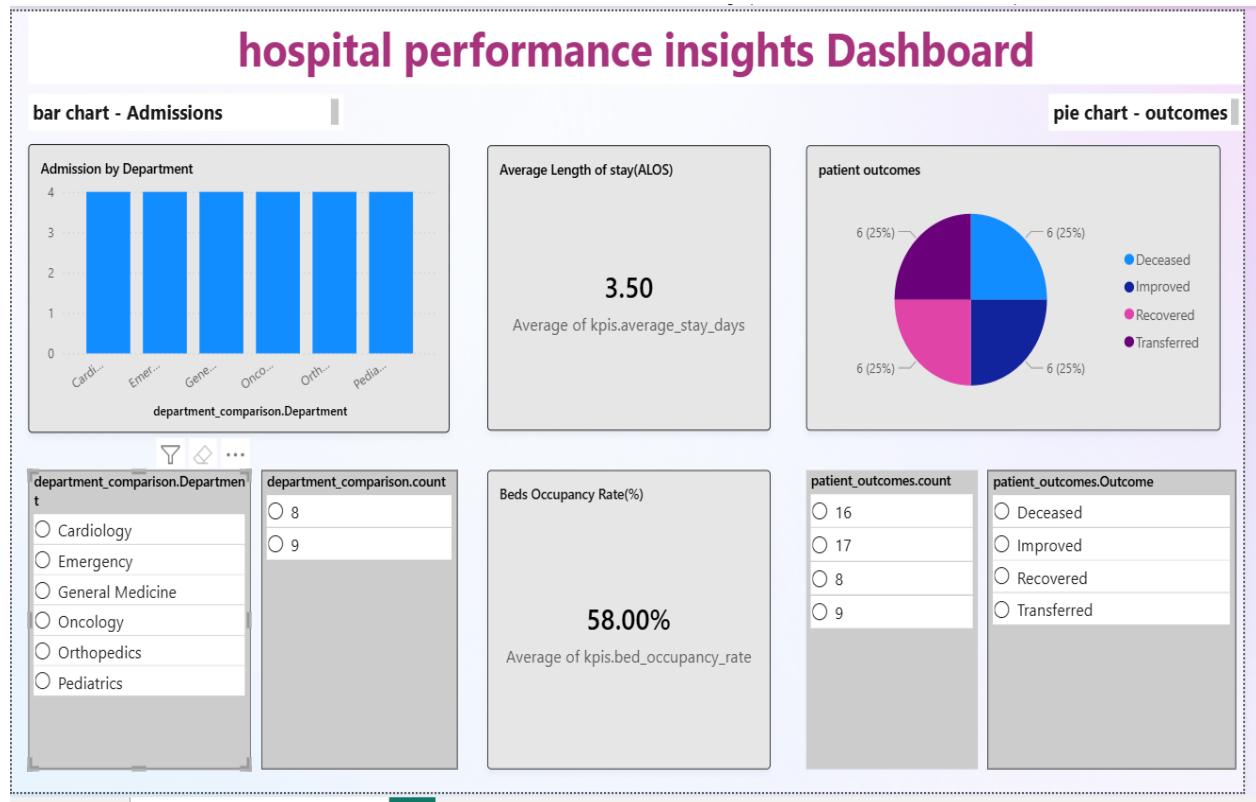
cursor.execute("SELECT Outcome, COUNT(*) as count FROM outcomes GROUP BY Outcome")
outcome_stats = cursor.fetchall()

conn.close()

return {
    "kpis": {
        "bed_occupancy_rate": f"{round(bed_rate, 2)}%",
        "average_stay_days": round(float(alos), 2) if alos else 0,
        "occupied_count": occupied_beds,
        "total_beds": total_beds
    },
    "department_comparison": dept_stats,
    "patient_outcomes": outcome_stats
}

except Exception as e:
    return {"error": str(e)}
Ln 16, Col 14 1,905 characters Plain text 100% Windows (CRLF) UTF-8
```

Hospital Performance insights - overview



Implementation Methodology

The database was implemented by creating a .sql script file, which allows for easy migration and execution within the MySQL Workbench environment.

```
CREATE TABLE Patients (
    PatientID VARCHAR(10) PRIMARY KEY,
    Name VARCHAR(100),
    Age INT,
    Gender VARCHAR(10),
    InsuranceType VARCHAR(50)
);
```

```
CREATE TABLE Admissions (
    AdmissionID VARCHAR(10) PRIMARY KEY,
    PatientID VARCHAR(10),
    Department VARCHAR(50),
    AdmissionDate TIMESTAMP,
    DischargeDate TIMESTAMP,
    AdmissionType VARCHAR(20),
    FOREIGN KEY (PatientID) REFERENCES Patients(PatientID)
);
```

```
CREATE TABLE DoctorSchedule (
    DoctorID VARCHAR(10) PRIMARY KEY,
    Name VARCHAR(100),
    Department VARCHAR(50),
    ShiftStart TIME,
    ShiftEnd TIME,
```

```

BookedHours INT
);
CREATE TABLE Procedures (
    ProcedureID VARCHAR(10) PRIMARY KEY,
    AdmissionID VARCHAR(10),
    ProcedureType VARCHAR(100),
    ProcedureDate TIMESTAMP,
    FOREIGN KEY (AdmissionID) REFERENCES Admissions(AdmissionID)
);
CREATE TABLE Billing (
    BillID VARCHAR(10) PRIMARY KEY,
    AdmissionID VARCHAR(10),
    TotalCost DECIMAL(10,2),
    ICUUsed BOOLEAN,
    VentilatorUsed BOOLEAN,
    FOREIGN KEY (AdmissionID) REFERENCES Admissions(AdmissionID)
);
CREATE TABLE Outcomes (
    OutcomeID VARCHAR(10) PRIMARY KEY,
    AdmissionID VARCHAR(10),
    Outcome VARCHAR(20),
    FOREIGN KEY (AdmissionID) REFERENCES Admissions(AdmissionID)
);

```

insert

INSERT INTO Patients VALUES

('P001','Ravi Kumar',45,'Male','Private'),
('P002','Meena Devi',32,'Female','Government'),
('P003','Arjun Singh',60,'Male','None');

INSERT INTO Admissions VALUES

('A001','P001','Cardiology','2026-01-10 08:00','2026-01-15
10:00','Emergency'),
(‘A002’,‘P002’,‘Pediatrics’,‘2026-01-12 09:30’,‘2026-01-14
14:00’,‘Scheduled’),
(‘A003’,‘P003’,‘General Medicine’,‘2026-01-20 11:00’,‘2026-01-25
16:00’,‘Emergency’);

INSERT INTO DoctorSchedule VALUES

('D001','Dr. Nair','Cardiology','08:00','16:00',6),
(‘D002’,‘Dr. Priya’,‘Pediatrics’,‘09:00’,‘17:00’,7),
(‘D003’,‘Dr. Ramesh’,‘General Medicine’,‘10:00’,‘18:00’,5);

INSERT INTO Procedures VALUES

('PR001','A001','Angioplasty','2026-01-11 10:00'),
(‘PR002’,‘A002’,‘Vaccination’,‘2026-01-13 11:30’),
(‘PR003’,‘A003’,‘Blood Test’,‘2026-01-21 09:00’);

INSERT INTO Billing VALUES

('B001','A001',45000.00,TRUE,FALSE),
('B002','A002',8000.00,TRUE,FALSE),
('B003','A003',12500.00,TRUE,TRUE);

INSERT INTO Outcomes VALUES

('O001','A001','Recovered'),
(‘O002’,‘A002’,‘Improved’),
(‘O003’,‘A003’,‘Transferred’);

INSERT INTO Patients (PatientID, Name, Age, Gender, InsuranceType)
VALUES

('P001','Ravi Kumar',45,'Male','Private'),
(‘P002’,‘Meena Devi’,32,’Female’,‘Government’),
(‘P003’,‘Arjun Singh’,60,’Male’,‘None’),
(‘P004’,‘Lakshmi Narayan’,28,’Male’,‘Private’),
(‘P005’,‘Kavitha R’,35,’Female’,‘Government’),
(‘P006’,‘Suresh Babu’,50,’Male’,‘Private’),
(‘P007’,‘Anitha Devi’,40,’Female’,‘None’),
(‘P008’,‘Manoj Kumar’,22,’Male’,‘Private’),
(‘P009’,‘Divya S’,30,’Female’,‘Government’),
(‘P010’,‘Rajesh K’,55,’Male’,‘Private’),
(‘P011’,‘Priya M’,26,’Female’,‘Private’),
(‘P012’,‘Ganesh R’,48,’Male’,‘Government’),
(‘P013’,‘Shalini P’,33,’Female’,‘None’),
(‘P014’,‘Vignesh T’,29,’Male’,‘Private’),
(‘P015’,‘Deepa L’,37,’Female’,‘Government’),

('P016','Aravind S',42,'Male','Private'),
(‘P017’,‘Nithya K’,31,’Female’,‘None’),
(‘P018’,‘Karthik V’,27,’Male’,‘Private’),
(‘P019’,‘Revathi G’,36,’Female’,‘Government’),
(‘P020’,‘Sathish M’,44,’Male’,‘Private’),
(‘P021’,‘Uma Devi’,39,’Female’,‘Private’),
(‘P022’,‘Balaji R’,53,’Male’,‘Government’),
(‘P023’,‘Sandhya N’,34,’Female’,‘None’),
(‘P024’,‘Mohan K’,41,’Male’,‘Private’),
(‘P025’,‘Geetha P’,25,’Female’,‘Government’),
(‘P026’,‘Ramesh S’,47,’Male’,‘Private’),
(‘P027’,‘Indira L’,38,’Female’,‘None’),
(‘P028’,‘Sridhar T’,52,’Male’,‘Private’),
(‘P029’,‘Anusha D’,29,’Female’,‘Government’),
(‘P030’,‘Kannan V’,46,’Male’,‘Private’),
(‘P031’,‘Swathi R’,33,’Female’,‘Private’),
(‘P032’,‘Murali K’,49,’Male’,‘Government’),
(‘P033’,‘Pooja S’,28,’Female’,‘None’),
(‘P034’,‘Nagaraj M’,54,’Male’,‘Private’),
(‘P035’,‘Sneha P’,32,’Female’,‘Government’),
(‘P036’,‘Vijay K’,43,’Male’,‘Private’),
(‘P037’,‘Lavanya R’,27,’Female’,‘None’),
(‘P038’,‘Ashok S’,51,’Male’,‘Private’),
(‘P039’,‘Bhuvana T’,36,’Female’,‘Government’),
(‘P040’,‘Kumar P’,45,’Male’,‘Private’),

('P041','Radha L',30,'Female','Private'),
(‘P042’,‘Siva R’,55,’Male’,‘Government’),
(‘P043’,‘Malathi K’,34,’Female’,‘None’),
(‘P044’,‘Prakash V’,40,’Male’,‘Private’),
(‘P045’,‘Janani S’,26,’Female’,‘Government’),
(‘P046’,‘Hari K’,48,’Male’,‘Private’),
(‘P047’,‘Saranya R’,31,’Female’,‘None’),
(‘P048’,‘Dinesh P’,50,’Male’,‘Private’),
(‘P049’,‘Meera L’,29,’Female’,‘Government’),
(‘P050’,‘Arun S’,38,’Male’,‘Private’);

INSERT INTO Admissions (AdmissionID, PatientID, Department, AdmissionDate, DischargeDate, AdmissionType) VALUES

('A001','P001','Cardiology','2026-01-10 10:00','Emergency'),	08:00','2026-01-15
('A002','P002','Pediatrics','2026-01-12 14:00','Scheduled'),	09:30','2026-01-14
('A003','P003','General Medicine','2026-01-20 16:00','Emergency'),	11:00','2026-01-25
('A004','P004','Orthopedics','2026-01-05 12:00','Scheduled'),	09:00','2026-01-09
('A005','P005','Oncology','2026-01-07 15:00','Emergency'),	10:00','2026-01-12
('A006','P006','Emergency','2026-01-08 18:00','Emergency'),	14:00','2026-01-10
('A007','P007','Cardiology','2026-01-09 11:00','Scheduled'),	08:30','2026-01-13

('A008','P008','Pediatrics','2026-01-11 13:00','Emergency'),		09:00','2026-01-13
('A009','P009','General Medicine','2026-01-12 14:00','Scheduled'),		10:00','2026-01-16
('A010','P010','Orthopedics','2026-01-13 15:00','Emergency'),		11:00','2026-01-17
('A011','P011','Oncology','2026-01-14 12:00','Scheduled'),		08:00','2026-01-19
('A012','P012','Emergency','2026-01-15 11:00','Emergency'),		09:00','2026-01-17
('A013','P013','Cardiology','2026-01-16 14:00','Scheduled'),		10:00','2026-01-20
('A014','P014','Pediatrics','2026-01-17 12:30','Emergency'),		08:30','2026-01-19
('A015','P015','General Medicine','2026-01-18 13:00','Scheduled'),		09:00','2026-01-22
('A016','P016','Orthopedics','2026-01-19 14:00','Emergency'),		10:00','2026-01-23
('A017','P017','Oncology','2026-01-20 15:00','Scheduled'),		11:00','2026-01-25
('A018','P018','Emergency','2026-01-21 16:00','Emergency'),		12:00','2026-01-23
('A019','P019','Cardiology','2026-01-22 12:00','Scheduled'),		08:00','2026-01-26
('A020','P020','Pediatrics','2026-01-23 13:00','Emergency'),		09:00','2026-01-25
('A021','P021','General Medicine','2026-01-24 14:00','Scheduled'),		10:00','2026-01-28

('A022','P022','Orthopedics','2026-01-25 15:00','Emergency'),	11:00','2026-01-29
('A023','P023','Oncology','2026-01-26 12:00','Scheduled'),	08:00','2026-01-30
('A024','P024','Emergency','2026-01-27 11:00','Emergency'),	09:00','2026-01-29
('A025','P025','Cardiology','2026-01-28 14:00','Scheduled'),	10:00','2026-02-01
('A026','P026','Pediatrics','2026-01-29 12:30','Emergency'),	08:30','2026-01-31
('A027','P027','General Medicine','2026-01-30 13:00','Scheduled'),	09:00','2026-02-03
('A028','P028','Orthopedics','2026-01-31 14:00','Emergency'),	10:00','2026-02-04
('A029','P029','Oncology','2026-02-01 15:00','Scheduled'),	11:00','2026-02-06
('A030','P030','Emergency','2026-02-02 16:00','Emergency'),	12:00','2026-02-04
('A031','P031','Cardiology','2026-02-03 12:00','Scheduled'),	08:00','2026-02-07
('A032','P032','Pediatrics','2026-02-04 13:00','Emergency'),	09:00','2026-02-06
('A033','P033','General Medicine','2026-02-05 14:00','Scheduled'),	10:00','2026-02-09
('A034','P034','Orthopedics','2026-02-06 15:00','Emergency'),	11:00','2026-02-10
('A035','P035','Oncology','2026-02-07 12:00','Scheduled'),	08:00','2026-02-12

('A036','P036','Emergency','2026-02-08 11:00','Emergency'),		09:00','2026-02-10
('A037','P037','Cardiology','2026-02-09 14:00','Scheduled'),		10:00','2026-02-13
('A038','P038','Pediatrics','2026-02-10 12:30','Emergency'),		08:30','2026-02-12
('A039','P039','General Medicine','2026-02-11 13:00','Scheduled'),		09:00','2026-02-15
('A040','P040','Orthopedics','2026-02-12 14:00','Emergency'),		10:00','2026-02-16
('A041','P041','Oncology','2026-02-13 15:00','Scheduled'),		11:00','2026-02-18
('A042','P042','Emergency','2026-02-14 16:00','Emergency'),		12:00','2026-02-16
('A043','P043','Cardiology','2026-02-15 12:00','Scheduled'),		08:00','2026-02-19
('A044','P044','Pediatrics','2026-02-16 13:00','Emergency'),		09:00','2026-02-18
('A045','P045','General Medicine','2026-02-17 14:00','Scheduled'),		10:00','2026-02-21
('A046','P046','Orthopedics','2026-02-18 15:00','Emergency'),		11:00','2026-02-22
('A047','P047','Oncology','2026-02-19 12:00','Scheduled'),		08:00','2026-02-24
('A048','P048','Emergency','2026-02-20 11:00','Emergency'),		09:00','2026-02-22
('A049','P049','Cardiology','2026-02-21 14:00','Scheduled'),		10:00','2026-02-25

('A050','P050','Pediatrics','2026-02-22
12:30','Emergency');

08:30','2026-02-24

INSERT INTO DoctorSchedule (DoctorID, Name, Department, ShiftStart, ShiftEnd, BookedHours) VALUES

('D001','Dr. Nair','Cardiology','08:00','16:00',6),
(‘D002’,‘Dr. Priya’,‘Pediatrics’,‘09:00’,‘17:00’,7),
(‘D003’,‘Dr. Ramesh’,‘General Medicine’,‘10:00’,‘18:00’,5),
(‘D004’,‘Dr. Lakshmi’,‘Oncology’,‘08:00’,‘16:00’,6),
(‘D005’,‘Dr. Kumar’,‘Orthopedics’,‘09:00’,‘17:00’,7),
(‘D006’,‘Dr. Anitha’,‘Emergency’,‘10:00’,‘18:00’,5),
(‘D007’,‘Dr. Suresh’,‘Cardiology’,‘08:00’,‘16:00’,6),
(‘D008’,‘Dr. Divya’,‘Pediatrics’,‘09:00’,‘17:00’,7),
(‘D009’,‘Dr. Rajesh’,‘General Medicine’,‘10:00’,‘18:00’,5),
(‘D010’,‘Dr. Shalini’,‘Oncology’,‘08:00’,‘16:00’,6),
(‘D011’,‘Dr. Aravind’,‘Orthopedics’,‘09:00’,‘17:00’,7),
(‘D012’,‘Dr. Nithya’,‘Emergency’,‘10:00’,‘18:00’,5),
(‘D013’,‘Dr. Karthik’,‘Cardiology’,‘08:00’,‘16:00’,6),
(‘D014’,‘Dr. Revathi’,‘Pediatrics’,‘09:00’,‘17:00’,7),
(‘D015’,‘Dr. Sathish’,‘General Medicine’,‘10:00’,‘18:00’,5),
(‘D016’,‘Dr. Uma’,‘Oncology’,‘08:00’,‘16:00’,6),
(‘D017’,‘Dr. Balaji’,‘Orthopedics’,‘09:00’,‘17:00’,7),
(‘D018’,‘Dr. Sandhya’,‘Emergency’,‘10:00’,‘18:00’,5),
(‘D019’,‘Dr. Mohan’,‘Cardiology’,‘08:00’,‘16:00’,6),
(‘D020’,‘Dr. Geetha’,‘Pediatrics’,‘09:00’,‘17:00’,7),
(‘D021’,‘Dr. Ramesh K’,‘General Medicine’,‘10:00’,‘18:00’,5),

('D022','Dr. Indira','Oncology','08:00','16:00',6),
(‘D023’,‘Dr. Sridhar’,‘Orthopedics’,‘09:00’,‘17:00’,7),
(‘D024’,‘Dr. Anusha’,‘Emergency’,‘10:00’,‘18:00’,5),
(‘D025’,‘Dr. Kannan’,‘Cardiology’,‘08:00’,‘16:00’,6),
(‘D026’,‘Dr. Swathi’,‘Pediatrics’,‘09:00’,‘17:00’,7),
(‘D027’,‘Dr. Murali’,‘General Medicine’,‘10:00’,‘18:00’,5),
(‘D028’,‘Dr. Pooja’,‘Oncology’,‘08:00’,‘16:00’,6),
(‘D029’,‘Dr. Nagaraj’,‘Orthopedics’,‘09:00’,‘17:00’,7),
(‘D030’,‘Dr. Sneha’,‘Emergency’,‘10:00’,‘18:00’,5),
(‘D031’,‘Dr. Vijay’,‘Cardiology’,‘08:00’,‘16:00’,6),
(‘D032’,‘Dr. Lavanya’,‘Pediatrics’,‘09:00’,‘17:00’,7),
(‘D033’,‘Dr. Ashok’,‘General Medicine’,‘10:00’,‘18:00’,5),
(‘D034’,‘Dr. Bhuvana’,‘Oncology’,‘08:00’,‘16:00’,6),
(‘D035’,‘Dr. Kumar P’,‘Orthopedics’,‘09:00’,‘17:00’,7),
(‘D036’,‘Dr. Radha’,‘Emergency’,‘10:00’,‘18:00’,5),
(‘D037’,‘Dr. Siva’,‘Cardiology’,‘08:00’,‘16:00’,6),
(‘D038’,‘Dr. Malathi’,‘Pediatrics’,‘09:00’,‘17:00’,7),
(‘D039’,‘Dr. Prakash’,‘General Medicine’,‘10:00’,‘18:00’,5),
(‘D040’,‘Dr. Janani’,‘Oncology’,‘08:00’,‘16:00’,6),
(‘D041’,‘Dr. Hari’,‘Orthopedics’,‘09:00’,‘17:00’,7),
(‘D042’,‘Dr. Saranya’,‘Emergency’,‘10:00’,‘18:00’,5),
(‘D043’,‘Dr. Dinesh’,‘Cardiology’,‘08:00’,‘16:00’,6),
(‘D044’,‘Dr. Meera’,‘Pediatrics’,‘09:00’,‘17:00’,7),
(‘D045’,‘Dr. Arun’,‘General Medicine’,‘10:00’,‘18:00’,5),
(‘D046’,‘Dr. Kavitha’,‘Oncology’,‘08:00’,‘16:00’,6),

('D047','Dr. Suresh K','Orthopedics','09:00','17:00',7),
(‘D048’,‘Dr. Anjali’,‘Emergency’,‘10:00’,‘18:00’,5),
(‘D049’,‘Dr. Manoj’,‘Cardiology’,‘08:00’,‘16:00’,6),
(‘D050’,‘Dr. Snehal’,‘Pediatrics’,‘09:00’,‘17:00’,7);

INSERT INTO Procedures (ProcedureID, AdmissionID, ProcedureType, ProcedureDate) VALUES

(‘PR001’,‘A001’,‘Angioplasty’,‘2026-01-11 10:00’),
(‘PR002’,‘A002’,‘Vaccination’,‘2026-01-13 11:30’),
(‘PR003’,‘A003’,‘Blood Test’,‘2026-01-21 09:00’),
(‘PR004’,‘A004’,‘Knee Surgery’,‘2026-01-06 10:00’),
(‘PR005’,‘A005’,‘Chemotherapy’,‘2026-01-08 14:00’),
(‘PR006’,‘A006’,‘CT Scan’,‘2026-01-09 15:00’),
(‘PR007’,‘A007’,‘ECG’,‘2026-01-10 09:00’),
(‘PR008’,‘A008’,‘Child Immunization’,‘2026-01-12 10:30’),
(‘PR009’,‘A009’,‘X-Ray’,‘2026-01-13 11:00’),
(‘PR010’,‘A010’,‘Fracture Fixation’,‘2026-01-14 12:00’),
(‘PR011’,‘A011’,‘Radiation Therapy’,‘2026-01-15 13:00’),
(‘PR012’,‘A012’,‘MRI Scan’,‘2026-01-16 14:00’),
(‘PR013’,‘A013’,‘Cardiac Stress Test’,‘2026-01-17 15:00’),
(‘PR014’,‘A014’,‘Pediatric Checkup’,‘2026-01-18 09:30’),
(‘PR015’,‘A015’,‘Diabetes Screening’,‘2026-01-19 10:00’),
(‘PR016’,‘A016’,‘Hip Replacement’,‘2026-01-20 11:00’),
(‘PR017’,‘A017’,‘Cancer Biopsy’,‘2026-01-21 12:00’),
(‘PR018’,‘A018’,‘Emergency Trauma Care’,‘2026-01-22 13:00’),
(‘PR019’,‘A019’,‘Heart Surgery’,‘2026-01-23 14:00’),

('PR020','A020','Child Vaccination','2026-01-24 15:00'),
('PR021','A021','General Checkup','2026-01-25 09:00'),
('PR022','A022','Bone Surgery','2026-01-26 10:00'),
('PR023','A023','Oncology Screening','2026-01-27 11:00'),
('PR024','A024','Emergency First Aid','2026-01-28 12:00'),
('PR025','A025','Angioplasty','2026-01-29 13:00'),
('PR026','A026','Child Immunization','2026-01-30 14:00'),
('PR027','A027','Blood Test','2026-01-31 15:00'),
('PR028','A028','Knee Surgery','2026-02-01 10:00'),
('PR029','A029','Chemotherapy','2026-02-02 11:00'),
('PR030','A030','CT Scan','2026-02-03 12:00'),
('PR031','A031','ECG','2026-02-04 13:00'),
('PR032','A032','Child Immunization','2026-02-05 14:00'),
('PR033','A033','X-Ray','2026-02-06 15:00'),
('PR034','A034','Fracture Fixation','2026-02-07 09:00'),
('PR035','A035','Radiation Therapy','2026-02-08 10:00'),
('PR036','A036','MRI Scan','2026-02-09 11:00'),
('PR037','A037','Cardiac Stress Test','2026-02-10 12:00'),
('PR038','A038','Pediatric Checkup','2026-02-11 13:00'),
('PR039','A039','Diabetes Screening','2026-02-12 14:00'),
('PR040','A040','Hip Replacement','2026-02-13 15:00'),
('PR041','A041','Cancer Biopsy','2026-02-14 09:00'),
('PR042','A042','Emergency Trauma Care','2026-02-15 10:00'),
('PR043','A043','Heart Surgery','2026-02-16 11:00'),
('PR044','A044','Child Vaccination','2026-02-17 12:00'),

('PR045','A045','General Checkup','2026-02-18 13:00'),
('PR046','A046','Bone Surgery','2026-02-19 14:00'),
('PR047','A047','Oncology Screening','2026-02-20 15:00'),
('PR048','A048','Emergency First Aid','2026-02-21 09:00'),
('PR049','A049','Angioplasty','2026-02-22 10:00'),
('PR050','A050','Child Immunization','2026-02-23 11:00');

INSERT INTO Billing (BillID, AdmissionID, TotalCost, ICUUsed, VentilatorUsed) VALUES

('B001','A001',45000.00,TRUE,FALSE),
(‘B002’,‘A002’,8000.00, FALSE, FALSE),
(‘B003’,‘A003’,12500.00, FALSE, TRUE),
(‘B004’,‘A004’,30000.00, TRUE, FALSE),
(‘B005’,‘A005’,60000.00, TRUE, FALSE),
(‘B006’,‘A006’,15000.00, FALSE, TRUE),
(‘B007’,‘A007’,20000.00, FALSE, FALSE),
(‘B008’,‘A008’,10000.00, FALSE, FALSE),
(‘B009’,‘A009’,18000.00, FALSE, FALSE),
(‘B010’,‘A010’,35000.00, TRUE, FALSE),
(‘B011’,‘A011’,55000.00, TRUE, FALSE),
(‘B012’,‘A012’,12000.00, FALSE, FALSE),
(‘B013’,‘A013’,25000.00, FALSE, FALSE),
(‘B014’,‘A014’,9000.00, FALSE, FALSE),
(‘B015’,‘A015’,16000.00, FALSE, FALSE),
(‘B016’,‘A016’,40000.00, TRUE, FALSE),
(‘B017’,‘A017’,70000.00, TRUE, FALSE),

('B018','A018',22000.00,TRUE,FALSE),
(‘B019’,‘A019’,48000.00,TRUE, FALSE),
(‘B020’,‘A020’,11000.00, FALSE, FALSE),
(‘B021’,‘A021’,17000.00, FALSE, FALSE),
(‘B022’,‘A022’,32000.00, TRUE, FALSE),
(‘B023’,‘A023’,65000.00, TRUE, FALSE),
(‘B024’,‘A024’,14000.00, FALSE, FALSE),
(‘B025’,‘A025’,46000.00, TRUE, FALSE),
(‘B026’,‘A026’,10000.00, FALSE, FALSE),
(‘B027’,‘A027’,19000.00, FALSE, FALSE),
(‘B028’,‘A028’,37000.00, TRUE, FALSE),
(‘B029’,‘A029’,58000.00, TRUE, FALSE),
(‘B030’,‘A030’,15000.00, FALSE, TRUE),
(‘B031’,‘A031’,24000.00, FALSE, FALSE),
(‘B032’,‘A032’,9000.00, FALSE, FALSE),
(‘B033’,‘A033’,20000.00, FALSE, FALSE),
(‘B034’,‘A034’,42000.00, TRUE, FALSE),
(‘B035’,‘A035’,72000.00, TRUE, FALSE),
(‘B036’,‘A036’,13000.00, FALSE, FALSE),
(‘B037’,‘A037’,26000.00, FALSE, FALSE),
(‘B038’,‘A038’,9500.00, FALSE, FALSE),
(‘B039’,‘A039’,17500.00, FALSE, FALSE),
(‘B040’,‘A040’,39000.00, TRUE, FALSE),
(‘B041’,‘A041’,68000.00, TRUE, FALSE),
(‘B042’,‘A042’,12500.00, FALSE, TRUE),

('B043','A043',27000.00, FALSE, FALSE),
('B044','A044',10500.00, FALSE, FALSE),
('B045','A045',18500.00, FALSE, FALSE),
('B046','A046',41000.00, TRUE, FALSE),
('B047','A047',75000.00, TRUE, FALSE),
('B048','A048',13500.00, FALSE, FALSE),
('B049','A049',29000.00, FALSE, FALSE),
('B050','A050',11500.00, FALSE, FALSE);

INSERT INTO Outcomes (OutcomeID, AdmissionID, Outcome) VALUES

('O001','A001','Recovered'),
('O002','A002','Improved'),
('O003','A003','Transferred'),
('O004','A004','Recovered'),
('O005','A005','Deceased'),
('O006','A006','Improved'),
('O007','A007','Recovered'),
('O008','A008','Transferred'),
('O009','A009','Improved'),
('O010','A010','Recovered'),
('O011','A011','Deceased'),
('O012','A012','Improved'),
('O013','A013','Recovered'),
('O014','A014','Transferred'),
('O015','A015','Improved'),
('O016','A016','Recovered'),

('O017','A017','Deceased'),
(‘O018’,‘A018’,‘Improved’),
(‘O019’,‘A019’,‘Recovered’),
(‘O020’,‘A020’,‘Transferred’),
(‘O021’,‘A021’,‘Improved’),
(‘O022’,‘A022’,‘Recovered’),
(‘O023’,‘A023’,‘Deceased’),
(‘O024’,‘A024’,‘Improved’),
(‘O025’,‘A025’,‘Recovered’),
(‘O026’,‘A026’,‘Transferred’),
(‘O027’,‘A027’,‘Improved’),
(‘O028’,‘A028’,‘Recovered’),
(‘O029’,‘A029’,‘Deceased’),
(‘O030’,‘A030’,‘Improved’),
(‘O031’,‘A031’,‘Recovered’),
(‘O032’,‘A032’,‘Transferred’),
(‘O033’,‘A033’,‘Improved’),
(‘O034’,‘A034’,‘Recovered’),
(‘O035’,‘A035’,‘Deceased’),
(‘O036’,‘A036’,‘Improved’),
(‘O037’,‘A037’,‘Recovered’),
(‘O038’,‘A038’,‘Transferred’),
(‘O039’,‘A039’,‘Improved’),
(‘O040’,‘A040’,‘Recovered’),
(‘O041’,‘A041’,‘Deceased’),

```
('O042','A042','Improved'),  
(‘O043’,'A043','Recovered'),  
(‘O044’,'A044','Transferred'),  
(‘O045’,'A045','Improved'),  
(‘O046’,'A046','Recovered'),  
(‘O047’,'A047','Deceased'),  
(‘O048’,'A048','Improved'),  
(‘O049’,'A049','Recovered'),  
(‘O050’,'A050','Transferred');  
  
CREATE TABLE beds (  
    BedID VARCHAR(10) PRIMARY KEY,  
    Status VARCHAR(20) -- 'Occupied' or 'Available'  
);  
  
-- Sila sample data podunga  
  
INSERT INTO beds (BedID, Status) VALUES  
(‘B1’,'Occupied'), (‘B2’,'Available'), (‘B3’,'Occupied'),  
(‘B4’,'Occupied'), (‘B5’,'Available'), (‘B6’,'Occupied');
```