QuickSight Dataset Setup Notes

1. **Dataset Sources**
    - Each analytical report (CSV file) generated by Lambda was stored in the S3 folder: s3://hospital-patient-data-bucket/hospital-reports/
    - Datasets were created in QuickSight by uploading individual CSV files using manifest files.
    - Each dataset corresponds to a specific operational area (e.g., patient inflow, department load, financial payments, emergency outcomes).
2. **Dataset Import Method**
    - Imported datasets into QuickSight using **S3 Manifest File** method.
    - Selected appropriate data formats:
        - File type: CSV
        - Delimiter: Comma (,)
        - Contains Header Row: Yes
        - Columns were auto-detected based on headers in CSV files.
3. **Datasets Created**

Dataset Name	Purpose
Top Visit Reasons	Analyze reasons for patient visits
Today Patient Count	Monitor daily admissions
Department Load	Track patient distribution across departments
Financial Payment Breakdown	Analyze insurance vs cash/card payments
Critical Cases by Department	Identify critical load per department
Doctor Critical Load	Measure critical cases handled by doctors
Emergency Outcomes	Monitor emergency handling performance
Bed Type Usage	Track usage across ICU, General, and Pediatric beds
Bed Stay Durations	Measure average hospital stay per bed type
Branch Comparison	Compare patient loads across hospital branches
Longest Stay Patients	Identify patients with extended hospital stays

4. **Visual Linking**

- After importing datasets, visualizations were built by directly linking fields like:
    - department
    - patient_count
    - critical_cases
    - payment_method
    - reason
    - days_in_hospital
- For some dashboards (like "Hospital Load by Department"), two datasets were joined manually inside QuickSight to enable dual-axis visualizations.

5. **Refresh Strategy (Planned)**

- Future enhancement:
  Link datasets directly to Athena queries or S3 direct imports to enable **automatic daily refresh** without manual updates.